

Artículo de investigación

Integral express analysis of institutional and legal readiness of the Russian Federation' subjects to implement the priorities of scientific and technological development

Интегральный экспресс-анализ институциональной и правовой готовности субъектов Российской Федерации к реализации приоритетов научно-технологического развития

Análisis integral de aspectos institucionales y jurídicos. preparación de los temas de la Federación de Rusia para implementar las prioridades del desarrollo científico y tecnológico

Análise expressa integral de institucional e legal a disponibilidade das entidades constituintes da Federação Russa para implementar as prioridades do desenvolvimento científico e tecnológico

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Written by:

Maltseva Anna (Corresponding author)²²

ORCID ID: 0000-0003-4347-5586

Klyushnikova Elena²³

ORCID ID: 0000-0002-6069-7036

Barsukova Natalya²⁴

ORCID ID: 0000-0002-9998-389X

Gridchina Aleksandra²⁵

ORCID ID: 0000-0002-8930-7302

Guseva Maria²⁶

ORCID ID: 0000-0002-5576-6164

Abstract

The implementation of the strategy of scientific and technological development of Russia, adopted by the Government of the Russian Federation for the period up to 2035, requires fundamental changes not only in the sphere of production, but also in the management system of scientific and technological development. At present, technological modernization is becoming the most important condition for the preservation of economic independence and national security of the country. An important role in solving these problems belongs to the regions.

The article is devoted to the scientific and methodological issues of studying the level of

Аннотация

Реализация стратегии научно-технологического развития России, принятой Правительством РФ на период до 2035 года, требует осуществления кардинальных изменений не только в сфере производства, но и в системе управления научно-технологическим развитием. В настоящее время технологическая модернизация становится важнейшим условием сохранения экономической независимости и национальной безопасности страны. Важная роль в решении данных задач принадлежит регионам.

Статья посвящена научно-методическим вопросам исследования уровня

²² Candidate of Economic Sciences, Director of Lurye Scientific and Methodological Center for Higher School Innovative Activity, Tver State University, Tver, Russian Federation, e-mail: 80179@list.ru

https://elibrary.ru/author_items.asp?authorid=593978

²³ Senior researcher in Lurye Scientific and Methodological Center for Higher School Innovative Activity, Tver, Russian Federation

https://elibrary.ru/author_items.asp?authorid=719442

²⁴ Senior researcher in Lurye Scientific and Methodological Center for Higher School Innovative Activity, Tver, Russian Federation

https://elibrary.ru/author_items.asp?authorid=910029

²⁵ Professor, Department of public administration and law, Moscow Polytechnic University, Moscow, Russian Federation

https://elibrary.ru/author_items.asp?authorid=303786

²⁶ Project Management Department, State University of management, Moscow, Russian Federation,

https://elibrary.ru/author_items.asp?authorid=306701

institutional and legal readiness of the subjects of the Russian Federation to implement the priorities of the country's scientific and technological development.

An own method has been developed for assessing the level of readiness of regions for the implementation of tasks defined by the Strategy for Scientific and Technological Development, which consists in calculating the integral index reflecting both the institutional and regulatory potential of the territories. Testing of the developed methodology was carried out on the materials of 85 subjects of the Russian Federation.

The results of the study can be used in the process of theoretical and applied research in the field of evaluation of the scientific and technological potential of regions.

Keywords: science, scientific and technological policy, scientific and technological development, region, executive authorities, regulatory framework, strategic planning, integrated index.

Resumen

La implementación de la estrategia de desarrollo científico y tecnológico de Rusia, adoptada por el Gobierno de la Federación Rusa para el período hasta 2035, requiere cambios fundamentales no solo en la esfera de la producción, sino también en el sistema de gestión del desarrollo científico y tecnológico. En la actualidad, la modernización tecnológica se está convirtiendo en la condición más importante para la preservación de la independencia económica y la seguridad nacional del país. Un papel importante en la solución de estos problemas pertenece a las regiones.

El artículo está dedicado a las cuestiones científicas y metodológicas del estudio del nivel de preparación institucional y legal de los sujetos de la Federación de Rusia para implementar las prioridades del desarrollo científico y tecnológico del país.

