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**Investing In The Infrastructure Projects On The Asedz Of Mono-**  
**Cities Of Rf**

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***Abstract***

Analysis of investment and cluster policy in the Russian Federation, analysis of investors attraction to single-industry cities practice, review of scientific studies and government authorities reports show that investment problems, including cluster initiatives in the advanced social economic development zones (ASEDZ) of single-industry cities, are not resolved. Research of prerequisites of these problems detected that they are conditioned not only by shortage of development and implementation of government programmes of the Russian Federation, federal special purpose programmes (FSPP), federal targeted investment programme (FTSP), but also of infrastructure projects, fragmentary character of infrastructure development, presence of infrastructure limitations for development of clusters in the ASEDZ as well as single-industry cities profile. Object of the paper is to define directions for infrastructure projects investment mechanism improvement as the condition of cluster development initiatives in the ASEDZ of single-industry cities in the Russian Federation. In order to solve detected problems there were formulated recommendations, targeted at improving the lows in the sphere of cluster support and investment, ASEDZ of single-industry cities, as well as for improvement of strategic planning (including anti-risk measure in the strategic documents), organizational provision of cluster formation investment mechanism; activation of municipal bonds and PPP mechanisms usage for lifting infrastructure limitations and cluster development on the ASEDZ of single-industry cities.

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**Keywords:** Advanced social and economic development zone (ASEDZ), cluster initiatives, infrastructure project, investment, public-private partnership, single-industry city.



## 1. Introduction

For diversification of economics and solution of social and economic problems of 319 single-industry cities the effective mechanism of investment attraction to such municipal units is requested, in particular, these are infrastructure projects. Currently, there are declared many various instruments of financing stimulation in non-diversified zones transformation. One of the measures of single-industry cities support is *gaining the status* of the ASEDZ. In total there are 60 ASEDZs in single-industry cities and other municipal units, including arranged industrial zones on the Russian Federation. However, despite the fact that mechanism of the ASEDZ in single-industry cities was planned to be used as the instrument for increasing investment attractiveness of the zone, experience has indicated that there are problems with investors attraction to such zones. The problem resides not only in frequent refusal for endorsement of projects related to production transfer from a different area. Projects of potential ASEDZ residents, targeted at expansion of production on the same basis with production modernization and implementation of innovative technology, are also exposed to thorough analysis and are not always given a chance for realization. Problem of residents' attraction is also conditioned by the fact that duration of the procedure of acquiring the ASEDZ of single-industry city residency status is more than 12 weeks. The number of residents put on the register as on July 18, 2018 is 145, which indicates the difficulties with attracting residents to the ASEDZ of single-industry cities. Existing infrastructure limitations in the ASEDZ of single-industry cities also hinder attraction of residents.

Apart from the mechanism of the ASEDZ, *cluster policy* may contribute to the development of single-industry cities. Cluster policy, actively developing in the Russian Federation since 2008, includes a number of measures contributing to creation and development of cluster initiatives. Cluster policy in the Russian Federation is administered by the Ministry of Economic Development and the Ministry for Industry and Trade. In the period from 2010 to 2018 the Ministry of Economic Development provided state governments with 1.06 billion rubles for creation of cluster support centers (centers of cluster development (CCD)), 34 CCD offering consulting and organisational service were created in 33 regions of the Russian Federation (Abashkin et al., 2018). Since 2012 the Ministry of Economic Development has implemented the support programme for innovative-technological clusters (ITC). In 2012 25 clusters were chosen out of 94 applications and given the correspondent status by the Instruction of the Government of the Russian Federation, later the list was expanded to 27 clusters. Since 2015 the Ministry for Industry and Trade has been creating a register of industrial clusters, and since 2016 has been providing support for them. Besides, there is some experience in development of *the programme of cluster creation in single-industry cities*. Thus, in particular, in 2012 the Ministry of Economic Development included the cluster of innovative technologies in the single-industry city Zheleznogorsk in Krasnoyarsk Krai in the register of pilot innovative territorial clusters (ITC), with development programmes are supported through grants provision from the federal budget of the territorial entities of the Russian Federation where ITCs are located.

