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ARTICLE

ASSESSMENT OF THE INFORMATION COMPONENT OF THE REGION'S INNOVATION INFRASTRUCTURE (EXPERIENCE OF THE REPUBLIC OF TATARSTAN, THE RUSSIAN FEDERATION)

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ABSTRACT

In the article some approaches to the formation of the innovation infrastructure (informational and expert-consulting component) of the Republic of Tatarstan of the Russian Federation are considered and the main problems arising in this case are highlighted. It is emphasized that in the complex socio-economic development of the Republic of Tatarstan, one of the important issues is the formation of an innovation environment, the development of innovative business. The methodological basis of the study was a dialectical method of cognition and a systematic approach to the analysis of the facts and phenomena under consideration. The analysis methods used in various combinations at each stage of the study, depending on the purpose of the study and the problems examined, contributed to the increase in the reliability and validity of the conclusions made by the author. The calculation of the integral indicator of the provision of the innovation process for the information and expert-consulting component of the infrastructure development of the Republic of Tatarstan made it possible to identify the shortcomings in the information support of innovation activities and build a model of the information and expert-consulting component, as well as offer sound recommendations for improving the information infrastructure of the region. The model of information and expert-consulting component of the innovation infrastructure of the region showed that the functioning of the innovation infrastructure is influenced by the system of state centers of scientific and technical information, structures that support small businesses, technology transfer centers in the region. Applied mechanisms and methods of control do not ensure effective use of budget funds allocated for the development of innovation infrastructure. It is necessary to develop a methodology for assessing the effectiveness of innovation infrastructure based on the calculation of the integral indicator.

KEY WORDS
innovative infrastructure, information component, expert-consulting component, innovation activity, control, integral indicator

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INTRODUCTION

Today, the innovative development of the economy is one of the topics discussed, since the country cannot fully develop only through the export of energy resources. A number of state measures have been taken, however, the innovative activity of the business sector remains rather low (in 2015 - 9.3%). Understanding the need for innovative infrastructure (II) exists at all levels of government: national, regional. Nevertheless, many questions of the formation and evaluation of the effectiveness of the functioning of AI still remain poorly understood. Elements of innovative infrastructure have different functional purposes, depending on their role in the innovation process and a set of tasks to be solved. In economic literature, there are several different views on the composition of subsystems and elements of innovation infrastructure. Among foreign scientists it is possible to single out S. Eriksson [1], E. Ramstad, T. Alasoini, [2] S. Reboud, T. Mazzarol, T. Volery [3], L. Woolgar [4], A. Bartzokas [5], M. Frenz, R. Lambert [6] and others. However, all foreign researchers considered the innovative infrastructure of the state as a whole without taking into account regional peculiarities. Russian scientists identify "maintenance" or "promotion" as the defining characteristic of the innovation infrastructure. V. Tribushnaya considers innovation infrastructure as "information, organizational, marketing, educational and other networks that help the new idea to reach its practical implementation and find its consumer" [7]. D. Kotov highlights such elements of innovation infrastructure as: legal infrastructure, information infrastructure; specialized innovation centers; financial institutions [8]

In Russia, a large number of infrastructure objects of different focus, but their functionality cannot always be uniquely determined [9]. Many infrastructure objects are not used for their intended purpose, they do not provide support for specific business models [10], do not meet the needs of innovative enterprises in the early stages of development [11], do not provide technology transfer, do not create links between participants in the innovation market. Thus, the main problem of the development of the innovation infrastructure is the need to shift from the nominal existence of infrastructure facilities to their actual use. The article focuses on the informational and expert-consulting component of the innovative infrastructure of the Republic of Tatarstan. At present, a sufficient number of information and expert-consulting centers have been created in the republic to support entrepreneurship.

METHODS

One of the main parts of the regional innovation management system is a mechanism for monitoring and assessing its condition. In the area of measuring the information innovation infrastructure in the region, the processing period of the accumulated primary information reflecting the acquired knowledge comes. However, there is no unified unit of measurement yet; therefore, the main measure of knowledge is the number of people requiring knowledge, and the criterion for using knowledge is the production of new knowledge on the basis of what is available.

