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Old industrial cities in the process of revitalization: Siberian cases¹

The paper considers the problems and prospects of structural changes in the old industrial towns of Siberia. It describes the results of expeditionary research, carried out in the south parts of the Kemerovo region and Altai krai and the Irkutsk region. The definition of revitalization is given. On the basis of materials collected the revitalization models of old industrial settlements (Novokuznetsk, Bratsk, Biysk, Usolye-Sibirskoe, Sheregesh) are specified. The models reflect the interaction of government, business and scientific complex characteristic of the area. Within the framework of the existing models the recommendations for accelerating the revitalization process were formulated and justified.

Key words: revitalization of economy, old industrial city, territory of advanced development, tourism, science town, cluster.

1. Introduction

At the end of the nineteenth century in the south of Siberia large enterprises started mining and processing coal, and later the production of ferrous and non-ferrous metals was organized. There was rapid development of agriculture. Since the 1930s the intensive industrialization contributed to the significant increase in population, diversification of economy and the growth of living standards. Today

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Siberia is an important element of the Russian economics (over 10% of the gross regional product is accounted for Siberian Federal District).

With the transition to market economy in the 1990s a lot of problems arose: migration outflow, lowering living standards, decline in investment in fixed assets, etc.

The cities and towns experienced the sharpest decline in socio-economic development: from the points of view of economic growth, they became out of date municipalities that experienced the whole range of socio-economic problems and had very few resources and power for achieving sustainable growth. At present, most of them remain in a state of searching for the way of choosing a development model. Despite the similar status in the spatial hierarchy - urban district or urban settlement which depends on the population size, the history of the development and other local conditions, these models can be quite different.

The main objectives of this research were to study and describe the generated models of economics revitalization in Siberian settlements of different sizes² (Novokuznetsk, Bratsk, Biysk, Usolye-Sibirskoe, Sheregesh), to reveal the weaknesses of these models and to develop the proposals for their modification. The models are built from the point of view of describing the features of the interaction between the government, business and scientific complex in the area.

2. Methods

The municipalities investigated are old industrial towns: their basic enterprises have been functioning for a long time and need to be updated in technical, ideological, social terms. In this regard, according to our assumption, special development models should emerge in Siberian towns - revitalization models as we call them.

Revitalization is the process of "revival" of the economics by opening new opportunities of traditional forms of economic activity in the framework of the existing sectoral structure with regard to their contemporary features (social,

² The analysis deliberately did not include regional capitals.

innovation, integrative). It is a more "soft" approach and less scale process than reindustrialization. In contrast to reindustrialization, revitalization takes into account particular cases of development and is based on writing plans, programs, modeling of individual sectors of the economy of any territory for the purpose of implementing sustainable development and successful functioning in domestic and international economics [1].

In literature, a block of investigations of possible re-industrialization mechanisms in the context of studying the prospects of development of single-industry towns of Russia is widely represented [see. Eg 2.3]. These investigations are reduced to the classifications of monoindustry towns using different criteria followed by the determination of the appropriate model of development. The classifications are developed in order to justify a differentiated approach to the formation of Russian monoindustry settlement support policy. In this research we place emphasis on studying the local territorial characteristics, capabilities and limitations of the urban development. In addition, taking into account the spatial neighborhood, not only monoindustry towns are seen (come into view), but other towns of old industrial areas with very similar problems connected with the current process of de-industrialization. The principle of spatial neighborhood was used in the work of Didyk V.V. and Ryabova L.A. [4], who described the strategy of the development of monoindustry towns of the Murmansk region, but a monotown status was determining for them in taking the settlements into the analysis.

Another way of studying the processes and mechanisms of restructuring of old industrial areas is a case analysis, which is widely spread in the international literature [5,6,7,8]. This method was used by the authors of this work, adding a comparative analysis par with [9 c. 70-73], [10].

The data on settlements of this level of the territorial hierarchy presented in the statistics are not complete and not sufficient for understanding and building models. Therefore, for exploring the existing models of governance and the collection of the information with the participation of the authors during 2015-2016, the expeditions to the central and southern regions of the Kemerovo region,

the south-western regions of the Altai Territory, the northern districts of the Irkutsk region were undertaken.

During the field works the methods of observation, monitoring, systematization, and public opinion polls were used. The researchers held meetings with the heads of municipal administrations, managers and workers of large industrial enterprises, spoke with the local population, representatives of small and medium-sized businesses at the study area Figure 1 shows the concept of conducting field research on the work topic.

