

## Monitoring as an element of city administration system, providing its sustainable development (based on the example of Saint-Petersburg)

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**Abstract:** the article is devoted to issues of monitoring of spatial development of city for the purposes of its sustainable and safe development. As in the Russian Federation the urban development plan is the main document of spatial planning, monitoring of its realisation must be considered as a function of public control over the effective use of city land resources. Since in Russian practice urban development plan is drawn up on the basis of strategy and prognosis of social and economic development of the city, monitoring of urban development plan is a part of public strategy of social and economic development of metropolis. Understanding the importance of adequacy of perception of this subject matter by foreign experts, we consider that it is essential to elucidate that in Eastern Europe the synonym for the Russian term «strategy of social and economic development of metropolis» is the term «strategic economic planning of metropolis».

The important result of the survey, conducted by the authors, is the exposure of the essence of urban planning in the Russian Federation. In contrast to Eastern European countries, at the current moment in Russian metropolises there is a problem of absence of the system of record keeping and control over the development of urbanisation processes. In Saint-Petersburg, largest Russian city, there is understanding amongst experts and specialists of the necessity of keeping a record of results of spatial planning processes. And in this context the urban planning element arises much interest – the dynamic of reportioning of functional zones, of which the most comfortable for living (residential, mixed residential-commercial, and recreational) determine the strategic priority for city development in different time periods.

In contrast to highly developed systems of real property inventory which exist in Eastern Europe and The United Kingdom, the Russian system of keeping a record of results of spatial planning processes is now in embryo. However, the system of monitoring of urban development plan which helps to provide the data support for urbanisation processes, is essential for effective city administration and making deliberate decisions in setting the courses of city development and investing plans.

**Key words:** spatial planning in the Russian Federation; monitoring of urban development plan; essence, purposes and tasks of monitoring in metropolis.

### INTRODUCTION

The research in the field of city administration, spatial planning and urban planning is extremely topical for Saint-Petersburg. Since

restructuring processes in 1980s the economic and administrative aspect of the theory of city administration in Russia was out of the subjects being analysed by leading experts and scientists. The situation has changed in recent years, when the necessity of drafting new urban planning standards appeared, and this research area has again become requested. In Europe, The United Kingdom and the Russian Federation the metropolises are of crucial importance since they appear to be the centers for resources (both human and material technical) and capital concentration, educational, research and cultural potential. It is mentioned by Russian and foreign scientists [1-5]. Moreover, metropolises exert considerable influence on national economy and this hypothesis is proved, in particular, by research of Peter Karl Kresl [1].

At the same time the revealed similarity between foreign and Russian scientists in their appraisal of the role and importance of metropolises and their influence on economy of the country does not contradict assertion that there exist peculiarities of development of each metropolis. In our view, the decisive factor exerting influence over the current urbanisation processes, is the existence of legal and urban-planning restrictions which can be found in any country, region or city. And definitely, this assertion does not contradict the factor of necessity of taking account of historic and cultural legacy of the city and its historically existing architectural and planning site in documents of spatial planning.

Obviously, at the present time the research on provision of the social infrastructure for the population is extremely important from both scientific and practical standpoints. For investment and construction processes it is important to understand to what extent the city is provided with utility and transport infrastructure, and so on. In the aggregate, all these questions concentrate in the focus of concern – the necessity of provision of monitoring of urbanisation processes.

The subject of monitoring of real property is familiar to European countries. In Russia, however, taking into account its scale, increasing pressure of urbanisation processes, development of new city territories, rural development, and fairly recent restoration of such legal concepts as title to the land and the ownership of real property, the issues of establishment of monitoring system tend to acquire new significance.

Let us consider one of the main aspects of effective administration of urbanisation process – establishment of the system of monitoring of urban development plan realisation, based on the

example of Saint-Petersburg – biggest Russian metropolis and one of the most beautiful cities in Europe. At the present time there is the underestimation of the role and significance of documents in the sphere of spatial planning in Russia. Urban development plan is the main document determining long-term development of the city. It sets out fundamental courses of city development, highlights key points and targets established in strategic documents, provides the balance of city territories, determines functional zones and graphically portrays them. As the result, it gives the opportunity to set uniform rules, equally applicable to all people involved in investment and construction processes, and constrain the activities of those who like to reap the benefits. Essentially, the functional zoning of territories, determined in urban development plan, formulates the territorial strategy in metropolis and helps to understand its urban orientation – whether it is planned to develop «city-park» or «city-plant». Social priorities of city development can be revealed using the factual data on provision of the social infrastructure for the population. These are also the indicators used as standards in urban planning, including provision of objects of culture and art, education, health care, physical training and sport and so on. The specific characteristic of the document of spatial planning – urban development plan, is that its practical application, analytical research as well as the conclusions on the point of whether it is efficient, rational and realistic, are impossible without understanding the peculiarities of urban planning in Russia, legislation and documents which are drafted on the basis of urban development plan and are essentially its part. These documents, based on the core principals of urban development plan, supplement it with the amount of investment funds in real property. Exactly the ignorance of specific character of Russian urban planning and design as well as peculiarities of planning, law and land policy is the main cause for the failure of foreign architects and famous Eastern European architectural studios in their attempt to become a part of urban-planning process in Saint-Petersburg at the stage of devising the design documentation.

