

---

## **Strategy of Systemic Development of Entrepreneurial Infrastructure of Regional Economy**

---

Elena Sibirskaya<sup>1</sup>, Elvira Yarnykh<sup>2</sup>, Nina Eldyaeva<sup>3</sup>, Tatyana Dubrova<sup>4</sup>,  
Ludmilla Oveshnikova<sup>5</sup>

***Abstract:***

*Implementation of flexibility, sustainability, and dynamics of modern economy is largely determined by the state of its infrastructure. According to this, the level of complexity and completeness of development of infrastructural complex influences the sense and characteristics of territorial and sectorial organization of public production, as well as quality and living standards of regions' population. Formation of clear priorities of the development will allow determining the coordinated strategic directions, reaching the balance of the planned actions which requires significant resource and organizational expenses (Strategic planning, 2015), providing increase of the quality of infrastructure of regional economy, its transformation into a complex, multilevel system, in view of implementation of innovations which model transformations that are dictated by new economic situation and by new requirements of consumers and economic subjects to infrastructural services.*

***Key Words:*** *Strategy, Development, Regional Economy*

---

***JEL Classification :***

---

1 Doctor of Science in Economics, Professor, [e-sibirskaya@rambler.ru](mailto:e-sibirskaya@rambler.ru) Plekhanov Russian University of Economics

2 Doctor of Science in Economics, Professor, [eyarnykh@mail.ru](mailto:eyarnykh@mail.ru) Plekhanov Russian University of Economics

3 Doctor of Science in Economics, Professor, [ninaeld@mail.ru](mailto:ninaeld@mail.ru) Plekhanov Russian University of Economics

4 Doctor of Science in Economics, Professor, [tdubrova@mesi.ru](mailto:tdubrova@mesi.ru) Moscow State University of Economic, Statistics, and Law

5 Ph.D. in Economics, Docent, [lud-proz@mail.ru](mailto:lud-proz@mail.ru)  
Plekhanov Russian University of Economics

## **1. Introduction**

At present, for the purpose of solving a strategic task of getting Russia back to the world economic elite, one of the most important tasks is transition from raw materials and export-oriented model to the model of intensive innovational development. The solution to it is founded on the development of technologies of deep processing of resources in innovational and traditional sectors of economy. At that, the productivity of innovational development of economy depends also on the level of organization of physical transportation of material resources and accompanying informational and financial flows, as well as services. Difficulties in effective implementation of the processes of physical transportation of material and other resources are caused by large territory of Russia, its peculiar geopolitical status, and different level of development of separate regions. Under such conditions, there emerges a necessity for formation of new priorities of strategic systemic development of entrepreneurial infrastructure of regions (Concerning the Strategy of innovational development of the RF until 2020, 2011).

Preservation of territorial proportions in economy, limitation of significant differentiation of regions of the Russian Federation as to the level of socio-economic development, achievement of productive education, and preservation of human capital are the key moments for improving the Russian economy and its perspective productive development (Territorial differentiation of the levels of socio-economic development and typology of the regions of Russia, 2015). At that, substantial disparities of the regions of the Russian Federations bring forth difficulties in implementation of the policy of socio-economic transformations and leads to aggravation of regional crises, increase of disintegration of regional economy, and deepening differentiation in the society (Nepomnyashchaya V.E., Okhrimenko A.I., 2014). Effective regional economic policy is impossible without efficient redistribution of resources, which, in its turn, should be conducted not only in the centralized manner but with the help with methods and mechanisms which are developed by regional authorities (Social policy, 2015). Underrun of the regions' infrastructure leads to the range of negative tendencies: in particular, underrun of the elements of social infrastructure causes difficulties in provision of high living standards of the population of certain region; underdevelopment of transport infrastructure causes difficulties of mutual circulation of goods between regions, and excessive wear of highways due to increasing load and fragmentary development of productive infrastructure causes impossibility for satisfaction of growing demands in various types of goods, works, services, etc.

## **2. Incorporated Materials**

The infrastructure of regional economy – with optimal connection between its elements – forms a single sustainable system which increases the general efficiency of economic development and is capable to ensure the synergetic effect. At that, the latter is very topical under conditions of instability of the global and national economies (Infrastructure of region, 2015). That's why it is necessary to form a strategy of complex adaptive systemic development of regional infrastructure from the position of provision of balance of its components: provisional, productive, investment, innovational, market, and social. Formation of this strategy, correspondingly, supposes development of goals and tasks of improving the infrastructure of regional economy and interconnected priorities of its development. A strategy of systemic development of infrastructure of regional economy is a long-term qualitatively determined direction of development, based in a variety of systematized actions, allowing – on the basis of strategic priorities – determining the preferred tools and measures for implementation of procedures, parameters, and processes of development of regional infrastructure. The offered strategy requires development of new scientific approaches and practical actions which conform not only to modern conditions, but to offered perspectives of development of the infrastructure of regional economy. Systemic character of the strategy of development consists in consideration of regional infrastructure as a complex of interconnected and interacting objects as parts of its components.

The strategy of systemic development is based on two main provisions: complex approach to the development of regional infrastructure and use of strategic planning and forecast during implementation of measures as to development of infrastructure of regional economy.

Complex approach to the development of regional infrastructure. This priority results from the first one. According to it, the elements of infrastructure of each region should be developed regardless of sectorial specialization of one or other territory due to necessity for satisfying the growing needs of all economic subjects and categories of population. This means that attention from authorities and business should be paid not to separate components of infrastructure of one or other region but to all links. The regional infrastructure is necessary for serving regional economic complexes and formation of general conditions for economic activity in a region and life of the population, which causes the necessity for complex development of the infrastructure of regional economy (Specialization and complex development of a region, 2015).

Foundation of the strategic planning and forecast during implementation of measures as to development of infrastructure of regional economy. The level of

fluctuations of macroeconomic indicators of current functioning and perspective development of regional infrastructural complex and its main components largely depends on the level of objectiveness and strategic direction of planning of economic development of infrastructure of regional economy, the targeted orientation of which at the solution of existing problems is reached by means of realization of basic and functional strategies which provide the sustainability of economic growth and development (Vasilyeva I.V., 2013).

In view of the above mentioned, it is possible to note that targeted orientation of regional infrastructure at achievement of planned socio-economic indicators, formation of planned substantiations of quick functioning and strategic development of the infrastructure of regional economy, tendencies of financial, social, and economic transformations of functioning of the regional infrastructural complex, which require realization of resource-saving measures and various strategies for increase of efficiency of use of attracted resources, is one of the key tasks of provision of systemic strategic development of the infrastructure of regional economy (Forecast of long-term socio-economic development of the Russian Federation until 2030, 2013). As strategic planning is related to creation of mechanisms of making managerial decisions from the future to the present (forecasting models socio-economic picture of the future, in order to plan certain actions at present), the importance this priority of the development strategy cannot be overestimated.

Use of instruments of strategic planning will allow modeling the required (optimal) states of all infrastructural elements of regional economy on the basis of provision of infrastructural balance. The offered instrumentarium should become the basis for well-balanced state of region's infrastructure in each component for the purpose of their coordination with unstable fluctuations of environment and achievement of high results of functioning of the infrastructure. The use of the offered tools will allow ensuring the rational and stable functioning of regional infrastructure, which, correspondingly, will influence the development of region's economy in a positive way.