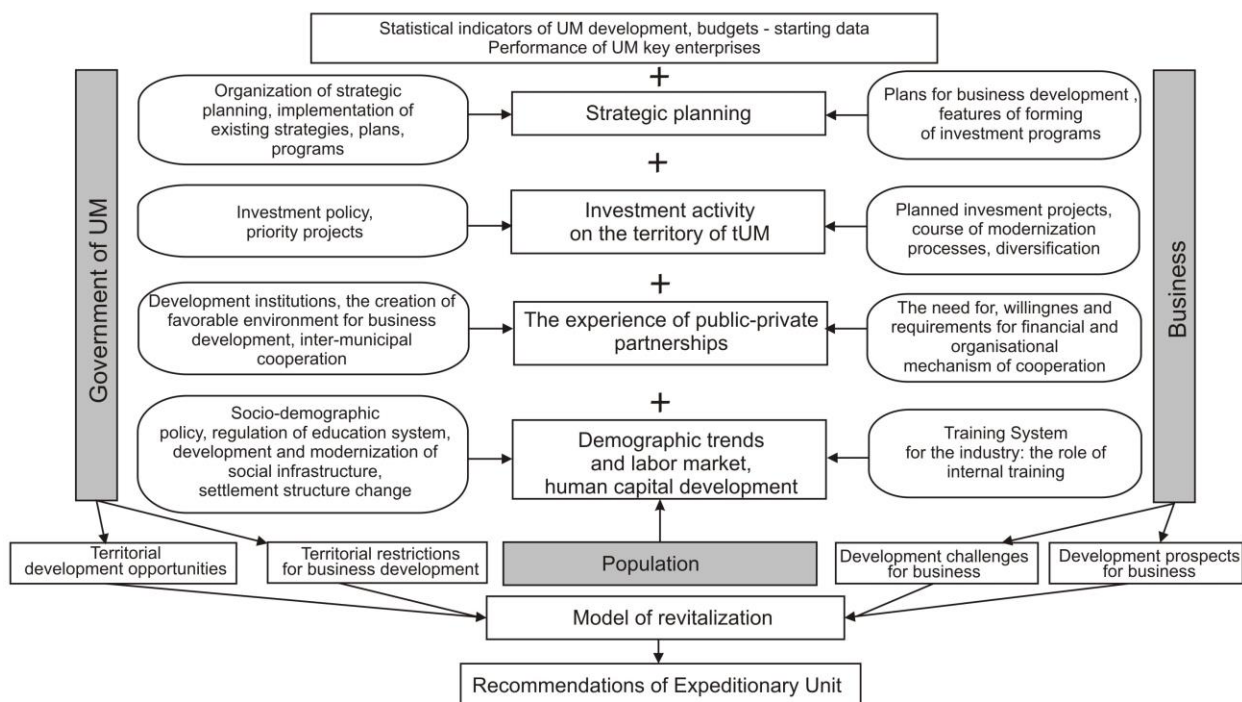


Figure 1. Conceptual scheme of research on the prospects of economics prospects of urban municipality

3. Results

In Table 1 one can see that the municipalities studied are of different scale, industry specialization.

Table 1. Initial comparison of towns patterns

Indicator	Novokuznetsk	Bratsk	Biysk	Usolye-Sibirskoe	Sheregesh
Status	Monoindustry town	-	Science town	Monoindustry town	Monoindustry town
Population on 2016. 01.01, people	551253	234 147	203 826	78 569	10101
Population change trend over 25 years	decline	decline	decline	decline	growth
Budget revenues in 2015, mln. Rub.	18094	5542	3001	1350	75,2
Year of foundation	1618	1955	1709	1669	1914
Years of foundation of key enterprises	the end of the 19th century	1955-1966	1942-1991	1936-1983	1952-1981
Industry specialization	non-ferrous metallurgy	energy, non-ferrous metallurgy, pulp production	chemistry, instrumentation, pharmaceuticals	chemistry	ferrous metals mining, tourism

In general, according to the results of field studies the processes of socio-economic development and reindustrialization of economy in the studied urban areas studied were observed to go on extremely slow, spontaneously. Entirely different models were formed, according to which the economic development and update of towns and settlement economics occurs.

«Novokuznetsk town» case

The model of revitalization formed in the Novokuznetsk city can be called "industrial diversification" (see Fig. 2).

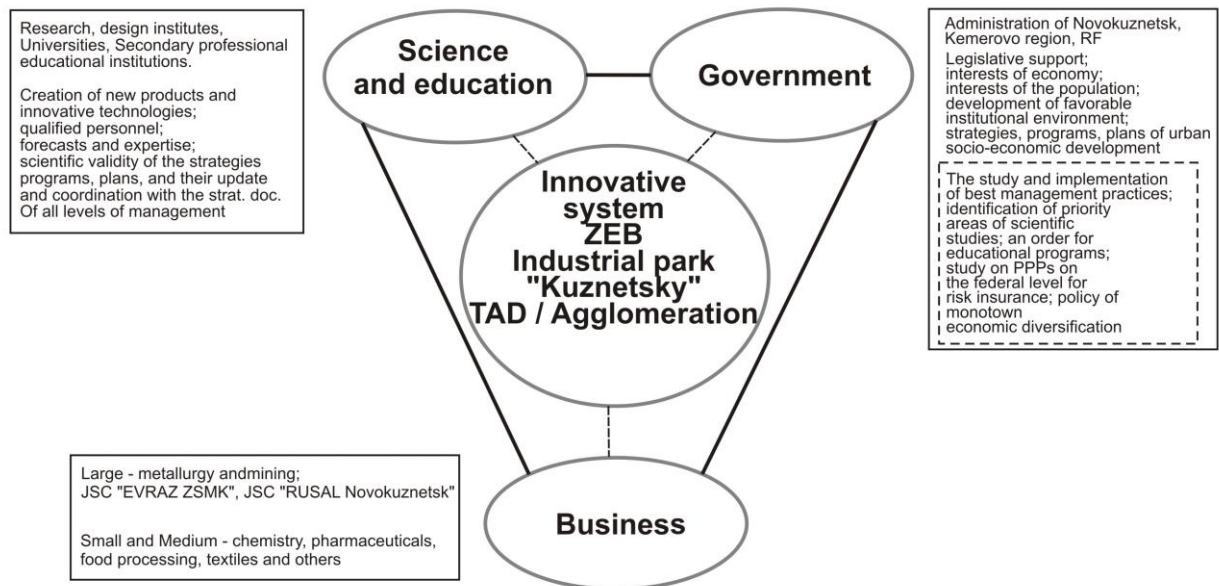


Figure 2 - Model of industrial diversification of Novokuznetsk town

The key economic agents in the city are large enterprises. Their development is highly dependent on the headquarters' policy; in particular, they often establish strict limits on the level of costs. At the same time, considerable pressure is exerted by the city and region administration. As a result, town-forming enterprises perform social function as well. Company management follows the policy of preserving workplace even with the projected commercial losses.

