

Digitalization as a Tool to Achieve the Priorities for the Regional Strategic Development

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Abstract – the article, devoted to the study of digitalization as a tool to achieve the priorities of the regional strategic development. The challenges, objectives, and priority development areas of the Russian Federation are systematized. The theoretical, practical and legislative aspects of strategic planning are provided. The opportunities and ways of developing digitalization processes in Sverdlovsk Region and Yekaterinburg from a strategic perspective have been studied. The methodological basis of the study is based on the theoretical concepts of the strategic management, regional and spatial economics. The approaches of the Russian and foreign scientists to strategies, analysis of the processes of digitalization development in Sverdlovsk Region and Yekaterinburg are disclosed by using a combination of methods: logical, dialectical, cause-and-effect, calculating the values of statistical indicators, etc. The opinion is formed about the need to develop digitalization for the purpose of improving the level and quality of life of the population of the Russian Federation and the regions thereof. The article may be useful to university students, graduate students, research scientists, specialists involved in the development (updating) of the strategies of social and economic development of territories, state and municipal employees, as well as other interested persons.

Keywords – strategy, strategic planning, region, city, and digitalization.

I. INTRODUCTION

At the beginning of the 21st century, the Russian economy faced with the following long-term systemic challenges, reflecting both global trends and internal development barriers:

“Firstly, the strengthening of global competition, covering not only traditional markets for goods, capital, technology and labor, but also the system of national governance, support for innovation and human development;

secondly, the expected new ‘wave’ of technological changes, which strengthens the role of innovation in socio-

economic development and reduces the influence of many traditional growth factors;

thirdly, the increasing role of human capital as the main factor of economic development;

fourthly, the exhaustion of the potential of the export-raw material model of the economic development, based on the accelerated increase of fuel and raw materials exports, the release of goods for domestic consumption due to additional production capacities under the conditions of an undervalued ruble exchange rate, low cost of production factors – labor, fuel, electricity” [1].

The strategic objective of Russia, approved in 2008, was the “achievement of the level of economic and social development corresponding to the status of Russia as the leading world power of the 21st century, occupying leading positions in global economic competition and reliably ensuring national security and the realization of citizens’ constitutional rights” [1].

In 2018, the national development objectives of the Russian Federation for the period up to 2024 were approved, inter alia, as follows:

“acceleration of the technological development of the Russian Federation, increase in the number of organizations implementing technological innovations;

ensuring accelerated introduction of digital technologies in the economy and social sphere;

the Russian Federation is among the five largest economies in the world, ensuring the pace of economic growth is higher than the world, while keeping the macroeconomic stability;

Formation of a highly productive export-oriented sector, developed due to the modern technologies and provided with highly qualified staff in the basic sectors of the economy, primarily in the manufacturing industry and the agro-industrial complex” [2].

In July 2016, the Council at the President of the Russian Federation on Strategic Development and Priority

Projects approved a list of the main area of the strategic development of the Russian Federation until 2018 and for the period until 2025 to form a “pilot” portfolio of priority projects and programs”:

- Health care;
- Education;
- Mortgage and rental housing;
- Housing and utilities and urban environment;
- International cooperation and export;
- Labor productivity;
- Small business and support for individual entrepreneurial initiatives;
- Reform of control and supervisory activities;
- Safe and high-quality roads;
- Single-industry towns;
- Ecology

Each of the aforementioned main areas provides for the implementation of relevant priority projects and programs. There are digitalization aspects, for example, in such priority projects as:

Improving the processes of arrangement for medical care through the introduction of information technology (e-healthcare);

Introduction of an automated system for monitoring the movement of medical products from the manufacturer to the end user to protect the population from counterfeit medical products and to promptly remove counterfeit and substandard medical products from circulation (“Medical Products. Quality and Safety”);

Modern digital educational environment in the Russian Federation (“Modern digital educational environment”);

Digital School¹.

This article is aimed at studying digitalization processes as a priority of the regional strategic development, as well as to determine its potential for the transition to a digital economy.

To achieve the aforesaid purpose it is required to perform a number of the following objectives:

to study the theoretical, practical and legislative aspects of strategic planning in the modern Russian Federation;

to analyze the processes of digitalization in Sverdlovsk Region and Yekaterinburg;

to assess the possibilities of transition to a digital economy in Sverdlovsk Region and Yekaterinburg, including in the strategic terms.

This study of digitalization processes is based on the analysis of the values of indicators, strategies for socio-economic development through the use of a combination of methods: logical, dialectic, causal, statistical, etc.