Thus, each component of the infrastructure of regional economy can have its own structural & functional model of infrastructural provision which lies in the basis of the strategy of systemic development. Let us allocate resulting indicators of infrastructural provision for each component of infrastructure: indicator determining the efficiency of functioning of productive component (P) €  $(p_1+p_2+\dots+p_n)$ , market component - (R) €  $(r_1+r_2+\dots+r_n)$ , innovational component - (N) €  $(n_1+n_2+\dots+n_n)$ , investment component - (I) €  $(i_1+i_2+\dots+i_n)$ , providing component - (O) €  $(o_1+o_2+\dots+o_n)$ , and social component - (S) €  $(s_1+s_2+\dots+s_n)$ .

Infrastructural balance is a state characterized by the balance between possibilities and results of functioning of infrastructure. In other words, development of possibilities of regional infrastructure should by any means lead to positive dynamics of efficiency of functioning of region's infrastructure. This functioning of regional infrastructure is strategically sustainable and provides perspectives for region's development.

Features of interconnected infrastructural possibilities influence structural and dynamic description of infrastructural provision and, consequently, the efficiency of development of regional infrastructure (Table 1).

**Table 1. Mathematical model of well-balanced development of regional infrastructure**

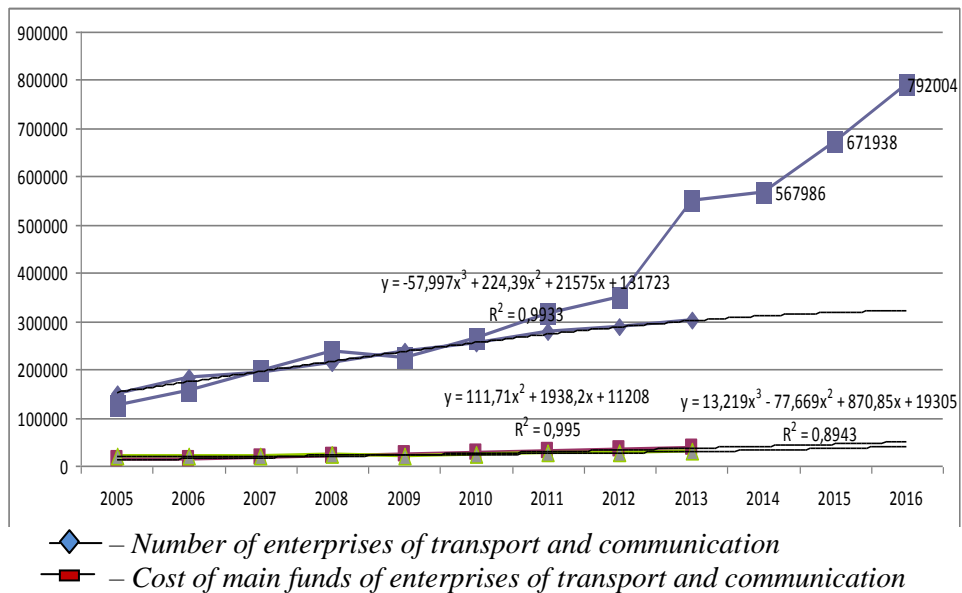
Components of regional entrepreneurial infrastructure	Features of functioning of regional infrastructure		Infrastructural balance of region (balance of functioning)
	Possibilities (IW)	Results (IR)	
Productive	$IW = v_{ij}Z_1 + v_{ij}Z_2 + \dots + v_{ij}Z_n$  $v_{ij}$ – indicator of possibilities of $i$ component of infrastructural provision of $j$ components of infrastructure; $Z_1..Z_n$ – value of $i$ component of infrastructural provision as to each component	(P) € (p1+p2+...+pn)	$\sum_{j=1}^k IR = \sum_{j=1}^k IW$
Market		(R) € (r1+r2+...+rn)	
Innovational		(N) € (n1+n2+...+nn)	
Investment		(I) € (i1+i2+...+in)	
Providing		(O) € (o1+o2+...+on)	
Social		(S) € (s1+s2+...+sn)	
Gw – hexagon of cooperation of possibilities and results of functioning of regional infrastructure			

Infrastructural provision of region	Infrastructural possibilities as to all components $\sum_{i=1}^K IW$	Infrastructural results as to all components $\sum_{i=1}^K IR$	
-------------------------------------	---	---	--

The basic data for calculations are indicators of functioning of infrastructure of all regions of Russia for 2013, according to the data of the Federal State Statistics Service (Federal State Statistics Service, 2013), data books, and analytical reports for the RF regions. As a result, large blocks of statistical data were formed which – due to modern software products of their processing – allowed forming adequate economic & mathematical models.

According to the research, the forecasting dynamic models of development as to components of regional infrastructure are built. As a resulting feature for each component (Y), GRP per capita was taken, while as factorial attributes (X), the most important indicators, received in the second chapter for each component (except for social one, for which the determination of these factors was not a tool for typology building). Thus, the results of research for built forecasting models according to components have the following form (Figure 1-5). For providing component of regional infrastructure (Fig. 1).

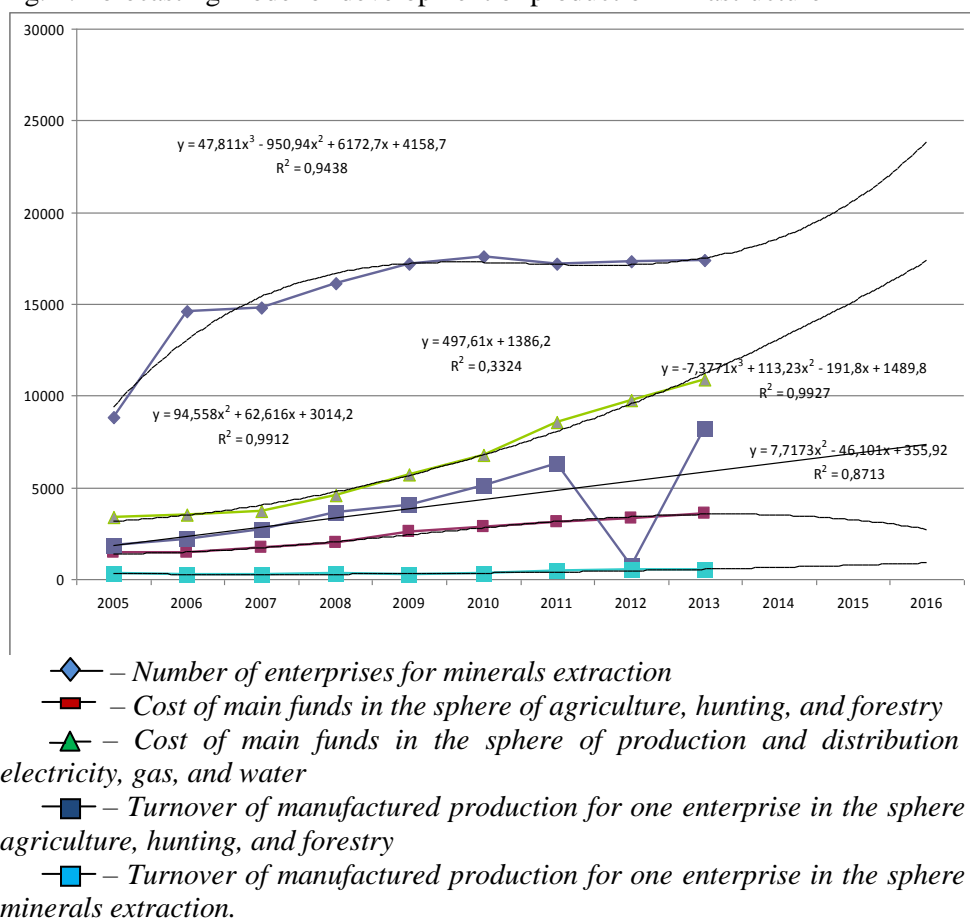
Fig. 1. Forecasting model of development of providing infrastructure



- ▲ – Revenue of manufactured production per one enterprise in the sphere of transport and communication
- – GRP per capita

For this model, as factorial features, the most significant indicators of possibilities of providing component of infrastructure were taken: number of enterprises of the sphere of transport and communication; revenue of manufactured production per enterprise in the sphere of transport and communication; cost of main funds of enterprises of transport and communication (billion rubles.). As to productive component of regional infrastructure (Fig. 2).

