

**DEVELOPMENT AND LEGISLATIVE REGULATION PROBLEMS OF  
THE RUSSIAN SCIENCE CITIES**

**RAZVOJ I PROBLEMI ZAKONSKE REGULACIJE RUSKIH NAUČNIH  
GRADOVA**

Bagrat Haykovich Yerzkyan<sup>1</sup>  
Ekaterina Vladimirovna Akinfeeva<sup>2</sup>  
Vladimir Ivanovich Abramov<sup>3</sup>

---

JEL Classification: I23, K 00, O32, O38, O43

*Original Scientific Papers*

Primljeno / Received: September 13, 2015

Prihvaćeno / Accepted: November 11, 2015

---

**Abstract**

*The paper examines the main problems of science cities, as well as the legislative framework and state policy towards them. Legislative base was critically analyzed to reveal problems that science cities are facing. Research and detailed study of issues related to the creation and development of science cities showed that there are four main periods of development of science cities. Nowadays the Government does not consider science cities as an effective tool for innovative development of the country. Thereby dispositions as purposes tasks and functions of science cities are missing in the Federal law.*

**Keywords:** *science cities, institutional economy, R&D, public policy.*

**Sažetak**

*U radu se razmatra glavne probleme naučnih gradova, kao i zakonodavni okvira i državne politike prema njima. Zakonodavna baza je kritički analizirana da bi se otkrili probleme sa kojima se naučni gradovi suočavaju. Istraživanje i detaljna studija o pitanjima koja se odnose na stvaranje i razvoj naučnih gradova pokazala je da postoje četiri glavna razdoblja njihovog razvoja. Danas Vlada ne uzima u obzir naučne gradove kao efektivno sredstvo za inovativni razvoj zemlje. Na taj način dispozicije kao sorhe zadataka i funkcija naučnih gradova nedostaju u Saveznom zakonu.*

**Ključne riječi:** *naučni gradovi, institucionalna ekonomija, istraživanje i razvoj, javne politike.*

---

<sup>1</sup> Chief of laboratory at Central Economics and Mathematics Institute, RAS, Dr., Professor, Moscow, e-mail: lvova1955@mail.ru, yerz@cemi.rssi.ru

<sup>2</sup> Leading researcher at Central Economics and Mathematics Institute, RAS, PhD, associate professor, Moscow, e-mail: katerina@cemi.rssi.ru

<sup>3</sup> PhD candidate at Central Economics and Mathematics Institute, RAS, Moscow, 47, e-mail: abramow@gmail.com

## 1. INTRODUCTION

This paper examines the main problems of science cities, as well as the legislative framework and state policy towards them.

Science city is a form of entities oriented in implementation of research projects on a national scale. Science city is the municipality with the status of urban district with a high scientific and technical potential earned with scientific-industrial complex, i.e. a set of organizations engaged in scientific, scientific-technical, innovative activity, experimental developments, tests, staff training in accordance with state priority areas of science and technology of the Russian Federation (Federal law No. 70).

It should be noted that science city is an urban settlement with formed infrastructure (stand-alone or integrated with nearby cities), manufacturing sector and the service sector, industry and large research and development complex that are created to solve priority tasks in the sphere of state defense. This explains the fact that a considerable part (more than half) was formed in the Moscow area (Korolev, Dubna, Zhukovsky, Protvino, Troitsk, Pushchino, Russia, Fryazino). They are also created nearby major regional capitals – Obninsk, Kaluga region, Nizhny Novgorod, Yekaterinburg, Chelyabinsk, Koltsovo of the Novosibirsk region, etc. (Golichenko, Akinfeeva, 2009).

First versions of a draft law "On the status of science town of the Russian Federation" appeared in 1995 were regulating the activity of science towns. Unfortunately, over the past 20 years, science cities were neglected, which led to the emergence and aggravation of complex challenges to their successful development. Special attention should be given the legislative aspect of the regulation, since the right as an institution is a potent regulator of relations between the state and science cities. It's possible to achieve sustainable development of science city in all its aspects through careful study of the legislative framework.

What policy should be pursued to the state in relation to science cities that there was a possibility of receiving from functioning of all elements of the scientific-industrial complex (SIC) of aggregate synergetic effect?

For the answer to this question it is necessary to reveal problems which science cities should face and critically to analyze legislative base.

