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ENHANCING THE INVESTMENT ATTRACTIVENESS AND EFFECTIVENESS OF THE SPECIAL ECONOMIC ZONE

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ABSTRACT

Currently, the development of the country's economy is characterized by the trend of globalization, which is constantly developing, modernizing, acquiring new forms and features, which ultimately radically changed the way of the world economy. The task was set to analyze and propose options for improving the investment attractiveness and efficiency of the functioning of the special economic zone of the industrial and production type "Center" in the Voronezh Region. The analysis of the existing territory was carried out, as a result of which the weaknesses and opportunities for modernization and development of the zone as a whole were identified.

The article presents proposals for increasing and reorganizing the territory, develops a development plan, and suggests ways to attract customers and investments from an architectural and construction point of view. The levels of interaction between humans and the architectural and landscape environment are studied, and the key points of development are identified. The results obtained make it possible to apply and evaluate according to these criteria with the specified characteristics, using the design code development methodology to increase the efficiency of the territory's functioning.

Key words: comfortable urban environment, human interaction, improvement, design-code.

INTRODUCTION

Modern economic conditions have determined the role of special economic zones (SEZ) in the current world. As a result, they are firmly established and have become part of international relations. Economic zones appear in different countries, with different goals. Some developing countries are creating these zones to attract foreign capital, technology and industrial modernization. At the same time, already developed countries are creating them to expand external economic relations

Globalization has swept the economies of different countries, uniting them into a single system in which special economic zones have emerged and become one of the most important elements of the functioning of any modern economy.

Often SEZs are vast territories with many industrial facilities, which, in turn, are not attractive in terms of architecture and aesthetics, since they are more similar to industrial territories. Thus, one can distinguish a single problem of lack or insufficient attention to the architectural appearance of the complex as a whole, which is characteristic of a large number of special economic zones in the country.

The formation and development of the SEZ began in Russia with the adoption in 2005 of the Federal Law "On Special Economic Zones in the Russian Federation" (No. 116-FZ). Special economic zones are a large-scale federal project aimed at developing the regions by attracting direct Russian and foreign investment. The main purpose of the SEZ is to become the growth points of the region's economy and the country as a whole in key areas such as industry, tourism (innovative forms of its forms)

Practice shows that today many SEZs do not fully meet the hopes assigned to these territories. A significant number of them failed to reach the planned levels of investment attraction. Improving the regulatory framework of the SEZ, revising various mechanisms that affect the effectiveness of investors - the main requirements to date in relation to these territories.

Recently, the development and discussion of the goals and directions of the SEZ has revived.

On the one hand, the practice of their functioning is being considered, new versions of the concepts of bills on territorial entities with special economic conditions of functioning (both in general and in particular special economic zones) are being developed [1,2]. On the other hand, SEZs cannot be considered exclusively from the legislative side, since aesthetic, architectural and urban planning factors also affect the attractiveness of territories for investors and the injection of investments [3]. On the example of the special economic zone of the industrial and production type "Center" (hereinafter - SEZ PPT "Center") in the Voronezh region, which was created in accordance with the Decree of the Government of the Russian Federation dated 30.12.2018 No. 1774, consider the development of this territory and its attractiveness from the point of view of urban planning and architectural aspects, Figure 1.



Figure 1 Existing project for planning the territory of the Maslovsky industrial park, functional zoning scheme

Investment attractiveness is constantly in the attention of domestic and foreign researchers, since it determines economic growth, the quality and standard of living of the population, innovative activity.

The relevance of solving the problem of increasing the investment attractiveness of the Russian Federation and its subjects is due to the formation of modern innovative infrastructure, structural transformations in the economy, as well as the implementation of effective investment projects.

METHODS AND MATERIALS

The countries of Western and Eastern Europe have extensive experience in the functioning of special economic zones: Germany, Poland, Bulgaria, Ireland and others. The most notable successes in the development of the SEZ were achieved by Ireland, which, after the Second World War, using the market mechanism of special zones, overcame a deep economic crisis. Over the thirty post-war years, 60 SEZs of various types were created in Ireland.

Voronezh is an actively developing city with great production potential. At the meeting of industry experts, where the future of economic zones in Voronezh was discussed, such issues were raised as: the feasibility of building new zones, the attractiveness of Voronezh for investors, as well as vectors of development of existing zones [4]. As a result of the discussion, it was concluded that the high level of required investments in the construction of the facility and the arrangement of new territories is more expedient to develop existing territories, therefore, the territory of the Center SEZ was chosen to develop the modernization concept, on which the Maslovsky industrial park is located.

