

# Integration as a Prerequisite for Resource Support of Innovation Management Digital Economy

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**Abstract** — The development of the Russian economy can not be abstracted from global trends. The presence of individual traits in the Russian economy determines the importance of ongoing research on a comprehensive analysis of the resource support system for innovation. The research results determine the presence of subjective positions on the justification of integration processes in the innovation environment. The need for a comprehensive study of the resource support of innovation in the digital economy is due to the characteristics of Russia, that innovation in socio-economic systems is the result of the involvement of knowledge, information, development and technology in the innovation process. State participation in creating a favorable innovative climate in the country ensures the commercialization of scientific achievements. The modern development of the country's economy is impossible without scientific support and the integration of science in the innovation environment. It seems relevant to use international experience and preserve the conditions that ensure the possibility of positioning Russian enterprises on a par with leading foreign ones.

**Keywords** — resource support system, digital economy, Russian economy, innovation management

not only to the study of the conditions of resource support for the management of innovative activities, it is advisable in the formation of a strategy for innovative development of industries and sets the determining conditions for achieving the established criteria listed in Table 1. The situationality of the resource support for the management of innovative activities updates the cognitive conditions for its implementation to ensure a strong, competitive position on an industry basis.

TABLE I. CRITERIA FOR THE INNOVATIVE DEVELOPMENT OF THE ECONOMY [1]

No s/p	Indicator	Set value, %
1	Enterprises engaged in technological innovation	40–50
2	Presentation of products on world markets of high-tech goods and services in 5–7 and more sectors	5–10
3	The share of exports of Russian high-tech goods in the total world export of high-tech goods	2
4	Gross value added of the innovation sector in gross domestic product	17–20
5	Domestic research and development costs of total gross domestic product	2,5–3

## I. INTRODUCTION

The digital economy is characterized by the dynamism of multi-parameter processes. In our opinion, these processes are the directions of the main trajectories of the development of socio-economic systems, and also determine the importance of a comprehensive study of the conditions for the implementation of resource support for the management of innovative activities. The integration of systemic and institutional approaches provides a priori conditions that stimulate the need for a comprehensive study of these processes. In this regard, the cognitive approach is applicable

## II. RESEARCH PURPOSE

The purpose of the research is reasoned by the need the importance of a comprehensive study of the resource support of innovation management and a systematic analysis of positive and negative trends that determine the feasibility of integration in socio-economic systems in digital economy.

## III. RESEARCH SUBJECT

The subject of the research is the integration aspects that accompany the integration processes of resource support for the management of innovation in the Russian Federation.

IV. MATERIALS AND METHODS

The data characterizing the distribution of research and development costs by source of funding in the Russian economy indicate the presence of structural imbalances in the Russian economy. Such a source of financing research in our country as own funds of industrial enterprises in the structure of investments in this area is less than 30%. Compared with developed countries or countries of Southeast Asia, this indicator is approximately two times lower [2]. At the level of public-private partnerships, it is necessary to take measures that ensure high profitability and the absence of barriers that

affect the process of attracting investments in innovative production activities, ensuring the entry of innovations into the market of startup projects in the areas of retail, IT and e-commerce [3].

The existence of a competitive environment for the Russian industry created by global technological cooperation is evidenced by the data presented in Fig. 1. A way out of this situation is possible by embedding Russian new technologies in world value chains. The way to create alliances with high-tech zones of the world is also promising.