Se ha desarrollado un método propio para evaluar el nivel de preparación de las regiones para la implementación de las tareas definidas por la Estrategia para el Desarrollo Científico y Tecnológico, que consiste en calcular el índice integral que refleja el potencial institucional y normativo de los territorios. La prueba de la metodología desarrollada se llevó a cabo en los materiales de 85 sujetos de la Federación Rusa. Los resultados del estudio se pueden utilizar en el proceso de investigación teórica y aplicada en el campo de la evaluación del potencial científico y tecnológico de las regiones.

Palabras clave: política de ciencia, ciencia y tecnología, desarrollo de ciencia y tecnología, región, autoridades ejecutivas, marco regulatorio, planificación estratégica, índice integral.

Resumo

A implementação da estratégia de desenvolvimento científico e tecnológico da Rússia, adotada pelo governo da Federação Russa para o período até 2035, requer mudanças fundamentais, não só na esfera da produção, mas também no sistema de gestão do desenvolvimento científico e tecnológico. Atualmente, a modernização tecnológica está se tornando a condição mais importante para a preservação da independência econômica e segurança nacional do país. Um papel importante na solução desses problemas pertence às regiões.

O artigo é dedicado a questões científicas e metodológicas de estudar o nível de prontidão institucional e jurídica dos sujeitos da Federação Russa para implementar as prioridades do desenvolvimento científico e tecnológico do país.

институциональной и правовой готовности субъектов Российской Федерации к реализации приоритетов научно-технологического развития страны.

Разработана собственная методика оценки уровня готовности регионов к реализации задач, определенных Стратегией научно-технологического развития, заключающаяся в расчете интегрального индекса, отражающего как институциональный, так и нормативно-правовой потенциал территорий. Апробация разработанной методики проведена на материалах 85 субъектов Российской Федерации.

Результаты исследования могут быть использованы в процессе теоретических и прикладных исследований в области оценки научно-технологического потенциала регионов.

Ключевые слова: наука, научно-техническая политика, научно-технологическое развитие, регион, органы исполнительной власти, нормативно-правовая база, стратегическое планирование, интегральный индекс.

Um método próprio foi desenvolvido para avaliar o nível de prontidão das regiões para a implementação de tarefas definidas pela Estratégia de Desenvolvimento Científico e Tecnológico, que consiste em calcular o índice integral refletindo tanto o potencial institucional como regulatório dos territórios. O teste da metodologia desenvolvida executou-se nos materiais de 85 sujeitos da Federação russa. Os resultados do estudo podem ser utilizados no processo de pesquisa teórica e aplicada no campo da avaliação do potencial científico e tecnológico das regiões.

Palavras-chave: ciência, política de ciência e tecnologia, desenvolvimento de ciência e tecnologia, região, autoridades executivas, marco regulatório, planejamento estratégico, índice integral.

Introduction

At the present stage, the most important source of economic growth is scientific and technological progress. If we assess the level of Russia's scientific and technological development in the context of international comparisons, then in the last seven years the country moved on 20 positions up in the rating of global competitiveness, but the gap with the leading world economies remains sufficient. According to the global innovation index Russia moved on 8 positions up and in 2016 occupied the 43rd place keeping a twofold gap from the value of Switzerland's integral index ranking which is the first in the rating.

The basis of the economy of the world's developed countries is the production of high-tech products. So, the share of innovative goods, works, services in the total volume of shipped goods in the Europe's leading countries (United Kingdom, Germany, France, Switzerland) is more than 15%, while in Russia this indicator, according to 2016, is 8.5% (Gorodnikova et al., 2018).

All this shows that the scientific and technological development in the Russian Federation is still not going at an adequate pace.

From this perspective, the adoption in late 2016 of the Strategy for the Scientific and Technological Development of the Russian Federation until 2035 was an extremely timely and important step. Technological sovereignty, in fact, determines today the national security of the Russian Federation, as described in the National Security Strategy of the Russian Federation, approved by presidential decree in 2016.

The size Russia's territory, as well as significant disparities in the resource base of the regions, certainly affect the scientific and technological development of the subjects of the Russian Federation. There is a territorial imbalance of scientific and technological development due to

both historical causes and peculiarities of the regional economy.