The city giant enterprises city are actively engaged in technical re-equipment. At JSC "EVRAZ ZSMK" the installation for preparation and pulverized coal injection in blast furnaces was set into operation reconstruction, the of rail and structural shop was done and the production of cold-rolled reinforcing of B500C class technology was begun. Moreover, JSC "RUSAL Novokuznetsk" implemented a program to improve the energy efficiency of the enterprise, set automatic line «Brochot» and put the system of close water supply into operation and so on. In some cases, the process of updating the technology is not aimed at reducing production costs, but is done according to the initiative of the city administration.

The product diversification within the firms is influenced by the world market conditions. As a result, the dependence of revenues on the world market and the associated risks for the companies increase. The possibility of using public-

private partnership (PPP) is seen by business representatives in the field of sharing these risks.

According to urban socioeconomic development plans one of the main areas is diversifying the economic structure. Diversification is to include the development of existing non-core industries mainly by using small and medium-sized businesses. Among the most promising industries are the industry of processing industrial waste, energy production, construction industry, mechanical engineering on the basis of innovation and food industry [11]. The following projects were implemented: the production of ferroalloys, the disposal of the magnetic ore dressing, the production of commercial refractory materials from refractory waste, etc. However, according the administration, unfortunately, the bank of real projects for significant changes of situation in the foreseeable future is extremely poor.

In the town there is the lack of technical specialists. At the moment, giant enterprises themselves play a great role in training highly qualified specialists. They implement training programs and internships, acquire patronized specialized classes in the key educational institutions. Doing large-scale employee competitions among, such as Project 250, Professional RUSAL corporate championship of professional skills for the WorldSkills standards based ZSMK Eurasia, visited by us during the expedition take a special place in the personnel policy. In the long term the mechanism under the support of administration: “market demands - secondary professional education – university” is to begin working.

A special feature of the model, an intense, but clearly pairwise interaction between the administration, science and business is lacking. As a result an innovative system in city is weak, as all the three elements are not involved into it at the same time.

In our opinion, the role of "Science and Education" block is to increase significantly, in the provision of human resources in the development and

implementation of innovative products and technologies, in the making project expertise and forecasts.

«Bratsk town» case

The main types of industrial production in the city are metallurgy, pulp and paper industry, which have developed on their own natural resource base. Of great importance is the power industry.

The existing model of revitalization can be defined as "Industrial diversification of Bratsk" (Fig. 3). It involves all the 3 institutions (government, business, scientific and educational complex), that character i.e. the current economics due to the productive capacity of existing enterprises and innovation support infrastructure.