II. STRATEGIC PLANNING: THEORETICAL, PRACTICAL AND LEGISLATIVE ASPECTS

Systemic changes in the strategic development of the country are impossible without the implementation of similar, coordinated processes in the regions and cities located on its

territory. In June 2014, the Russian Federation approved Federal Law No. 172-Φ3 “On Strategic Planning in the Russian Federation” [3].

One of the distinguishing features of strategic planning processes in the Russian Federation is that strategic planning documents of various levels were developed with the lack of the relevant laws. In 1997, the first city strategic planning document, the Strategic Plan of St. Petersburg, was developed, and the largest and largest cities became pioneers in strategic planning [4]. Many researchers have studied the development of the largest cities, including strategic one [5, 6, 7, 8, 9, 10].

At present, there are various definitions of the term “strategy”¹, let us review some of them.

“The strategy of an enterprise is a coordinated set of decisions that have a determining effect on the activities of an enterprise, which have long-term and difficult reversible consequences” [11].

“Strategy is the construction of barriers for competitive forces or as the definition of a position in the industry where the company will be least vulnerable for these forces” [12].

“Strategy is a set of all actions of managers that contribute to the achievement of the objectives of the organization; The company’s current strategy is partially planned and partially responds to changing circumstances” [13].

“Strategy is a set of rules for making decisions that guide an organization in its activities” [14].

“Strategy as a combination of 5P”:

1. strategy – plan of actions;

2. strategy – cover, i.e. actions aimed at outwitting their opponents;

3. strategy – procedure of actions, i.e. the plan may be unrealizable, but the procedure must be ensured in any case;

4. strategy – position in the environment, i.e. communication with your surroundings;

5. strategy – perspective, i.e. a vision of the state to which one should strive” [15].

“Strategy is a plan-forecast integrating into a kind of coordinated whole interdependent main objectives and objectives of the development of the city, internal resources, policies defining the field of activity and main organizational actions (or, in other words, programs and projects) aimed at achieving the objectives set and not beyond the limits of the chosen city policy” [16, 17].

“Strategy is the way of combining the existing and potential capabilities and resources, developed under the comprehensive analysis of the internal and external environment, approved by the urban community and institutionalized, the realization whereof ensures the achievement of the main objectives of urban development” [18].

“Strategy is a detailed comprehensive integrated plan designed to ensure the existence of the mission of the object and the achievement of its objectives” [19]

Strategy is a program, plan, general course of the subject of management to achieve its strategic objectives in any area of activity” [20]

¹ <http://government.ru/department/410/projects/>

“Strategy is the chosen direction, vector, way of further development, functioning in the framework of which should result in achievement of objectives” [21].

In view of the best foreign and Russian practices, it should be noted that the strategic plan (strategy) should be a document of public consent on the priority (strategically important) for different groups of the local community directions of development of the territory wherein they live and work [22].

When forming the strategy for the socio-economic development of a region, it is necessary to correctly (optimally) determine the priorities of strategic development and the tools to achieve them. One of the modern tools for achieving the priorities of the strategic development in the Russian Federation at different hierarchical levels is digitalization. Let us turn to the analysis of digitalization processes in Sverdlovsk Region and its capital, Yekaterinburg.

III. DIGITALIZATION AS A TOOL TO ACHIEVE THE PRIORITIES OF THE STRATEGIC DEVELOPMENT OF SVERDLOVSK REGION AND YEKATERINBURG

The strategy of socio-economic development of Sverdlovsk Region until 2030 was adopted at the end of 2015 [23]. Digitalization processes are not explicitly (directly) stated in the Strategy of the Sverdlovsk Region (neither in the names of strategic priorities, nor in the names of strategic projects), however, of course, without them strategic development is impossible.

Let us consider the existing potential of Sverdlovsk Region for the transition to a digital economy. The development of information and communication technologies for the period from 2005 to 2016 was based on the fundamental changes in the information environment. The use of fixed telecommunications by the population significantly decreased from 25.8 units per 100 persons in 2005 to 14.9 units per 100 persons in 2016 and the use of broadband Internet access was increased by almost 20 times (Figure 1). Blue color shows telephone density, units per 100 persons, red – the number of active subscribers of fixed broadband Internet access, units per 100 persons of the population.

