The Model of the Regional Innovative Platform
of the Autonomic Educational Institution
on the Example of the Siberian Federal University

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In the given article we consider the latest changes of legislation and new opportunities, being offered in the result of this process, which influence the activity of federal universities. We suggest a structural model of the regional innovative platform, being based on the interaction of autonomic educational institutions, territorial-administrative formations and financial-industrial groups.

Keywords: infrastructure, federal university, regional innovative platform

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At present time, in Russia they form a model of the national innovative system, which key component is innovative infrastructure, contributing to knowledge capitalization acceleration and providing connections among the subjects of innovative activity.

Federal universities must play the leading role in formation and development of the innovative infrastructure subjects, as far as they are the driving force of innovations creation and realization, education-science-industry integration, formation and development of competitive humane capital.

First federal universities were formed within the frames of the top-priority national project «Education» in the end of 2006; they were the Siberian Federal University (SFU) in Krasnoyarsk and the Southern Federal University (SFU) in Rostov-on-Don. Each of the universities

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has united four higher educational institutions, which have been acting earlier in the regions. The process of integration has been going on the free-will basis and only those higher education institutions have taken part in the project, which have possessed a high scientific-technical and personnel potential of education and production.

As for today, they have created five more federal universities: the Northern (Arctic) Federal University, the Privolzhsky Federal University, the Urals Federal University, the Far Eastern Federal University, and the North-Eastern Federal University. The Russian legislation does not limit the number of universities, which are being created. Today, the number, which is most often given by the experts, is 16-20 federal universities, but in reality there can be less or, vice versa, more of them. The number of the federal universities being created can depend on several circumstances. For example, it depends on the proposals of legislative and executive powers of the Russian Federation subjects, being prepared on the bases of social-economical development programs, which should correspond to the demand of such an educational center organization and on the presence of necessary resources [1].

The experience of realization of S(iberian) FU and S(outhern)FU projects has proved the necessity of making legislative changes in the sphere of education and science in order to regulate the problems of such educational institutions’ activity.

This way, they have made a row of changes in the federal laws of RF: «Concerning Education», «Concerning Higher and Postgraduate Vocational Education», «Concerning Science and State Scientific and Technical Policy» and others, and have accepted new normative legal acts.

Federal Law of RF dated 10.07.1992 N 3266-1 «Concerning Education» (further Education Law) is a basic normative legal act, which regulates the relations in the sphere of provision and protection of RF citizens’ constitutional right to education, formation of legal guarantees for RF educational system’s free functioning and development.

Chapter 1 contains general provisions, which concern the state policy in the sphere of education. Thereat, Federal purpose-oriented program of education development, which is developed and accepted by the RF Government, serves as an organizational basis of the RF state policy in the sphere of education [2].


One of the main tasks of the Education Development Program is perfection of economic mechanisms in the sphere of education, which is achieved by means of realization of the program measures in the following leading directions: introduction of new models of financing of educational organizations of all the levels of education, implementation of mechanisms, contributing to development of economical independence of educational institutions, realization of a complex of measures, targeted to improvement of the educational sphere investment attractiveness and contributing to the inflow of investments and also of financial, material, intellectual and other resources in to the sphere of education.

In the result of the Program measures realization they suppose to provide:

- On the federal level: increase of competitiveness and efficiency of the Russian economy, which is caused by increase of the human capital quality, by a better satisfaction of the requirements of the quickly developing economy and increase of efficiency of the labor resources utilization;
- on the level of educational institutions: expansion of the number of innovative-
active scientific-educational complexes and network educational structures; growth of non-government financing of educational programs; improvement of financial situation and increase of efficiency of educational institutions’ activity, preservation and successive development of their innovative potential; increase of the share of non-material assets, being in commerce; strengthening of relations and expansion of mutually-profitable collaboration in the spheres of education, science and industry; in the sphere of budget: concentration of the federal budget means for development of the system-forming «points of growth» in the sphere of education; contribution to development of various legal organizational forms of educational organizations; increase of the level of non-budgetary co-financing of education, provision of additional tax revenues [3].

Proceeding from the analysis of the mentioned above, we conclude that the state policy in the sphere of education allows implementing elements of private-state partnership and developing innovation infrastructure of HEI, including such an element as Technology Park, which is necessary for salvation of the tasks, being set in the Program of education development.

Federal Law of RF dated 22.08.1996 N 125-ФЗ «Concerning Higher and Postgraduate Vocational Education» (further Higher Education Law) is that very law, which regulates relations in the sphere of higher and postgraduate professional education.