## 2. MAIN PROBLEMS OF SCIENCE CITIES

Nowadays the status of science city is given to 14 settlements.<sup>4</sup> Despite their special status science cities face a number of challenges, which include:

- financial problems – a lack of investments and inefficient programs of financing;
- social problems – low level of development in social and engineering infrastructure;

---

<sup>4</sup> The complete list of science cities is submitted on the official site of "memoid" - [http://www.memoid.ru/node/Naukogrady\\_i\\_akademgorodki\\_sovremennoj\\_Rossii](http://www.memoid.ru/node/Naukogrady_i_akademgorodki_sovremennoj_Rossii).

- human resources – lack of highly qualified specialists, high level of labor migration;
- socio-political – high level of corruption, the lack of effective dialogue between the authorities and the population of the cities;
- legislative – the incompleteness of the law determining the organization and functioning of the cities (Akinfeeva, Abramov, 2014).

Here are the details of the above-mentioned problems.

**Financial problems.** Manifested in low investment levels, insufficient funding, the impossibility of creating funds providing effective assistance in the development of scientific and technical base of the science cities, and the lack of state orders for their products. For example the absence of state orders and underfunding in Koltsovo (which is being developed in biology and pharmaceuticals) has led to the result that the majority of enterprises of the industrial complex idle. In addition, Koltsovo needs not only reconstruction of enterprises producing knowledge-intensive and high-tech products but also in the modernization of the city infrastructure (Golodyaeva, Manoylov, 2008).

Problems with lack of public contracts are observed in Pushchino where despite the lack of funding from the state carried out extensive research in the field of pharmacy (Press Service of the Communist Party MK, 2010). Most of the funded assets in Chernogolovka were spent on infrastructure rather than on the development of scientific activities Science City (Khmelenko M. 2012). Problems with financial support has also Michurinsk. Presumably, the reason for the low level of funding for the science city is lack of interest of the state in the agricultural sector (Evlikov R., 2010).

Analyzing the amount of money allocated for the development of science cities shows that the presented programs on social and economic development of the data are contradictory and do not reflect the actual financial condition. This is due to the lack of transparency and access to information about the spent funds allocated for the implementation of research programs and projects. Table 1 shows the amount of money allocated for the development of science cities.

As shown on the Table 1, total funding of science cities decreased in 2007-2015 more than twice. In 2009 about 1.5 billion rubles was allocated from the Federal budget for funding of science cities. However the funding was sharply reduced since 2010. In addition the volume of inter-budget transfers allocated to cities continues to decline slowly since 2013 (see Figure 1). The curtailing of budget made it impossible to perform part of the urban plans, which has significantly hampered development, and in some part of the very function of science cities. However due to the fact that the Federal authorities have lost interest in science cities and ceased to pay them any attention, their example was followed by the regional authorities, making it more difficult for the local governments of the cities to access to the funds of the regional budget.

Table 1. The volume of inter-budgetary transfers earned from the federal budget for science cities of the Russian Federation in the years 2007-2015, million rubles

Municipality name	2007	2008	2009	2010	2011	2012	2013	2014	2015
Obninsk	144,9	155,3	140,9	56,1	59,6	57,2	57,0	54,1	48,9
Dubna	84,8	90,9	83,1	33,2	35,4	38,7	39,2	37,7	34,1
Korolev	237,6	254,6	233,2	93,3	99,3	100,3	100,4	95,6	85,6
Koltsovo	13,3	14,3	13,1	5,3	6,4	6,8	7,0	7,0	6,7
Michurinsk	127,3	135,4	120,5	47,6	50,1	53,9	52,8	49,4	44,1
Reutov	110,1	117,9	108,9	43,9	47,1	47,8	48,3	46,5	41,7
Fryazino	71,9	77,1	70,2	28,2	30,0	30,4	30,5	29,2	26,5
Peterhof	89,2	95,5	86,5	34,5	-	-	-	-	-
Pushino	27,7	29,5	26,8	10,7	11,5	11,0	11,3	10,8	9,7
Biisk	312,1	331,9	295,7	117,8	124,3	119,8	117,2	109,6	97,5
Troitsk	-	51,7	48,2	19,6	21,2	21,9	22,8	22,5	21,6
Zhukovskii	91,6	149,2	137,7	55,5	59,1	56,2	57,4	54,5	49,0
Tshernogolovka	-	-	27,4	11,2	11,7	12,3	12,4	-	10,7
Protvino	-	-	49,5	19,8	21,0	20,4	20,3	-	17,1
<b>Summary</b>	<b>1 310,5</b>	<b>1 503,3</b>	<b>1 441,8</b>	<b>576,7</b>	<b>576,7</b>	<b>576,7</b>	<b>576,6</b>	<b>547,9</b>	<b>493,2</b>

Figure 1 shows the trend in the volume of funds that have been allocated to the City of Science from 2007 to 2015.