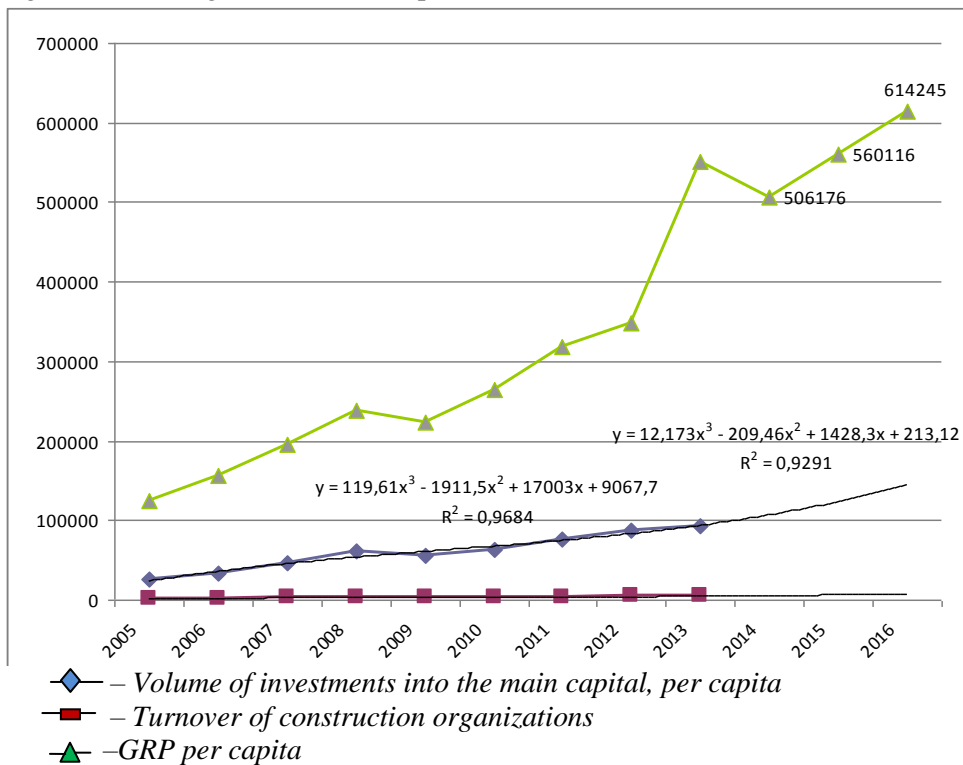
Fig. 2. Forecasting model of development of production infrastructure



For this model, as factorial features, the most significant indicators of possibilities of production component of infrastructure were taken: number of enterprises in

minerals extraction; cost of main funds in the sphere of agriculture, hunting, and forestry; cost of main funds in the sphere of production and distribution of electricity, gas, and water; turnover of manufactured production per one enterprise in the sphere of agriculture, hunting, and forestry; turnover of manufactured production per one enterprise in the sphere of minerals extraction. As to investment component of regional infrastructure (Fig. 3).

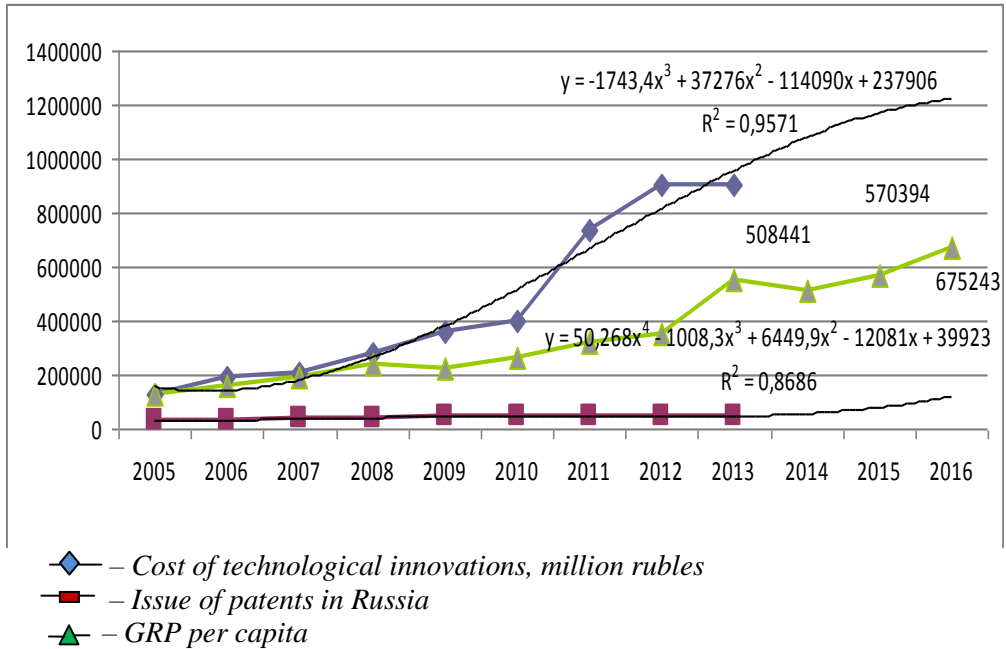
Fig. 3. Forecasting model of development of investment infrastructure



For this model, as factorial features, the most significant indicators of possibilities of investment component of infrastructure are taken: volume of investments into the main capital per capita (rubles) and turnover of construction organizations (billion rubles). Let us build forecasting model for innovational component of regional infrastructure (Fig. 4).

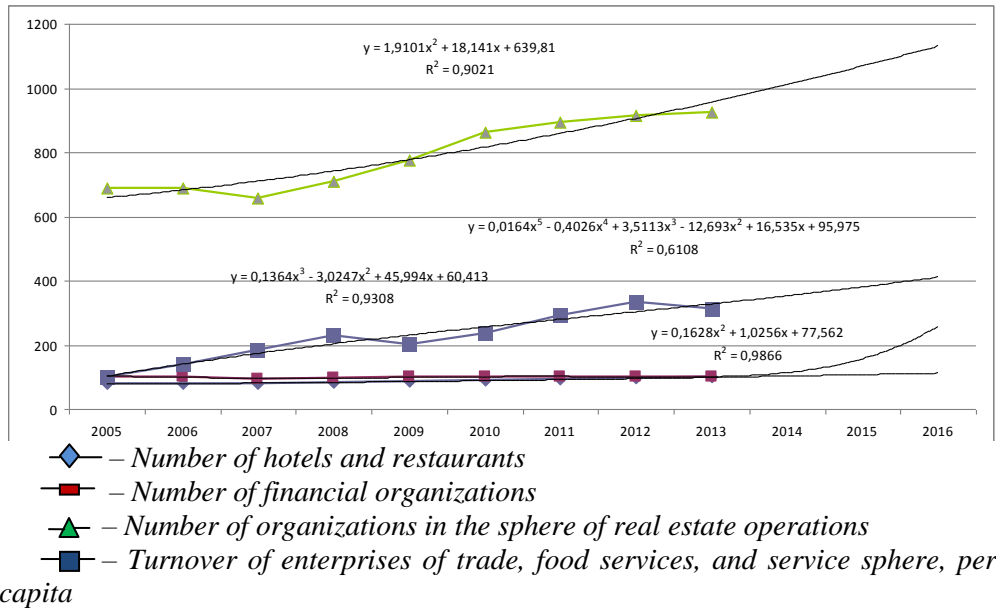


Fig. 4. Forecasting model of development of innovational infrastructure



Let us build forecasting model for market component of regional infrastructure (Fig. 5). For this model, as factorial features, the most significant indicators of possibilities of market component of infrastructure were taken: number of hotels and restaurants; number of financial organizations; number of organizations in the sphere of real estate operations; turnover of enterprises of trade, food services, and service sphere, per capita.