Provisions of the Higher Education Law presuppose integration of higher and postgraduate professional education and science and also development and perfection of the system of education by means of appliance of new knowledge and achievements of science and engineering.

The Higher Education Law determines the types and nominations of the higher education institutions in RF, and «federal university» is in that number.

Federal university is a higher education institution, which:
- realizes innovative educational programs of higher and postgraduate professional education, having been integrated into the world educational space;
- provides systematic modernization of higher and postgraduate professional education;
- realizes personnel training, re-training and (or) development on the basis of appliance of the modern educational technologies for a complex social-economical development of the region;
- carries out fundamental and applied scientific researches in a wide spectrum of sciences, provides integration of science, education and industry, including implementation of the intellectual activity results into practice;
- is a leading scientific and methodological centre [4].

The law indicates at such a task of the federal university as a realization of educational innovation programs, and it allows making a conclusion about the legislator’s intention to make the given type of educational institution one of the main subjects of innovative activity.

Thereat, the Higher Education Law provision, concerning the introduction of such a category as «national research university», seems to be very interesting.

The category of «national research university» is set by the RF Government for the 10 years’ period according to the results of the competitive selection of universities’
development programs, which are targeted to personnel provision of top-priority directions of development of science, technology, engineering, branches of economy and social sphere, and also development and industrial implementation of high technologies [4].

Such an innovation creates opportunities for organization of several centers of modern innovative technologies implementation: a federal university and «a national research university». Analysis of the Law provisions lets us conclude that it is impossible to award such a status to the federal university, and, consequently, it can positively influence on the competition in the sphere of collaboration of the university and business enterprises in the question of innovations.

One of the rights of a higher educational institution upon the sanction of its founder (owner) and on the basis of certain agreements is the assignment of immovable and movable assets for use by scientific organizations, and also usage of immovable and movable assets, belonging to scientific organizations on their ownership basis, operative management and economic control [4].

In future, such a right will allow building a system of usage of technical and material base of the university, without making any changes in the legislation. Within this system the university is a center of expensive and high-tech equipment, the center, which has highly-qualified specialists in its staff, being able to use this equipment. Purchase of the given equipment for the commercial structure can be unprofitable because of its high cost, and also because it can be used only on a certain stage.

Federal Law of RF dated 10.02.2009 N 18-ФЗ «Concerning introduction of alterations of some legislative acts of the Russian Federation on the questions of activity of the federal universities» has established the following rights to the federal universities.

Those higher educational institutions, which are budgetary educational organizations, have a right (without their property owner consent and only upon notification of the federal executive body, fulfilling the functions of the State policy formulation and normative legal regulation in the sphere of scientific and scientific-technical activity) to be the founders (and also co-founders) of business companies, which deal with the practical appliance (implementation) of the results of their intellectual activity (electronic data processing machines software, data bases, inventions, useful models, industrial patterns, selection achievements, integral micro-schemes topologies, and know-hows, which exclusive rights belong to the given higher educational institutions).

Financial means, equipment and other property, which is in the operative management of the given higher education institutions, can be contributed to the charter capital of the organized business companies in the order, established by the Civil Code of the Russian Federation.

Being a budgetary educational organization, higher education institution has a right to involve other people as founder (participants) of its business company, if the given higher education institution’s share in the joint stock company’s charter capital is more than twenty five percent or the share in the limited liability company is more than one third.

Revenues from disposing of the shares (stocks) of the business companies’ charter capitals, which founders (participants) are the given higher education institutions, and some part of the profit of these business companies, being received by the given higher education institutions (dividends), are transferred to their independent ownership, appear on a separate balance sheet and are spent only on the legal protection of intellectual activity results, remuneration payments of their authors and also
on realization of the charter activity of the given higher education institutions [5].

All the mentioned above provisions activate the creation of minor innovational enterprises near by the universities and, as a consequence, formation of the innovative structure of the HEI.

Development of federal universities is implemented within the frames of the programs, which have been approved by the RF Government and which provide the conditions of realization and criteria of evaluation of educational process efficiency, integration of educational and scientific-research activity, modernization and perfection of material-technical base and social-cultural infrastructure, integration into the world educational space [5].

Financial provision of the federal universities’ activity is carried out in the order, having been established for autonomic institutions.