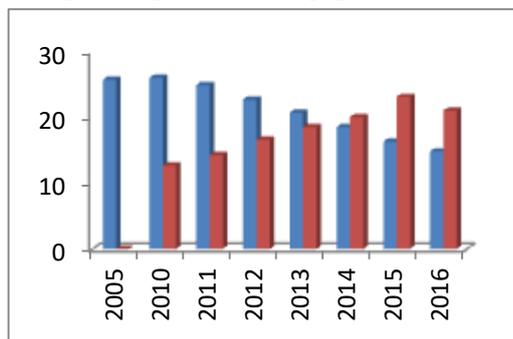


Fig. 1 Telephone density and the number of subscribers of broadband Internet access in Sverdlovsk Region, per 100 persons of the population ²

Referring to the research of organizations that used information and communication technologies (as a percentage of the total number of surveyed organizations), it should be

² Calculated by the authors under [24].

noted that in the whole Sverdlovsk region in 2016 the highest one was the ratio of organizations that used personal computers – 96.4% of the total number of organizations surveyed. The lowest value of the indicator is “the proportion of organizations that had a website” – 50.3%³.

However, it should be noted that the organizations of Sverdlovsk Region use information and communication technologies to be significantly uneven. The share of organizations that used the Internet, personal computers and global information networks in 2016 was more than 90%, and organizations that used servers and had a website, less than 60%.

During the period from 2005 to 2016, the largest growth was in the segment of organizations that used broadband Internet access, 86 percentage points, and the smallest – in the segment of organizations that used personal computers – 1.3 percentage points.

Therefore, it should be noted that in Sverdlovsk Region there is significant potential for the transition to a digital economy. Further development of the information and communication infrastructure will make it possible to change the spatial development of the country as a whole, reduce the differentiation between regions, increase labor productivity and production efficiency in all types of the economic activity.

In Yekaterinburg, the capital of Sverdlovsk Region, the digitalization issues were provided for in the first edition of the Strategic Plan. In the fifth strategic direction “Development of Transport, Warehousing and Communications” there was a strategic program “Communication – Century Challenge”, consisting of strategic projects “Tower – City Symbol”, “Phone for Everybody”, “Accessible Internet (last mile)”, “Informatization of the Municipal Formation “Yekaterinburg” [25].

The current (third) version of the Strategic Development Plan of Yekaterinburg in the second strategic direction “Ekaterinburg is an interregional innovation-oriented industrial and financial center” provides for the strategic program “Digital Ekaterinburg”.

The Strategic Development Plan of Yekaterinburg provides for the current level of development of the information infrastructure and digital services in Yekaterinburg does not still meet the business requirements; it is not fully used by the population for the transition to the info-communication economy. The development of the information infrastructure in the future will provide a deeper integration of Yekaterinburg into the modern information society and a single global information space.

The objective of the Digital Yekaterinburg Strategic Program is to develop the areas of the digital economy aimed at increasing the efficiency of interaction between business, government and society, providing information and communication services in a timely manner with modern infrastructural, institutional, technological and human resources [26].

Program Main Objectives are as follows:

³ In this paragraph and in the following ones you can find the authors’ calculations of the official data of the Federal Service of the State Statistics of the Russian Federation.

“Formation of the terms and conditions for the development of services and information services, including cellular, that meet the modern requirements;

improvement of the information institutions of interaction between business, society and government;

ensuring the availability of information on existing support measures and opportunities for entrepreneurs and investors in the city;

implementation of promising areas of the state program “Digital Economy”, a planned transition to the development of the intellectual urban infrastructure, in particular, the management of services and services; application of “Internet of Things” technologies in the management of urban processes “Smart City”; promotion of niches in the digital economy, promotion and development of small and medium businesses; information security for business; promotion of staff competencies in the field of digital economy and information security” [25].

Mechanisms for the implementation of the strategic program “Digital Yekaterinburg” should be two strategic projects – “Modern Information Environment” and “IT-cluster”.

IV. CONCLUSION

Under the modern terms and conditions, information becomes one of the determining factors of development. The post-industrial society will demand an increase in the use of digital technologies, the structure of the economy, the production relations in it will change, which will lead to the emergence of new requirements for communications, information services and the possibilities of the informational and communicative infrastructure.

The transition to a digital economy, declared by the leadership of the Russian Federation, can create conditions for reducing spatial costs between places of production and places of consumption, thereby forming the basis of economic relations and interaction of business entities through the formation of new infrastructure elements.

Infrastructure objects that provide for using information and communication technologies create objective conditions for solving scientific and technical problems, increase the level of information security, optimize interregional economic relations, which ultimately results in a steady increase in labor productivity and, on its basis, increase the level and quality of life of the population.

In Sverdlovsk Region and Yekaterinburg, there is considerable potential for a transition to a digital economy.

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