Formation of mechanisms for the development of innovative activity in the industrial production of the Russian Federation

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Abstract. The article is devoted to the formation of mechanisms for the development of innovative activity in the industry of Russia. The paper identifies factors that impede the transition of industrial production to an innovative development path, among which the authors highlighted a drop in investment in the Russian economy, a lack of staff and an imperfection of infrastructure support, and a decrease in the commercial interest of industrial enterprises. Based on the results, a system of innovative development of industrial production was proposed, which consists in a balance of negative and positive factors, as well as the need for the participation of the private sector, government agencies and public institutions in shaping the prerequisites for the transition of the economy to an innovative development path. In conclusion, the study presents the main findings and results of the work.

1. Introduction
In the Russian Federation in recent years there have been processes associated with the transition from one technological mode to another and the development of new areas of activity. The latest trends in the Russian economy is the transition to innovative and digital technologies, which should allow for the growth and development of economic activities and the national economy as a whole. At the same time, programs have been adopted at the federal, regional and sectoral levels aimed at achieving the goals for implementing activities in the field of innovative and digital development, however, these plans are not being implemented [1].

National programs that ensure the development of innovative types of economic activity associated with the transition to innovative technologies are difficult to implement in various industries, which does not allow the transition to a qualitatively new technology, due to factors that negatively affect the activity of industrial production:
- the lack of necessary investment resources for the implementation of innovative activities within individual business entities or sectors in general [2];
- the mismatch of staffing with the promising tasks of the country's scientific and technological development [3; 4];
- underdeveloped infrastructure providing innovative activity;
- the preservation of immunity to innovation and a decline in the interest of enterprises in pursuing
  a policy of innovative development and transition to a qualitatively new path of development [2].
  Such a situation leads to a violation of the sustainable development of economic entities in the field
  of industrial production.

2. Materials and methods
The purpose of the article is to analyze the factors affecting the implementation of the policy for the
transition of the economy to innovative technologies and the formation of recommendations for the
development of innovative activities in the industrial production of the Russian Federation. To achieve
this goal, the following tasks:
- analyze the problems that hinder the transition of industry to an innovative path of development;
- propose measures to ensure the innovative development of industrial production in the Russian
  Federation.

The study used statistical, comparative, economic and statistical and logical methods.

3. Results
Ensuring the transition of industrial production to an innovative path of development is possible by
managing factors that adversely affect the organization, among which are:
- lack of financial resources;
- the difficulty of obtaining a loan;
- competition from other organizations engaged in leasing activities;
- a high percentage of commercial credit;
- the current level of taxation;
- imperfection of legal regulation of leasing activities [5];
- weak interaction of the research and development sector with the real sector of the economy,
  which does not allow the formation of production chains [3].

Factors adversely affecting the organization’s activities lead to a decrease in the financial and
technological stability of the organization, the impossibility of implementing projects to introduce and
use new technologies based on leasing, and, as a result, a decrease in the investment attractiveness of
enterprises and the economy as a whole [6; 7].

Of course, the creation of innovative products and technologies is difficult to imagine without
attracting additional financial resources, but, recently, there has been an outflow of investment from
the real sector of the economy. In this regard, we consider the factors limiting investment activity:
- insufficient demand for products;
- lack of own financial resources;
- a high percentage of commercial credit;
- a complex mechanism for obtaining loans for the implementation of investment projects;
- investment risks;
- unsatisfactory condition of the technical base;
- low profitability of investments in fixed assets;
- the uncertainty of the economic situation in the country;
- imperfect regulatory framework governing investment processes [5].

Imagine the volume of investment in fixed assets (figure 1) [5].
From the presented figure it can be seen that the volume of investment in fixed assets increases by no more than the level of inflation of the economy, while the pace and prerequisites for increasing the level of investment attractiveness of industries and the economy as a whole slow down.

The investments received are mainly aimed at the following goals:
- an increase in production capacity with an unchanged product range;
- An increase in production capacity with an expanded product range;
- automation and mechanization of the existing production process;
- introduction of new production technologies;
- reduction of production costs;
- energy saving;
- replacement of worn machinery and equipment;
- creation of new jobs [5].

From the list of investment objectives, it can be seen that mainly investments are directed to increase and change production volumes, as well as to switch to automated and digital technologies. At the same time, investment volumes are decreasing every year, which ensure the renewal of fixed assets and a decrease in the level of use of morally and physically worn out production capacities (figure 2) [5].
It can be seen from the graph that the level of depreciation has remained unchanged over a long period of time, while the elimination of worn-out capacities is not more than one percent, and on average, new production assets are introduced annually in the amount of about 4 percent, which indicates an expansion of production rather than updating it [5].

Another significant problem associated with the transition to innovative technologies is the lack of personnel for pursuing a policy in the field of innovative development [8]. That is why in a global competitive environment, the risk of uncertainty and limited financial resources, the need for improving the models and mechanisms of strategic partnerships between universities, business and employers is being updated [3; four]. In addition, there is a weak interaction of the research and development sector with the real sector of the economy, which does not allow forming production chains and restraining the conversion of research results into innovative products and technologies [3; 4].

The next obstacle is the lack of the necessary infrastructure for the development of innovative products and technologies, which should be developed within the framework of research and development centers, higher educational institutions and industrial enterprises [9].

Thus, the identified factors hinder the transition of industrial production and the Russian economy to innovative technologies, in this regard, it is necessary to develop a system that ensures the innovative development of industrial production.

4. Discussion

The formation of a system of innovative development must be based on the management of factors ensuring the transition of industrial production to a qualitatively new path of development [10; 11]. Of course, it is advisable to build innovation development management on the basis of the interaction of the private sector, government agencies and public institutions. We will form a system for ensuring the innovative development of industrial production (figure 3).

![Figure 3. The system of development of innovative activity in the Russian Federation](image)

From the presented figure it is clear that the system of development of innovative activity should include both factors limiting development and ensuring their development. By managing these factors and
maintaining a balance between the participants in the innovation process, it is possible to ensure the conditions for the transition of industrial production to the innovative development path.

5. Conclusion
Thus, in the framework of the study, the factors limiting and preventing the transition to an innovative development path were identified. As a result of the analysis of statistical information, it was found that the preconditions for the transition of industrial production to innovative technologies were not fully formed in the Russian economy, however, the main drivers that ensure the transition to innovative technologies have potential opportunities for further improvement and development. At the end of the study, a system for the development of innovative activity in the Russian Federation was proposed.

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