Fig. 5. Forecasting model of development of market infrastructure



The above dynamic models allow forming the picture of expected development of region, depending on the influence of significant indicators revealed as a result of complex research as to creation of strategy for systemic development of entrepreneurial infrastructure of regional economy.

### 3. Describing the Domain

Actuality of development of the strategy of systemic development of the infrastructure of regional economy is dictated by the following provisions: systemic and complex development of infrastructure is a necessary condition for stimulation of economic growth (according to the World Bank, the increase of investments into infrastructure by 10% provides the growth of economy by around 1%) (Expert-RA, 2015); planned reduction of budget expenses for implementation of infrastructural projects, as a priority of budget planning belongs to operational social obligations of public & legal organizations (according to the World Bank, Russia's expenses for infrastructure should constitute not less than 4–5 % of GDP) (Expert-RA, 2015); low interest of business-structures in participating in infrastructural projects under market conditions (in particular, investment attractiveness reduced in social and market components of infrastructure) (Investment attractiveness of Russia grows, 2015); high level of wear of the main capital in sectors of infrastructure (45–55 %, which is higher than in other countries of BRICS, allowing putting Russian 101<sup>st</sup> as to the level of infrastructure development) (Level of wear of main funds in Russia is much higher than in other countries of BRICS, 2015); incoordination and imbalance

of links of regional infrastructure, which caused additional preconditions for further deepening of socio-economic differentiation of the territories of the Russian Federation (Panova M.E., 2010).

The purpose of the strategy of systemic development of the regional infrastructure is achievement of well-balanced development of all components of the regional infrastructure on the basis of strategic planning and forecast and complex approach to their improvement. The tasks of the strategy of systemic development of the infrastructure of regional economy are: provision of coordinated and complex development of regional infrastructure by means of formation of direction of its improvements in all key elements (Concept of improvement of regional policy in the Russian Federation (project), 2015); implementation of the systems of strategic planning and forecast for the purpose of eliminating the influence of possible negative tendencies of external and internal factors, restraining the development of infrastructure; evening-out of regional disparities.

Unevenness of development of infrastructure of regional economy which causes unbalance of its separate components within regions, on the one hand, and greater differentiation in socio-economic development, on the other hand, required the formation of strategic priorities of regional infrastructure.

#### **4. Tools and Procedures**

According to formulated priorities within the strategy of systemic development of infrastructure of regional economy, there should be corresponding tools and measures which are implemented for the purpose of realization of its goal and task: foresight and “roadmap” as tools for strategic forecast. The necessity for using the foresight technology within strategic planning and forecast of regional infrastructure is caused by the fact that the right scenario of development of infrastructure of regional economy influences the efficiency of its development in future. Unlike the standard methods of forecast, the foresight technology has an advantage of possibility for correcting the obtained results, depending on the conditions of change of external environment. Use of roadmap, in its turn, will allow connecting strategic planning and forecast for the purpose of more optimal scenarios of development of regional infrastructural complex and structuring the process of achievement of its balance in time (Oveshnikova L.V., 2014); the mechanism of strategic development of infrastructural sectors region’s economy is based on allocation of significant factors of development of internal and external development of material and non-material nature, and strategic priorities of development which provide multivariant actions of perfecting the infrastructural components.

Plurality of these variants results from difference between regulating conditions and variants of combinations of initial (basic) strategies and variants, according to each specific region of use; complex of measures for increase of efficiency of all components of regional infrastructure. The main task of its implementation is achievement of balance and complexity of development of all links of infrastructure of regional economy and, consequently, evening-out of socio-economic differentiation of regions from the position of provision and efficiency of infrastructural complex (Infrastructure of a region, 2015).

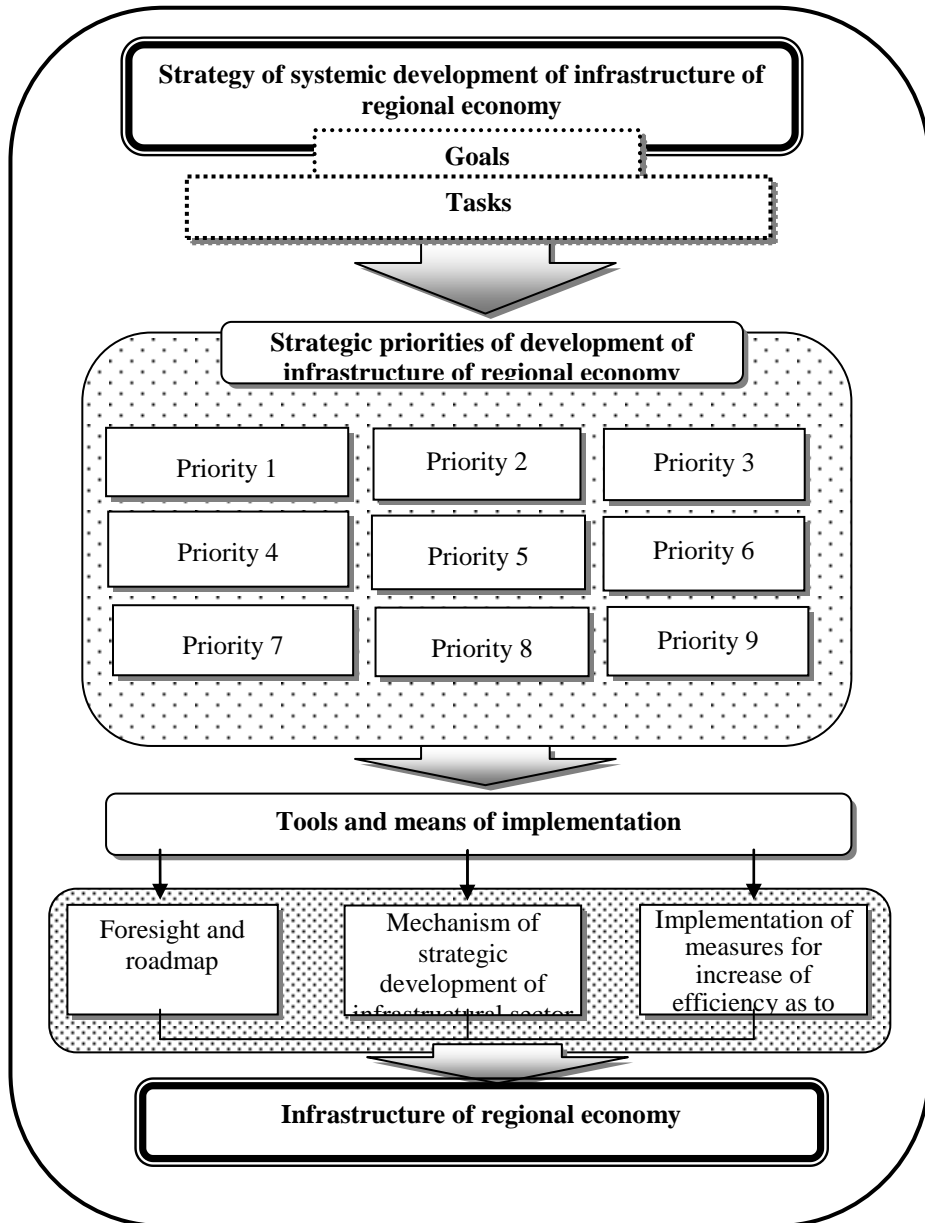
These measures should be formed in view of the component of regional infrastructure (provisional, productive, investment, innovational, market, and social) and suppose not only a complex of purely economic measures but of measures of technological, technical, social, and other character, as the efficiency of regions' infrastructure depends on many factors, including its technical state, possibility to satisfy the needs of the population on some or other goods, etc.

