

Fundamentals of innovative development management of organic food production

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Abstract. The purpose of the article is to develop theoretical and methodological provisions related to identifying tools for the innovative development of the production of environmentally friendly food. From the standpoint of a systematic approach, the innovative development of organic food production presupposes the presence of a control and controlled subsystem, goals, methods and tools for their achievement. Deduction, logical method, analysis, scientific abstraction, analogy method are applied. It has been substantiated that the tools for the development of the production of environmentally friendly food should combine the efforts of business, science and the state (the “triple helix” model). A technological platform was chosen as a tool at the federal level, due to its focus, goals and resource potential. It is concluded that the presence of distinctive features in the development of organic food production indicates the need to highlight the strategic direction of the same name in the existing technological platform "Technologies of the food and processing industry of the agro-industrial complex - healthy food".

1. Introduction

The factors and conditions of the external environment give rise to the need to form a mechanism for managing the innovative development of the production of organic food on the basis of a comprehensive interdisciplinary research. The evolutionary transition of the spheres of the agro-industrial complex to a stable state must be carried out on the basis of technological, organizational and economic measures [1-2].

2. Materials and methods

The systematic approach allows us to present the process of managing the innovative development of organic food production in the form of a control and controlled subsystem. The management of the innovative development of organic food production should be implemented in the conditions of the effective functioning of the institutional environment, which creates conditions for the concentration of enterprises around research and educational institutions that can meet the demand for scientific developments. Consequently, the control subsystem can be considered as a set of control objects (governing bodies at the federal and subfederal levels, research and educational institutions, associations, agricultural organizations, small businesses), which, using methods and tools, carries out a targeted impact on the controlled subsystem. The innovative development of organic food production presupposes the presence of three lower-order control subsystems.



The first - mesoeconomic, is formed by the industry governing bodies at the federal and subfederal levels. Management of innovative development of organic food production at this level is associated with the development and implementation of measures aimed at sustainable and interrelated development of the scientific sector and industry enterprises.

The second - scientific and educational, is formed by research and educational institutions that must ensure the training of qualified personnel, the creation of new varieties of plants and animal breeds, equipment and technologies, environmentally friendly organic fertilizers, animal feed, medicinal raw materials that are not inferior in their parameters to the existing ones. analogs. In addition, the subsystem is responsible for the development of an algorithm for system analysis and forecasting of management of innovative development of the production of environmentally friendly food.

The third is an entrepreneurial one, formed by agricultural organizations, small and medium-sized businesses, designed to meet public needs for environmentally friendly food. Susceptibility to innovation at this level is determined by the presence of innovation-oriented management and production capacity.

The controlled subsystem includes the processes of creating fundamental and applied innovations, factors of production and their combination, economic relations arising between the subjects of innovation, as well as between participants in the market segment for organic food.

The impact on the managed system should ensure the achievement of the main goal - increasing the competitiveness and sustainability of organic food production. At the lower level, a system of goals of mesoeconomic, scientific, educational and entrepreneurial subsystems is proposed. For the mesoeconomic subsystem - the identification of territories and the creation of favorable conditions for the innovative development of the production of environmentally friendly food. For the scientific and educational subsystem - building up innovative potential, ensuring a given priority of innovation, including research and development of innovations, organization of innovation. For the entrepreneurial subsystem - the transition to sustainable development of the production of environmentally friendly food based on technical, technological and organizational and managerial renewal through research and development activities.

As a set of methods, techniques and means of influencing a controlled object, a complex of interrelated organizational and economic measures should be used to achieve the above goals - an organizational and economic management mechanism. To date, scientists have developed many universal models of the mechanism for managing the innovative development of socio-economic systems, which can be applied to the development of food production within the framework of the traditional approach.

In particular V.A. Ivanov presents the structure of the economic mechanism of innovation in the agro-industrial complex, taking into account the specific nature of innovations in agriculture. The main elements of the economic mechanism are: government support for innovation, innovation planning, strategic innovation management, financing of innovation processes, pricing for innovative products, taxation and insurance of innovation risks, innovation marketing [3].

M. A. Matveeva proposes to divide the innovation management mechanism into functional groups, including mechanisms: organizing innovation, creating innovation, financing innovation, motivating developers, technological transfer, intellectual property, planning and interaction of participants in the innovation creation process [4].

M.N. Chechurin, when creating a model of the mechanism of innovative development, is guided by a set of methodological principles: openness of economic systems, uneven economic processes, irreversibility of economic evolution, nonlinearity of economic transformations, multiple ways to achieve goals [5]. From his point of view, the expediency of building a hierarchical management system for innovative development is associated with the need to harmonize the system, group and individual interests of the managing subsystems, as well as the variety of goals that the system is focused on achieving.