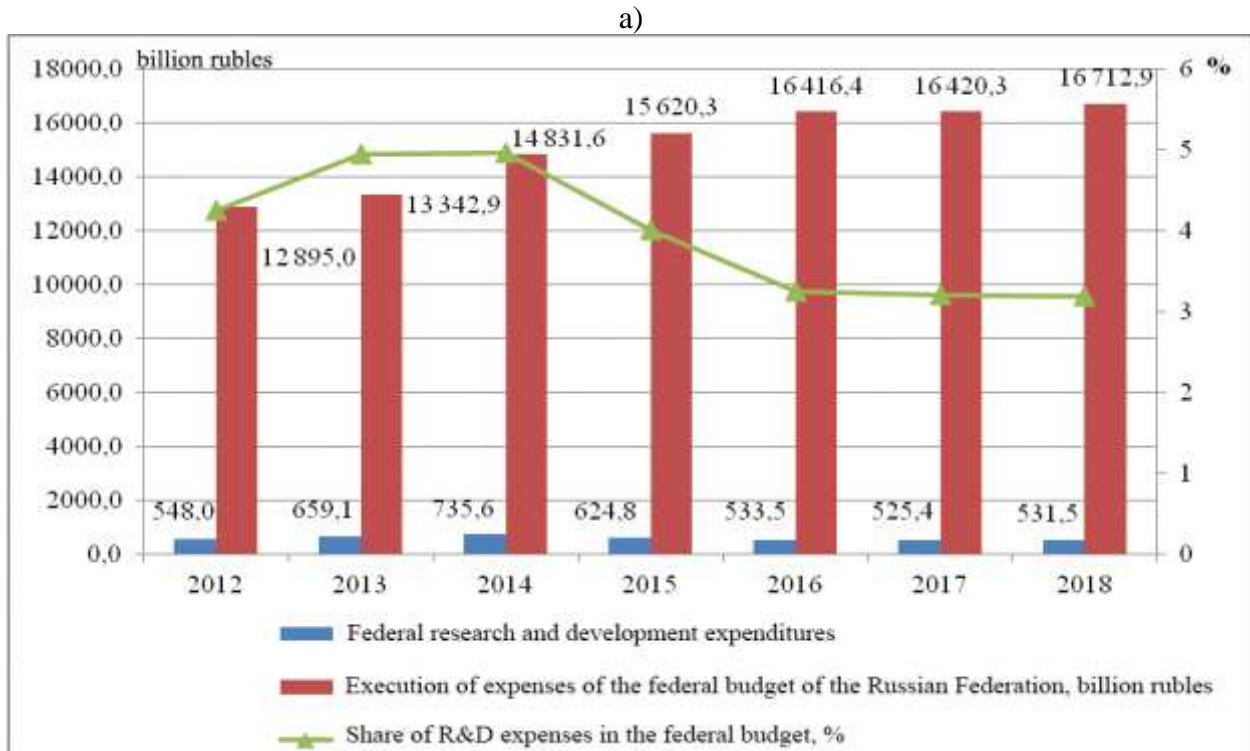
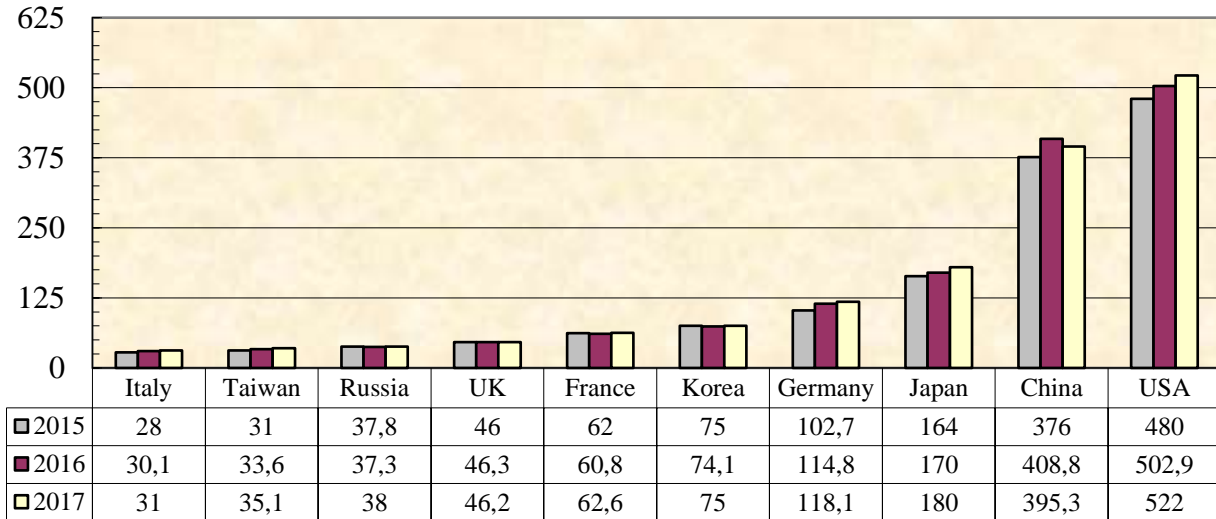


