DIGITAL ECOSYSTEM OF STATE SUPPORT FOR INNOVATIVE DEVELOPMENT OF RUSSIA

[a]SAGLARA BOLDYREVA, [b]DANARA IDZHILOVA, [c]NATALYA CHADLAEVA, [d]RUSTEM ADILCHAEV, [e]ALMAZ INYATOV, [f]ELMIRA MADENOVA, [g]ZUHRA BALTASHEVA, [h]ROSA KARAZHANOVA

Kalmyk State University named after B.B. Gorodovikov, Elista, Republic of Kalmykia, Russia
e-mail: [a]boldyreva_sb@mail.ru, [b]nimeeva_dv@mail.ru, [c]darbak80@list.ru, [d]radilchaev@mail.ru, [e]inyatov.66@mail.ru, [f]elmirwmadenova020@gmail.com, [g]bmels@rambler.ru, [h]rozaecon@mail.ru

Abstract: The purpose of the research is to form a full-fledged innovation infrastructure in the context of the implementation of the digital policy of the state. The research uses the methods of dialectical approach, system approach, and comparative analysis. The Results of the study can be useful for expanding the conceptual framework, which will significantly improve the use of the innovation approach in the territorial development of the economic system. The Relevance of the research is not in doubt, in modern conditions, world economic science considers the innovation concept as an effective tool for improving the competitiveness of the state economy, regional economies, as well as individual industries and enterprises.

Keywords: digital ecosystem, innovative development, socio-economic development, state innovation support, strategic development, strategy

1 Introduction

The current economic crisis has once again clearly shown how closely the processes of globalization of the world economy in recent decades have intertwined and integrated with the regionalization of economic life. At the same time, in the hierarchy of globalization and regionalization processes, in relation to the conditions of the Russian economy, it is globalization that clearly dominates. The transition of the country's economy to an innovative path of development is impossible without the formation of a globally competitive national innovation system, for which it is necessary to increase the demand for innovations from most of the sectoral economic entities, increase the importance and effectiveness of interaction between fundamental and applied science, form a full-fledged innovation infrastructure in the context of the implementation of the digital policy of the state.

2 Literature review

The political structure, the level of economic development, the instruments of motivation of innovation policy as special characteristics determine the role of the state in financing innovation. Thus, for the United States, the main motive is global military-political and economic hegemony on the world stage, for European countries – social stability and improving the quality of life, for China – achieving sustainable growth and economic leadership, for Brazil, India, Malaysia – overcoming poverty and internal stability, for the Republic of Korea and Singapore – increasing competitiveness in a macro-regional competitive environment. [5]

Russia is characterized by a huge discrepancy between the accumulated human scientific and technical potential and the overall productivity of the national economy, which is usually measured by the value of the gross national product (GNP) per capita. Numerous studies show that Russia confidently occupies one of the first places in the world in terms of the number of scientific and technical personnel, overtaking many developed countries. [3] Despite the presence of a huge scientific and intellectual potential, during the formation of market relations in the country, the economic situation has deteriorated sharply, the efficiency of domestic enterprises has decreased, and the number of unprofitable enterprises remains significant. [4] The rise of domestic production cannot be carried out without its technological re-equipment, innovation orientation and scientific support.

At the same time, it is important not only to preserve and effectively use the existing production and innovation potential of Russia, but also to gradually raise it to the level of developed countries.

The relevance of technological developments is due to two groups of changes in the environment of the enterprise, which have a domestic and international nature. In other words, the external and internal market puts pressure on enterprises. This pressure is expressed in changing consumer behavior; the development of markets for goods and services and, as a result, increased competition; the worldwide development of new technologies of different characteristics; the globalization of supply and demand. [2] All over the world, innovation today is not a whim, but a necessity for survival, maintaining competitiveness and further prosperity. At the moment, the most innovative industries in the country are the defense industry and space. These industries are being actively developed and have great potential in their development. Promising industries are agriculture, medicine, IT technology and construction.[1] It is the development of these industries that will improve the standard of living in the Russian Federation.