It does not meet the real needs of science cities and the method of distribution of budget funding per capita. Initially the law adopted in 1999 provided program method of financing which was cancelled in 2004. It is obvious that way of per capita distribution of the budgetary financing is inapplicable at implementation of long-term innovative projects therefore revision of the matter is the extremely necessary.

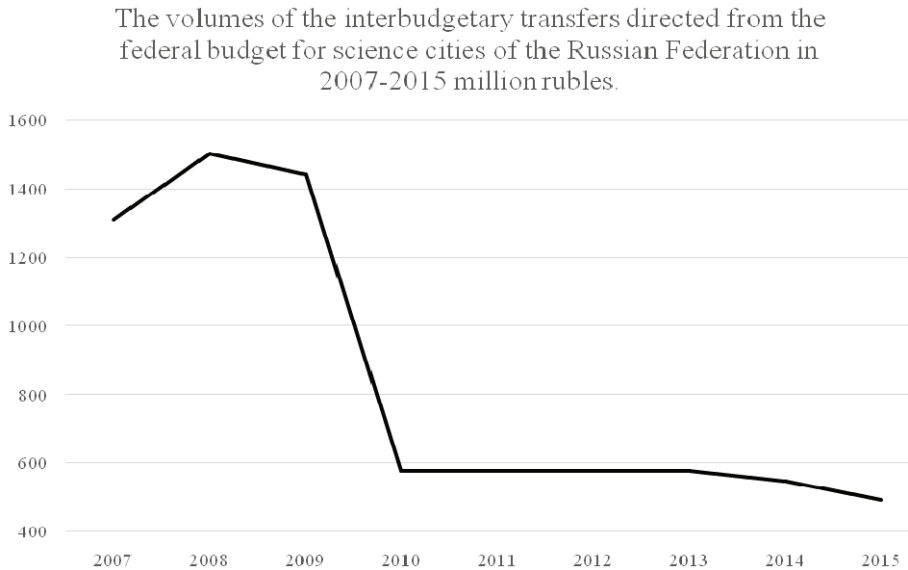
Thus, science cities are not only facing a strong lack of funding. There is a lack of mechanisms for determining the amounts allocated to science city funds.

**Social issues.** The social problems of science cities include: low levels of social and engineering infrastructure, the inability to provide housing for employed in the R&D complex, a lack of places in kindergartens and schools, the low level of medical services, problems associated with the transport system. For example the lack of a master plan for the city and the concept of socio-economic development in the city of Korolev has led to the illegal allocation of commercial structures of territories belonging to the city, which led to a serious deterioration in the social situation (Title residents science city Korolev, 2010). In Chernogolovka overhaul of roads and other public utilities stopped. Instead of building new and putting into operation unfinished objects the administration may not exercise the authorization for the construction work and to arrange well the city and not made payment of land tax and lease payments for land use (Khmelenko, 2012). A similar situation exists in the city of Michurinsk where an insufficient level of development of social and cultural sphere and wear of engineering and infrastructure Science City is taking place (Evlikov, 2010).

---

Figure 1: Dynamics of changes in funding science city in the years 2007-2015.

---



There are also several problems in Koltsovo, which infrastructure is closely linked to the city of Novosibirsk. Transport connection between cities is very difficult due to the poor condition of the roads. One of the main problems in Koltsovo is the poor state of the buildings of the enterprise "Vector", which is included in the R&D sector and is the main city-forming enterprise<sup>5</sup> of science city (Golodyaeva, Manoylov, 2008).

Social problems are observed also in Biysk. In the science city depreciation of fixed assets and the medical equipment makes 70-99%. Most of health care establishment buildings needs capital repairs<sup>6</sup>.

There is a problem with education at Obninsk. Deficiency in municipal kindergartens reaches more than 300 quotes<sup>7</sup>.

**Human capital issues.** The lack of highly qualified specialists, turnover of staff, low level of a salary, and also high unemployment rate negatively influences the

---

<sup>5</sup> According to the comprehensive program of social and economic development of the working settlement of Koltsovo of the Novosibirsk region as science city of the Russian Federation for 2008-2012.