Fig. 1. a) R&D expenses in different countries of the world, billion US dollars; b) federal research and development expenditures [4]

The need to anticipate the risks and consequences of threats declared by the external environment determines the feasibility of supporting the conditions under which the resource support for the management of innovative activities allows realizing the obvious advantages of the transition to digital economy. We single out the main ones.

Firstly, it is the necessary level of labor productivity inherent in the digital economy. And in this direction the tools of the national project “Labor Productivity and Employment Support” are already working. Secondly, there are opportunities for the technical re-equipment of production facilities based on the latest technologies, modern high-speed communication systems and means of communication. Thirdly, the accumulation and dissemination of knowledge, as well as scientific, technical and other information are important for the life of people. Fourth, the loopback of local

financial markets provides simultaneously the transfer of financial information at a tremendous speed to anywhere in the world.

These factors are gaining urgency in connection with the instructions of the President of the Russian Federation “... the country has no right to “oversleep” the information revolution ...”, enshrined in the task of increasing GDP, and also fulfilling the conditions for protecting intellectual property. We note the influence of transnational corporations (TNCs) on local financial markets, which have divided more than 1/3 of the labor market, more than 1/2 of the capital market, more than 2/3 of the total sales of high-tech products and the bulk of financial capital.

In this regard, the proposed conceptual directions of the TIST approach are of particular importance (Fig. 2) [5].

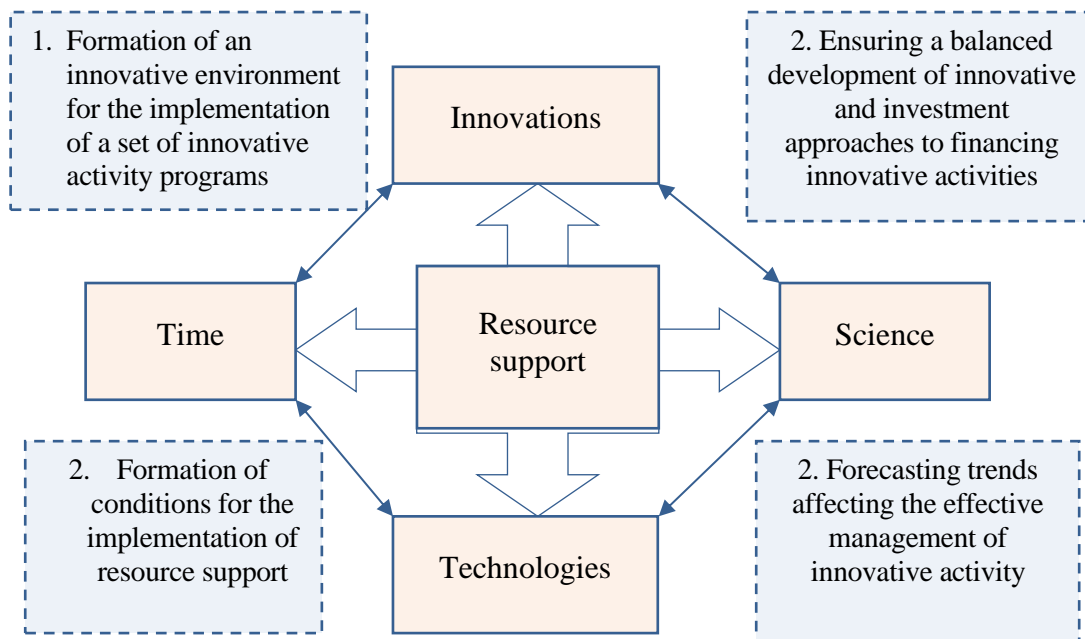


Fig. 2. Conceptual directions of resource support for innovation management

The iteration of measures providing these directions declares:

- the possibility of Russia's transition to the next stage of technological development;
- involvement of research results in innovative programs and projects;
- ensuring the competitiveness of new generations of products and technologies in the global market [6].