3 Research methods

A set of general scientific and special methods was used to solve the research task. The methodological basis of the research is the dialectical method of cognition of economic phenomena and processes occurring in the macro-mesoeconomical system; a systematic approach, comparative analysis.

4 Empirical results

In 2020, the implementation period of the Innovative Development Strategy of the Russian Federation "Innovative Russia 2020", prepared by the Ministry of Economic Development of the Russian Federation, which declares that Russia "sets ambitious but achievable long-term development goals" – ensuring a high level of well-being of the population, consolidating the country's geopolitical role as one of the global leaders determining the world political agenda. The only possible way to achieve these goals is the transition of the economy to an innovative socially-oriented development model."[2]

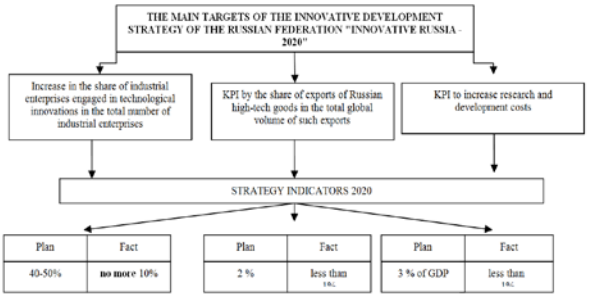

Figure 1 - Results of the implementation of the Innovative Development Strategy of the Russian Federation "Innovative Russia - 2020"

The main targets in this strategy were to "increase the share of industrial enterprises engaged in technological innovations in the total number of industrial enterprises to 40-50% by 2020."
KPIs have not been achieved for the share of exports of Russian high-tech goods in the total global volume of such exports (it

[1] VTSIOM-SPUTNIK SURVEY Press Release № 3132: URL: https://wciom.ru/index.php?id=236&uid=115737
[2] Innovative Russia-2020. Strategy of innovative development of the Russian Federation for the period up to 2020 - p.5. URL: http://www.economy.gov.ru/minec/activity/sections/innovations/doc20101231_016

should be 2%, in fact less than 1%), for increasing research and development costs (3% of GDP was planned, in fact it was a little more than 1%, and remained), etc. The strategy also assumed a sharp increase in business participation in research and development financing and a decrease in the share of the state - also did not happen. Consequently, the main performance indicators of the strategy have not been achieved.