Federal Law of RF dated 03.11.2006 N 174-ФЗ «Concerning autonomic institutions» acknowledges a non-commercial organization to be such an institution, created by the RF subject or by the municipal organization for fulfilling works and providing services with the aim of realization of full powers of the RF Government as it is required by the applicable legislation of RF, and full powers of the local government bodies in the spheres of science, education, public health service, culture, social protection, employment of population, physical culture and sports, and also in other spheres.

The main type of activity of the autonomic institution is a free or partially paid provision of services by the order of its founders. The mentioned activity financing is made from the corresponding budget in the form of subventions, subsidies, state non-budgetary funds and other resources. The autonomic institution has a right to render paid services within the frames of its leading activity, when it goes in excess of the order of the founder.

Revenues of the autonomic institution are transferred to its independent ownership and are used in order to achieve the goals, it has been organized for. The owner of the property of the autonomic institution has neither a right to acquisition of the income from the autonomic institution’s activity nor a right to use the property, being assigned to the autonomic institution.

The autonomic institution’s property is assigned to it according to the right of operative management in compliance with the Civil Code of the Russian Federation. The proprietor of both properties of the federal university and of the autonomic institution is the Russian Federation. Without consent of its founder, the autonomic institution has no right to dispose its immovable property and its most valuable movable property, being assigned to the autonomic institution by its founder or having been purchased by the institution on the money, allotted by its founder to purchase this property. What concerns the rest of the property, including the immovable one, the autonomic institution may dispose it by itself.

Under the most valuable movable property we mean the property, without which it would be very difficult for the autonomic institution to realize its charter activity. The founder makes the decision to subsume the property under the category of “the most valuable” simultaneously with the decision to assign the mentioned property to the autonomic institution or with the decision of appropriation of means for its purchasing.

The land plot, which is necessary for the autonomic institution to fulfill its charter tasks, is transferred to it on the basis of the right of permanent (indefinite) use [6].

It is important to notice that the autonomic institution is given a right to open accounts with credit organizations, in comparison with the budget organizations.

This way, federal universities’ autonomy establishes market principles of running of
finances and business operations, gives an opportunity to spread efficiently the resources, and to improve the flexibility and efficiency of management.


Let us consider the changes in the sphere of regulation of questions concerning collaboration and coordination of scientific organizations’ activity and educational institutions of higher vocational education.

Any scientific organization may collaborate and coordinate its activity with educational institutions of higher vocational education, as well including contractual basis, and also by means of creation of alliances of scientific organizations and educational institutions of higher vocational education in the form of associations or unions in accordance with the RF legislation.

In compliance with the contract, made with an educational institution of higher vocational education, the scientific organization may organize a structural subdivision (laboratory), fulfilling scientific and (or) scientific-technical activity on the basis of this educational institution and taking into consideration its educational programs and themes of scientific research in the order, being determined by the Government of RF.

In accordance with the contract, made with the educational institution of higher vocational education, the scientific organization has a right to place its movable and immovable property at the disposal of the educational institution of higher vocational education, and also it has a right to use the movable and immovable property, belonging to the educational institution of higher vocational education, on the basis of the right of ownership or operative management. The described relations between such state non-commercial organizations can be realized on a free (gratis) basis [7].

Federal Law of RF dated 10.02.2009 N 18-ФЗ «Concerning introduction of alterations of some legislative acts of the Russian Federation on the questions of activity of the federal universities» has also entrenched the full powers of the scientific organizations as follows.

Budget scientific organizations have a right (without their property owner consent and only upon notification of the federal executive body, fulfilling the functions of the State policy formulation and normative legal regulation in the sphere of scientific and scientific-technical activity), to be the founders (and also co-founders) of business companies, which deal with the practical appliance (implementation) of the results of their intellectual activity (electronic data processing machines software, data bases, inventions, useful models, industrial patterns, selection achievements, integral micro-schemes topologies, and know-how’s, which exclusive rights belong to the given higher educational institutions).

Financial means, equipment and other property, which is in the operative management of the given higher education institutions, can be contributed to the charter capital of the organized business companies in the order, established by the Civil Code of the Russian Federation.

Being budgetary educational organization, higher education institution has a right to involve other people as founder (participants) of its business company, if the given higher education institution’s share in the joint stock company’s charter capital is more than twenty five percent or the share in the limited liability company is more than one third.

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The adopted changes stimulate the creation of integrated scientific-educational structures in the modern conditions of formation of the national innovative system.