The attention should be drawn to the balance of the development of strategic elements of regional infrastructure according to the needs of economy and population and provision of optimal distribution of resources. Unbalance of mechanisms and elements of infrastructure (including its separate components (provisional, productive, investment, innovational, market, and social)) leads to reduction of efficiency of its functioning, which, on the one hand, is manifested in lack of coordination of interests of the subjects of economic activities within regional economy, and, on the other hand, in in fragmentary development of regions' infrastructure and gaps in its development. Lack of well-balanced development of components of the regional infrastructure, as a material and technical basis for sustainable development (Koptyuga V.A. et al, 2000) of any territory causes difficulties for providing its acquisition, formation of necessary conditions for normal productive process, and satisfaction of population's needs for various socio-economic goods.

Effective functioning of regional infrastructure as a single whole should be conducted with mandatory presences of its elements – from transport networks to elements of innovational infrastructure. As long as there is no full coordination between links of infrastructure of regional economy, all realized measures as to its development will not lead to the desired positive effect (Demenko O.G., 2015). Consequently, in our opinion, the well-balanced development of strategic elements of regional infrastructure according to needs of economy and population and provision of optimal distribution of resources (priority 5) within other actualized strategic priorities of development of regional infrastructure deserve more elaborated study.

The main elements of the strategy of systemic development of infrastructure of regional economy are showed in Fig. 6.

**Fig. 6.** Strategy of systemic development of infrastructure of regional economy



Thus, the final results of implementation of the strategy of systemic development of infrastructure of regional economy are the following: effective strategic decisions for management of regional infrastructure on the basis of forecasts of its development; achievement of well-balanced development of infrastructure at regional level – from position of its even development and in view of ratio of spent resources and efficiency of its use; increase of efficiency of provision of regions' infrastructure, including optimization of transport connection, implementation of new informational & technological means among population and into productive process; increase of economic potential of productive infrastructure for the purpose of achievement of the highest productive efficiency of top-priority sectors in each region; provision of evenness of innovational development of the regions of the Russian Federation on the basis of development of innovational component of regional infrastructure; creation of favorable investment climate by means of perfecting regional investment infrastructure; formation of stable system of market connections between subjects of economic activities on the basis of modernization of the system of market infrastructure of the regions; increase of living standards of population of each region of the RF as to main components by means of provision of complex development of all links of social component of regional infrastructure; creation of conditions for close connections of Russia's regions as to the level of socio-economic development by means of complex modernization of their infrastructure as to all components, which supposes their coordination and even development.

Practical significance of development and realization of provision of the strategy of systemic development of infrastructure of regional economy consists in the possibility for their use by authorities of all regions during formation of regional economic policy for development of regional infrastructure in view of all its components for the purpose of providing the sustainability of economic growth of each territory.

## **5. Results**

Economic reforms of modern Russia determine the necessity for development of new directions of development of regional infrastructure. At present, one of the main tasks of improvement of regional infrastructural provision is implementation of actual approaches of strategic planning which preconditions goals and tasks, long-term orientation in whole or by separate elements, objects, territories of the region according to determined totality of strategic actions (Berezhnoy V.I., Fursov V. A., Maksimova S. Y., 2010).

The problems of regional development of Russia bring forth a range of tasks which require attention and quick solution; primarily, it is necessary to allocate the problem of perfecting the territorial structure of the economy, provision of population's employment, resource development, sustaining ecological state at the required level, etc. Under such conditions, it is justified to use new effective methods of influence on the newly emerged situation, in particular of program-oriented and forecasting type, which allows solving strategic tasks of development of certain regions in connection as part of comprehensive regional policy of the state. The regions' authorities work on programs of economic and social development, in view of all peculiarities of historical development of the territory, resources, and dynamics of structural change of economy. It is obvious that for each subject of the Russian Federation, the methodologies of creation of such individual socio-economic programs may possess general features of consistency in approaches and mechanisms of formation and conduct of analysis of current situation, based on advanced experience of other regions (Vyugina L.K., 2014).

The task of development of infrastructure was brought to the foreground in economic policy of Russia, as by the beginning of 2014 it became clear that the growth of national economy requires large-scale strategic actions as to development of regional infrastructure, especially ones that will allow modernizing it and reducing dependence on extractive industries (Course 2030: study of the development of infrastructure in Russia, 2015).

Due to change of economic paradigm, orientation at market principles of economy and cardinal changes in the system of state management of regional development in the RF, the approaches to the study of functioning and development of infrastructure have drastically changed. Lack of systemic transformations in the sphere of management of infrastructural sectors of the region led to limited character of their development, determined by low level of coordination of procedures of building and reconstruction of infrastructural objects, large losses of their moral and physical wear, excessive losses in infrastructural networks and significant costs for their support, and low quality of provided infrastructural services (Gokzhaeva E.B., 2015). This requires the development of effective program-oriented multivariant actions as to the development of region's infrastructure.

It is necessary to form a complex of systematized actions, coordinated and connected as to resources, performers, productive, socio-economic, organizational & economic, and other measures, implemented with support from authorities of the region of the RF in the sphere of development of infrastructural sectors of economy (Vyugina L.K., 2014). Infrastructural sectors are certain objects, spheres, and services, which can be classified by the attributes of territorial belonging, functional orientation, sectorial localization, etc.

Development of infrastructural sectors of region's economy should suppose the development of peculiar "actions model" within implementation of absolute strategic priorities, necessary for achievement of set goals and tasks through coordination and distribution of resources, possibilities, and finances in the sphere of infrastructural provision of region, which requires formation of detailed mechanism of strategic development of infrastructural sectors of region's economy. Contents of the mechanism of development of infrastructural sectors of region's economy are defined by the authors as interconnected multilevel system of multivariant actions, factors, parameters, tools, programs, and indicators of development, tied into a single complex of procedures, allowing balancing the infrastructural functioning, determine possibilities and directions of its development according to the absolute strategic priorities.

Let us proceed to the description of the mechanism of development of infrastructural sectors of the economy. The description of mechanism is the description of its organization: its structure and functions. The mechanism organizes, and it's organized itself. Organizational description of mechanism is opening the mechanism. Let us describe the mechanism as to the elements and parts (totality of elements).

Instruments and programs of development contain detailed instructions and tasks which ensure the achievement of set goals. Their implementation includes top-priority goals of development of infrastructure, based on the actions which are interconnected as to tasks, periods of realization, and resources, on implementation of certain projects and programs-measures which ensure effective solutions to problems of regional infrastructure.

Development of program steps should be based on the following principles (Sibirskaya E.V., Stroeva O.A., 2011): consistency of top-priority goals and tasks, terms of implementation and resources; orientation at global standards of development of the system of infrastructural provision, support for the formation of competitive environment as a condition for efficiency; delimitation of functions and authorities between center and regions; optimal cooperation of public and private business.