Tab. 1: Examples of BFR by strategy areas

1. BUSINESS ACTIVITY GROWTH	*NEW HIGH-TECH ECONOMY*		
	INCREASING TRUST AND IMPROVING THE BUSINESS CLIMATE	Reform of the law enforcement and judicial system	CREATING A COMFORTABLE JURISDICTION IN RUSSIA AND ATTRACTING ALL STARTUPS IN THE EurAsEC SPACE
		Reducing administrative pressure and excessive regulation	
		Risk-based approach to regulation and inspections	
		Reducing the share of the state in the economy and using the potential of state-owned companies to accelerate technological and digital development	
2. INFRASTRUCTURE DEVELOPMENT	*AGGRESSIVE INFRASTRUCTURE DEVELOPMENT*		
	DEVELOPMENT OF THE COUNTRY'S SUPPORT BASE	Development of high-speed railways	INTENSIVE FORMATION OF INFRASTRUCTURE
		Creation of competitive infrastructure of seaports	
		Development of the support frame of high-speed highways	
		Integrated development of urban areas	
		Development of the agglomeration transport framework	
		Planning the construction of satellite cities of large cities	
		Development of an eco-friendly public transport system	
3. POVERTY REDUCTION	*NEW SOCIAL CONTRACT*		
	UNIVERSAL FAMILY ALLOWANCE WITH A NEED CHECK	Focusing targeted support mechanisms, the principle of "know your customer" (KYC):	FORMATION OF TARGETED FINANCIAL MECHANISMS FOR THE COMPLETE ELIMINATION OF MONETARY POVERTY
		-determination of need criteria (families with children, the disabled, the working poor)	
		- determining the exact amount to eliminate the household income deficit	
		Introduction of Social Treasury	
		Provision of medicines and technical means of rehabilitation	
4.PUBLIC ADMINISTRATION REFORM	*CLIENT-CENTRIC STATE*		
	STATE -AS - A-SERVICE	Implementation of AI in the field of public administration, prioritization of ethics issues	THE STATE AS A SERVICE
		End-to-end and proactive provision of public services using a unique digital identity	
		Redesign of public services based on behavioral analytics of decisions of people and SMEs	
		Implementing a risk management system to achieve government goals	
		Development of cloud services for government agencies	
		Development of the digital labor market, ensuring adaptation to new forms of employment and the needs of the "digital" sectors	
		Development of digital city services, quality improvement in the provision of public goods	
		Implementation of client-centric approaches to the work of FOIVS	
5. STIMULATING INNOVATION AND ICT DEVELOPMENT	*NATIONAL INNOVATION SYSTEM*		
	IT AND INNOVATION DEVELOPMENT: DIGITAL INFRASTRUCTURE AS A PUBLIC GOOD	Formation of a single trusted and secure digital circuit for communication between the state and citizens:	MODEL OF KOREAN CHAEBOLS (FPG)
		- EDS, digital document storage environment, EDO, EBS, mobile identifier;	
		- IT infrastructure and platform services (PAAS), for B2B, for B2G, B2C, C2C by subscription	
		Development of cloud services for startups (IaaS)	
		Restarting development institutions in the areas of Industry 4.0	
		Superconditions for R&D: tax reduction, acceleration of depreciation, acceleration for SMEs:- avoiding "toxic" public money through the involvement of large companies in the development agenda;- creation of favorable conditions for the work of personnel in innovation and IT in Russia	

Source: Compiled by the authors

The government, on the initiative of Prime Minister Mikhail Mishustin, has developed a new socio-economic development strategy in order to ensure the implementation of 5 national projects: "new social contract", "client-oriented state", "aggressive development", "new high-tech economy" and "national innovation system", each of which includes up to 25 sectoral/functional strategic directions (up to 5 per working group). (Figure 2)

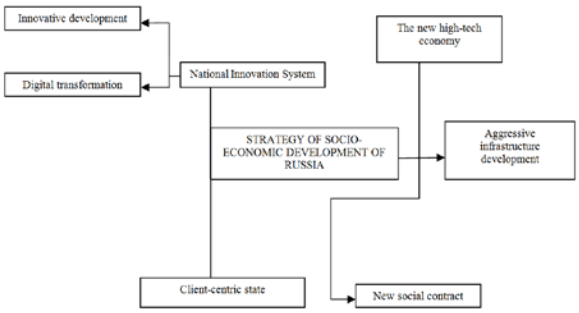

Figure 2 - Frontal strategy of socio-economic development of the Russian Federation
Source: Compiled by the authors

For the innovative development of the Russian economy, it is necessary to form a political, social, information, and economic infrastructure in order to create favorable conditions for effective interaction between government and business.
In terms of state innovation support for the development of entrepreneurial forms, the Ministry of Economy will launch a digital ecosystem of support for small and medium-sized businesses by the end of 2021 — companies will be able to receive state support and the services they need on the principle of "one window" based on the platform of this ministry.