<sup>6</sup> The comprehensive program of social and economic development of municipality the city of Biysk for 2008 - 2017.

<sup>7</sup> The program of complex social and economic development of Obninsk as science city of the Russian Federation on 2007-2011.

scientific and technical capacity of the science city. Outflow of personnel resources leads to problems of functioning of the key enterprises in R&D sector. For example, Obninsk which of primary branches are lacking qualified personnel – science, health care, education, i.e. budget depended branches. The personnel of research institutes of the city is growing old: average age of staff of scientific research institute is more than 50 years. The main reason for a staff deficit is a low wage<sup>8</sup>. There are also human capital problems in Protvino. Labor market of science city remains a mismatch of supply and demand for labor, in the composition of the unemployed with higher education are engineers, accountants, economists, office managers<sup>9</sup>. In the city of Michurinsk not only forfeiting production and labor skills of the population are observed but also a demographic crisis caused to the massive departure of young people from the city, as well as a high level of natural population decline (Evlikov, 2010). In 2006 in the science city of Peterhof the problem of a manpower became aggravated. The industrial enterprises of the city during the prereform period provided with workplaces less than 15% of able-bodied population. During the present period at the science city there are problems of aging of scientific shots and the low level of fixing of youth at the scientific sphere<sup>10</sup>. The similar situation is also facing Troitsk<sup>11</sup>.

**Socio-political issues.** Such issues arise from the lack of effective dialogue between the public, scientific organizations and authorities, as well as high levels of corruption. In most cases due to the incompetence officials decisions negatively affect the development of the science city. For example misunderstanding of the authorities and workers of the aviation industry in Zhukovsky led to the creation of unacceptable for flight tests of conditions caused by the organization of transport and exhibition complex on the territory of flight and research Institute (Krupnov, 2010). The lack of dialogue between the authorities and the population in city Protvino led to a political crisis (the Press service of the Communist party MK, 2010). High levels of corruption observed in Dubna. In the planning of the program of development of the science town Dubna the research community and professionals didn't take part in the field of creation and promotion of innovative projects (research note..., 2003).

In conclusion, it should be noted that the most pressing are the financial issues. The implementation of major strategic projects on the territory of the cities, a priority not only for the defense industry especially for innovative development of the

---

<sup>8</sup> The program of a complex social and economic development of the city of Obninsk as a science city of the Russian Federation on 2007-2011.

<sup>9</sup> The program of a social and economic development of the city of Protvino on 2008-2012.

<sup>10</sup> The program of complex social and economic development of municipality Peterhof as science city of the Russian Federation on 2008-2010.

<sup>11</sup> The program of a complex social and economic development of the city of Troitsk of the Moscow region as science city of the Russian Federation on 2012 – 2016.

country in general is not possible in the absence of the necessary level of funding, and especially the state order. In the result, different issues such as social, human and political are rising. The science cities are experiencing similar difficulties for a long time, so we can assume that not only the lack of systemic measures to support science cities but also the unwillingness of the authorities to resolve such issues is the case of these problems. This assumption can be checked by the analysis of legislative base of the science cities located in Russian Federation. In the following section the issues associated with the legislation on science cities will be examined and analyzed.

### 3. LEGISLATIVE REGULATION OF THE ACTIVITIES IN SCIENCE CITIES

Of particular interest are problems related to legislative regulation of science cities, since they affect all cities and determine their organization and functioning. To reveal these problems it is necessary to track at first process of creation of legislative base for municipalities with a high scientific and technical potential. In formation and functioning of science cities it is possible to allocate three periods in addition to which we will consider features of the fourth – expected – period with in most of all issues of science cities will be allegedly solved.

*The first period* (1930-1990) is characterized by the activity of such special town-planning educations as closed cities, which were regulated by the decrees of the highest authorities of the country. Basically, such formations specialized in the defense and nuclear industry. Therefore, all legislative documents, regulations were and remain classified<sup>12</sup>. For this reason, the period of existence of the USSR the analysis of government and legislative regulation of settlements, which later became the science city, is virtually impossible.

*Conclusions on the first period:* there was no public access to official documents, regulations and decrees regulate the activity of these entities.