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The information and expert-consulting component of the innovation infrastructure of the Republic of Tatarstan was evaluated according to the methodology presented in the paper [12]. As an indicator reflecting the information infrastructure of the region, it is proposed to introduce a coefficient of effectiveness of the use of intellectual property (ke.i.p.). To compare the volumes of innovation activity, within the framework of specialized regional competitions, relative to similar indicators in other regions of Russia, the coefficient of comparative activity of competitive activities in the region in the field of innovation (kc.a.f) is introduced. To assess the information and expert-consulting component of the region's AI is possible with the help of the coefficient of information and consulting provision of innovation activity in the region (ki.c.p). The share of costs for information and communication technologies in the region (ki.c.t) Will allow to determine the volume of investments directed to the information development of innovation activity. The main carrier of knowledge is an educated person. In this connection, the information environment should ensure a significant growth of the cumulative knowledge in the society and contribute to the development of human capital.

RESULTS AND DISCUSSION

The analysis of the information and expert-consulting component of the region's innovation infrastructure has made it possible to identify a number of problems in the regulation of II. One of the main problems hampering the development of innovative activity is the lack of the necessary information interaction of the participants in the innovation process. The development of an information block (a fairly extensive network of disparate organizations, including a regional system of state centers of scientific and technical information, with structures supporting small businesses, with regional information networks) should contribute to the effective functioning of II. A significant amount of information on innovative issues is posted on the Internet.

Since 2010, the Republic of Tatarstan has been carrying out the state registration of the results of scientific and technical activities (RRSTA) [13]. The creation of the system of state accounting of the RRSTA facilitates the development and implementation by the executive authorities of the Republic of Tatarstan of a state policy to increase the efficiency of using RRSTA. The register of results of scientific and technical activities is the state information system of the Republic of Tatarstan. The Tatarstan Center for Scientific and Technical Information (TCSTI) is the system-forming element of the innovation infrastructure of the region and the main supplier of scientific and technical information to enterprises and organizations. This is the only state institution dealing with accounting, storage and management of the results of scientific and technical activities in the Republic of Tatarstan, in addition, it is the main organization of the Federal Service for Intellectual Property, Patents and Trademarks (Rospatent) in the Republic of Tatarstan.

The considered method of assessing the information and expert-consulting component of the innovation infrastructure was tested on the example of the Republic of Tatarstan. As a data source for the calculation of the integrated indicator, the statistical data presented in official sources for 2012-2015 yeras. [14,15, 16] [Fig.1]

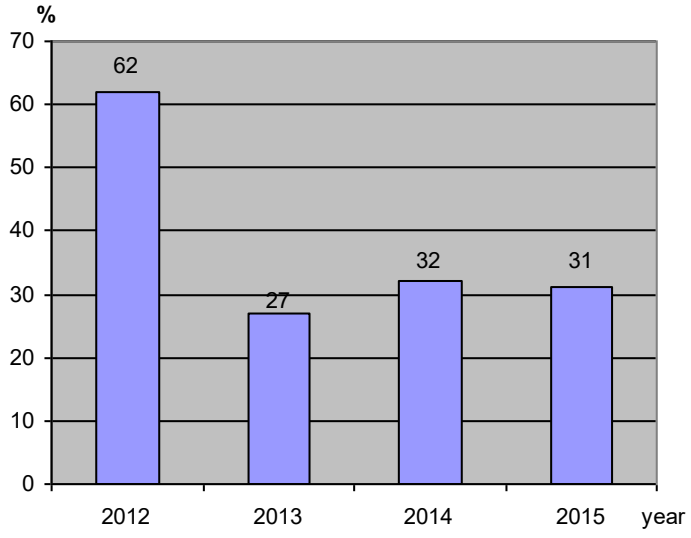

Fig. 1: Information and expert-consulting component of the development of innovation infrastructure of the region.

Assessment of information and expert-consulting development of the region's innovation infrastructure has shown a low level of its development. This is due to the fact that this component functions nominally

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today, i. It is created for formal requirements "from above". During the analyzed period, the information infrastructure of the region has undergone significant changes. The Republican Information Resources Fund for Scientific and Technical Development started functioning on the basis of the Tatarstan Central Scientific and Technical Center. The structure of the fund includes: the Patent Fund, the Center for Support of Technology and Innovation and the Information Center for Collective Use.