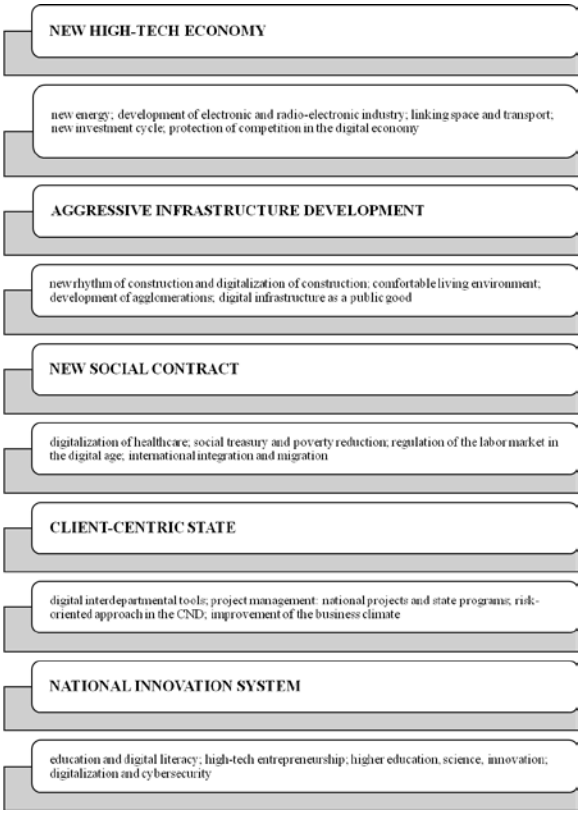

Figure 3 - The main objectives of the key directions of socio-economic development of the Russian Federation
Source: Compiled by the authors

The platform will form a "digital profile" of companies based on government and commercial sources for more effective business support, depending on its condition and needs — it is promised that the system will "accompany" entrepreneurs as they grow. It is expected that such consolidation of data on SME support at one point will provide the Government with knowledge about the degree of effectiveness of the assistance provided.

Tab. 2: Comparative analysis of state forms of influence on the economy as a whole[1]

Composite elements	State forms of influence		
	State support	Public administration	State regulation
The prevailing impact on society	Administrative		Political
Subjects	Executive authorities and the State apparatus		Senior political leadership, legislative and judicial authorities
Participants	No		Elements of the political system: parties, civil society institutions
Goal	Satisfaction, first of all, of state interests		Satisfaction, first of all, of private and public interests
Political regime	Democratic /Liberal	Totalitarian/authoritarian	Democratic/Liberal
The prevailing type of property	Private, cooperative	State	Private, cooperative
The degree of state intervention in the economy	Uncertain, situational	Maximum	Minimum
The prevailing method of economic management	Indefinite (mixed)	Planning	Forecasting
Effectiveness of anti-corruption	Low	Low	Upward trend

The federal project "Creation of a Digital platform with a mechanism for targeted selection and the possibility of remote receipt of support measures and special services by SMEs and self-employed citizens" implies the creation of a single digital ecosystem containing comprehensive up-to-date information about all measures and institutions of support for SMEs and allowing entrepreneurs to choose and receive remotely required support measures (Fig.4).

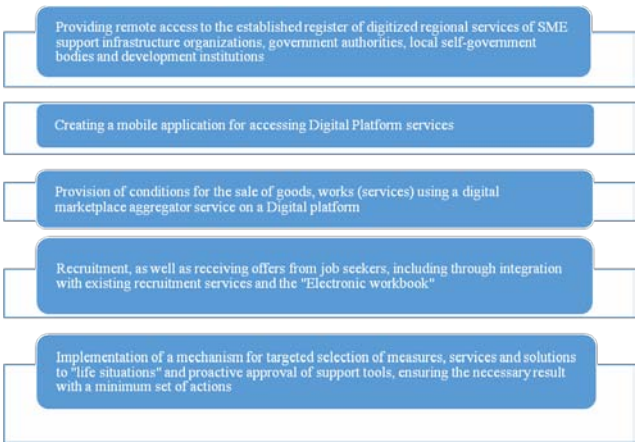

Figure 4 - The main activities of the federal project on the formation of a digital ecosystem
Source: Compiled by the authors

Tab. 3: Indicators of the implementation of the federal project "Digital Platform"[3]

Indicators	Period	
	2021	2024
the number of services implemented within the Digital Platform, units.	5	25
the number of unique SMEs and self-employed citizens who have used the services and services of the Digital Platform, thousand units.	200	500
the number of services and services received within the Digital Platform, thousand units.	300	600
satisfaction of users who have received services and services on the Digital Platform, %	50	80

The launch of the digital platform in 2020 required an updated national project for the development of SMEs: it promises a mechanism for targeted selection of support measures, as well as their proactive approval. To do this, the Ministry of Economy has provided for the formation of a "digital profile" of recipients of state support on the basis of the platform — the "digital reputation" index. It will be formed from three data blocks. The first block (official sources) will not require the participation of an SME: after registration, data from other government systems will be uploaded. The second block (commercial sources) will be replenished with data from banks, marketplaces, credit bureaus, real estate portals, social networks. Additionally, the business will be able to report on its operations, requests and what services it used.