*The second period* (1990-1999) (USSR-RSFSR-Russian Federation):

- Union of science cities development was established for being involved in the development of the draft state policy for science cities (1991);
- draft Federal law "On the status of science town of the Russian Federation" was submitted by the State Duma of the Federal Assembly of the Russian Federation (1995);
- presidential Decree from 07.11.97 No. 1171 "About measures on development of science cities as cities of science and high technologies" was submitted. According to this Decree, it was decided to hold in 1997-2003 experiment on "testing the mechanisms of transition to unsubsidized science cities development and forms of state support of science towns in the Russian Federation" in Obninsk. The experiment had a positive impact on the development process of the law

---

<sup>12</sup> The list of some declassified documents is submitted on the official site "Archives of Russia" - <http://www.rusarchives.ru/secret/bul8/ap6.shtml>.

"On the status of science town of the Russian Federation", and in 1998. It was passed by the Parliament, and in 1999 approved by the Federation Council. However, the President vetoed this law (1999) which was later overcome (1999) (Dolgolaptev, 2004);

- Federal act N 70-FZ "About the status of science town of the Russian Federation" entered into force (1999). The law brought the concept of science cities – municipalities with city scientific-industrial complex, i.e. a set of organizations engaged in scientific, scientific-technical, innovative activity, experimental developments, tests, staff training in accordance with the state priorities of development of science and technology" (paragraph. 1); they were assigned the status of a science city for up to 25 years with possibility of its preservation. The assignment of the municipal formation of science town status was the basis for the development and approval in the established order of the Federal target program of development of science city (paragraph. 8). Priorities as well as program development and measures of state support were defined by the President and the Government of the Russian Federation (paragraph 3). It also identifies sources of funding and infrastructure of science cities (the Federal budget, budgets of corresponding subjects of the Russian Federation, local budgets and other sources of funding (paragraph 7); registers state support of science city (carried out in accordance with the program of socio-economic development of municipal formation as a science town);
- as a separate act<sup>13</sup>, the procedure and criteria for assignment to the municipal formation of science town status and the termination of such status were published. Municipal formation (the cities) had to meet the following main requirements for granting the status of a science town:
  1. R&D complex should be city-forming for this municipal formation (p. 2);
  2. fixed assets should be not less than 50% of the total fixed assets of all economic entities or the volume of scientific-technical products (works, services) in value constitutes more than 50% of the total volume of products (works, services) (p. 2);
  3. scientific-industrial complex can include scientific organizations and higher educational institutions; industrial enterprises, which production of high technology products for 3 years reaches more than 50% of total production (p. 3).

The Decree also determined the order of consideration of granting the status of a science town, according to which in addition to the required documents should be submitted draft program of development of the municipality (section 2), providing (p. 3):

---

<sup>13</sup> The resolution of September 22, 1999 N 1072 "about the statement of criteria of assignment to municipality of the status of the science city and an order of consideration of offers on assignment to municipality of the status of the science city and the termination of such status".



1. targeted allocation of funds from the Federal budget and(or) the budget of a constituent entity of the Russian Federation;
2. granting privileges on payment of taxes, duties, fees;
3. adoption and realization of Federal target programs;
4. transmission of science in the ownership or management of objects in Federal ownership and(or) property of the constituent entity of the Russian Federation;
5. empowerment of local government of the science city of the separate state powers with simultaneous transfer necessary material and financial resources;
6. formation of a Fund of scientific-technical and socio-economic development of municipal formation as a science town;
7. development and implementation of measures for social protection of workers in scientific and technical sphere.

*Conclusions for the second period.* Union of science cities was established. The decree of the President of the Russian Federation from 07.11.97 No. 1171 "About measures on development of science cities as cities of science and high technologies" was prepared with the assistance of the new union. The experiment on "improvement of mechanisms of transition to unsubsidized science cities development and forms of state support of science towns in the Russian Federation" was realized in Obninsk. Federal act N 70-FZ "About the status of science town of the Russian Federation" entered into force. Procedure and criteria for assignment to the municipal formation of science town status were published as a Regulation.

To characterize the performance of the science cities between 1990 and 1999 is not possible, because Federal law which prescribed for them the development of programs of socio-economic development came into force only in 1999.

The analysis of the above documents showed that the procedures and criteria were not yet well established leading subsequently to the need for amendments to the Federal law and thus has become a prerequisite for the onset of the next period in the development of the legislation of the Russian science cities.