Thus, in the region, activities are carried out to promote information products and services in innovation-active organizations (universities, technoparks, scientific and technical libraries, etc.).

In 2015, Tatarstan's CNTI provided 7030 services to provide information from the Republican Information Resources Fund for Scientific and Technical Development to enterprises and organizations of the Republic of Tatarstan. This is 1.6% higher than in 2014. The number of enterprises and organizations on subscriber information services amounted to 446 units (down by 7.5% compared to 2014). During the reporting period, the Center received 500,000 requests for the necessary information (13.6% higher than in 2014). Also, 3,290,000 pieces of regulatory, technical, regulatory and patent information were received, exceeding by 2.8% the level of the previous year [14].

Given the imperfect information base and the expertise of experts in a number of innovative areas, this reduces the ability of developers to protect the priority of domestic developments, not only in the domestic market, but also on the external one. The developed model of information and expert-consulting innovation infrastructure, showed that the structure of the analyzed component is quite developed in the Republic of Tatarstan. Against the backdrop of these processes, Internet resources are one of the main sources of access to information resources [Fig. 2].

The Among the information products that promote the innovation activity in the region, it is possible to single out: catalogs of investment projects; the investor's guide, in which local and federal organizations are represented, on cooperation with the investor, the main issues of interaction and the list of normative acts; liver free production areas for all cities and areas provided with the necessary infrastructure. Having considered the model for assessing the information and expert-consulting innovation infrastructure of the Republic of Tatarstan, it can be concluded that it is necessary to involve and build up all the elements of the innovation infrastructure in the region.

SUMMARY

As a result of the conducted research it was revealed that the Republic of Tatarstan has sufficient potential for improving the innovation infrastructure. The region has created the necessary conditions for providing information and expert advice on the creation, development and implementation of innovations. On the territory of the Republic of Tatarstan, innovative areas (technopark, business incubator, industrial parks, etc.) are functioning in different directions, capable of supporting small business from origin to development and development [17].

However, many infrastructure facilities are not used for their intended purpose, do not meet the needs of innovative enterprises in the early stages of development [18], do not provide technology transfer, do not create links between participants in the innovation market. This adversely affects the formation of a competitive innovative economy of the region and shows the relative underdevelopment of Russian entrepreneurship. Often, the creation of information centers is not carried out by the objective need of the market, but by imposing from above. So, the creation of infrastructure facilities at universities is in many cases only on paper, and they do not perform real functional. The reason for this problem is the lack of incentives for such infrastructure facilities to work effectively, since the amount of allocated budget funding does not always correlate with the performance indicators in the form of the number of projects being implemented. The analysis of the existing information and expert-consulting component in the region indicates the need for its improvement in terms of methods to stimulate the use of information resources, bringing information to stakeholders, organizing and monitoring the investment of budget funds in its development. Thus, the main problem of the development of the innovation infrastructure is the need to shift from the nominal existence of infrastructure facilities to their actual use.