## 2. Problem Statement

Thus, there are many various measures taken to attract investment to single-industry cities in the ASEDZ of one-company settlements, to cluster development. It is suggested that significant in variety, directions and volume of financing support of single-industry cities in the Russian Federation is actually requested, can find its consumer and will allow to overcome the difficulties which one-company settlements have. However, problems with investors attraction, residents in the ASEDZ of single-industry cities, cluster participants, and problems of infrastructure projects investment for cluster initiatives development in the ASEDZ of single-industry cities have not been fully resolved yet. Thus, in particular, in 2017 in the report of Accounts Chamber of the Russian Federation “Analysis of the efficiency of measures, taken by the governmental authorities to support single-industry cities” it was declared that the supportive measures for single-industry cities were slightly effective. In the report it was noted that despite measures taken by the government of the Russian Federation, objective of complex development of single-industry cities has not been achieved yet, classified complex programme for single-industry cities development, which would allow to synchronise all kinds of support, has not been accepted, and priority programme “Complex development of single-industry cities”, approved at the end of 2016, is not fully elaborated and needs adjustment. Functioning of the “Fund of single-industry cities development” in co-financing expenses of regions on social-economic development of single-industry cities has not exerted any positive impact. Only three out of 18 agreements, completed between the Fund and regions at the date of 01.01.2017, have had accomplished infrastructure objects building (in Anzhero Sudzhensk, Yurga and Naberezhnye Chelny). Financing of a number of agreements has been canceled by the Fund for various reasons. Three out of six industrial parks under construction with the participation of the Fund have no residents or investors. In this regard, it is virtually requested to search for solutions capable of improving the mechanism of investment attraction to single-industry cities, in the ASEDZ of single-industry cities, including for successful transformation of cluster initiatives into functioning and developing clusters.

## 3. Research Questions

*Firstly*, to define opportunities and advantages of the shared use of cluster approach and model of the ASEDZ for single-industry cities problems solving, factors contributing to creation and development of cluster initiatives in such zones; *secondly*, to define what causes investment problems, including problems with infrastructure projects, for development of cluster initiatives in the ASEDZ of single-industry cities; *thirdly*, to establish the directions of investment mechanism improvement for development of cluster initiatives in the ASEDZ of single-industry cities.

## 4. Purpose of the Study

Purpose of the article is to set up recommendations for improving the mechanism of investment of infrastructure projects in order to developed cluster initiatives in the ASEDZ of single-industry cities.

## 5. Research Methods

In order to provide development of cluster initiatives, including those in the ASEDZ of single-industry cities, it is necessary to concretize the problems of investment in cluster formation and to regard the instruments allowing to improve mechanisms of investment in infrastructure projects for cluster initiatives development in the ASEDZ of single-industry cities. Methodological principles: systematic, scientific, optimality, increasing the efficiency of regional and municipal decisions. Research methods: system analysis, expert evaluation method.

## 6. Findings

Reasons for necessity of infrastructure projects improvement for cluster initiatives development in the ASEDZ of single-industry cities are related, firstly, to the problems of investment mechanism functioning in the Russian Federation, including formulation and implementation of governmental programmes of the Russian Federation, Federal special purpose programmes (FSPP), Federal targeted investment programme (FTIP), infrastructure, investment, and other large-scale projects fragmentary character of infrastructure development in the Russian Federation; secondly, to the risks of existing investment instruments in the ASEDZ of single-industry cities; thirdly, to the investment in clusters risks, including those in the ASEDZ of single-industry cities.

*Problems of investment mechanism existing in the Russian Federation functioning* are related, in particular, to formulation and implementation of governmental programmes of the Russian Federation, FSPP, FTIP, as well as infrastructure, investment and other large-scale projects (Tikhomirov & Frenkel, 2017). Development of such programmes and projects is characterized mainly by the same disadvantages which are typical for preparation of strategies and estimation of social and economic development in the country. In particular, Tikhomirov and Frenkel set as a problem the fact that budget funds are given for construction of the objects of fixed assets construction, which have no approved project documentation, as well as for implementation of large-scale investment projects, which require item-by-item specification concerning rationale for necessary budgetary provisions for their realization. In real terms, there is no effective mechanism of governmental support for key sectors investment projects, in particular, stable and clear conditions for government lending and borrowing, loan guarantees, engaged for projects realization, mechanism of project planning and financing. The mechanism of accessing such stimuli is artificially perplexed for companies-executors of projects tasks. In contrast, finance brokers receiving budget funds for projects implementation may use them other than as intended for a considerable amount of time for their personal enrichment (Tikhomirov & Frenkel, 2017).