In connection with the above matter, the purpose of this paper is to develop of scientific and methodological foundations, as well as to develop tools for conducting an integral rapid assessment of the level of institutional and legal readiness of the subjects of the Russian Federation to implement the priorities of the country's scientific and technological development.

The objectives of the study are to assess development level of the organizational structure of the scientific and technological development management of the regions at a qualitative and quantitative level, the degree of compliance of the regulatory framework with the objectives of scientific and technological development, the existence of strategic objectives of region's scientific and technological development, the study of regional cases, the formulation of the main problems of institutional and regulatory support of scientific and technological development of Russian regions based on the conducted study.

Literature review

Scientific and technological policy at the present stage is considered as a source of achievement of social and economic goals of countries and territories, it is associated with the application of science for the purposes of society and it is building on the basis of accounting, analysis of economic growth, productivity and competitiveness (Godin, 2010; Audretsch et al., 2002).

EU member states and many other countries pursue a policy of stimulating scientific, technological and innovative activity at the local level in order to contribute to the growth of the regional and national economies (Powell et al., 2011; Leonard, 2016), while the potential of a

multilevel management is not yet fully implemented at the present time.

A number of studies have noted that the authority's degree of delegation to the regions is important (Uyarra and Flanagan, 2010; Zemtsov and Barinova, 2016) which creates prerequisites for the formation of its own territorial policy in the sphere of research and development, also it imposes a responsibility on regional authorities for the solutions. This highlights the role of institutional development, the effectiveness of regional governance bodies and communications with the local community in providing advanced scientific and technological development of the territory (Leonard, 2016; Martin, 2015).

The adaptation of regional strategies to the tasks of scientific, technological and innovative development in the UNESCO Science Report "Towards 2030" is called the most important source of rapid growth.

In modern conditions, it is stated that a state's role is changed in the scientific and technological sphere (Mazzucato, 2013), in the knowledge management system in the region as a platform for developing regional strategic priorities in science and technology (Jingyuan Zhao, 2010; Muresan, 2009). The widely known model of the triple helix (Etzkowitz and Leydesdorff, 2000), later expanded to quadruple one (Carayannis and Campbell, 2009) defines the system of government control as an important element of a territory's innovation system, and the degree of interaction with regional stakeholders (science, business, society) is the most important source of development of scientific and innovative activity. Powell et al. (2011) identify the following sources of regional science-based economic growth: local networks (dense connectivity within a particular region), institutions (the organizational practices that shape how information travels through local ties), and power dynamics (the handoff from one institutional form to another).

The Global Competitiveness Index, that is composing by World Economic Forum since 2014, is the integral index of the competitiveness of 140 countries around the world in 12 key characteristics of competitiveness (Institutions; Infrastructure; Macroeconomic environment; Health and primary education; efficiency, Financial market development, Technological readiness, Market size, Business sophistication, Innovation), includes a system of indicators that assess government bodies and the regulatory framework as important characteristics of the

institutional development of states.

Similarly, the characteristics of institutions for the development of innovation in the country, the Global Innovation Index identifies Government effectiveness and Regulatory quality.

It is noted that these indicators are indicators of a state's potential that determines the opportunities for conducting an effective business, the development of an enabling environment for innovation. They are primary for assessing the level of competitiveness and the development of innovative activities.

The materials of the European Commission provide a concept of governance capacity which reflects the ability to devise strategies and implement support measures in R&D and innovation field. It is assessed from the standpoint of the level of development and autonomy of the regulatory framework, budgetary independence, as well as the availability and level of development of the human capital of regional governments, interactions with regional stakeholders. At the same time, the management potential in many European regions cannot be considered sufficient to implement an effective scientific, technological and innovation policy (Howells, 2006; Perry and May, 2007).

All this further actualizes the problem of research of normative, legal and institutional readiness of the regions to implement the priorities of the strategic documents of the Russian Federation aimed at scientific and technological development.

Methodology

Methodological research tools include mathematical methods for processing statistical data and involves calculating the integral index of the institutional and legal readiness of the subjects of the Russian Federation to implement the strategic goals of Russia's scientific and technological development.

The conclusion about the region's institutional and legal readiness to implement the goals of scientific and technological development is based on an assessment of three main factors:

- a. organizational support of science sphere (I1);
- b. support structures for scientific and technological development which function is coordinating and

- deliberative bodies created at regional authorities level (I2);
- c. the degree of compliance of the regulatory framework and strategic planning documents with the goals and priorities of the strategic documents of the Russian Federation aimed at the state's scientific and technological development (I3).