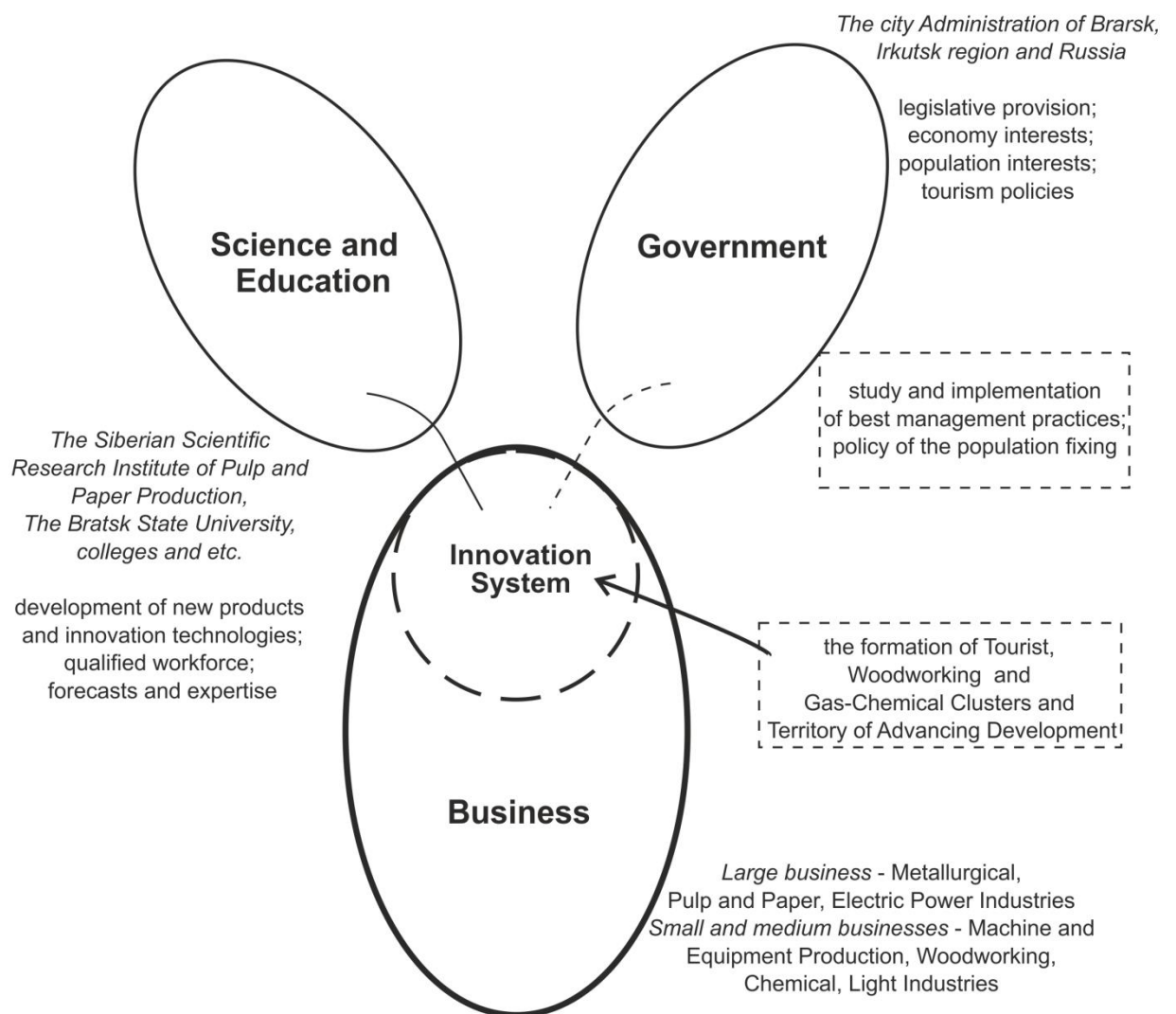


Figure 3 - Model of industrial diversification of Bratsk town

Giant enterprises (Bratsk hydropower plant, Bratsk Aluminum Plant, Bratsk LPC) are constantly upgrading their technical base by the introduction of innovative technologies, which are mainly supplied by Bratsk State University and JSC "Siberian Research Institute of Pulp and Paper Industry".

The majority of products of large enterprises is aimed at the external market and consequently is developed under the world market conditions, at the same time increasing the burden on the town environment [11].

Furthermore, the extraterritorial interests of the owners of the key companies involved into the single economic complex, a variety of instruments of effect redistribution within the corporate structure, the opacity of their activity often lead to the infringement of regional and social interests. The search of regulatory mechanisms for large companies' activities in the resource regions, such as those studied, is an extremely urgent task. The solution should be developed with the participation of the scientific block.

Large enterprises of Bratsk industrial hub work in quite a stable way, bearing to a certain extent a social burden. Key businesses have capacity reserves, which could be used for new refining projects related to the promising projects in neighboring regions (The Lower Angara Region, The Republic of Sakha projects (Yakutia)). At the same time, however, there are no initiatives towards strategic cooperation neither on the level of production enterprises, nor on the municipal level.

Bratsk lags behind other towns in the region by the level of services development, and, consequently, the development of small businesses. According to the urban plan of socio-economic development a special place is given to large and medium-sized businesses. There are more than 20 investment projects in the town (industrial production, medicine, tourism, transport infrastructure, etc.) and most of them are in progress [11, 12].

Bratsk is actively working to improve the investment attractiveness, creating a project bank, and the possibilities for their promotion. From the strategic point of view of the town development the authorities indicate the need for a planned

target, calculated at the national economics level. Based on the regional and a municipal level, to make such a plan is difficult, especially in the part of the assessment of neighbors opportunities and following the implementation schedule. Without having received TAD (territory of advanced development) status, the municipal government of the northern districts of the Irkutsk region, headed by Bratsk city administration nevertheless does not completely leave the idea.

Problems of the forest industry are particularly arguent for the region studied. Reforestation is being too low (less than 10% of the cutting area), co-production is not developed (plywood plant BLPC is partially sold, the rest does not work), major players in the industry lobby lowering the minimum age of cuttings from 102 years to 60, which obviously will accelerate the depletion of the resource base.

The youth survey conducted confirmed a high relevance of the problem of the population fixing on the territory. The majority of respondents would prefer to live in other large cities (in Novosibirsk, Krasnoyarsk, St. Petersburg), but not in Bratsk. Almost all the students who participated in the survey have friends or acquaintances who decided to leave Bratsk. As a rule, the age of those leaving is in the range from 18 to 25 years, they have a higher education and move from Bratsk in order to continue their studies or find a better paid job. About 40 % of respondents are going leave Bratsk in a year or two. The elaboration of the complex of measures to retain the young in the town taking into account of the preferences found in the survey is to be one of the priorities for municipal and regional authorities.

A complex system of training at local universities and secondary special institutions, depending on the needs of the leading enterprises of the city functions in the town [12].

Despite rather intense pairwise communication of model units, an innovation system is institutionally not formalized. A special feature of the model is a relative independence of large business.

«Biysk city» case

Biysk scientific complex was formed in the 1950s. after the establishment of large industrial enterprises of the defense complex in the town. A large part of the town industry was oriented on the production of defense products, so in the 1990s the absence of state defense orders has caused a growth of unemployment and decline in living standards. Therefore in the post-reform period increasingly important is small and medium-sized business, a network of wholesale and retail trade, as the main area of employment is being developed.

At the same time the primacy of scientific-industrial complex (SIC) is not lost: the industry is represented mainly by enterprises creating high technology products [12]. This feature, as well as the efforts of the city administration allowed Biysk to become one of Russian science cities in 2005. The status of a science town is given great importance to in Biysk. Work of administration aims at preserving this status, at studying the development trajectories and at using the experience of other science cities of the country. Strategic planning system is adequately and clearly worked out taking into account the status of the town.

Revitalization of Biysk town economics is implemented in the framework of the "triple helix" model [13, 14]. It provides a mandatory participation of all the three key institutions - government, business, science and education, with the possibility of leadership for each. In Biysk a real leader is a scientific and educational complex (Fig.4).