*The third period* (since 2000 to the present). Since the end of 2000 the law on science cities has altered. Namely:

- first amendment in the law on science cities<sup>14</sup> was issued in 2004 which clarified that the municipality, having the status of a science city should have the status of an urban area and have high scientific and technical potential (paragraph. 1). With introduction of the first amendment development of the program of social and economic development of science cities stopped being necessary. Criteria of assignment of the status of the science city with some changes were transferred to the basic law, namely: need of a prediscretion administration of municipality of obligations for regulation and support of activity of the science city, and also formation of scientific and technical council became invalid; the condition concerning number working in the organizations of scientific-industrial complex which has to make not less than 15% of number working at

---

<sup>14</sup> Federal law of August 22, 2004 N 122-FZ.

the territory of this municipality (ph. 2.1) is entered. Subventions of additional expenses of science cities became a new form of financing from the federal budget;

- second amendment in the law on science cities<sup>15</sup> was issued (2007), which added the provision of medical aid to cities, carried out in accordance with the legislation of the Russian Federation<sup>16</sup>;
- third amendment<sup>17</sup> was issued in 2009 declaring that a new form of financing science cities is intergovernmental transfers.

*Conclusions on the third period.* Three amendments to the Federal law are made: criteria, the status and an order of science cities were changed, the provision on ensuring the medical care provided to science cities is registered, financing forms changed twice.

For this period positive results of activity of science cities were observed. For example, in Zhukovsky in 2006-2010<sup>18</sup> the volume of the shipped production and also performed works and services increased more than twice; the volume of scientific and technical and innovative production grew by 70%; costs of scientific researches and development increased twice; creation of the National Center of Aircraft Industry (NCAI) and modern joint research center of aircraft industry (Research Center) was begun; works on formation of a special economic zone of port type (POEZ) were begun; the city Center of aero-technical youth is created; the volume of production, performance of work and services by all economic entities increased since 2006 more than by 1,8 times; the wages fund increased by 1,6 times; tax revenues in the budgetary system of the country increased more than twice.

In Koltsovo<sup>19</sup> during 2003-2007 conditions for the dynamic growth of scientific-industrial complex were created; process of recovery from the crisis of the city-forming enterprise – "Vector" was softened and accelerated; from 2003 to 2006 one ruble of the budgetary subventions brought a gain to four rubles of taxes in budgets of all levels (without contributions to off-budget funds).

---

<sup>15</sup> Federal law of October 18, 2007 N 230-FZ.

<sup>16</sup> Federal law N 230-FZ of October 18, 2007, paragraph 17 "About Protection of Public Health in the Medical Institutions Subordinated to the Specified Federal Executive Authority".

<sup>17</sup> Federal law of December 27, 2009 N 360-FZ.

<sup>18</sup> The program of complex social and economic development of municipality "City District Zhukovsky of the Moscow Region" for 2011-2015.

<sup>19</sup> The program of complex social and economic development of the working settlement of Koltsovo of the Novosibirsk region as science city of the Russian Federation for 2008-2012.

The volume of production during 2005-2009 in Pushchino<sup>20</sup> such as performance of work and services increased since 2006 more than by 1,9 times; tax revenues increased almost twice; the scientific and technical products share in total amount of the made production increased from 47,5% to 50,4%; 14 new small scientific and production enterprises were established; retail commodity turnover increased more than twice; the average salary increased from 9100 rubles in 2006 to 20585 rub in 2009; certificates are allocated for acquisition of housing for candidates of science aged till 35 years and doctors of science aged till 45 years; capital repairs of a number of educational institutions, multi-apartment houses, elements of improvement of the city and intra quarter roads were executed.

The volume of production, performance of work and services in scientific-industrial complex in Troitsk<sup>21</sup> increased since 2007 more than by 1,9 times; the income of city budget for 4 years of implementation of the Program grew by 1,74 times; the average salary increased from 14689 rubles in 2007 to 21744 rub in 2010; retail commodity turnover increased almost twice; capital investments at the expense of all sources of financing increased with 2251,3 to 2564,8 million rubles; in 2007 the KVANT Sports palace is put into operation; in 2008 the Children's school of arts of M. I. Glinka is put into operation; in 2010 the municipal house on 5,6 thousand quadratic meters of total area is entered.

*It should be noted that there is no information about quantitative (number of the developed and realized innovative projects) and qualitative (the characteristic of the developed innovative production) results of a production activity of science cities in programs of social and economic development.*

*The analysis of the documents stated above showed that unfortunately issues on the Federal law on science cities remained. Otherwise some provisions were simplified, namely, stopped being the necessary: development of the comprehensive program of social and economic development; creation of scientific and technical councils; the prediscretion for administration of municipality of obligations for regulation and support of activity of the science city is excluded. It led to deterioration of the state support of science cities.*

In April, 2015 amendments to the Federal law on science cities were adopted. Adoption of law in our opinion will lead to the beginning of a new stage of development of science cities.