State government bodies of the subjects of the Russian Federation, within their powers, determine the appropriate priority areas for the development of science, technology and engineering, taking into account the region's specifics, ensure the formation of a system of scientific organizations of regional subordination, the implementation of inter-branch coordination of scientific and scientific and technological activities, development and implementation of scientific and scientific and technological programs and projects, the development of integrating forms of science and production, the implementation of scientific and technological achievements, and they also solves other important current problems.

Regions can finance scientific, scientific and technological, innovative activities by allocating budgetary funds to scientific organizations and educational organizations of higher education, to foundations for the support of scientific, scientific and technological, innovative activities, as well as to other organizations carrying out these activities in the framework of specific scientific, scientific and technological programs and projects, innovative projects in accordance with the legislation of the Russian Federation and the legislation of the subjects of the Russian Federation.

However, the main source of funding for basic scientific research and prospecting research is federal budget funds (its share in the total amount is more than 50%), as well as support funds of scientific, scientific and technological, innovation activities. The share of the budgets of the subjects of the Russian Federation and local budgets does not exceed 2% in the total amount of budget sources of financing of internal costs for research and development.

Thus, at the current moment there is no uniformity in the executive branch of the subjects of the Russian Federation. The analysis of the

structure of the regions' executive authorities allows us to conclude that there is also no uniform model for the management of the scientific, scientific and technological sphere in the regions.

The criterion for assessing the organizational support of science sphere in the study was the presence a subdivision (ministry, department, administration, committee, department, sector) supervising scientific and scientific and technological activities in the structure of the region's executive branch. However, it should be noted that the acute importance of science and technology for solving almost the entire range of tasks facing the state determines the presence of such "responsibilities" in other departments.

The quality of organizational support for science and scientific and technological policy (I1) was numerically estimated by the authors with four values:

"3" - the presence in the region of specialized²⁷ structures in executive bodies of the highest level of the hierarchy (ministry, department, committee);

"2" - presence in the region of profile structures in executive bodies of a lower level of hierarchy (office, sector);

"1" - responsibility for the implementation of scientific and technological policy is entrusted in the region to a non-core executive body;

"0" - the structures responsible for the implementation of scientific and technological policy are not identified.

Data on the structure of regional governments were obtained on official websites of executive authorities of the subjects of the Russian Federation.

In the context of assessing the level of institutional readiness of Russia's regions to implement the state strategic goals of scientific and technological development an important role plays not only the results of analysis of the organizational support of the science sector in the regions and the effectiveness of the distribution of powers among regional departments, but also the mechanisms for coordinating scientific and technological policies with stakeholder involvement.

²⁷ in accordance with the official name of the structure

Currently, both in Russia and abroad, a network of deliberative and consulting bodies is widely developed, providing a kind of feedback between the management system and the managed facility, in our case - science and scientific and technological activities; signaling about the changes and the need to adjust the scientific and technological policy.

Thus, other factor for assessing the level of institutional readiness of regions for the purposes of scientific and technological development was the availability in the subject of the Russian Federation of a deliberative, coordinating or consulting body on science and state science and technology policy (I2).

This characteristic was also numerically estimated by four values:

"3" - availability of a specialized council for science under the governor, under the head of the republic or under the legislature;

"2" - availability of a specialized council for science under the government or the administration of the region;

"1" - availability of a specialized council for science under various line ministries;

"0" - specialized councils for science are not identified.

Normative and legal documents of the level of the subject of the Russian Federation are significantly influence the formation of a regional policy in the field of scientific and technological development, since they reflect the features of each particular region to the greatest extent. The documents of the regional level that the goals and objectives of the federal scientific and technological policy are interpreted for the implementation of development strategies for each subject.

The authors chose the existence of a specialized legislative act of the subject of the Russian

Federation establishing the foundations for the organization of scientific and scientific and technological activities, the formation of scientific and scientific and technological policy in the region as a criterion for assessing the level of regions' legal readiness to implement scientific and technological priorities of the state.