15 February, 2006, Inter-departmental commission on the scientific-innovative policy approved the Strategy of science and innovation development in RF for the period up to 2015.

The authors of the Strategy admit that the system of formation of the budget financing priorities is not efficient. There is under-estimation of the fundamental science as a basic component of the national innovative system development. At the same time, being in perspective not in demand at the inner and global markets, a big number of applied implementations are financed by the means of the federal budget. Absence of efficient mechanisms of realization of the scientific-technological development priorities, being defined by the Government, and also absence of objective criteria of evaluation of the scientific organizations’ activity results have not given an opportunity to concentrate the resources to support the leading institutes, universities, scientific-pedagogical schools and to provide the faster growth of their material-technical base and personnel potential.

The goal of the Strategy realization is formation of a balanced spectrum of researches and implementations and of an efficient innovative system, which provides technological modernization of economy and improves its competitiveness on the basis of innovative technologies and transference of the scientific potential into one of the main resources of a steady economical growth.

In order to achieve the desired goal, a row of tasks is suggested to be solved:

- To create a competitive sector of researches and implementations, and special conditions for its expanded reproduction;
- To create an efficient national innovative system;
- To develop the institutes of utilization and of legal protection of researches and implementations results;
- To modernize the economy on the basis of technological innovations.

The Strategy is suggested to be realized in three stages: the first stage 2006 – 2007 years; the second stage 2008 – 2010 years; and the third stage 2011 – 2015 years.

The main expected results of realization of the first stage:

- Improvement of efficiency and greater performance of the state sector of researches and implementations; reforming of the Russian Academy of Science and branch academies, having the state status, development of the system of state scientific centers;
- Formation of the normative system, which will provide efficient stimuli and motivations to innovative activity, stimulating the ties among the participants of the innovative process;
- «Adding on» of the row of missing elements of the innovative infrastructure (first of all, the centers of technological transfer);
- Elaboration of possible breakthrough conceptions within the frames of top-priority directions of development of
science, technologies and machinery in the Russian Federation and priorities of technological development due to realization of mega-projects;
- Development of target-oriented federal and departmental programs of technological profile.

The main expected results of realization of the second stage:
- Modification of the content and the structure of the state sector of science, optimization of the used legal organizational forms;
- Formation of a balanced, steady developing sector of researches and implementations, which will provide an expanded reproduction of knowledge and its active positioning in the global economy;
- Formation and development of «the centers of superiority» in the scientific sphere, in the network of national laboratories, research universities;
- Creation of efficient innovative infrastructure, providing interaction of the sector of researches and implementations with the native business sector;
- Technological modernization of economy on the basis of the latest technologies; creation and expansion of «technological corridors», providing competitiveness of certain sectors of the Russian economy on the basis of the latest technologies of the native origin.

The main expected results of realization of the third stage:
- Achievement of the scientific researches level, which would correspond the targets of innovative development of economy;
- Realization scaling of large projects within the frames of top-priority directions of development of science, technologies and machinery in the Russian Federation and priorities of technological development;
- Dynamic development and strengthening of international positions of Russian high-technology companies;
- Wide-scale attraction of private and foreign investments into the Russian sector of researches and implementations;
- Formation of a systematic demand in the results of researches and implementations from the part of the business sector;
- Dynamic and balanced development of the national innovative system, corresponding to the main parameters of innovative systems, being widely used abroad [8].

22 September 2009, there was a meeting of the inter-departmental working group on the top-priority national project «Education» attached to the Russian Federation President’s Board on realization of the top-priority national projects and demographical policy. At this meeting, they accepted the Conception (further – Conception) of creation of federal universities and their development state provision.

We should mark that there is a row of definitions in the given Conception. In particular, there is a definition of the federal university as an autonomic institution, which performs an educational, scientific and innovative activity in a wide spectrum of directions and its target is to provide wide-scale projects and programs of federal and/or regional level with personnel and from the scientific point of view.

The following features of the federal university have been singled out:

a) A wide spectrum of innovative educational programs of the mainstream higher and additional vocational education, re-training and (or) personnel development on the basis of appliance of the modern educational technologies, division...
of programs according to their target groups and levels;

b) A wide spectrum of fundamental and applied inter-disciplinary and trans-disciplinary scientific researches, carried out by the university, which include top-priority branches of development of science, technologies and machinery in the Russian Federation;

c) Active participation in regional, national and international programs and projects, which provides a steady diversified structure of revenues in the university consolidated budget.