D. V. Khodos, Z. G. Shiporova represent the economic mechanism of innovative development as a system of interrelated forms and methods of organizing and stimulating scientific work, business development in the scientific and technical sphere of the agro-industrial complex, and state support.

According to scientists, the organization and stimulation of innovation in agriculture should be based on the principles of public-private partnership, which would create mechanisms that would motivate businesses to participate in the development of innovative processes [6].

Yu. I. Zhevoroi and D.S. Donetsk offer a mechanism to stimulate innovative development through direct methods - target-oriented, administrative and management measures, and indirect methods - creating a favorable innovation climate, stimulating innovative processes through concessional lending and taxation, accelerated amortization, state loan insurance [7].

On the other hand, the development of food production based on the ecosystem approach presupposes the creation of such a management mechanism that would help to reduce the impact of production technologies on the environment and, at the same time, increase the ecological and economic efficiency of food production.

In accordance with the requirements of environmental standards for the production, processing, storage and transportation of agricultural products Z. V. Nikitina [8] proposes a model of the organizational and economic mechanism for managing the production of environmental products, including a set of organizational and economic measures.

O. Yu. Voronkova [9] presents the organizational and economic mechanism for the development and functioning of agriculture focused on the production of organic products as a sequence of actions and a set of tools in the implementation of organizational, economic, innovative, technological and management measures aimed at the optimal organization of production in the process of transition of economic entities to organic production.

3. Results

The considered mechanisms of food production management within the framework of the traditional and ecosystem approaches allow, taking into account the existing control subsystems, to present a model of the mechanism for managing the innovative development of organic food production (figure 1).

The author's mechanism was developed on the basis of its presentation as a systemic set of measures that determine the innovative development of the production of organic food, the functions of operational, tactical, strategic management of innovation, the hierarchy of the agricultural system, the principles of innovative development of the production of organic food.

The federal and subfederal levels are characterized by the peculiarities of managing the innovative development of the production of ecologically clean food. The federal level includes actions of the state aimed at creating favorable conditions in the regions for the development of the production of environmentally friendly products and increasing the efficiency of the use of total regional resources. The sub-federal level implies targeted actions of regional authorities aimed at the most efficient use of the region's resources for the development of the production of environmentally friendly food. At the level of business entities, it is advisable to implement standard (basic) strategies for the innovative development of production, as well as to conduct applied research.

The management mechanism model allows to give the desired direction to the development of organic food production, contributing to the achievement of strategic and tactical management objectives. Moreover, each level of management includes resources, objects, subjects, forms, methods, concepts and tools.

A technological platform designed to unite science, government, business, as well as financial structures (banks, investment funds), venture capital companies and certification organizations can act as a tool for the implementation of measures that contribute to the innovative development of organic food production. The choice of a technological platform as a tool for implementing the mechanism is due to the fact that the platforms have a sectoral rather than a territorial focus and are designed to increase the level of connections of potential participants.

The concept and principles of technological platforms make it possible to present them as a tool for the innovative development of organic food production, which is designed to unite science, government, business, as well as financial structures (banks, investment funds), venture companies and certification organizations. The state can also act as the initiator of the formation of a technological platform or its

separate direction. The choice of such a tool is due to the fact that the platforms are designed to coordinate the efforts of government, science and entrepreneurship to modernize the economy of industries (they have a sectoral rather than a territorial focus). In particular, for the agro-industrial complex, platforms are able to form a research potential based on agricultural technologies to increase the environmental and economic efficiency of food production.

