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Innovative Development Of The Agricultural Sector: Problems And Prospects.

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ABSTRACT

This article presents a hierarchical model of the formation of priority areas for the innovative development of the agrarian sector of the economy, focused on the modern production system, which should become the generator of the development of the agro-industrial complex.

Keywords: innovation process, innovative development of the agro-industrial complex, agrarian economy.

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INTRODUCTION

The current stage of development of productive forces and production relations initiates the need for their qualitative transformation within the framework of the emerging model of innovative development of the country. This is reflected in the agrarian sector of the economy, where innovation is becoming the dominant trend. However, despite a number of developed strategic documents on the innovative development of the agro-industrial sector, they do not always correspond to the strategy of the innovative development of the Russian Federation for the period up to 2020. Their main provisions at the regional level are general in nature, they do not take into account local organizational, economic, technological and other aspects of agriculture. In the regions, there is a slow growth of innovative and investment opportunities of economic entities. As a result, the share of obsolete and worn-out equipment is declining at low rates, the replacement of foreign innovations with domestic ones has become protracted.

Despite the presence of a large number of works on the study and formation of new approaches to the management of innovation processes [6, 7, 10], a hierarchical system has not been formed that can have an economic impact on participants in the investment process. At the same time, it is necessary to identify the main factors, risks and problems that hinder the innovation process in order to substantiate the directions for transferring the achievements of science to agricultural producers. The current shortage of investment resources impedes the introduction of new technologies, and the existing economic levers are weakly stimulating their influx into the agricultural sector. Low profitability of production and high risks of innovation development made the agrarian sector of the economy unattractive for most of private investors, and state local support for investment processes makes it impossible to determine the system of strategic priorities for innovative entities in the agro-industrial complex. All this proves the relevance and timeliness of scientific research in the proposed direction.

MATERIAL AND METHODS

The generalization and systematization of the existing definitions of innovative activities of organizations of the agricultural sector allowed us to give a refined author's interpretation of this definition. We believe that the innovation process should be considered as a complex system characteristic that can adapt to the changing influences of external and internal factors, which is a continuous and continuous process of transforming technical or technological ideas, based on scientific developments, into new technologies or its individual components. with bringing to use directly in production with the aim of obtaining high-quality new products, as well as achieving economic, social and useful and environmental effects.

On this basis and as a result of the study of strategic documents in the framework of this study [2, 3], a concept of priority areas and areas of innovative support for the development of the agrarian sector of the economy was developed, which is presented in Figure 1 as a simulation model. In the diagram, it is multi-block, consists of 7 blocks - priorities, arranged successively along the hierarchy, but at the same time they are closely interrelated and interdependent.

Let us dwell in more detail on the intrinsic definition of these concept blocks and for each of them we will designate the key problems [2, 5].

RESULTS AND DISCUSSION

The first block is the generation of ideas. First of all, we must understand that the main generators here are research institutes, universities, enterprises, and private researchers. In its direction, innovations are mostly well-known, here are shown new varieties and new breeds, bird crosses, and the development of disease-resistant plants, their protection from adverse environmental factors and other factors.

The key issue for generating innovation is the quality of creating innovation and developing the effectiveness of research. Here is how it was designated by the President of the Russian Federation V.V. Putin in January 2016 at a meeting on science and education. He stressed that in Russia there are more than 150 strong state scientific institutions. They account for about 70% of all patents, 80% of highly cited works, their development is in demand in the real sector of the economy. At the same time, one hundred and fifty hundred are only 10% of all educational and scientific organizations.

Undoubtedly, the presented generation of innovations includes the development of new equipment and technologies, industrial technologies in animal husbandry, science-based farming and animal husbandry systems, new fertilizers, new plant protection products, biologization, greening agriculture, as well as organizational, managerial, socio-ecological and economic directions. innovation activities.

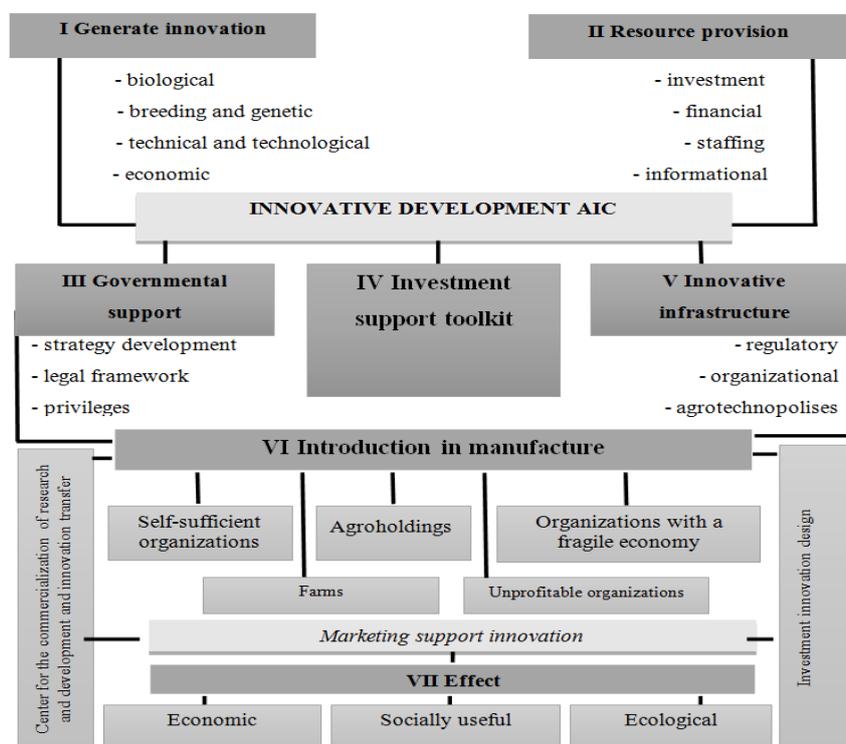
In the above model, the core of the entire innovation system, in our opinion, should be the production enterprise, its technological level, competitiveness, profitability. But at the same time, science must be integrated into the production system and be the generator of this innovative sphere, since it ceases to be an autonomously functioning industry.