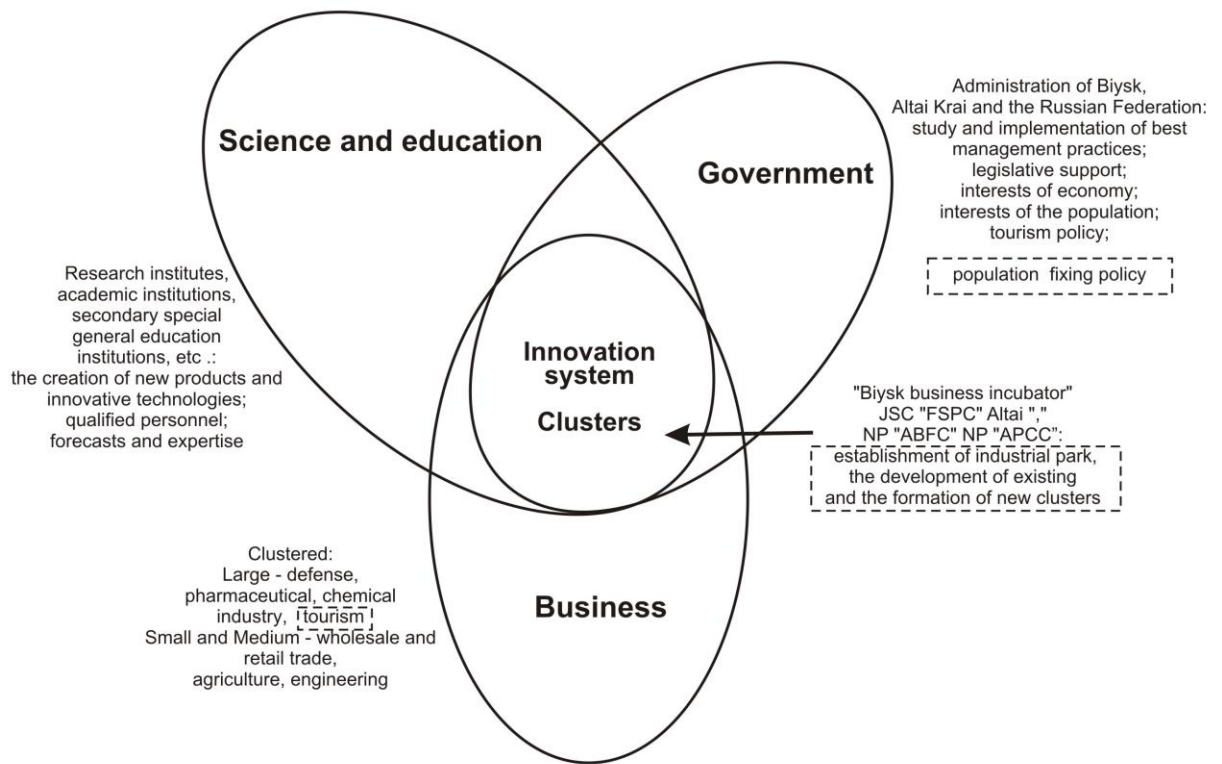


Figure 4 - Model of industrial diversification of Biysk city

The town of Biysk succeeded in creating clusters of small and medium-sized enterprises.

In 2008 the non-commercial partnership (NP) "Altai biopharmaceutical cluster", which is among the five leading Russian pharmaceutical clusters was established. The main trends of the activity of cluster members are chemical and pharmaceutical manufacturing, biopharmaceuticals and food production with the desired useful properties and the production of medical equipment. The cluster of more than 35 participants works using mainly their own raw materials. The organization tries to use maximum production chains within the cluster, giving the cluster firms a local advantage.

At the beginning of 2015 the NP "Altai Polymer Composite Cluster" was established. The main activity is the development and industrial production of composite materials and products used in the construction, power, mining and utilities. The Russian market of polymer composite materials is in its infancy, but its sharp increase (up to 10 times by 2020) with a focus on domestic consumption is predicted.

A clustering mechanism used is of interest. In the post-Soviet period large state enterprises were divided into many small ones, with some having ceased to exist soon. Then, the remaining and new companies joined together on a voluntary basis into the clusters and used all the advantages of this form of organization.

It should be noted that the personnel policy within the established clusters is very strong - the system of training is created, workers annually receive international certificates, contests for individual initiatives support (UMNIK) as well as educational programs for aspiring entrepreneurs are run. At the same time the policy of retention of young people at the city level is worked out minimally: the administration does not hold so called "open days", job fairs, which really could (taking into account rigid schedules) be visited by students. This is the weak point of the existing model: it is imperative to pay attention to the retention of youth in the science city with a deficit of qualified personnel.

In 2012 the municipal budget organization "Biysk Business Incubator" started its work. There are business incubators in almost all techno parks in the world. At the same time a business incubator is a unique superstructure, for the needs of techno parks residents. In Biysk, the business incubator functions separately, performing the same function for "free" small business. Local administration and SIC can't implement the project on techno park creation.

In our view, under the specific conditions of Biysk it is possible to create an international industrial park similar to the Suzhou Industrial Park (China) [15].

It should be noted that in the vicinity of Biysk there are all the possibilities for the development of agriculture (production of grain, sugar beet, milk, meat, farming, poultry farming, etc.). In the town the manufacturing sector (dairy plants, meat processing plants, pasta factories, etc.) can be created.

Another important area for economic diversification is a tourist activity. During 10 previous years the attitude towards the tourist industry has changed positively. The development of this industry is expected to go in four ways:

- ✓ business tourism - a constant flow of tourists is due to the existence of the scientific complex;

- ✓ historical and cultural – Biysk was founded by the decree of Peter the Great and located on the "Silk Way", it is of a unique architectural appearance, especially the "Old Town" and there are a lot of monuments there;
- ✓ pilgrimage - in the south of the Altai krai there are many temples and churches, so the creation of a center of pilgrimage on the basis of "the Bishops' farmstead" is planned;
- ✓ transit tourism - Biysk is a "gateway" to the Altai mountains and this guarantees a significant flow of transit tourists. In order to attract them to the town the administration developed the project of the tourist cluster "Golden Gate", which is now at the stage of the approval of the concept approval and organizational and financial study. The cluster project involves the implementation of the following activities on the basis of PPP: the construction of household infrastructure, tourist information center, trade companies, two complexes of roadside service, wellness center, catering facilities, collective accommodation facilities, including a roadside hotel, motel and luxury mini-hotels, camping infrastructure (toilets, showers, kitchen). In addition, we can recommend carrying out the restoration of the old buildings in the city center, or to develop abandon-tourism³.