The economic zone is a place of accumulation of business people, who are set up for fruitful mutual cooperation, therefore, in the architectural and urban planning part, everything should be provided so that it is comfortable, interesting and pleasant to be there. The concept provides for:

- increasing the area of the industrial park;
- creation of a convenient transport and logistics scheme
- organization of a public area, recreation and recreation area for visitors, employees and residents of nearby areas
- creation of design-code and unified stylistic and color regulations for existing and designed buildings and structures
- organization of storage of personal transport of visitors

The proposed concept of development and modernization of the territory of the SEZ "Center" is shown in Figure 2.

Figure 2 shows in gray the existing building, red - planned building, brown - store buildings, purple - public buildings. 252 hectares of planned development and 14 hectares of organized recreation and landscaping area will be added to the existing territory with an area of 343 hectares. The main, additional basic and accent colors for the development and decoration of the facades of buildings and decorative elements of small architectural forms are highlighted.

The successful location of this territory does not violate the sanitary zones established for the special economic zones of the industrial and industrial type, therefore, it makes it possible to increase the industrial park.

Currently, the territory is not attractive and convenient to use, as it does not have a single structure with ordered navigation elements. To this end, a design-code should be developed. This article is devoted to the justification of the choice of main and additional colors for capital construction facilities, as well as elements of improvement of the territory of the SEZ PPT "Center."

Creating a design-code is a multifaceted process that involves analyzing the territory on which the design of the adjacent area will take place so that this development harmoniously fits into the environment [5].

For the architectural attractiveness of the SEZ, when developing the project concept, it is necessary to think through the stylistic and color solution of the designed buildings and structures, take into account their impact on the environment, as well as take into account the environment in which the complex of buildings will be located, so as not to create the impression of a typical industrial or logistics complex [6,7]. To more clearly define the boundaries of facilities and enterprises, the territory of the SEZ itself, the readability of the territories and logos of the participants, the general concept of buildings should be traced throughout the SEZ, which will avoid visual disharmony of the territory.