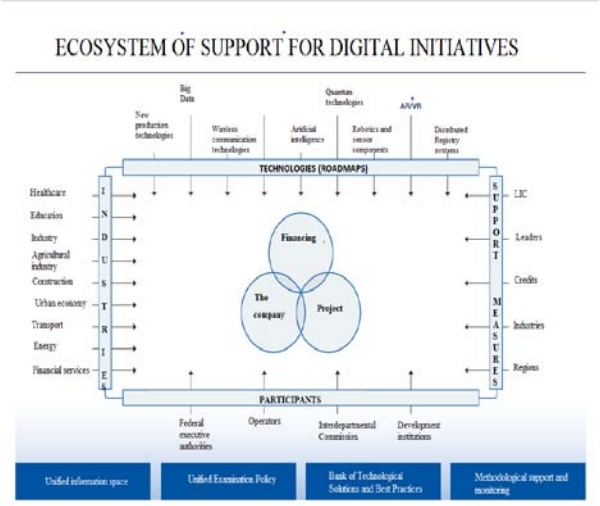

Figure 5 - Ecosystem of digital initiatives support [4]
Source: Compiled by the authors

The Ministry of Economy points out that the index will automatically pre-fill out application forms, carry out their remote approval, as well as offer businesses potentially in-demand measures.
pData on the state of the business will be used for its acceleration — so the platform will be able to offer hints about further steps for development. De facto, the government is creating a system of state support for small businesses throughout the life cycle.
Now the platform is already integrated with the Federal Tax Service in terms of the unified register of SMEs (work is underway to integrate with the recently launched Federal Tax Service register of recipients of state support). Several banks, educational platforms and electronic trading platforms have already joined the ecosystem. So from 2021, SMEs and the self-employed can apply for a loan through the platform, receive

[3] https://msp.economy.gov.ru/
[4] https://msp.economy.gov.ru/

educational services and track public procurement. The Ministry of Economy plans to launch tax services (for example, payment in the "one window" mode), services for exporters, while the target is the development of super services - package solutions for small businesses, depending on typical situations. To do this, the platform will be integrated with the services of ministries that support SMEs (Ministry of Agriculture, Ministry of Industry and Trade), the banking community, as well as development institutions in the SME segment (Russian Export Center, SME Corporation).

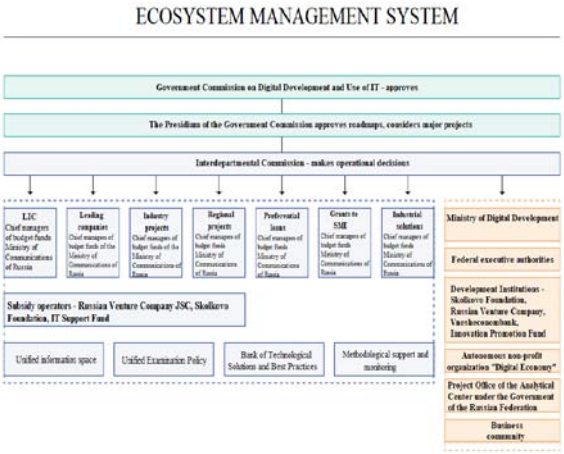

Figure 6 - Ecosystem management system [5]

It is expected that the service approach will facilitate the activities of companies and contribute to the recovery of small businesses after the shocks of the coronacrisis - by simplifying interaction with the state and facilitating access to state support. Support measures include events for leading companies, companies in the real sector and IT technologies, industry, regional programs that will be implemented with the support of Russian venture capital companies, Skolkovo, the Information Technology Support Fund with the direct participation of banking institutions.