In the transport sector, emphasis should be placed on the improvement of the transport network capacity and to ensure adequate access to remote areas of the city. It is necessary to join the Chinese project for the renewal and functioning of the "Silk Way" (China - Mongolia - Russia). Note that China in this project focuses on high technology (innovation), which Biysk can offer them.

«Usolye-Sibirskoe town» case

Usolye-Sibirskoe is one of the old industrial cities of Eastern Siberia. Its dominant industry is chemical (60%), which has significantly was reduced in 2013 because the main enterprises LLC "Usoliekhimprom" and LLC "Usolye-Siberian Silicon" stopped their production. In the program of socio-economic development of the municipality "Town Usolye-Sibirskoe" until 2017 the chemical-

³ Guided tours around the abandoned buildings.

pharmaceutical cluster was expected to be created, but of 4 potential manufactures none has been implemented yet since the balances of the companies are illiquid while the others are at the stage of choosing an industrial site. In addition to creating new production facilities the modernization of fixed assets of the existing enterprises should be carried out, which would allow a number of economic and environmental problems of the town to be solved.

Within the framework of support measures of single-industry municipalities of the Russian Federation the territory of advanced social and economic development (TAD) of a mixed type was created in 2016. It implies a number of preferences and minimum requirements for investors. Currently, there is one resident - the industrial park «Dega-Irkutsk" of brownfield type. The main focus will be innovation (center 3D-printing and prototyping, projects of the development and implementation of IT-technologies and robotics) and the creation of clusters of wood processing, light industry and mechanical engineering. Another PPP project is planned as a part of the import substitution program in Russia [17]. Thus, JSC "Pharmasyntez" envisages the construction of active pharmaceutical ingredients plant at TAD "Usolye-Siberian," which will work on its own raw materials. Currently, a pre-project study of the issue is being conducted [18].

The town development is done within the model of innovation and industrial diversification by triple helix interaction (Fig. 5): the process involves all the 3 Institution (government, business, and scientific and educational complex). Its distinctive and negative feature is a small participation share of a scientific sphere due to the fact that in the town there are no large research institutes or universities.

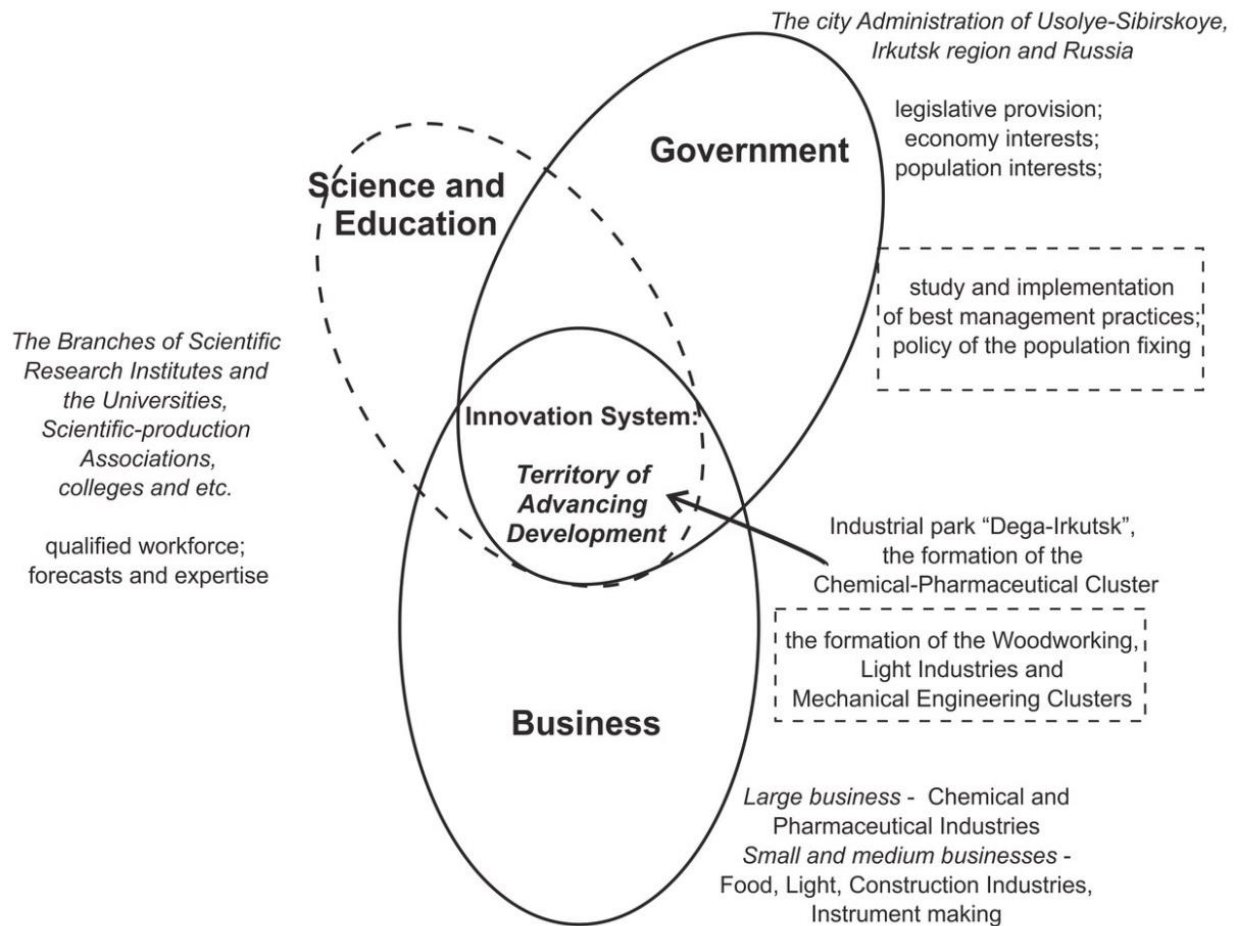


Fig. 5 - Model of innovation and industrial diversification of Usolye-Sibirskoe town

The main limiting factor of the development is the outflow of local population and the shortage of highly qualified personnel for new production. The local administration fulfills a number of programs for training, retraining and the improvement of qualification of the population [19, 20]. Due to its proximity to the regional administrative center the town of Usolye-Sibirskoe is to rely on the regional educational potential.