The adjustment of the considered TIST components of innovation management is due to the formation of the digital economy as the foundation of a promising strategy for Russia in the 21st century, the development of integration processes of resource support for innovation management.

In the process of research, we formulated the principles for the implementation of integration processes in socio-economic systems:

- prioritization of the formation of competitive industries, characterized by a faster growth rate of labor productivity based on new technologies and digitalization;
- improving the business climate;
- removal of infrastructural restrictions for the development of the economy, in general, and for the disclosure of industry potential, in particular;
- continuity of the process of improving the training of modern personnel for the modern digital economy;
- improving the innovative, scientific and technological bases of the digital economy.

For the successful implementation of these principles, we have identified the stages of integration (Fig. 3). Among the most significant are: monitoring demand forecasts, developing support tools, creating conditions, entering the wave of technological development and adopting laws.

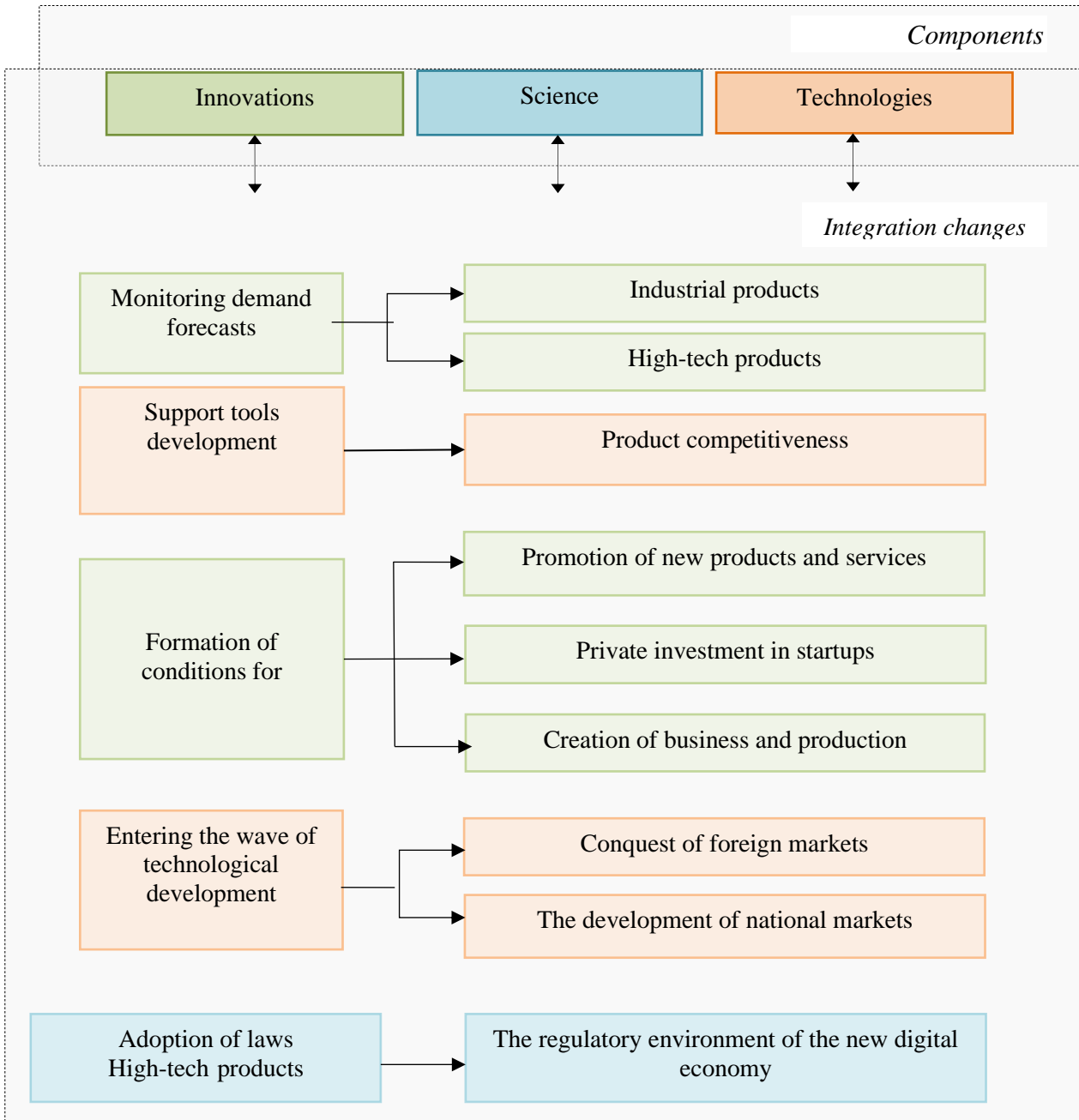


Fig. 3. Scheme of integration of the resource support system and innovation management

In modern conditions, we observe in the Russian innovation dynamics of the trajectory of isolated growth of national economy, which is being transformed into an integration strategy. We attribute the slowdown in economic growth in developed countries to the redundancy of resource support for innovation [7].

The practice of developed industrial countries that have ensured the commercialization of the results of integration interaction allows formulating the concept of resource support for the management of innovative activities and make suggestions on the forms of its practical implementation in Russia from the perspective of transplantation while ensuring

our own national security [8]. Despite the existing sanctions, we admit:

- Firstly, the possibility of using foreign scientific and technical potential and transferring innovations to the national economy;
- Secondly, the adaptation of innovations, scientific achievements and technologies to the requirements which allow their results to participate in the development of their own markets and the conquest of new ones;
- Thirdly, application of existing practices to the analysis of integration processes.

Taking into account the results of studies of high-tech sectors of the Russian economy, it is concluded that the Russian innovation system is imitational, and that there is the pragmatic attitude of production enterprises towards the production of innovative products. In addition, there is no clear legal status of innovative products, and methodological approaches to statistical evaluation of this category vary. At the same time, we note the strengthening of the dynamics of interiorization of knowledge in the framework of the