To quantify the level of legal readiness of the subjects of the Russian Federation (I3) is also proposed to use the grade method. For each of the points listed below it is proposed to award to the subject of the Russian Federation one point:

- availability of a specialized legislative act of the Russian Federation's subject on science and scientific and technological policy;
- the quality of compilation of regional laws on science and science and technological policy;
- availability of a regional strategy of scientific and technological development or a profile section (tasks) on supporting science and technology in the strategy of social and economic development of the Russian Federation's subject.

The overall integral index of the level of institutional and legal readiness of the regions to implement the strategic priorities of the scientific and technological development of the Russian Federation (I) is the sum of the points obtained in assessing three factors I1, I2 and I3.

To assess the level of institutional and legal readiness of regions in terms of the value of the obtained integral index (I) is proposed to use the method with the allocation of five factitious levels (Table 1). They make it possible to determine belonging of a subject of the Russian Federation to a particular classification group.

Table 1 - Scale of the level of institutional and legal preparedness of the subjects of the Russian Federation

Index value	Level of institutional and legal readiness
(8;9)	Very high
(6;7)	High
(4;5)	Average
(2;3)	Declarative
(0;1)	Low

This methodical approach allows, on the one hand, to look at the problem of regions' institutional and legal readiness in a comprehensive manner, and on the other hand, it makes it possible to develop "point" recommendations on the regulation of activity's certain areas.

Results

Approbation of methodological tools was carried out on materials of 85 subjects of the Russian Federation for 2018.

By 2018, more than 85% of regions within its competence independently implement certain elements of scientific, scientific and technological policy (Figure 1).

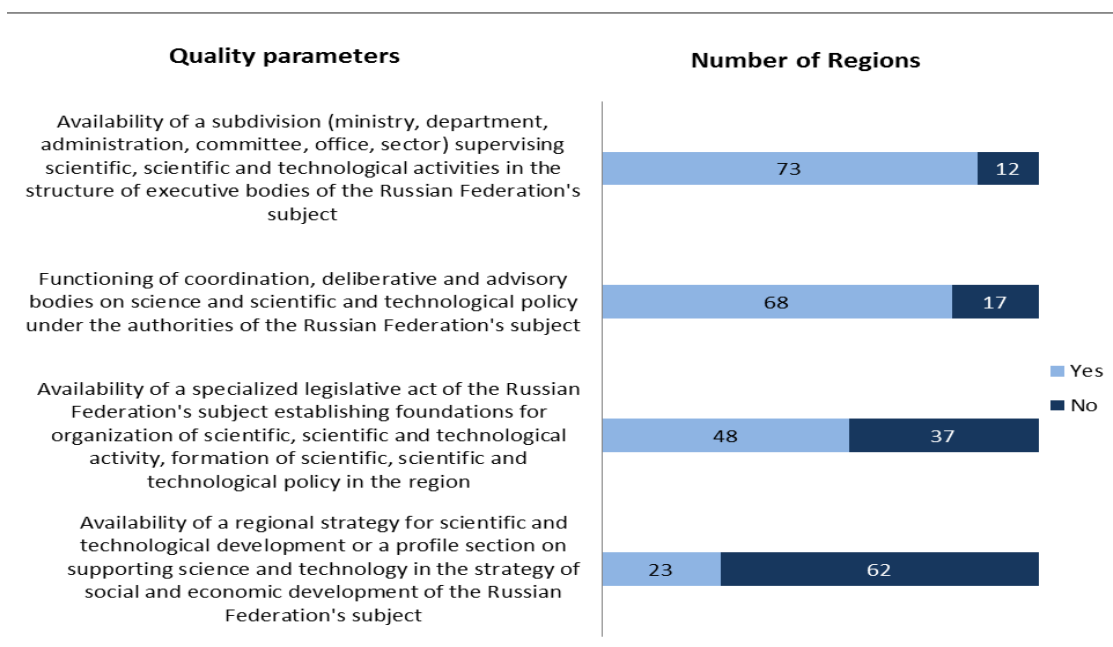


Fig. 1 - Quality indicators of the institutional and legal environment of the regions aimed at implementing the priorities of the Russian Federation's strategic documents aimed at scientific and technological development: 2018

So, there is a subdivision (ministry, department, administration, committee, department, sector) in 73 subjects of the Russian Federation in the structure of executive bodies that oversees scientific, scientific and technological activities.