The administration supports small and medium-sized businesses and their popularization. It provides an assistance in within municipal and regional support program for the priority sectors of the economics.

Strategic planning system is not implemented properly because there is no long- term concept / strategy of social and economic development. There are

medium-term plans, which do not indicate a major challenge for the development of single industry town, i.e. innovative diversification. However, materials matched with the documents of regional and federal levels are available on the official website.

Case «Sheregesh town»

In Sheregesh the double helix model of the interaction between the government and business is implemented (Fig. 6) [13].

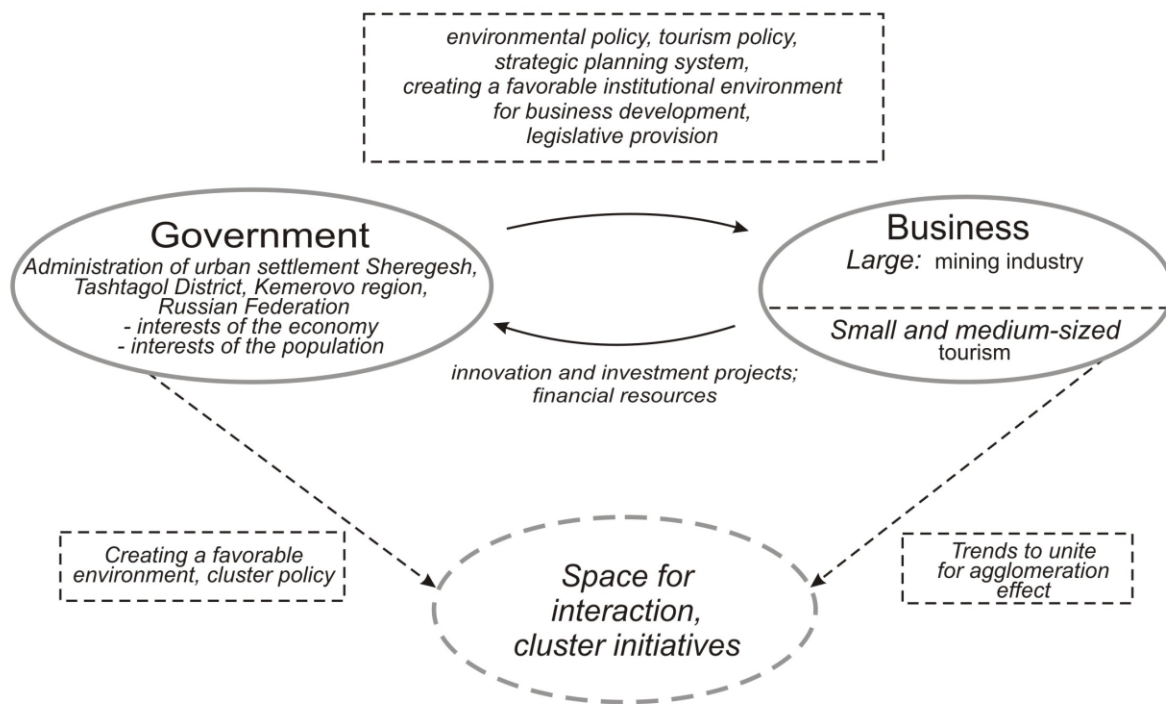


Figure 6 - The double helix model of interaction in Sheregesh settlement

According to this model, business invests in to the modernization and diversification of the economics, and the government deals with social aspects (choice of socially responsible partners, improving the investment climate, creating a favorable institutional environment, etc.).

The main activities, which bring real income into the economics of the settlement and the district are mining, tourism and recreation activities.

In Sheregesh iron ore deposit is being developed since 1951. Now it belongs to the Gornoshorskij subsidiary of OAO "Evrazruda", which supplies iron ore to the mills of Novokuznetsk. At current production rates (3 million tons per year) the reserves will be enough for 60 - 70 years. The work and plans of the town-forming

enterprise is largely determined outside the settlement as the main company is located in Novokuznetsk. Requirements of the holding to the level of profitability (at Gornoshorskij branch, read, and costs) led to the beginning of reconstruction project. After the end of the project the production of crude ore will increase up to 4.8 mln. tonnes per year, the company will fully switch to the new technology of extraction of ore using highly productive self-propelled equipment. The implementation of the project will also partly reduce the personnel problem.

Due to climatic conditions in the settlement the emergence of a new major industry based on the development of winter tourism resort Sheregesh became possible. The resort became popular thanks to the unique properties of snow. In 1978, the construction of the mountain ski resort on the Green Mountain for holding a sports festival was started in the early 1980s. So initially its tracks were not designed for the amateurs to have a rest and there were no conditions for receiving tourists at the foot of the mountain. However, in the early 1990s the demand for domestic tourism increased and the tourism infrastructure began to be developed actively in Sheregesh: the construction of modern hotels and the development of new ski slopes. In 2010 the favored economic zone of tourist-recreational type "Gornaya Shoriya" was created. The creation of the road to the resort in 2011 significantly improved its transport-geographic position.