Necessity of investment mechanism for cluster formation improvement in the ASEDZ of single-industry cities is conditioned, in particular, by *the risks of existing investment instruments in the ASEDZ of single-industry cities*. These risks are conditioned not only by difficulties in acquiring the status of the ASEDZ for single-industry cities but also by the specific features of the ASEDZ, for example, requirements to residents, investors, their investment projects. There is the risk that a single-industry city may fail to comply with the criteria for the ASEDZ creation, for example, to attract residents capable of implementing investment projects with certain amount of financing, to provide the residents with land

parcels or other resources for projects implementation, develop measures for indication infrastructure limitations. Investment policy in single-industry cities is also influenced by the risks of failure to achieve programmes and strategies for the ASEDZ creation and development stated by authorities. Risks defined by the peculiarities of the status of ASEDZ include: possibility to use various instruments evade or ignore restrictive measures, interdictions restricted by regulatory documents; the risk of occurring the opportunity to misuse the preferences by non-residents of the ASEDZ; the threat of substitution of real economic policy with imitative actions and measures; risks of non-compliance with deadlines for measures implementation within the program of the ASEDZ creation and development; risks of refusal to provide residents with land parcels and other property for investment projects implementation; probability of promises non fulfillment under provision of the residents with necessary resources and in case of existing infrastructure or other limitations development of measures for overcoming them; risks of excessive interference of authority representatives in residents business; threats of project realization failure within creation and development of the ASEDZ in single-industry cities (high requirements to the qualification level of employees at modern plants, population of non-diversified municipal units churn, limitations for labour resources in single-industry cities, low level of entrepreneurial initiative of population in single-industry cities); possibility for municipal units fail to achieve objective criteria set by the programme (like creation of new workplaces, revenues of enterprises-residents, etc.) ; risk of deterioration of investment climate in the region and in the country.

The problem of investment in the ASEDZ of single-industry city hampering cluster formation in this territory, in particular, is long duration of the procedure of acquiring the status of the ASEDZ of single-industry city (more than 12 weeks). Before the moment of acquiring the status potential resident should invest his resources in construction, while the result of the application processing is not known yet. Such situation demotivates investors to enter the ASEDZ of single-industry city.

*Risks of investment in clusters*, including those in the ASEDZ, are conditioned by: influence of exterior factors, hampering development and implementation of investment policy of a cluster, in particular, the ones depending on the level of development of entrepreneurial, investing and innovative environment, regional investment policy, state policy in the sphere of business, clusters and investment activity of those structures support; existence of infrastructure limitations for development of clusters in the ASEDZ of a single-industry city; influence of interior factors, defining investment policy of a cluster (financial state of the participants; economic interests of the cluster, technical and technological level of production; employees qualifications; level of development and effectiveness of business capital and business resources usage).

In single-industry cities there are risks of appearance and development of cluster initiatives, which are: risk related to low level of territory infrastructure development, low level of production potential development, absence of small and medium-sized businesses with high innovativeness of production process, absence of orientation for structure changes and creation of new industries, weak intensity of communication between organizations and separate specialists from different organizations. Influence of exterior factors, hampering development and implementation of investment policy of a cluster appears in influence of regional investment policy on the effectiveness of investment policy for cluster formation in the ASEDZ of single-industry cities. However, not always do actions of authorities

contribute fully to improvement of investment climate in the territories, particularly under development of cluster initiatives in the ASEDZ of single-industry cities. Despite strategic planning and management are done by municipal units there are still problems of development and implementation of long-term development plans, conditioned by lack of understanding of strategic planning subject-matter and system approach to development. One of the problems of single-industry cities development management is that principles of generation of projects, which would help both to solve socially important issues and attract non-budget investment for this and to create renewable sources of budget payments for development of resource base of territory management, are not described by municipal management. Analysis of the problems of implementation of the projects showed that there are difficulties at the stage of project preparation when sources of resource provision are being defined.