commercialization of innovations, scientific achievements and technologies, and the development of integration processes in the resource support system for managing innovative activities from the perspective of their evolutionary and informational perception. The evolutionary nature of the integration processes is evidenced by the validity of the conclusions made by N.V. Sirotkina and Yu. A. Achenbach, in relation to the negative impact on the formation of relations arising on the basis of the mutual arrangement of agents of the innovation environment according to any evaluated criterion in the presence of violence and directivity of influence [9].

The flip side of integration processes is their inertia, which consists in the obligation to take into account the consequences associated with the movement or creation of new industries, market niches, changes in the social conditions of participants in innovative activity and the conditions for its management [10]. The emergence of a new integration connection is impossible without the destruction of the old one, and this entails the need to take into account convergence. The authors B.G. Preobrazhensky and A.A. Kuzubov refer to this fact, comparing the rates of economic growth in two large groups. One of these groups analyzes the regions involved in integration processes using various mechanisms (for example, based on three levels of interaction between regional authorities, educational institutions and private organizations). The second one united the disintegrated regions.

Making an intermediate conclusion about the lack of criticality and inertia of integration processes for innovative activity, we note the characteristic feature of actors to influence existing relations with the least losses due to the mentality of the nation.

Actualization and prominence of the key trends in the integration processes of innovative activity will allow forming a strategic interest in Russia, taking into account its competitive advantages and the desire to overcome structural imbalances in the Russian economy.

In conclusion, we note that it is necessary to systematize and unify for Russian industrial enterprises the positive aspects of innovative development, based on the market perception of the situation by the participants from the standpoint of evolutionary and informational approaches in the

context of the existing integration of the possibility of choosing the preferred strategy [11].

## V. CONCLUSION

The development of integration processes will continue to be a process of improving the conditions and nature of the economic interaction of business entities. Provided the latter participate in innovation, accompanied by their association to achieve common goals and obtain a synergetic effect by solving resource, organizational and managerial problems [12]. Although the thesis formulated is not axiomatic due to the dependence on global trends, it is typical as long as the digital economy determines the guidelines for production activity.

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