There are coordinating, deliberative or consulting bodies for science, scientific and technological policy under the authorities of the Russian Federation's subject in 68 regions.

A special legislative act establishing the basis for the organization of scientific, scientific and technological activities, the formation of scientific, scientific and technological policy in the region has been adopted in 48 subjects of the Russian Federation.

Strategic planning of scientific and technological development is carried out in 23 subjects of the Russian Federation, 21 of them has strategies for social and economic development, which identify the goals and directions of scientific and technological development.

The analysis showed that the main part of the authority for the implementation of scientific and technological policy in the regions is assigned to one ministry, whose responsibility, as a rule, also includes other areas of activity.

Specialized (the word "science" is contained directly in the official name of the structure) body of executive power (ministry, department, administration, committee) to carry out powers in science field has been created in 51 subjects of the Russian Federation (table 2).

Table 2 - Distribution of subjects of the Russian Federation in accordance with the hierarchy of bodies of executive power which the corresponding block of powers in science field was passed

The level of bodies of executive power in accordance with the hierarchy	Number of regions
Specialized ²⁸ body of executive power of higher level (ministry, department, administration, committee)	51
Specialized body of executive power of the second level (office, sector, etc.)	14
Non-core ²⁹ body of executive power of higher level	8
There is no body of executive power supervising science	12

Powers in the implementation of scientific and technological policy were transferred to "non-core" (in accordance with the official name) body of power in 22 regions. There are specialized bodies of executive power of the second level (department, sector, etc.) responsible for science in 14 regions. Structures with such characteristics are not defined in 8 subjects of the Russian Federation. In this case, science sphere's assignment to a certain regional authority's jurisdiction was based on the existence in the provision on the structure of functions for the implementation of scientific, scientific and technological policy.

The disunity of the mechanisms for coordination of scientific and technical activities at the level of the regional executive bodies results in the loss of public administration's focus in the sphere of science and technology, duplication of functions performed by various state bodies, lack of proper control over spending budget funds allocated for the development of science and technologies and, as a result, slowed down scientific and technological development.

If we talk about the functioning of coordination, deliberative and consulting bodies on science and scientific and technological policy under the authorities of the Russian Federation's subject, the study showed that in the Russian regions all this "slice" of the institutional system is presented quite widely. All sorts of councils that in a varying degree meet the evaluation criterion indicated in the methodology, have been created in 68 subjects of the Russian Federation: under the governor (head of the republic) control - in 37 regions; under the legislature control - in 2 regions; under the government or administration control - in 17 regions; at ministries

(departments) supervising the economy, industry or agriculture in 12 regions.

It should be noted that in 25 regions the councils for science and scientific and technological activities are responsible, among other things, for innovation policy, which, of course, corresponds to the strategic vector of the country's scientific and technological development.

Creation of councils, as a rule, is stipulated either by separate legislative acts (in 57 regions), or by laws of subjects of the Russian Federation in the field of scientific, scientific and technological activity (in 11 regions). The normative acts contain a provision on the council and on council's staff.

The study of the texts of the provisions on the councils has shown that the main goal of creating such bodies is to ensure effective interaction and coordination of the activities of the executive bodies of state power, governors and heads of republics with scientific, scientific and educational and other subjects engaged in scientific and technological and innovative activities in the region, and also the implementation of state scientific and technological and innovation policies, the definition and implementation of regional priorities in the field of fundamental and applied research.

The analysis showed the absence of similar structures in 17 subjects of the Russian Federation. The establishing of a council in such regions could provide a common strategic vision for the problems of the development of science and the scientific and technological complex, eliminate duplication of managerial functions, including coordination ones, create conditions

²⁸ the word "science" is contained in the official name of the body of executive power

²⁹ the word "science" is not contained in the official name of the body of executive power

for better interaction among all stakeholders, and to reduce existing bureaucratic and departmental barriers.

The analysis showed that regulatory and legal acts regulating scientific, scientific and technological policy have been adopted in 48 subjects of the Russian Federation: it's have been adopted in the form of laws - in 46 regions; it is decisions of the region's Government (Administration) - in 2 regions.