However, one should take into account the low level of demand for new technologies by economic entities of the agro-industrial complex. According to the HSE, the largest level of adoption of new technologies is distinguished by large agricultural holdings, with an export-oriented innovative management.

The second block is the resource support of the innovation potential [1, 8]. Here are their equally difficult problems, especially investment ones. Therefore, it is especially important to take into account the high level of dependence of the agrarian economy on natural factors.

State support is a priority direction for the development of innovation and investment activities, because the state, in conditions of limited finances, becomes the main investor in the innovative development of the agro-industrial complex

On the block of innovation infrastructure, it should be clarified that the technology park formations identified in it should be the main links in the innovation system, ensuring the creation, pilot development, transfer (transfer) and the widespread introduction of innovations. The creation of agrotechnopolis is worthy of special attention.



Source: compiled by the author

Figure 1: Conceptual scheme of priority areas and areas of innovation support of the agricultural sector of the economy

In our opinion, in the presented scheme the key and defining unit is the introduction of production. Here are the most difficult problems of the implementation of the presented concept. We will not give well-known figures about the low results of innovation in Russia, especially in agricultural production. The underdevelopment of institutions and mechanisms for the transfer of innovation from science to business remains the main key factor deterring scientific and technological progress in the industry since the times of the planned economy. In the agricultural sector there is not even reliable statistics on the activation of innovative activity.

Fully supporting these results of expert studies of the Research Institute of the Higher School of Economics, I would like to further emphasize that a significant proportion of agricultural products in some priority sectors are occupied by private farms with a low level of marketability, which in general, of course, reduces the innovative level of the agricultural sector and here the need development of broad cooperation of personal subsidiary farms with farmer structures, medium and large agricultural production cooperatives commodity economy. At the same time, all institutional factors of both positive and positive impact on innovative activity should be taken into account.

In general, the innovative system of functioning in the agro-industrial complex is just beginning to form, or rather, recover.

The main limiting factors of innovative development today are:

- lack of sufficient production of domestic agricultural products and products processed in the world market;
- low level of effective demand from the business for innovative products;
- underdevelopment of the innovation-conducting infrastructure from science to business;
- lack of a working scheme to stimulate the development of innovative processes in the agro-industrial complex.

We offer several areas and options for the development of promotional work.

First, first of all, it is necessary to determine the priority subjects of innovation activity, and in this connection to determine the parameters of investments by enterprises depending on the level of their innovative development. In this regard, in our opinion, agricultural holdings of various types and self-sufficient organizations are put forward as priority subjects. At the same time, the state agrarian protectionism should be aimed at the innovative development of organizations with an unstable economy, at supporting the exit of unprofitable organizations to the vector of investment and innovative development.

Secondly, the creation of centers for the commercialization of R & D and the transfer of innovations is becoming an effective support and basic structure for this model of the introduction of science into production. In these innovative organizations, it is possible to create departments for commercialization, intellectual property, the formation of grants, patent and licensing departments, as well as information and marketing departments.

Thirdly, investment-innovative design acquires great importance in modern conditions, since especially in the South of Russia, there is a massive impulse to form various investment-innovative projects that are indicators of the development of innovation-investment activities and are widely supported by business and the state.

And fourth, as a result of innovation, various effects should be achieved, not only economic, but also socially beneficial and ecological. This is the main purpose of the development of investment and innovation activity on the part of investors and agricultural producers.

CONCLUSION

Thus, the main idea of the concept is that the production enterprise, its technological level, competitiveness and profitability become the core of the entire innovation sphere. But at the same time,

science must be integrated into the production system and be the generator of this innovative sphere, since it ceases to be an autonomously functioning industry.

There are many other areas of innovation in agriculture. All innovative directions and initiatives in agriculture of the region are actively promoted and supported. To this end, it is planned to “consolidate” certain types of state support and locate them at the so-called “growth points” in the industry, differentiate state support depending on the climatic features and agricultural specialization of the subjects.

Today it is obvious to everyone that the creation of new and modernization of existing industries should be carried out only using the latest technologies and equipment. It is only possible not only to ensure domestic food security and independence, but also to fully realize the export potential.

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