Necessity to improve investment mechanism of cluster formation is conditioned by the demand of infrastructure to remove limitations for cluster development in the ASEDZ. First of all, it is necessary to develop state policy in the sphere of private investment attraction to infrastructure in the Russian Federation. Why to infrastructure? Because infrastructure objects depend on each other, thus, for example, development of industrial zones require corresponding logistical infrastructure. Approach to infrastructure development must be sustainable within a considerable time period, as frequent change of priorities lowers investment attractiveness. Problem-solving for infrastructure development of single-industry cities, regions and country in whole requires system approach to target setting. Successful infrastructure development is possible in case all interested parties have concerted actions for making decisions to provide effective planning and communication between the state and private sector. Analysis of foreign experience shows that “systematicity” of infrastructure planning is provided mostly not only by infrastructure planning formation but also by special coordinating organs activity. For example, in Austria, Great Britain, Holland, Japan, Spain (taking higher positions for “infrastructure criterion” in the rating of World Economic Forum) the mechanisms of public-private partnership (PPP) are actively used. At the present time infrastructure planning bear fragmentary character in the Russian Federation. Despite there are certain elements of infrastructure planning in different forms and at different levels (in state programmes and strategies for economic growth, in regional and municipal lists of objects which are planned to go under concession agreement or agreement about PPP), they are used discretely. In order to improve the mechanisms of infrastructure development and solve stated problems on 5th March 2018 “Road map” of PPP instrumentarium development was confirmed (“infrastructure mortgage”) it is targeted at stimulating application and development of the mechanisms of PPP.

Thus, main problems of existing investment mechanism, which may be used for attracting investments in the ASEDZ of a single-industry city for cluster initiatives development are: difficulties in investment mechanism functioning in the Russian Federation defined by the practice of development and implementation of state programmes, FTP, FTIP, infrastructure, investment and other large-scale projects, fragmentary character of infrastructure development; threats conditioned by investments in the ASEDZ of single-industry cities, including clusters; problems of regional investment policy; presence of infrastructure limitations for cluster development in the ASEDZ.

## 7. Conclusion

Improvement of the mechanism of investment in infrastructure projects for cluster initiatives development in the ASSEDZ of single-industry cities may be provided by the following actions to solve detected problems. Administrators of state support must check and analyze confirmed project documents and item-by-item specifications when making decisions about investing budget funds in construction of objects of fixed assets construction and implementation of large-scale investment projects. This requires *creation of staple and clear conditions for state financing, provision of responsibility for decision-makers about investment.*

It is requested to increase the quality of development of strategic planning programmes for creation of the ASSEDZ in single-industry cities, to consider both risks and *development of anti-risk measures* in such documents. To reduce the risk of misuse of preferences by non-residents of the ASSEDZ, threat of substitution of real economic policy with imitative actions and measures, risk of failure to comply with the time limits for implementation of actions within the programme of creation and development of the ASSEDZ, risk of refusal to provide residents with land parcels and other property for investment projects implementation, probability of promises non fulfillment under provision of the residents with necessary resources and if there are any infrastructure or other limitations, developing measures for overcoming them, risks of excessive interference of authority representatives in residents business it is necessary to *create effectively functioning cluster counseling in a single-industry city* when creating investment mechanism for cluster formation in the ASSEDZ of a single-industry city, counseling functions should be public expertise if the decisions made by the authorities, discussing decisions in question at the city, cluster, ASSEDZ level, monitoring measures of governmental support used by the residents and non-residents of the territory.

It seems to be necessary to make adjustments to the procedure of investment projects considering, reducing the terms of the procedure of acquiring the status of the resident of the ASSEDZ. Besides, under the circumstances of small number of investors showing any interest to single-industry cities it is necessary to make adjustments to the criteria of choosing projects, presented by the residents. Projects aimed at production expansion at the same basis with existing production, its modernization or mastery of new technologies comply with the interests of the territory population and municipal authorities. So, their implementation should be supported in the ASSEDZ of single-industry cities.

To lift infrastructure limitations and develop clusters in the ASSEDZ measures of *improvement in the state policy in the sphere of attraction of private investment in infrastructure* are requested. Main task is to stimulate the state authorities of territorial entities of the Russian Federation and local authorities to grow their own economic potential, that requires the growth of a number of stimulating measure aimed at increasing investment activity of the regions, lowering the level of financial resources centralization, which Leads to reinforcement of stimuli for economic growth within the regions (Soboleva & Popova, 2014). Besides, it is reasonable to use the following *instruments of investment attraction for financing cluster projects and development of cluster initiatives* more actively: emission of municipal bonds and municipal-private partnership (MPP).