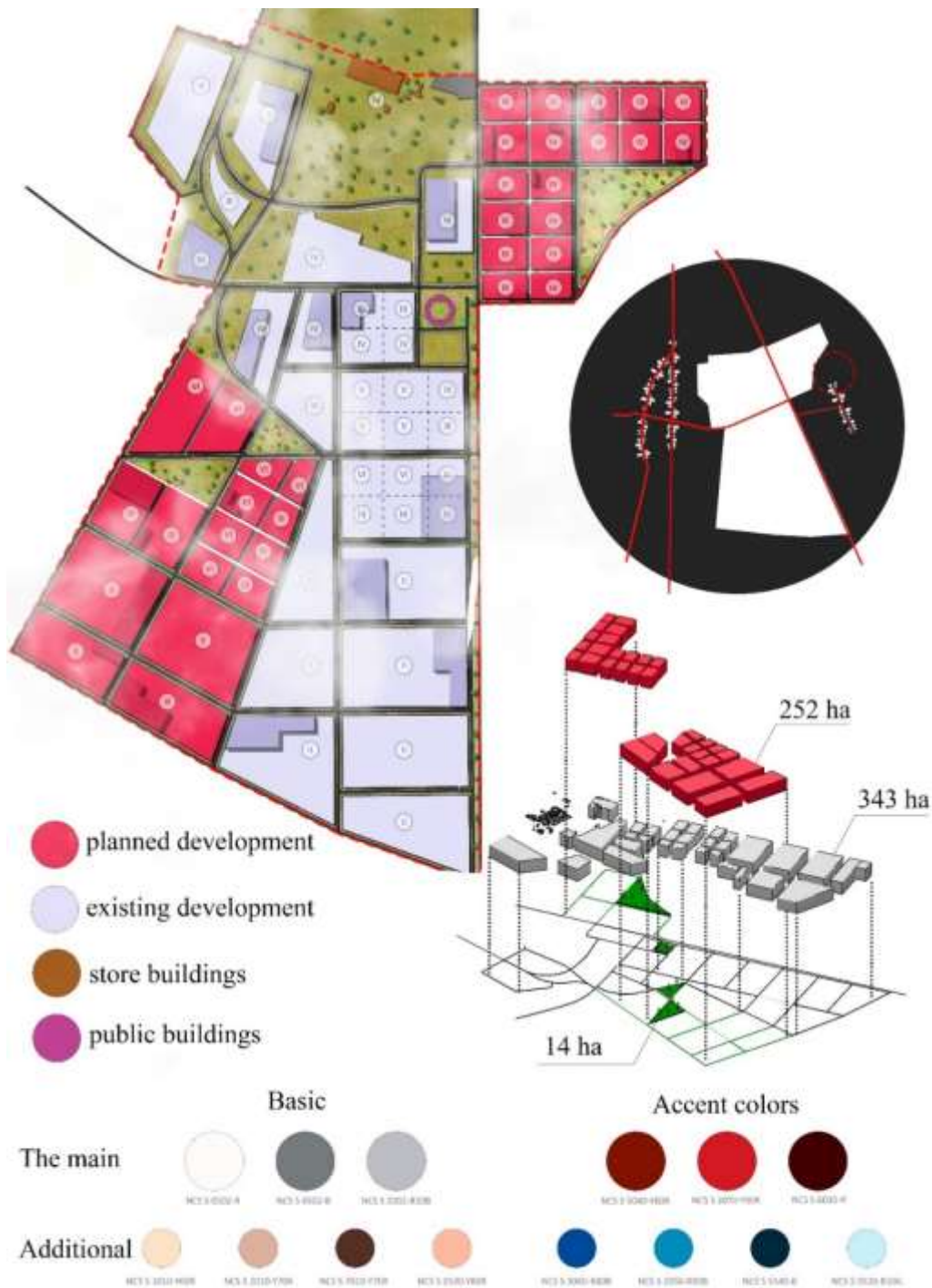


Figure 2. Concept of development and modernization of the territory of the SEZ "Center"

Convenient transport networks are provided, allowing you to easily and quickly get from one SEZ location to another with maximum comfort. Bike paths, parking spaces for low-mobility groups, tactile tiles, a specially allocated strip for local free public transport, which allows you to move around the

industrial park in the absence of personal transport for visitors, must be provided on the territory [8,9,10,11,12,13]. The proposed measures should ensure convenience and accessibility for all segments of the population.

Among the means of organizing a high-quality public space, color is one of the most economical, quickly created and modified. A huge number and variety of materials, methods of changing the appearance of buildings provide almost unlimited choice of color palette of decoration of buildings and creation of elements of improvement [14,15,16].

Analysis of foreign ecological-psychological concepts showed that the quality and intensity of the impact of space on a person provides adaptive adjustment of his nervous networks, that is, experience of interaction with the environment determines the direction of his personality development [17,18,19,20].

The theoretical analysis made it possible to draw conclusions on the productivity of assessing the interaction between human and architectural-landscape environment based on the ecopsychological approach on the levels of this interaction highlighted in it, shown in the table 1.

For the primary generalization and differentiation of emotions in the perception of space, it is important that the emotional experience of a person, understood as emotionally colored impressions accumulated by him, is preserved in a form that makes them available for reflection, symbolization and further analysis and transformation. The formation of emotional self-regulation and the development of the highest level of movement construction predetermines the symbolic integration of the experience of human interaction with the architectural and landscape environment and its components - objects of landscape architecture [12].

Table 1 Human-Landscape Interaction Levels

Interaction gap		
Architectural and landscape environment	Direct-sensual – interaction of human visual system with architectural and landscape environment leads to development and identification of spatial structure	Person
	Emotionally-mediated – emotional-mediated manifestation of a person's attitude to the revealed spatial structure and architectural forms	
	Sign-mediated – spatial structure acquires rational and symbolic significance	
	Personality-mediated – subjective attitude to the values of the medium and its components	
	Spiritually-mediated – awareness of the symbolic importance of the environment and environment, which leads to the acquisition of personal significance and meaning	

The selection of evaluation criteria for each level - directly sensual, emotional, sign-mediated, personal and spiritual - will allow objectifying the assessment of the architectural and landscape environment and its components by selecting specific indicators. These criteria required testing in practice, in connection with which a special analysis of the SEZ PPT "Center" was carried out.

- When assessing the direct-sensory level of interaction with the architectural and landscape environment, the following was noted:
 - most of the time favorable temperature conditions are observed
 - there are well-insulated areas, but there are no places that allow you to hide in the shadows
 - there are no contact surfaces with different texture, no comprehension in the landscape and no comfort when moving
 - there is no possibility of comfortable movement with different intensity;
 - there is man-made noise from the regional value located near the route, there are no natural sounds
 - general harmonious color solution of facades is not thought out

- there are visual accents, which are the Angstrom production complex
 - there are no mobile places to rest
 - daytime illumination level is quite comfortable, but there are no places with comfortable night lighting
2. Evaluation of the emotionally-mediated level of interaction of the territory of the SEZ PPT "Center":
 - the spectrum of sensations for each sensory organ is not available
 - there is no built change of spatial structures
 - there are no objects of landscape architecture
 - there are dissonant objects and species
 3. Assessment of sign-mediated level of interaction
 - no focal points of attraction
 - there are no different information saturation of the space;
 - proportionality with the person is not understood and not revealed
 - no interaction with the landscape at different distances
 4. On the territory of the SEZ PPT "Center" is not involved and a person-mediated level, which manifests itself in the absence of different in scale spaces, specially equipped places for communication, alternating open and closed spaces and transitions between them.
 5. At the spiritual-mediated level, the interaction of a person with the architectural and landscape environment of the SEZ PPT "Center" is not reflected by any symbolic integration with the context of the life of each person individually.