Therefore, the scientific explanation of fundamental principles of monitoring of urban development plan realisation and its targets is a necessary condition for sustainable development of metropolis.

## MATERIALS AND METHODS

In the research on the establishment of the system of monitoring in the process of administration of metropolis the authors applied the methods of logical analysis, synthesis and comparison. The adoption of systematic approach allowed to reveal the fundamental principles of the system. Application of pure virtual method and the Delphi technique gave the opportunity to show the targets and tasks of monitoring of urban development plan and develop concrete indicators which will be examined within the complex Russian system of urban-planning data support and the operation of local government agency of public statistics.

### The main part.

The modern theory of administration of metropolis development must be based on revealed and well-founded regularity which determine the key elements of the system and describe their interrelations. The reliable information on urbanisation processes

(including social and economic element) is the main factor in devising the evidential data base which helps to make correct, well founded and expedient decisions [7]. At the same time the understanding of importance of establishment of such data base by all the participants of urban planning activity does not entirely exclude the possibility of making mistakes in determining the targets, tasks and set of indicators being monitored.

First of all, to capture the essence of monitoring of urbanisation processes it is of vital importance to reveal the stages of urban planning activity, clarify its aims and tasks performed in each stage, determine the main directions and indices subject to monitoring.

Let us form the hierarchy of urban-planning tasks being accomplished in Russia. The stage of spatial planning is the largest and most «schematic» part of urban-planning system. It includes the scheme of spatial planning of the Russian Federation and its federal subjects, municipal regions, municipal districts and development plans of urban settlements and urban districts. In Saint-Petersburg and Moscow – major Russian cities, the federal subjects of the Russian Federation and federal cities the document of spatial planning is the urban development plan [8].

The part of urban-planning zoning details the regulations and guidelines of the documents of spatial planning, determining the conditions for investment and constructional business in local areas within the boundaries of territorial zone. The main document of this element of spatial planning is land use and development rules in which the categories of territorial zones and the parameters of their planning development are determined.

The next phase in the hierarchy is the territory planification with the core documentation produced in the process are the draft area plan and area demarcation plan.

The final stage of urban-planning activity is architectural and building design, construction and renovation of the capital construction objects. At this stage the participant of urban-planning process conducts geotechnical survey to make design documentation and architectural and building design in accordance with this document. Afterwards the developer must obtain a construction permit, carry out the construction or renovation and thereafter receive a use permit.

In this hierarchy the data base, the part of which is the monitoring of urban development plan, provides the basis for executive decision-making on the matters of spatial development of metropolis and courses of investment in capital construction objects [9-10]. This is extremely important in such a large city as Saint-Petersburg.

The main aim of the system of monitoring of urban development plan is to assess whether the actual urban-planning situation is compliant with spatial development plans. To achieve this goal the system of administration of urbanisation processes should meet the following requirements:

1. purposefulness of monitoring system, which means the system must be directed to accomplishment of tasks and functions of city development;

2. all-embracing development of city area. This means the system must record interrelations and interdependence of site elements and comfortable living area which can help in assessment of necessity of functional zones development in order to provide favourable living environment;
3. continuity of observation on the urbanisation processes as an element of control over the city development and possibility to respond immediately to changes taking place;
4. comparable figures for the time period as a condition for setting trends and making prognosis of processes development in order to assess the possibility of achieving the aims and accomplishing the set tasks.

The foregoing does not contradict the key principles and aims of administration of investment in creation of comfortable living area in metropolis, described in research [5, 6], including the formation of a living territory which meets the statutory requirements of provision of social infrastructure; the accumulation of resources in order to develop investment activity; provision of conditions for mutually beneficial cooperation between participants of investment and construction activity.

A logical consequence of this is that the tasks of monitoring of urban development plan include not only control over the urban-planning processes in Saint-Petersburg and revelation of trends, but also the assessment of these processes for urban-planning data support in executive decision-making.

## CONCLUSIONS

The necessity of establishment of system of urban-planning monitoring in Saint-Petersburg – biggest Russian metropolis, is obvious. Modern methods of administration of urbanisation processes cannot be applied without data support. At the same time, detailed analyses of modern data support of the urban-planning process in Saint-Petersburg has confirmed the need for establishment of scientifically-based system of monitoring of urban development plan. To summarise, the efforts of experts, conducting research in the field of city development, must be directed to establishment of modern monitoring system giving the opportunity to trace territory development and coordinate processes of creating favourable living conditions.

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