**Fourth period** (expected). This coming period will be characterized by Federal law N 100-FZ of 20.04.2015 coming into effect which action begins since January 1, 2017. According to this law:

- The municipality applying for assignment of the status of the science city or saving of such status is obliged to develop the plan of measures on realization of strategy of social and economic development of municipality and also strat-

---

20 The program of complex social and economic development of municipality "city district of Pushchino" of the Moscow region as science city of the Russian Federation for 2010-2014.

21 The program of a complex social and economic development of the city of Troitsk of the Moscow region as science city of the Russian Federation for 2012 - 2016.

egy of social and economic development, which must be coordinated with federal executive authority. Besides, the status of the science city will be given to municipalities for a period of **15 years** (earlier term was established till 25 years) in the presence of strategy of social and economic development of municipality and the plan of measures for its realization.

*This novation will allow to strengthen control over activity of the science city. According to the law since 2017 the federal executive authority authorized by the Government of the Russian Federation annually will have to carry out monitoring of implementation of the actions included in the plans of measures on realization of strategy of social and economic development of the science city and also indicators of activity of the organizations and separate divisions of scientific-industrial complexes of science cities. Thus science cities will be obliged to set for themselves specific objectives and to carry out them. It is also confirmed by the provision of the Federal law that the status of the science city can be stopped ahead of schedule if carried out monitoring discrepancy of indicators of scientific-industrial complex of the science city to necessary requirements are revealed, and thus the results determined by the plan of measures by realization of strategy of social and economic development of the municipality having the status of the science city aren't reached.*

- The scientific-industrial complex of the science city has to correspond to the following to the requirements confirmed as a result of federal statistical supervision:

1) the average number of employees of the organizations and separate divisions of scientific-industrial complex of the science city makes not less than 20 percent of average number of employees of all production structures of the science city, except for the organizations forming infrastructure of the science city;

2) the number of scientists (researchers) and persons from among the faculty of the organizations and separate divisions of scientific-industrial complex of the science city makes not less than 20 percent of average number of employees of the organizations and separate divisions of scientific-industrial complex of the science city;

3) the total amount of the goods made by structures of scientific-industrial complex of the science city, works and services in value terms make not less than 50 percent of total amount of the made goods, works and services;

*The requirements set to scientific-industrial complex establish concrete criteria of assignment to municipality of the status of the science city. Thus, the uncertainty about receiving legislatively fixed status of the science city by the set of settlements with a high scientific and innovative potential has to be removed.*

- The part of total amount of the inter-budgetary transfers directed on realization of the actions provided by strategy of social and economic development of municipality is distributed through competitive selection.

*Introduction of competitions in many cases can limit financing of the science cities which are engaged in basic researches. Besides, the order of carrying out such competitive selections isn't established, and criteria by which candidates will be estimated aren't formulated.*

- Support of science cities will be carried out by local governments in the way:
  - 1) constructions (creation) and maintenance of housing stock;
  - 2) use of the property which is in municipal property, including granting the science city to the organizations of scientific-industrial complex;
  - 3) participations in the state programs realized by subjects of the Russian Federation and providing support of innovative projects, development of infrastructure of municipalities.

Besides, local governments have the right to create scientific and technical council of the science city for coordination of execution of the plan of measures on realization of strategy of social and economic development of the science city and ensuring transparency of procedures of its realization.

*Return to the Federal law of the relevant provision tells about need of support of science cities by local governments. As for formation of scientific and technical councils, they can play both positive and negative role in development of programs for support and development of science cities and also in protection of their interests.*

*Conclusions on the fourth period.* In a forecast period it is planned to reduce the term of assignment of the status of science cities from 25 to 15 years; to toughen control of activity of the science city by carrying out monitoring; to establish requirements to scientific-industrial complex of the science city; to enter competitive selection of projects; to return support of science cities by local governments.