Contents and structure of program steps of development of infrastructural sectors of a region are a list of items which reflect the content and functional characteristics of a program project that has to be implemented (Vyugina L.K., 2014). Functioning of each regional system is determined by limits of internal (within given territory), and external environment (transregional level and macro-economic environment). They are interdependent, influence each other, and partially determine the terms of each



other's functioning, which required the allocation and ranking of external and internal factors of development of regional infrastructure (Sibirskaya E.V., Stroeveva O.A., Serebryakova N. A. & Lyapina I.R., 2014).

Multivariant actions. The mechanism of development of infrastructural sectors of economy should be based on the interdependent variety of goals, principles, measures, forecasts, and evaluations criteria which ensure the optimal use of internal resources and region's potential, taking into account the regional infrastructure as a constituent part of a single economic, legal, and territorial environment of region and determining multivariant strategic actions (**Berezhnoy V.I., Fursov V.A., Maksimova S.Y.**, 2010).

That's why the authors suggest that the mechanism of development of infrastructural sectors of regional economy should be based on the following multivariant actions: stakeholders' activities; proactive activities; innovation-oriented activities.

Stakeholders' activities facilitate the development of the balance of interest and economically profitable relations for all subjects for provision of effective functioning and development of territory's infrastructure (Gaynanov D. A., Tazhitdinov I. A., Zakirov I. D., 2011), and for reaching strategic goals by means of activization of the process of self-organization with positive feedback (Komarov S. V., Molodchik A. V., Pustovoyt K. S., 2012).

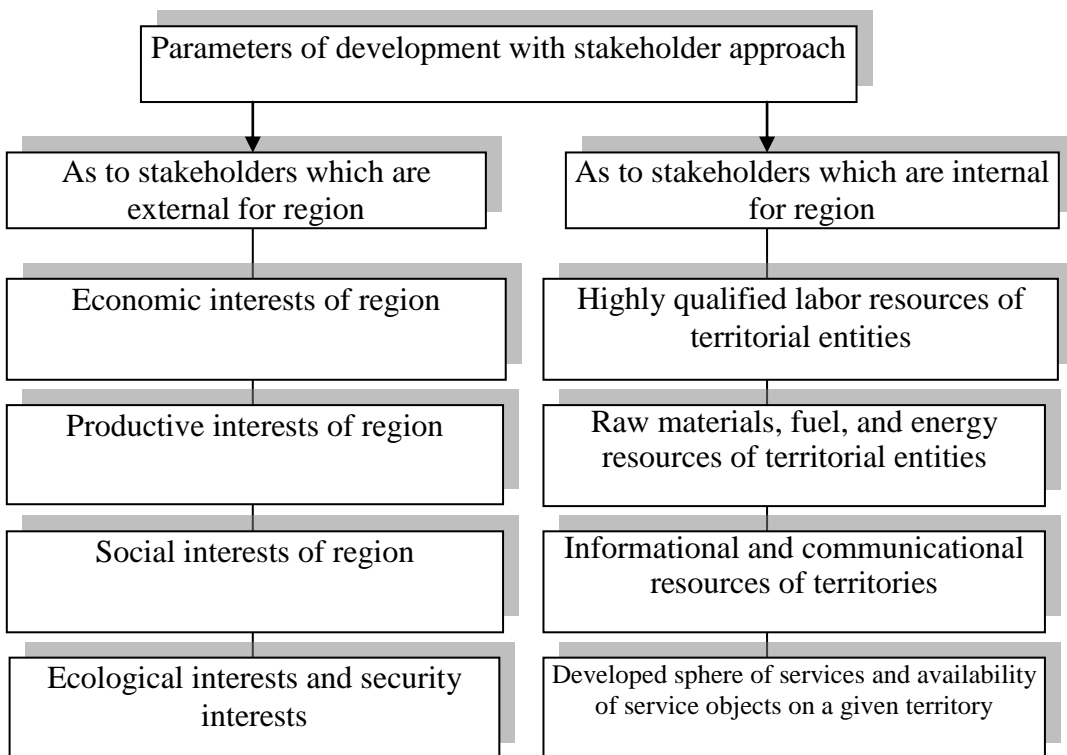
It is offered to use stakeholder activities for managing the functioning and development of infrastructural sectors of region, on the basis of use of policy of participation of stakeholders, i.e., subjects of territory's infrastructure, which possess large-scale financial, human, and innovational resources that may be used for development of infrastructural complex of this territory. Efficiency of their activities may substantially influence the state of infrastructure and well-being of region's economy (Tazhitdinov I.A., 2013).

Stakeholder of region's infrastructure is any subject (or several subjects), who is interested individual, the interest and resources of whom may directly or indirectly influence the development of infrastructural sector. Partnership relations with these stakeholders allow elaborating and implementing effective managerial decisions as to the development of territory's infrastructure.

Implementation of these activities result in integration of service types of activities, combination of processing and production into one industrial line, growing influence on the region's economy of energy-producing and extracting industries; developed infrastructural level allows increasing the share of export of energy and natural resources out of the region; emergence of economic clusters on the basis of existing resource potential through creation of enterprises which provide the processing of

raw materials in the same place with creation of production; development of trade and foreign economic connections which provide the increase of efficiency of realization of production of iron industry and electrical energy industry, etc. The parameters of development with stakeholder actions are the following (Fig. 7). However, the general principle of these multivariant actions consists in the integration of interests of stakeholders and determination of top-priority ones under existing economic conditions, which will facilitate determining the most important procedures in the sphere of development of regional infrastructure. The proactive activities suppose provision of procedures of development of region’s infrastructure as to dynamics of needs of economy in certain infrastructural provision.

Fig 7. Parameters of development of infrastructure with stakeholder approach

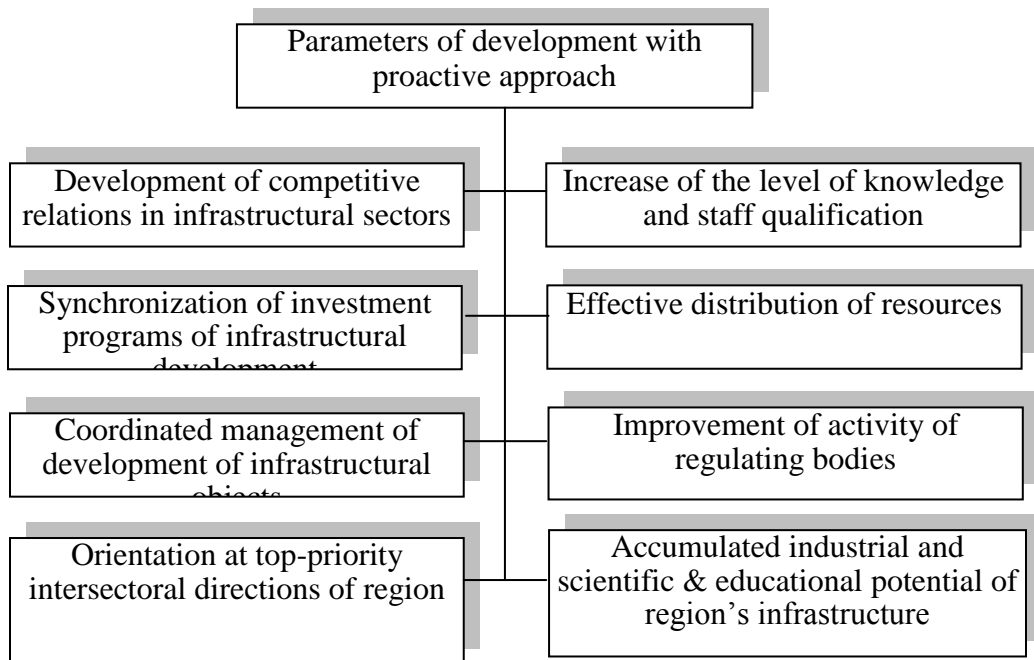


Pro-active actions should suppose the possibilities for seeing problems and providing preparations for their prevention. They will allow providing the synchronization of the processes of development of infrastructure at all levels (regional, municipal, district, in large cities, etc.) and coordinating the processes of planning the development of infrastructural objects, which are referred to various

infrastructural sectors. Proactive actions require coordination of the plans of development of infrastructural sectors with requirements as to development of constituent territories (territorial entities).