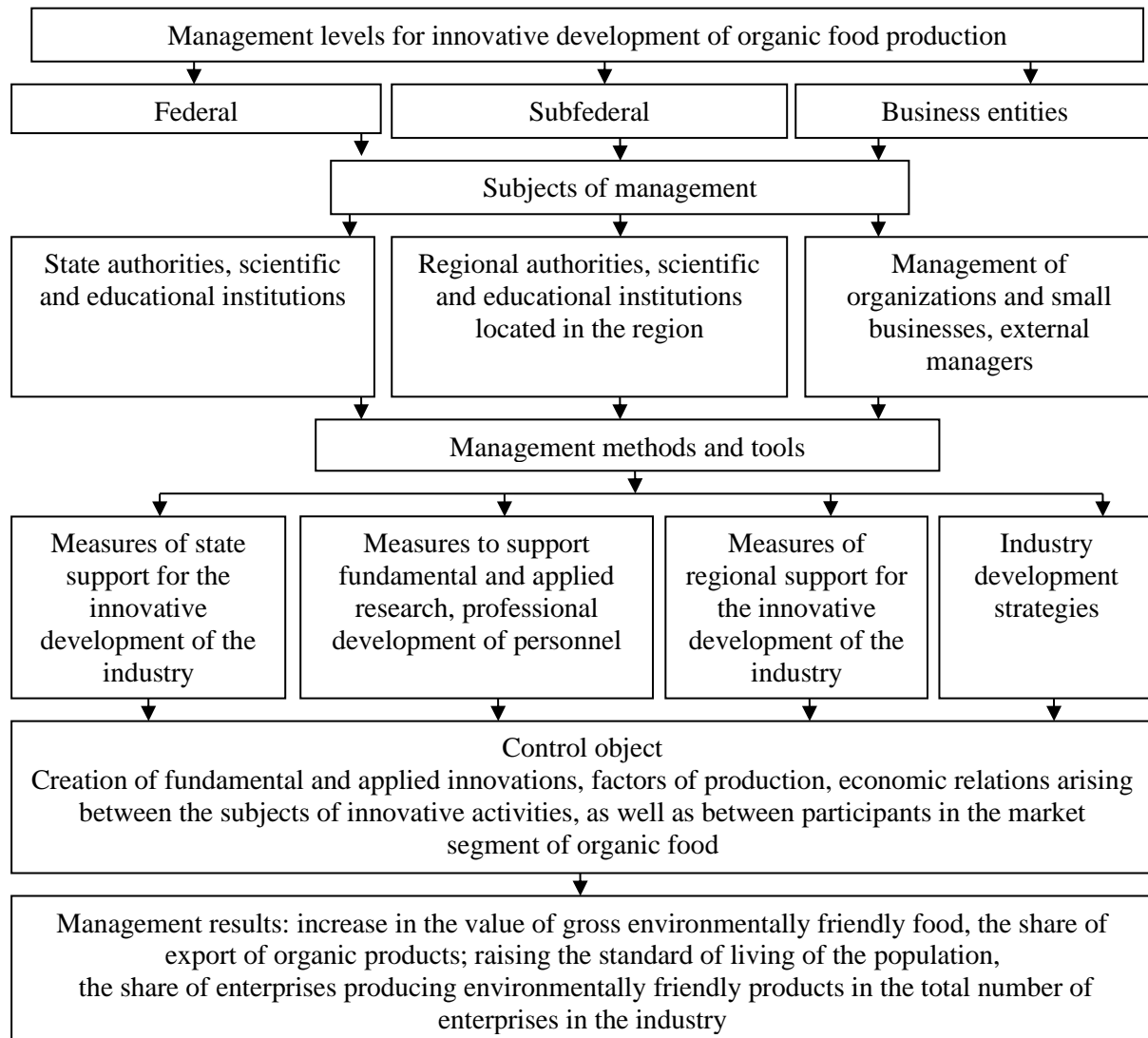


Figure 1. Model of the mechanism for managing the innovative development of organic food production.

The concentration of resources of the state, science and entrepreneurship for the innovative development of the production of environmentally friendly food within the framework of the technological platform is due to its resource potential.

In general, the technological platform seems to be an independent tool for implementing the project for the innovative development of the production of environmentally friendly food. Its main advantages are:

- consolidation of efforts of science, education and business;

- public-private partnership, contributing to a qualitative assessment of the viability of projects selected for support on favorable terms;
- the way of interaction between participants and the international community;
- getting access to budgetary funds for scientific research;
- the ability to find customers for manufactured products [10].

Of those operating on the territory of the Russian Federation, the closest in focus is the technological platform "Technologies of the food and processing industry of the agro-industrial complex - healthy food products", the purpose of which is the development of the food and processing industry of the agro-industrial complex, the creation of a technological basis, including a set of agrarian and food technologies, for solving food security problems, healthy nutrition of the population and rational nature management. The form of interaction between TP participants is public-private partnership with the formation of a legal entity in the form of an Association [11]. In terms of the composition of the participants, the technological platform "Technologies of the food and processing industry of the agro-industrial complex - healthy food products" is unbalanced, being mainly "scientific".

4. Conclusion

Thus, measures to develop the domestic market for organic food, namely, improving legislation, the structure of certifying and supervising organizations, providing financial, information and marketing support to producers of organic products, integrating agricultural, processing, scientific, educational, consulting, certification and other it is advisable for organizations to carry out within the framework of a separate strategic direction of the technological platform. At the same time, the technological platform can be considered as one of the tools to support the innovative development of the production of environmentally friendly products at the regional level on the basis of close interaction with the participants of territorial-production clusters through the coordination of interests and research topics.

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