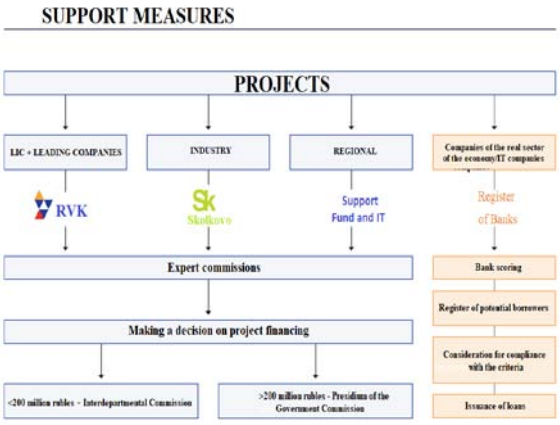

Figure 7 - Support measures [6]

For the government, the launch of a platform that consolidates data on all recipients of state support at one point is an opportunity to analyze the volume and effectiveness of the assistance provided, the data obtained will be used to prioritize state support measures and their adjustment.

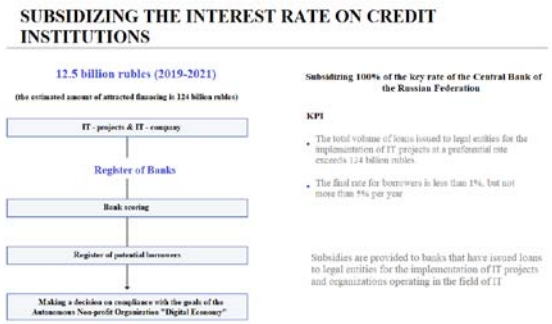

Figure 8 - Subsidizing the interest rate on credit institutions

This program provides for subsidizing the interest rate on credit organizations, which indicates further interest on the part of the Government of the Russian Federation, developing a measure of state financial support for small and medium-sized businesses in the field of IT technologies and organizations operating in the field of IT technologies. 12.5 billion rubles (2019-2021)

5 Discussion

Thus, when embarking on market transformations, Russia was unable to formulate a scientific and innovative policy and determine its priorities. [2] Until the end of the last century, an approach based on financial stabilization prevailed in relation to the scientific and technical sphere - one of the three "whales" of the initial stage of reforms. It was based on the full economy of budget funds allocated for its maintenance. It was only with the resumption of economic growth that the state began to pay more attention to science and innovation. A practical study of the problem under consideration allows us to conclude that the knowledge of alternative options for financing innovations, the formation of a digital ecosystem is the main task in developing a strategy for the socio-economic development of the state.

Literature:

1. Boldyreva, S.B. Cluster approach in the strategy of innovative development of the region in the conditions of modernization of the economy. *Finance and credit*, 2013, 6 (564), 58-63.
2. Eremina, O.S., Demina, N.V. Features of innovative activity of modern enterprises. *New science: From idea to result*. 2016, 1-1 (60), 96-100.
3. Mamai, O. V., Mamai, I. N. Basic institutional conditions of innovative activity of modern enterprises and organizations. *Problems of enterprise development: theory and practice; Materials of the 15th International Scientific and Practical Conference dedicated to the 85th anniversary of Samara State University of Economics : in 2 parts.* Samara, 2016. Pp. 229-231.
4. Mineev, D.V., Lomakin, A.Y., Kupreeva, M.N. Innovative development direction of the management of enterprises in modern conditions of managing, The Russians. *Proceedings of the Samara state agricultural Academy*. Samara, 2011. 2, pp. 112-114.
5. Seleznev, P.S. *Innovation policy of non-Western countries in the early twenty-first century: the search for modernization priorities.* Moscow: Financial University, 2013. 160 p.

Primary Paper Section: A

Secondary Paper Section: AH

[5] https://msp.economy.gov.ru/
[6] https://msp.economy.gov.ru/