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DEVELOPMENT OF THE INNOVATION SYSTEM OF THE NORTH BASED ON THE INTELLECTUAL PROPERTY MARKET

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In Russia, problems of innovation development based on the intellectual property (IP) market have but recently started being solved, though the first steps introducing market relations in science and technology date back to 1992-1993. However, despite essential efforts made and results obtained, the IP market has still been on the initial stage of development, the organizational and methodological stage, though 75 percent administrators consider intellectual asset management the most significant component of the corporate management strategy.

Regional innovation systems developed in Russia are combinations of interacting innovation activity subjects, with such infrastructures functioning inside as IP centers, innovation technology centers, regional foundations for entrepreneurial support, regional offices of the federal Foundation for entrepreneurial support in science and technology, technology transfer centers, business incubators, innovation venture funds. At the present, there has been an efficient institutional mechanism servicing the market of scientific and technological products, represented by intermediary companies, organization divisions searching for necessary technologies and licensing inventions and *know-hows* as well as those arranging exhibitions and fairs. IP is a basis for starting small innovation businesses (SIB) in research and educational institutions, according to Federal Law 217 of August 2, 2009, which support commercialization of scientific elaborations.

This means that in Russia the civilized environment for the developing IP market has been formed, and organizational efforts in regions are needed to transform scientific elaborations in IP objects for their further commercialization.

However, in the remote regions of Russia's North, including Magadan Oblast, this process is significantly complicated by the following:

- no entrepreneurial interest in implementing innovations resulted from a high level of production risks under limited natural, climatic, and resource conditions of the North;
- complications in establishing business incubators and technology parks because of the single-resource economy and passive diversification processes within it;
- limited financial support of innovative initiatives and projects by the regional budget and low income from new innovation enterprises due to the narrow regional market and high tariffs for transporting innovation products;

- no trained personnel for implementing innovative projects and creating IP objects.

The work aiming in activation of the intellectual property market in Magadan Oblast was started in April 2008, with the round-table discussion on innovative development of regional economy and intellectual property, initiated by the North-East State University and the Russian Intellectual Property Research Institute and arranged at the Magadan Oblast Administration. It was the first time when these problems were discussed by representatives of the regional Committee for Economy, researchers, university faculty, and businesspeople. The round table discussion resulted in making principal decisions to improve the situation by establishing the Coordination Council on Innovation Activities for the Governor and by developing and adopting the law on innovations. In December 2009, the 1st Research and Practice Conference on problems of forming the innovative regional economy was conducted in Magadan: for the first time in Magadan Oblast, it discussed the conditions of forming the regional intellectual property market as a basis for the regional innovation system.

Within the strategy of Magadan Oblast development until the year 2025, the innovative component implies implementation of innovations in economy and social sphere through modernization and use of intellectual activity results (IAR) to create conditions for successful innovation implementation in the regional economy.

Magadan Oblast takes the leading positions in the Far East Federal District in the number of organizations involved with innovative activities (39 enterprises) and in the volume of innovative products and services (2.4 billion rubles). In 2012, the share of innovative goods and services made 3.7 percent of the total volume of shipped products and was the biggest in the Far East. The 2012 level of innovative activities in Magadan Oblast was 26 percent. Most of small innovative businesses were in communications (19.1 percent) and processing (9.1 percent); these made 88.9, 30.0, and 15.8 percent of all inspected enterprises in the respective industries. 6 advanced technologies have been made; 3 technologies are globally unprecedented. The level of innovative activities of organizations involved in technological innovations in Magadan Oblast was 16 percent for organizational and 4 percent for marketing. Innovative elaborations have been successfully used in mining, power energy, communications, and computer technologies. Innovative entrepreneurship has been developing. In 2009-2012, 13 subjects of innovative activities have received the total support of 6.5 million rubles.

The regional IAR have been externally estimated by a number of researchers. By a series of aggregated indexes of innovative activities, including the innovation potential, innovation infrastructure, investment climate, and results of innovative activities, Magadan Oblast was the 1st, 2nd, 4th, 37th, and 73rd among the Russian Federation subjects, respectively.

This variety of estimates brought about the necessity to conduct the internal research to estimate the innovative activities in Magadan Oblast with such indicators as the **innovation potential, innovative activities result, and factors influencing innovative activities.**

The analysis of the 2009-2012 results of innovative activities exposed the sufficiently high **innovation potential** in Magadan Oblast: 540 scholars involved in scientific research include 521 doctors of sciences (13 doctors of technology) and 231 candidates of sciences. In 2009, expenses for research and development made 703 million rubles, of which 65 percent were aimed on the priority research.