According to the analysis of the territory, not a single interaction of a person with the environment was significantly revealed, from which it can be argued that this territory is not attractive for visitors and guests as a whole, since its architectural and artistic component has not been worked out. Without appropriate interaction of a person with the environment, it is impossible to attract visitors and potential investors to this economic zone.

Table 2 shows the overall prospects and risks for each direction. The main obstacle to effective cooperation between the investment process participants is the lack of a legal framework for the design and construction of facilities that have become relevant and have acquired demand relatively recently, as well as a legal framework related to innovative project activities.

Also relevant is the problem of the lack of qualified personnel at all stages of space production. Among the general prospects is the prospect of cooperation with urban communities, which is especially relevant for small and medium-sized businesses.

Table 2 Opportunities and risks of investment activities in the modernization of the territory in areas

Sphere	Strengths (opportunities)	Weaknesses (threats)
Transport infrastructure	<ul style="list-style-type: none"> • constant demand for transport services • high depreciation of the main assets of the transport infrastructure, hence the modernization of the transport network • reduction of transport expenses, which will entail modernization of the transport network 	<ul style="list-style-type: none"> • relatively long payback period for projects • changes in the exchange rate of foreign currencies, possible risks associated with this • the large scale of projects depends directly on the volume of regional production • the need to develop an integrated transport strategy due to the low efficiency of local events

Public spaces	<ul style="list-style-type: none"> • high and stable demand for quality modern public spaces • state support for the region • the prospect of cooperation with urban communities and organizations • - prospects of space capitalization. 	<ul style="list-style-type: none"> • lack of a relevant regulatory framework for the design of public spaces • low payback
Innovations	<ul style="list-style-type: none"> • improving the quality of the environment of the whole city due to the implementation of new approaches to the use of optimal architectural and urban planning solutions is a prospect of the effective operation of the SEZ • improving the social situation of the city • creation of new production facilities • the emergence of new qualified personnel • establishment of an innovation bank • technology transfer 	<ul style="list-style-type: none"> • high capital intensity, as a result of dependence on the economic situation of the region • technological implementation and equipment of the project must be superactive in order to produce innovations • the need to accurately identify promising areas of innovation application

Table 3 Dynamics of investment attractiveness of Voronezh from 2016-2020. Compiled by the author based on the materials of the General rating of attractiveness of Russian cities

Year	Rank potential	Share in the all-Russian potential (%)	Change in the share of potential by the previous year
2016	19	1,3	0,023
2017	19	1.315	0.018
2018	19	1,292	-0,022
2019	20	1.3	-0.010
2020	20	1,2751	-0,007

Table 3 shows that the share of the Voronezh region in the all-Russian investment potential, starting from 2018, decreases every year compared to the previous one. The investment attractiveness of the region in 2020 is lower than 2016, given the attraction of new investors, technologies, the result remains the same and worsens.

Based on this, it can be concluded that the current methods and organization of the activities of the region and the SEZ are not working fully and fully, reorganization, modernization and a new approach to solving this problem is necessary. Integrated approaches and methods of organizing space will significantly increase the level of investment attractiveness.

CONCLUSIONS

Currently, globalization is very actively building new SEZs, therefore, the creation of a design code and the improvement of these territories is one of the current areas in urban planning. Attracting additional investments and investments due to the influx of visitors will positively affect the situation in the region as a whole, as shown by the example of the Technopolis Moscow SEZ.

The inclusion of five levels of human interaction with the architectural and landscape environment in the assessment process involves the presence of areas activating them and components of the architectural and landscape environment, which, in turn, is aimed at understanding the significance of each level and making practical decisions on their harmonization in the architectural and landscape manifestation in the environment. A harmonious architectural and landscape environment with all its components is the result of human creative activity, the introduction of numerous methods for harmonizing space and territory.

Investment attractiveness is inextricably linked to the quality of the urban environment. Maintaining

and improving the quality of the urban environment increases the status of the city, and the social orientation of the new development contributes to improving the quality of life of the urban, including the working population, but these events require large investments, which cannot always be provided by regional budgets.

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