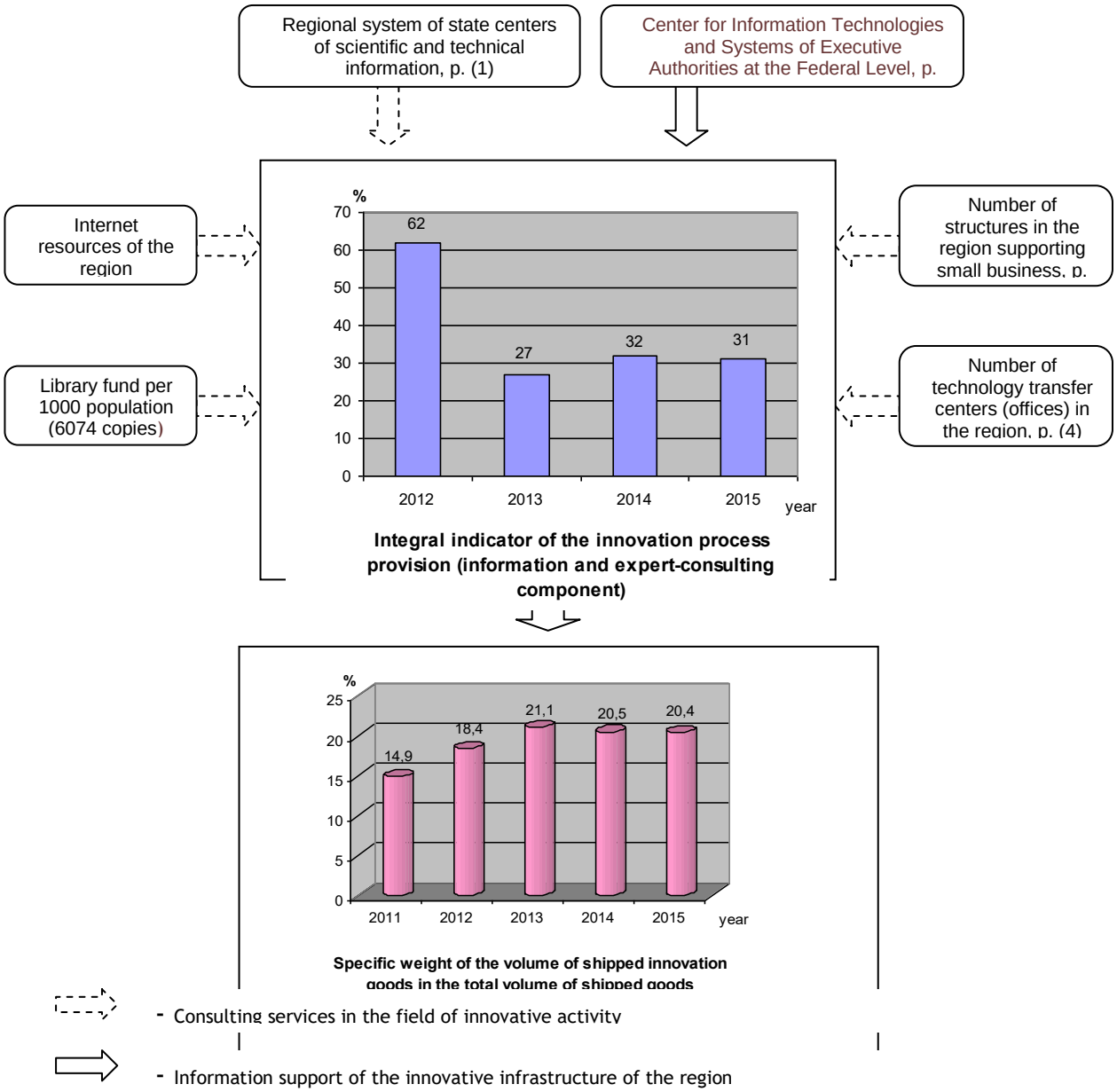

Fig. 2: Model of assessment of information and expert-consulting component of the development of innovative infrastructure of the Republic of Tatarstan.

CONCLUSION

According to the results of the conducted research, it can be concluded that, in spite of a sufficiently high level of information and expert-consulting support of innovation activity, there is an inefficient investment of budget funds in their creation. Applied mechanisms and methods of control do not ensure effective use of the created structures of information and expert-consulting support of entrepreneurship. It is necessary to really use the resources for technology transfer, provide timely advisory assistance on securing rights to intellectual property and their commercialization, bringing information to potential investors, etc.

The exit from the situation could be a scientifically grounded, holistic methodology for assessing the effectiveness of the activity of subjects of innovation infrastructure on the basis of calculations of the integral indicator of the provision of the innovation process for the information and expert-consulting component of infrastructure development of the Republic of Tatarstan, proposed by the author.

The article reveals not only the shortcomings of the information and expert-consulting innovation infrastructure of the region, but also the concrete measures substantiated by the results of the conducted research.

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The author believes that in the Republic of Tatarstan the innovation management system is stated in the current regulatory documents through the mechanisms and tools of the innovation infrastructure, which is sufficient at this stage, but the quality of their implementation and application technology is urgently needed.

CONFLICT OF INTEREST

None

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None

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