The regional innovation system of Magadan Oblast includes 8 education and research centers, 42 enterprises listed in the Register of Innovative Activities Subjects, and modules of the regional **innovation infrastructure.**

In 2012, the North-East Center for Intellectual Property participated in formalizing claims for the rights on IP subjects; the regional Program of the Innovative Development of Magadan Oblast in 2009-2013 sponsored conducting educational seminars participated by experts from the Far East Federal University (Vladivostok), Far East Innovation Promotion Agency, and the Russian Association of Innovation Managers. In 2010, the region took part in the international exhibition “Intellectual property 2010”, presenting its industrially promising innovative elaborations.

In 2011, within the framework of the regional Program of the Innovative Development of Magadan Oblast in 2009-2013, measures to form the intellectual property market were taken, including collection and analysis of information on IP objects, produced in Magadan Oblast in 1991-2010, and development of software for forming and running the electronic catalog of IP objects possessed by individual and businesses in Magadan Oblast. Basing on the experience of the Separate Economic Zone (SEZ), the Magadan Oblast Administration initiated the development of the Russian Federal Standard of managing intellectual property in the Magadan Oblast SEZ. The Standard is aimed in actualizing the international law and the Russian Federation legislation on operating intellectual property objects within the Separated Economic Zone. This will help to further develop Russia’s standard system and to protect rights to IP objects in performing trade operations between Russia and other nations within the ITO.

In the region, innovative projects are developed aiming in the implementation of new technologies based on the patents obtained. The number of innovative projects presented at regional contests of undergraduate, graduate, and young scholar research is increasing: in 2012, 20 projects were submitted. Since 2012, Magadan Oblast has been participating in the SMART and START programs sponsored by the Foundation for Supporting Small Businesses in Science and Technology. The Foundation accredited the 1st Youth Innovation Forum, where 15

projects were presented for the SMART program; 5 received research grants from the Foundation. In 2012, the third class of Innovation Management graduated from the North-East State University within the framework of the Presidential Program of Managerial Training.

The results of the innovation policy conducted have influenced the growth of Magadan Oblast investment attractiveness: the region is one of the first ten by the joint index of the situation in economics, banking – finance, and social spheres.

However, despite the abovementioned success, some **problems** have been exposed in realizing the stated innovation strategy of the Russian Federation in Magadan Oblast, including:

- no business interest in investing in innovative projects ;
- no using possibilities for financing projects by venture foundations and mechanisms of state and private partnership;
- no examples of efficient integration of innovative processes participants.

Therefore, the 2012 innovation policy in the region was focused on searching for additional sources for supporting innovative activities.

For further development of innovative processes, works are being done to establish a business-incubator in the shape of polyfunctional integration complex offering various services to new innovation firms involving IAR. The task have been formulated to arrange the Clustering Center, to create a gold-mining cluster, and to enter the biotechnological cluster of the Far East Federal District. The region also needs to create the technopark, the Center for Technologies Transfer, and the Venture Fund for Innovative Elaborations.

To promote innovations on the IP market, we suggest to use the **following instruments and mechanisms of the innovation policy**:

- creation of the mechanism to coordinate industrial topical plans of conducting research and experimental works;
- capitalization of intellectual potential of industrial enterprises and formation of the intellectual property market;
- stimulation of the market for selling competitive products and services on the basis of developing mechanisms to regulate purchasing regional science-consuming products for federal and municipal needs;
- stimulation of private capital to establish production cooperative connections with regional small and medium-size innovative enterprises and organizations and to participate in modernization processes.

Primary measures to be taken by the Magadan Oblast executive authorities for creating the regional innovation system have to include:

- formation of the single normative and legislation base for performing innovative activities to motivate the increase of innovative activities in the region;
- development of the regional innovation infrastructure, including all necessary elements: business incubator for promoting innovative entrepreneurship, center for personnel training, venture fund for innovation support;
- prepare the staff for innovative economy in School of Innovations participated by educational institutions, scientific centers, business, and innovation infrastructure modules;
- promotion of business involvement in financing research and development works as well as commercialization of right to the obtained results of innovative activities on the basis of the state and private partnership;
- promotion of commercial use of results of the regional university and academic intellectual activities;
- promotion of forming new companies and new types of business based on innovations as well as stimulation of small business development;
- building the innovative economy on the basis of intellectual capital: involving intellectual property in economic circulation, creating conditions for developing and actualizing human potential.