Parameters of development of infrastructure with proactive activities include the following (Fig. 8).

Figure 8. Parameters of development of infrastructure with proactive activities



**Proactive actions suppose – for the purpose of perspective development of region’s economy – formation of various institutional tools at meso-level (legal base, creation of integrated business-structures in infrastructural sectors of economy of a region, investment and other tools), which provide the development of not only infrastructural sectors which are profitable for private business, but of its components, the social, commercial, and budget efficiency for which is manifested only in long-term, but creates a stable basis for qualitative growth of region’s economy in whole (Gokzhaeva E.B.,2008).**

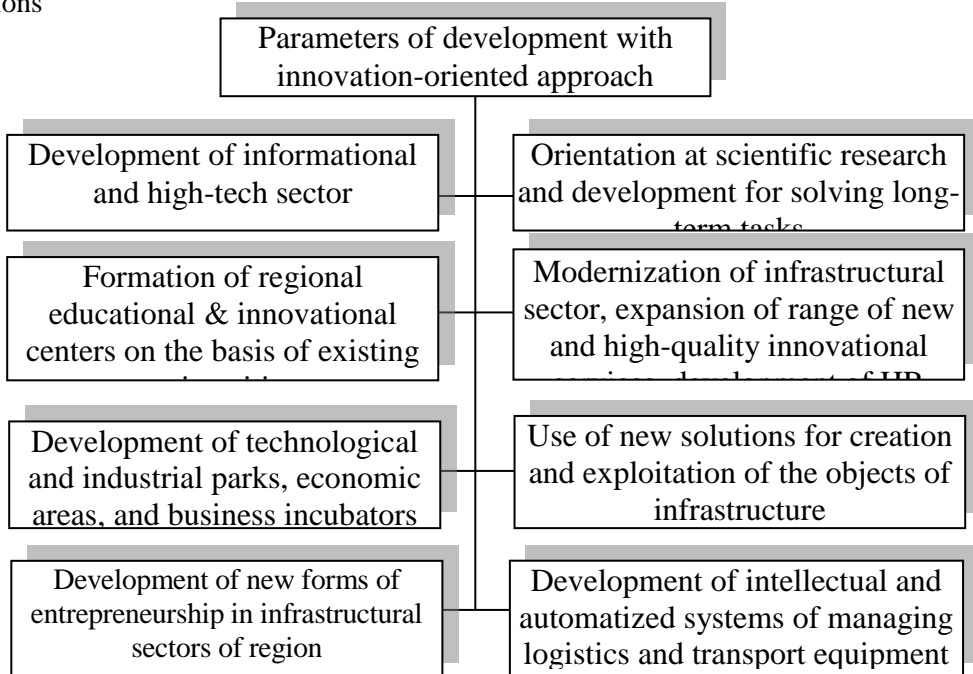
Innovation-oriented activities provide the development of regional infrastructure, orienting at high-tech and informational sectors, increase of innovational production; top-priority regional support for economic subjects with a high innovational activity;

conduct of complex of measures for support for small and medium business; program-oriented focus of regional economy for creation of a functioning system which ensures the productive process on the basis of innovations with positive dynamics of development.

Region is a constant member of innovational process, performing a function that requires high professionalism, strategic thinking, and efforts from region's authorities, its bodies, and civil servants, which includes: development of innovational policy and strategy; creation of favorable innovational climate; implementation of innovations in non-market sphere and support for basic innovations in market sphere; support for human resourcing of innovational development; support for small innovational business; support for development of innovational infrastructure; integrative connections in the global innovational environment; protection of intellectual property (Mikhaylov A.N., Zubarev A.S., Emelyanov S.G. & Borisoglebskaya L.N., 2008).

Parameters of development of infrastructure with innovation-oriented actions include the following (Fig. 9).

Figure 9. Parameters of development of infrastructure with innovation-oriented actions



Innovation-oriented actions are necessary, as innovational path of development for infrastructure of region and of Russian in whole is the only possible strategy. Implementation of these multivariant actions stipulates the improvement of legal and scientific & methodological base, which regulates innovational processes in regional infrastructure; expansion of financial possibilities for enterprises of infrastructure for the purpose of financing and attracting investments into the sphere of science, engineering, and innovations; provision of subsidies for members of innovational activities; attracting and accompanying investments (including foreign ones) in the infrastructural sectors of economy; implementation of monitoring of requirements of region in professional personnel for work at enterprises of infrastructural sphere, in the spheres of science, engineering, and innovations; preparation of specialists which have innovational thinking and are in demand in the labor market; retraining and career enhancement, use of tools of material stimulation and psychological mechanisms of motivating the staff of organizations of infrastructure (Directions of development of regional innovational infrastructure, 2015).

Indicator of development of regional infrastructure allows making conclusions about its changes. This is a system of indicators which reflects the essential characteristics of development of infrastructural sectors of economy. Their list takes into account the multitude of existing indicators (Sibirskaya E.V., Stroeva O.A., Khokhlova O.A. & Oveshnikova L.V., 2014).

On the whole, the mechanism of strategic development of infrastructural sectors of region's economy, as an economic category, reflects the following aspects: interconnection of all factors of development of infrastructure of regional economy in internal environment and external environment and their participation in processes of implementation of multivariant strategic actions; interrelation of interests of regional economy and infrastructural functioning; interrelation of factors, tools, and program actions which influence dynamics of infrastructural development; interrelation of parameters of development and results of functioning of infrastructural sectors of regional economy.

The results of proactive actions should be the following: preparing economic & legal basis for the development of infrastructural sectors; creating special structures which coordinate this process; forming high-quality human capital in regions; growth of efficiency of labor, return on assets, reduction of materials consumption, energy content, capital-output, and achievement of its high competitiveness; increase of input of processing sectors; developed transit network of railroad and car roads and airports which connect the center with regions of the RF and Russia with other countries; development of informational infrastructure and large-scale use of informational and communicational technologies.

Development of infrastructure has favorable consequences, which include the following: reduction of production expenses, increase of national production, expansion of access to labor resources, increase of competitiveness, increase of inflow of investments, reorganization of land use (Course 2030: study of development of infrastructure in Russia, 2015). This gives reason to believe that development of regional infrastructure will be provided with maximal efficiency (Gokzhaeva E.B., 2015).

Thus, strategic development of infrastructural sectors of regional economy will allow ensuring the convergence of its elements on the platform of joint development of sectors of infrastructure of regional economy with the help of formation of complex of proactive, stakeholder, and innovation-oriented actions and parameters of their development, which provide the possibilities for its strategic development.

## **6. Conclusion**

Thus, one of the top-priority conditions for transition of the Russian Federation to effective and sustainable development of the economy is achievement of optimal level of sustainability and balance of its regions. The most important preconditions for that are: potential possibility of regions' infrastructure for achievement of productive reproduction process and provision of transregional and intersectoral balance. Besides, provision of strategic systemic development of regional infrastructural complex takes into account the low level of development of infrastructure of many regions and disparity of development of its links, as well as reduction of financing of infrastructural projects of certain types of infrastructure. Formation of optimal infrastructural conditions for regional development should belong to the top-priority vectors of state economic policy, which are implemented as a part of provision of resource possibilities of particular region of Russia.