The main expected results of creation of federal universities in the regions, realization of their development programs are the following:

- An adequate personnel and scientific provision of social-economical development of strategically-important territories of Russia;
- Creation of additional preconditions for economy development of the territories and regions, being a part of federal districts and involved in the activities of the federal universities;
- A higher degree of accessibility of a qualitative professional education and an opportunity to go in for sophisticated science in the federal districts;
- Elaborated mechanisms of provision of economical stability of the higher professional education institutions on the basis of their activity actualization and of a closer and responsible participation in the social-economical development of territories and regions of the federal districts;
- Real formation of the group of institutions of higher professional education of a quantitatively new type [9].

Basing on the analysis of legal normative acts, which regulate the activity of federal universities, we can come to the conclusion that precisely the universities must become the regional centers of innovations and innovative infrastructure development.

The latest legislative changes let us approach the creation of the regional innovative infrastructure in a principally new way. Transition of the federal universities in to the status of autonomic institutions gives the universities ample opportunities of close interaction with territorial-administrative formations of various levels, allows creating structures on the basis of private-state partnership and actively participating in their social-economical development of territories by means of creation of business companies.

The Siberian Federal University is appealed to play an important role in the program of social-economical development of the Siberian Federal District (SFD) and of the Krasnoyarsk Region.

The following spheres have been denoted as of top-priority in the Strategy of economical development of Siberia:

- Development of industrial infrastructure, connected with the processing of the most important strategic raw material resources, such as oil, gas, coal, nonferrous and precious metals;
- Development of high technology and science-intensive branches and industries;
- Development and modernization of transport infrastructure, which serves a basis for balanced social-economical development of Siberia;
- Enhancement of Siberia’s economy indicators from the point of view of its energy resources utilization;
- Optimization of the population structure of the Extreme North and similar territories [10].

By the analogy with the mentioned, the following tasks have been defined in the
Program of social-economical development of the Krasnoyarsk Region for the period up to 2010:
- Improvement of the regional economy effectiveness on the account of development of top-priority extractive industries for the purpose of achievement of fast economical growth and diversification of the economy by means of implementation of processing technologies, providing high added value;
- Efficient utilization of natural resources by means of manufacturing industries’ development;
- Development of innovative activity by means of investments into the regional innovative infrastructure and organization of definitive personnel training;
- Development of transport and communication infrastructures for the purpose of stimulation of inter-regional relations;
- Development of housing and utilities infrastructure in order to create conditions for personal preservation and potential growth, and also in order to perfect the sphere of social services;
- Realization of the system of management, aimed to enhance the competitiveness of the region and to create favorable conditions for making business and investing money [10].

The Siberian Federal University has singled out 6 top-priority spheres of scientific and educational activity: Engineering Physics, Chemistry of New Materials and Material Science, Bio-physical Ecology and Biotechnology, Space and Informational-Communicative Technologies, Geo-Technologies, Regional Technology and Humane Capital Management, and 13 enlarged groups of directions and specialties of personnel training, which provide scientific and personnel support of the main tendencies
of social-economical development of Siberia and the Krasnoyarsk Region [10].

Here, in Fig. 1, we present a structural model of the regional innovative platform on the basis of interaction of autonomic educational institutions, territorial-administrative formations (further – TAF) and financial-industrial groups (further – FIG) by the example of the Krasnoyarsk Region and the Siberian Federal University.

The essence of the model is creation of a branching network of municipal technological and socio-cultural business-incubators by the SFU in collaboration with FIGs and TAFs [11, 12] for the purpose of life conditions improvement and population employment, preservation of small-numbered native peoples, salvation of socio-economical problems of the given region development, and also formation of the innovative infrastructure.

As for today, they have created favorable conditions for formation and development of innovation infrastructure and minor innovative business within the structure of the federal universities themselves. Efficiency of such an infrastructure formation mostly depends on efficiency of management decision making and on creation of a corresponding normative database in the HEI, and of course on the support from the part of regional state organs of power.

References

Модель региональной инновационной платформы автономного образовательного учреждения на примере Сибирского федерального университета

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В статье предложена модель структуры региональной инновационной платформы на основе взаимодействия федерального университета с территориально-административными образованиями и финансово-промышлениыми группами. А также рассмотрены основные изменения, которые произошли в законодательстве, затрагивающие деятельность федеральных университетов и дающие возможность построения такой модели.

Ключевые слова: инновационная инфраструктура, федеральный университет, региональная инновационная платформа.