As a result, "Sheregesh" is one of the largest, fastest-growing mountain ski resort in Russia. At the foot of the Green mountain about 50 hotels and hostels are located, 19 lifts operate on the slopes. In order to increase the investment attractiveness all the new objects will be included into the economic zone with preferential tax treatment. In 2016 a registration of land plots for the construction of engineering, transport and tourism infrastructure was started.

At present, the development of the resort and developing it to the international level is a point of growth, not only for the entire Tashtagol District, but also for Kemerovo region [16]. That is what allowed us to include the settlement into the analysis.

The development of the ski resort presupposes high infrastructure needs. It is necessary to maintain the quality of the vehicle roadway approaching to the resort, to expand the network of household infrastructure, provide utilities for the growing fund of hotels, cafes, saunas, to organize a sufficient number of rental services. However, the urgent problem is the usage of facilities in summer. According to the district administration the need in hotels during the summer period is estimated maximum of 23%, the flow of tourists is reduced to 7 % from the peak in winter. Thus, currently the industry revenues are subject to seasonality, they depend on weather conditions, but the methods of usage of vacant infrastructure in summer are not developed. We offer, with assistance of the administration, to develop the following types of tourism in the town to reduce the dependence of industry revenues on seasonal factors:

1. Recreation:

- ✓ activities of interest (fishing, picking up wild berries or mushrooms, etc.);
- ✓ ethnic household (the study of ethnic cuisine, non-traditional household and crafts);
- ✓ treatment (medical);
- ✓ eco-tourism;
- ✓ photo- tourism;

2. Sporting (tourism routes with active and passive movement);

3. Industrial (the mine, brick plant, brewery, wood processing plant);

4. Business (holding summer research schools and conferences, including international ones on tourism, environment and other fields);

5. Through tourism in cooperation with the Republic of Altai, the Altai krai, the Republic of Khakassia.

The problem of shortage of personnel is connected with the intensive development of a new industry: that is to attract the required number of qualified specialists is of great difficulty, taking into account the current level of development of the settlement and the living conditions in it.

At the same time the administration is confronted with the challenge to organize the work with small businesses: it is required to identify common interests and consolidate them as taking the specifics of tourism into account small and medium businesses are relied on. Large and network business does not take part in the settlement projects. This is partly due to a lack of information on the opportunities, partly because of the lack of transparency of doing business. At the same time the municipalities indicate a large number of problems accompanying the spread of small business, such as massive evasion from taxes, manipulations with land plots, unfair competition. The experience of their solution is currently missing.

Under these circumstances, it is necessary to study the best practices of cluster policy in relation to the tourism industry.

Note, that the system of strategic planning in the municipality is not well built: documents have not been developed, the site shows only some investment projects. Moreover, the information on them is not always up-to-date.

At this level of the territorial hierarchy, we do not include the block "Science and Education" in to the model of revitalization, as it participates in the renewal of the economy only indirectly (through the training system outside municipality). Perspectives of this block connection to the model, consist in the development and application of a systematic approach to the regulation of small and medium-sized businesses taking into account the specifics of tourism industry of the municipality.

4. Conclusion

Urban settlements of old industrial areas do not always have sufficient resources to carry out a large-scale reindustrialization. At the same time they formed fairly stable models of revitalization, i.e. economic recovery.

We discovered a number of common features of the development models of the urban settlements studied:

- a high dependence of the economics on the key companies, whose interests are often extraterritorial;

- The problem of preservation of the population and improving the quality of human resources is extremely acute. At the same time putative mechanism and a set of measures to retain the population differ slightly: the availability of jobs and living conditions in urban areas are ahead of other factors;
- a substantial dependence of the economics of urban settlements on the situation in certain markets; The importance of import substitution is important under the current external conditions;
- the lack of resources to carry out the functions of management of socio-economic development steadily associated with imbalance between the obligations, powers of local government and local budget revenues (even potential);
- restrained attitude towards the PPP. In the studied municipalities economics agents consider PPP primarily not as a tool of initiation and / or intensification of the work on the projects, but as a mechanism that provides a guarantee of stability. Often the removal / of the existing risks of powers and resources on the municipal and regional level is not sufficient, therefore it is necessary to strengthen the role of the federal government;
- the mechanism of interaction between small business and administration is not elaborated. In all the municipalities the respondents pointed to the lack of organizational and legal mechanism of influencing the size of shadow economy, except for Biysk where the support for small business is local and insufficient to achieve economic diversification goals;
- The level of activity of the municipalities in relation to studying the best territorial management practices is different. Except for Biysk the interest to inter-municipal comparisons is minimal. It is recommended to join one or more of the associations to study the advanced municipal management experience: the Association of Siberian and Far East cities, the Association of small tourist towns, the Association of small and medium-sized cities. It is also recommended for the government and business representatives to participate in the all-Russian Forum "Strategic planning in Russian cities and regions", the Association of clusters and technology parks, and the Association of the town forming enterprises.

In our opinion, the existing potential of inter-municipal cooperation in the tourism sector is almost not used. It is possible to elaborate tourist through routes instead of fierce competition and division of the tourists flow.

It is also advisable to establish the cooperation in the pharmaceutical industry that will result in lessening the dependence on imports of raw material in the main cluster of Biysk.

The bottleneck of all the models is the lack of interest consolidation and the intensity of interactions.

One of the most important results is that the size of the town does not always determine the quality of economic development governance.

Thus, expeditionary research of generated models of municipal development helped identify their bottlenecks, discovered the possibility of developing recommendations to accelerate the process of economics revitalization of the urban settlements studied.

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