There is no normative act regulating science and regional scientific and technological policy in 37 subjects of the Russian Federation. At the same time, it should be noted that the laws were adopted in 13 regions, but they repealed, mainly in the period of 2005-2009.

In general, the laws of the Russian Federation's subjects in the field of the development of science, scientific and technological activities contain some general, "framework" provisions, characteristic of most regional legal acts. They define the concepts, main goals, objectives and principles of the regional scientific and technological policy, consolidate the powers of

state authorities of the Russian Federation's subjects in the field of science, the forms and methods of implementing regional scientific and technological policy, state support for scientific, scientific and technological activities, including financial support, etc.

In a number of subjects, legislative acts regulate not only science, scientific and technological policy, but also innovation activity (16 regions).

A qualitative assessment of a specialized legislative act the Russian Federation's subject that establishes the foundations for the organization of scientific, scientific and technological activities, the formation of scientific, scientific and technological policy in the region, according to the methodology proposed above, allowed to add extra score to assess the region's level of legal readiness to 18 subjects of the Russian Federation.

The overall calculation of the integral index of institutional and legal readiness for 85 subjects of the Russian Federation is presented in Table 3.

Table 3 – Region's distribution by levels of institutional and legal readiness

Level of institutional and legal readiness	Number of subjects
Very high	13
High	29
Average	25
Declarative	11
Low	7

In general, assessments of the institutional and legal readiness of the Russian Federation's subjects were distributed across all five levels proposed in the methodology, but with a significant degree of unevenness. The "very high" level includes 13 regions (15.3%), "high" level includes 29 regions (34.1%), "medium" level includes 25 regions (29.4%), "declarative" level includes 11 regions (13 %), "low" level includes 7 regions (8.2%).

Most of regions of the general integrated assessment has a very high, high and medium level of institutional and legal readiness to implement the goals and priorities of scientific

and technological development, their share is about 79%.

The leader in the rating of the level of institutional and legal readiness is the Altai region (the value of the integral index is 9). High indicators has cities of federal significance Moscow and St. Petersburg, Tomsk region and the Republic of Tatarstan. Bryansk Region, Tambov Region, the Chechen Republic, Kurgan Region, the Republic of Buryatia, Kemerovo Region, the Republic of Sakha (Yakutia), Primorye region has a value of the index "8".

A low level of institutional and legal readiness (the index value is "0") from 85 subjects of the

Russian Federation is recorded in the Nenets Autonomous District, Penza Region, and the Chukotka Autonomous Area. The group of unsystematic development with the value of the index "1" also consist such regions as Sevastopol, Kaliningrad Region, Rostov Region.

Conclusions

Summarizing study's results, it is worth noting the following:

1. Developing approaches to the study of the level of institutional and legal readiness of the regions to implement the goals and priorities of scientific and technological development represent the possibilities for analyzing the state and effectiveness of the development of the scientific and technological potential of certain regions of the Russian Federation in comparison with other regions.
2. On the basis of this it is possible to form scientifically grounded conclusions about the scale of the implementation of scientific and technological potential in the Russian Federation's subjects. As a result, it will allow to identify key problems, to identify the causes of the emerging changes, to develop the directions for the development of science, engineering and technologies sphere of regions.
3. During compiling the rating according to the developed methodology, the regions of the Russian Federation in the number of 85 subjects were distributed on all 5 levels. Most of the estimates obtained are above the average level. The best group includes 11 regions, 3 of which (St. Petersburg, Moscow, the Republic of Tatarstan) occupy a leading position in the rating for the index of scientific and technological development of the Russian Federation's subjects for 2016.
4. The significance of obtained results is that they can be used in determining the directions for improving the organizational and coordination support that form the institutional contour of the scientific and technological development of the region's economy; development of strategic documents of regional importance, determination of

mechanisms and system of methods of state regulation of scientific and technological development.

5. Obviously, in order to achieve significant competitive advantages, the subject of the Russian Federation needs organizational structures at the government level that implement scientific, scientific and technological policy, an adequate legal and regulatory framework and a long-term strategy for scientific and technological development that aims to achieve the region's leading position in the country and in the world.

The proposed methodology made it possible to identify the best subjects on the matter under inquiry and, as a result, to determine the relevant domestic practice of supporting the development of scientific and technological potential.

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