## **References**

- Berezhnoy V.I., Fursov V. A., Maksimova S. Y., 2010. Problems of formation and management of development of regional transport infrastructure. North Caucasus Federal University. 191 p.
- Concept of improvement of regional policy in the Russian Federation (project), 2015. Access: [http://dpr.ru/journal/journal\\_33\\_4.htm](http://dpr.ru/journal/journal_33_4.htm) (Date of access: 25.04.2015)
- Concerning the Strategy of innovational development of the RF until 2020, 2008. Order of the Government of the RF dated 17.11.2008 No. 1662–p. Access: <http://www.garant.ru/> (Date of access: 25.04.2015)
- Concerning the Strategy of innovational development of the RF until 2020, 2011. Order of the Government of the RF dated December 8, 2011, No. 2227–p. Access: <http://www.garant.ru/> (Date of access 25.04.2015).

- Course 2030: study of development of infrastructure in Russia, 2015. Access: chrome-extension://oemmnadbldboiebfnladdacbfmadadm/http://www.ey.com/Publication/vwLUAssets/EY-russia-infrastructure-survey-2014-rus/\$File/EY-russia-infrastructure-survey-2014-rus.pdf (Date of access: 25.04.2015)
- Dalisova N.A., 2004. Role of infrastructure in the development of market economy. Washington. Programs for exchange of higher-education teaching personnel” (FEP 1995–2002). 31 p.
- Dalisova N.A., Tereshonok V.P., 2015. Role of infrastructure in the development of region’s economy. Access: <http://www.km.ru/referats/334686-rol-infrastruktury-v-razviti-ekonomiki-regiona> (Date of access: 25.04.2015)
- Demchenko O.G., 2015. Formation of effective innovational infrastructure in Russia and the world. Access: chrome-extension://oemmnadbldboiebfnladdacbfmadadm/http://psyjournals.ru/files/63114/3\_ (Date of access: 25.04.2015)
- Directions of development of regional innovational infrastructure, 2015. Access: <http://www.moluch.ru/archive/36/4111/> (Date of access 25.04.2015)
- Expert-Ra, 2015. Access: <http://raexpert.ru> (Date of access: 25.04.2015).
- Fedorov, V.N., 2000. Socio-economic potential of infrastructure: content, evaluation, and analysis of development. UISTU, 195 p.
- Forecast of long-term socio-economic development of the Russian Federation until 2030, 2013. Access: chrome-extension://oemmnadbldboiebfnladdacbfmadadm/http://government.ru/media/files/41d457592e04b76338b7.pdf (Date of access: 25.04.2015).
- Gaynanov D. A., Tazhitdinov I. A., Zakirov I. D., 2011. Methodological aspects of strategic management of development of municipal entity. Bulletin of Ufimsk scientific center of the Russian Academy of Science. 2. P. 76–82.
- Gokzhaeva E.B., 2015. On change of concept of development of infrastructural sectors of Russia / Access: chrome-extension://oemmnadbldboiebfnladdacbfmadadm/http://www.socionauki.ru/book/files/k\_waves/volume\_2/204–211.Pdf (Date of access: 25.04.2015)
- Gokzhaeva E.B., 2008. Managing the development of region’s infrastructure: concept, factors, institutional mechanisms, and instruments. Kachestvo. 139 p.
- Infrastructure, 2015. Access: <http://center-yf.ru/data/stat/Infrastruktura.php> (Date of access: 25.04.2015)
- Investment attractiveness of Russia grows, 2015. Access: <http://opora51.ru/investatt.html> (Date of access: 25.04.2015)
- Komarov S. V., Molodchik A. V., Pustovoyt K. S., 2012. On the verge of change of management paradigm. Self-developing and self-organizing systems. Journal of economic theory. 3. P. 132–142.
- Koptyuga V.A. et al, 2000. New paradigm of sustainable development of Russia. Academia. 200 p.
- Level of wear of main funds in Russia is much higher than in other countries of BRICS, 2015. Rossiyskaya Gazeta. Access: <http://www.rg.ru/2011/07/05/iznos.html> (Date of access 25.04.2015).
- Mikhaylov A.N., Zubarev A.S., Emelyanov S.G., Borisoglebskaya L.N., 2008. Formation of strategic priorities of regions on the basis of scenario of long-term development. Vysshaya Shkola. 416 p.

- Nepomnyashchaya V.E., Okhrimenko A.I., 2014. Living standards: territorial and socio-economic disparities. Access: <http://www.scienceforum.ru/2014> (Date of access: 25.04.2015)
- Oveshnikova L.V., 2014. Development of regional infrastructure on the basis of forecasting with the help of methods of expert panels, scenarios, and roadmaps. *Middle-Russian bulletin of social sciences*. 5 (35). P. 110–114.
- Oveshnikova L.V., 2014. Elaboration of directions of development of regional infrastructure on the basis of tools of forecasting and strategic planning. *Scientific news of Belgorod State University. Series: History. Politology. Economics. Informatics*. 21(192). Iss. 32/1. P. 22 – 28.
- Panova M.E., 2010. Modernization priorities of market development of enterprises of Russia's industry under integration into the world economy. *Economic sciences*. 1 (62). P. 467 – 473.
- Sibirskaya E.V., Stroeva O.A., 2011. The basic provisions, determinants and conditions of the innovative development management. *The Herald of the Oryol State Institute of Economics and Commerce*. No. 1. P. 5–10.
- Sibirskaya E.V., Stroeva O.A., Khokhlova O.A. & Oveshnikova L.V., 2014. An analysis of investment–innovation activity in Russia. *Life Sci J*; 11 (7s).155–158.
- Sibirskaya E.V., Stroeva O.A., Serebryakova N. A. & Lyapina I.R., 2014. The contents and structure of innovative activity in the Russian economy. – *Asian Social Science*. Vol. 10, No. 23.51–59.
- Social policy, 2015. Access: <http://center-yf.ru/data/stat/Socialnaya> (Date of access: 25.04.2015).
- Specialization and complex development of region, 2015. – Access: [http://studopedia.net/1\\_55799\\_spetsializatsiya-i-kompleksnoe-razvitiye-regiona.html](http://studopedia.net/1_55799_spetsializatsiya-i-kompleksnoe-razvitiye-regiona.html) (Date of access: 25.04.2015).
- State regulation of regions development, 2015. Access: <http://www.distanz.ru/videoLecture/3043/> (Date of access: 25.04.2015)
- Strategic planning, 2015. Strategic planning in regions and cities of Russia: update of strategies and meanings. Access: <http://economy.gov.ru/minec/activity/sections/strategicplanning> (Date of access: 25.04.2015).
- Tazhitdinov I.A., 2013. Use of stakeholder approach for strategic management of territories development. *Economy of region*. P. 17 – 26.
- Territorial differentiation of levels of socio-economic development and typology of Russian regions, 2015. Access: [http://studopedia.ru/3\\_89857\\_territorialnaya-differentsiatsiya-urovney-sotsialno-ekonomicheskogo-razvitiya-i-tipologiya-regionov-rossii.html](http://studopedia.ru/3_89857_territorialnaya-differentsiatsiya-urovney-sotsialno-ekonomicheskogo-razvitiya-i-tipologiya-regionov-rossii.html) (Date of access: 25.04.2015)
- Vasilyeva I.V., 2013. Strategy for development of regional socio-economic systems under change of macroeconomic parameters. P. 24.
- Vyugina L.K., 2014. Characteristic peculiarities of regional programs of territories development. *Kazan department of MIIT*. 368 p.