*The analysis of the offered changes and innovations allows to assume that on the one hand, support of science cities followed by local governments can be reflected positively in their further activity but on the other hand introduction of competitive selection of projects without studying all aspects of this process most likely will lead to negative consequences (or to an imbalance in functioning) for science cities. Besides, strengthening of control of activity will stimulate science cities, however regular carrying out monitoring can compel workers of science cities to constant bureaucratic runaround.*

#### 4. CONCLUSIONS

The second and the third periods (since 1990 to the present) are characterized by absence of the accurate concept of legislative regulation of science cities. It is obvious that the state has no fair idea of what cities have to receive the status of the science city as they have to develop and carry out interaction not only with representative bodies of the power, but also with other elements of National innovation system.

Due to the imperfection of the legislation on science cities some dispositions are missing such as:

- characteristics of scientific and technical products;
- classifications of character, the direction and fundamental nature of the researches conducted by science cities;
- functions of science cities.

Also absent in the law are:

- the program of the effective taxation of the experts who are carrying out the activity in the territory of science cities in the field of scientific researches;
- strategy of development of social infrastructure of science cities;
- an order of providing science cities with personnel resources, integration of the development created as a result of their activity, and also regulation of interaction and communication between science cities;
- methods of attraction of investments into science cities;  
Aren't concretized:
- requirements to process of saving of the status of the science city.

This uncertainty led to that in Peterhof after 5 years any actions for saving of the status of the science city, however, despite it weren't undertaken, Peterhof didn't lose the status;

- an order of interaction of offices of the Russian Academy of Sciences with other R&D organizations of science cities.

The missing provisions which are listed above, in our opinion, allow to regulate most precisely activity of science cities therefore their entering into the law on science cities is necessary.

Finally the research and detailed study of issues related to the creation and development of science cities showed that:

1. There are *four main periods* of development of science cities. *The first period* was characterized by creation of pointed knowledge-intensive production for the defensive purposes, with completely independent infrastructure and providing with direct state support. *The second period* can be characterized by development of legislative base of science cities. In the third period the status of the science city started getting municipalities, and the legislation underwent changes. Characteristic feature for development of science cities in the *fourth period* will be change of a production activity of science cities and development of new provisions in the Federal law.

2. Such dispositions as purposes, tasks and functions of science cities are missing in the Federal law. That follows to complicates understanding of the concept (idea) of these of municipalities.

3. Federal Government is not interested in science cities. It is stated in imperfections of legislative base that caused different issues such as financial, social, labour and socio-political.

4. The Government does not consider science cities as an effective tool for innovative development of the country, despite they have a high scientific and technical potential and are experienced in leading research in priority areas of science, as well they have unique research and production complex.

## References

Akinfeeva, E.V., Abramov, V.A. (2014), About structure of scientific-industrial complex of the science city. Strategic planning and development of the enterprises,

Section 1 /Materials of 15<sup>th</sup> All-Russian symposium. Moscow. April 15-16, 2014. Under the editorship of G.B.Kleyner. - M.: Central Economics and Mathematics Institute, RAS 2014, pp. 12-14.

Evlikov, R. (2010), Big article about modern Michurinsk, Available at: <http://gorodkozlov.ru/blog/большая-статья-о-современном-Мичуринске> (accessed 28 May, 2013).

Golichenko, O. G., Akinfeeva, E.V. (2009), Special economic zones of technology development type: illusions and realities, *Innovations*, No. 6 (128), June, 2009, St. Petersburg, pp. 30-37.

Golodyaeva L., Manoylov I. (2008), Science city of Koltsovo, Available at: <http://project.1september.ru/work.php?id=573225> (accessed 28 May, 2013).

Group of independent experts, (2003), An analytical note about efficiency of the federal program of a development of the city Dubna as science city of the Russian Federation, Available at: <http://kid-2003.narod.ru/index41.html> (accessed 28May, 2013).

Hmelenko, M (2012), The science city of Chernogolovka – the past, the present and the future, Official site of the Troitsky Variant - Nauka newspaper, Available at: <http://trv-science.ru/2012/10/23/naukograd-chernogolovka-proshloenastoyashhee-i-budushhee/> (accessed 28May, 2013).

Krupnov, Yu., (2010), A critical situation to Zhukovsky, in aviation branch and science it is necessary to correct, Available at: <http://trueinform.ru/modules.php?name=News&file=article&sid=5141> (accessed 28 May, 2013).

Press service of MK CPRF(2010), Pushchino: today and tomorrow. Problems and prospects of development of the science city, Available at: <http://mkkprf.ru/news-view-10064.html> (accessed 28May, 2013).

Science City residents of Korolev (2010). Available at: <http://www.morozenko.net/stati/st52.htm> (accessed 28May, 2013).