There is successful foreign practice of using mechanisms of emission of infrastructure bonds for projects financing: in the USA, Australia, Chile, France (Freidina, 2017). Thus, in the USA, in particular,

municipal administrations emit special target bonds (general bonds) secured by the cash inflow from realization of construction of infrastructure objects projects (revenue bonds)). According to SIFMA in 2016 the amount of municipal bonds emission consisted of 3.8 trillion dollars. Investment attractiveness of such bonds is conditioned by the fact that the earning from them are not taxable in the USA. In Freidina (2017) there are marked out main aspects, which should be considered when using the mechanism of bonds emission in the Russian Federation: infrastructure bonds are featured by a long period of amortization (from 5 to 30 years, more often within 15-20 years); bonded loans are secured by state guarantees or insurance of development banks, expert agencies; pension funds, development and commercial banks, investment funds invest in infrastructure bonds most often; emission of infrastructure bonds is implemented mostly with usage of the mechanism of PPP. In the Russian Federation municipal bonds are emitted in a number of regions and cities. Thus, the author has analyzed, in particular, the opportunities for bonds emission in Kemerovo city inner loan in 2018 and developed the documentation package for bonds emission (special target bonds). Cash inflow from municipal bonds placement is planned to be directed to consumer goods industry cluster development in Kemerovo city, particularly to the creation of sheepskin production. Planned cash inflow volume in the course of municipal bonds placement accounts for 128 mln. rubles. It is recommended to include the expenses on sheepskin production construction in the expenditure budget of the city of Kemerovo accounting these expenditures in already existing municipal programme (for example, for development of small and medium-sized businesses in the city of Kemerovo) or work-out a new municipal programme for development of consumer products industry in the city of Kemerovo. Emission of bonds of Kemerovo city inner loan is aimed at private investors, executing businesses activities in Kemerovo region mostly.

There is successful foreign experience in using PPP. In China and India in particular, project financing with use of PPP is implemented for transport infrastructure development (Freidina, 2017). The Organization for Economic Cooperation studies show that in Russian experience the mechanism of innovative PPP is often regarded as available instrument of financing which entrepreneurial sector may use to attract extra financing without changing its current research objectives (Witters, Marom, & Steinert, 2012). It should be mentioned that PPP basically does not correspond fully to the targets of social and economic development of the territory as it fulfills the needs of only one member of such partnership - private company. So, such approach does not allow to integrate the mechanism of PPP in practice. However, there are examples of implementation of a project of state support for technological platforms and regional innovative clusters. Moreover, the cluster is the optimal object for realization of the PPP concept. Since 2011 the project of technological platforms creation has been implemented: there is a network based on partnership which is aimed at strengthening connections and cooperation between producers, suppliers, research companies, universities and engineering companies (Rudnik, 2011). In the report of the Organization for Economic Cooperation (OECD, 2014) different forms of strategic PPPs, reasons of growth of their popularity were analyzed. Requested earlier in infrastructure construction mechanism of PPP is used more actively in the sphere of research and development and innovation policy. In comparison to traditional subsidies it is considered to be more flexible instrument for set tasks accomplishment and raises the efficiency of the demand-side innovation policy, for example, by

stimulating state purchases of innovative products or development of the strategy for smart specialization of regions (Seidl da Fonseca & Pinheiro-Veloso, 2018).

It is planned to use the mechanism of PPP to implement the project of industrial complex creation, aimed at production in the sphere of consumer products and processing production in Kemerovo city. The aim of the project is to create high-tech production on the basis of municipal property with involvement of private financing in order to make advanced processing of raw materials from local cattle breeding according to the state programme of import phaseout in the sphere of consumer products industry and agriculture. The project suggests stage construction of full cycle production from raw materials from agricultural animals processing (wool, skins, bones) to acquiring end products: sheepskin, yarn, fabrics, fittings, ready clothes and footwear. Financing construction of the objects by private partners will be executed by means of proprietary funds, attracted investments, and budget co-financing. Realization of the PPP project suggest provision for public partners, each are local authorities of Kemerovo city, partial financing of construction by private partners in the amount of 6.5 mln. rubles. Total predicted amount of financing of the PPP project accounts to 600 mln. rubles.

In order to solve detected problems there were formulated recommendations, targeted at improving the lows in the sphere of *cluster support and investment, ASEDZ of single-industry cities* (provision of stable and clear conditions for governmental financing, responsibility for investment decision-makers; adjustments to the procedure of considering and criteria for evaluating investment projects of investors, reducing the time of procedure of acquiring the status of the ASEDZ), *as well as for improvement of strategic planning* (including anti-risk measure in the strategic documents), *organizational provision of cluster formation investment mechanism* (creating cluster counsel in a single-industry city in order to have public expertise of the decision made by authorities, discuss taken decision at the city, cluster, the ASEDZ level, monitor usage of the measures of governmental support by residents and non-residents of the territory); *activation* of municipal bonds and PPP mechanisms usage for lifting infrastructure limitations and cluster development on the ASEDZ of single-industry cities.

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