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V.A. Tolbatov **, M.N. Ruban *, S.V. Tolbatov ***

**ORGANIZATION OF INVESTMENTS SUPPORT IN INNOVATION
ACTIVITIES OF AGRICULTURE OF THE REGION**

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Abstract. The article tackles the problems of forming the information support of the management in the agricultural sector, solution of which is suggested on the basis of new information technologies.

Key words: innovations, investment, decision-making, innovation activity, agriculture.

Outline of the problem. Progressive development of the economy has to ground on the consistent expanding of the productive activity of the enterprises and organizations, aimed to meet the growing demands of society. The international experience shows that this process depends on the intensification of the innovation activities in all of the economic spheres. The studies of foreign and local researches only prove this statement.

Analysis of recent research and publications. Issues related to the definition of innovation activity as an economic category are reflected in the works of the foreign scientists: L. Vodachek, A. Vodachkova, Y. Moroz, B. Santo, A. Thompson, E. Utkin, R. Fatkhuddinov, J. Shumpter and others, and also some local scientists: O.I. Amosha, Y.M. Bazhal, L.K. Bezchasnyy, V.I. Boiko, V.I. Landyk and others.

The problems regarding the innovation activity in the agricultural sector are covered in the papers of P.T. Sabluk, M.Y. Dem'yanenko, M.V. Zubtsi, O.I. Datsiya and others.

Research, concerning the theory and practice of innovation, has shown that there is a number of problems, among which is the necessity of increasing the efficiency of investment decisions for financing the innovative projects [1–7].

Enhancing the innovation activity requires enterprises to improve their management systems based on relevant innovation.

In the broad sense, the innovation activity is the process of restoring the conditions and results of the previous activity, or the new activity. The content and outcome of this activity is the development, implementation and utilization of the innovation. For agro-industrial enterprises, innovations have positive impact on the efficiency of their operational (productive) activity [2, 4, 8].

The analysis of different perspectives and approaches defining innovation activity revealed that the some authors conceptualize it as the techno-industrial activity, when the industrial innovation is being adopted, other scientists mean by it an appropriate reproduction of various aspects of social life with the aim of getting social, economic and other practical results, another group of thinkers point out that innovation is focused on providing a new level of interaction between the factors of production, through the use of new scientific and technical knowledge, some others



emphasize that innovation activity is inherent in specific methods of financing and lending.

Traditional methods of financing and implementation of innovation projects in agricultural production at the farm level do not provide an adequate reaction of production to changes in the conditions of economy management. The requirements for the implementation of innovation programs are contrary to the methods that were formed traditionally, since the latter do not take into account the complex economic processes of the modern market.

The research on theory and innovation implementation into the economy has shown that there is still a number of problems today, and among the most highlighted is the yet to be solved problem of funding innovation programs and projects in the field of agriculture.

There are works of local authors who address the problem of financing innovative development of the economy. Thus, Krupka M. I. [8] outlined the problems of condition and the development of financial instruments in the sphere of state regulation and innovation support. Datsiy O. I. [9] analyzed the international experience of financing innovation in market conditions, and peculiarities of this process in Ukraine.

The problems concerning financing the development of agro-industrial production sphere were considered by several authors. Kirilenko I. G. [10] and Gudz O. Y. [11] covered the current issues of financial security in agricultural production in market conditions. Maliy O. G. [12] studied some aspects of improving the financial support for agricultural production.

Aims of the article: to describe the state of the informatization and form the approach to the developing the information support of the agricultural sector management on the basis of innovations [2, 4].

Based on research about the problems of agro-industrial production in Sumy region, it should be noted that a low level of innovation activity among agricultural enterprises does not allow them to be competitive, it also indicates the need to enhance innovation activity and, therefore, requires a greater attention to innovative development strategy design for the region.

Such condition of the economy requires a series of measures for the development of innovation in the region. The issue is being worked on at the state level. The decision of the Cabinet of Ministers of Ukraine on July 21, 2006 № 1001 "On approval of the National Strategy for Regional Development until 2015" offers a regional development policy as the creation of plans and programs at different levels of sectors based on innovation approach for the development of economic systems.

In order to achieve the objectives, it is necessary to link the academic institutions and direct producers in a regional environment that would connect all the participants of the innovation processes. This innovative environment has to contain a significant scientific and technical potential, to be able to provide an efficient implementation of scientific and practical excellence into manufacturing.

One of the proposed measures to enhance the implementation of innovation in agriculture in the region is a regional Council of innovation policy in agriculture, which will coordinate research and application of the developments in this field, and



the establishment of the Fund for innovation support of agro-industrial production that will accumulate and distribute finances by priority areas and projects.

The establishment of above mentioned institutions involves the formation of the relevant financial and economic mechanism to realize the innovation development of agriculture in the region, which has to operate in real market conditions and correspond to the strategic plans of regional development and investment projects.

The main sources of funding are the state budget, commercial banks or interested investors. It should be noted, that the funding has to be provided through mortgage lending. Land has to become the collateral, without which the credit mechanism cannot be valuable for long-term loans for agricultural producers. The only problem that arises here – an undeveloped land market, therefore it is possible that not all areas could be able to perform as the collateral.

The Fund for innovation support must have government funding from the state and local budgets, facilitate the financing of promising research projects that are selected by the innovative board, and offset some of the expenses of the agricultural producers for implementing innovation at their enterprises. As a result, the profitability of agricultural production and its competitiveness would be increased due to innovation. This allows enterprises to get additional innovation revenue.

Thus, the formation of innovative environment creates conditions for the establishment of modern advanced technological structure in agriculture.

An important way for increasing the stability of agricultural production is improvement of the investment policies of enterprises and the simultaneous maneuvering of their sources related to investment and production structure, based on the current setting. This can be realized in the case when the development of investment projects is effectively supported.

In order to streamline the decision-making process of investing in innovative projects, it is useful to apply the algorithm presented in Figure 1. which formalizes the appropriate actions. The implementation of the presented sequence of actions allows to regulate the decision-making process for investing the innovation projects in compliance with the adequacy and effectiveness criteria.

During the investing process the main task is to choose the optimal option for financing the project.

The chosen options for innovation investment are justified using the method of estimation of the innovation project, reviewed in [1]. Figure 2 shows a model of optimization the innovation funding to support decision-making.

The proposed optimization model of financing innovative-investment projects enables:

- To assess the cost of investment capital coming from different sources of investment with different prices;
- To perform predictive calculation of innovation revenue and the effectiveness of innovation for the selected projects, considering the cash flows, projected by years;
- To carry out the ranging of innovative projects by revenue and efficiency of innovation activity;
- To forecast the index possible losses, taking into account the degree of risk-deferred investment of selected projects;



- To carry out projects ranging by the index of possible losses;
- To make predictive calculation of the budget formation at the Fund for innovation support in order to reinvest the means of contributions from innovative revenue into innovation program;
- To calculate predictive coefficient of connectivity projects;
- To group output parameters for a given criteria [13, 14].

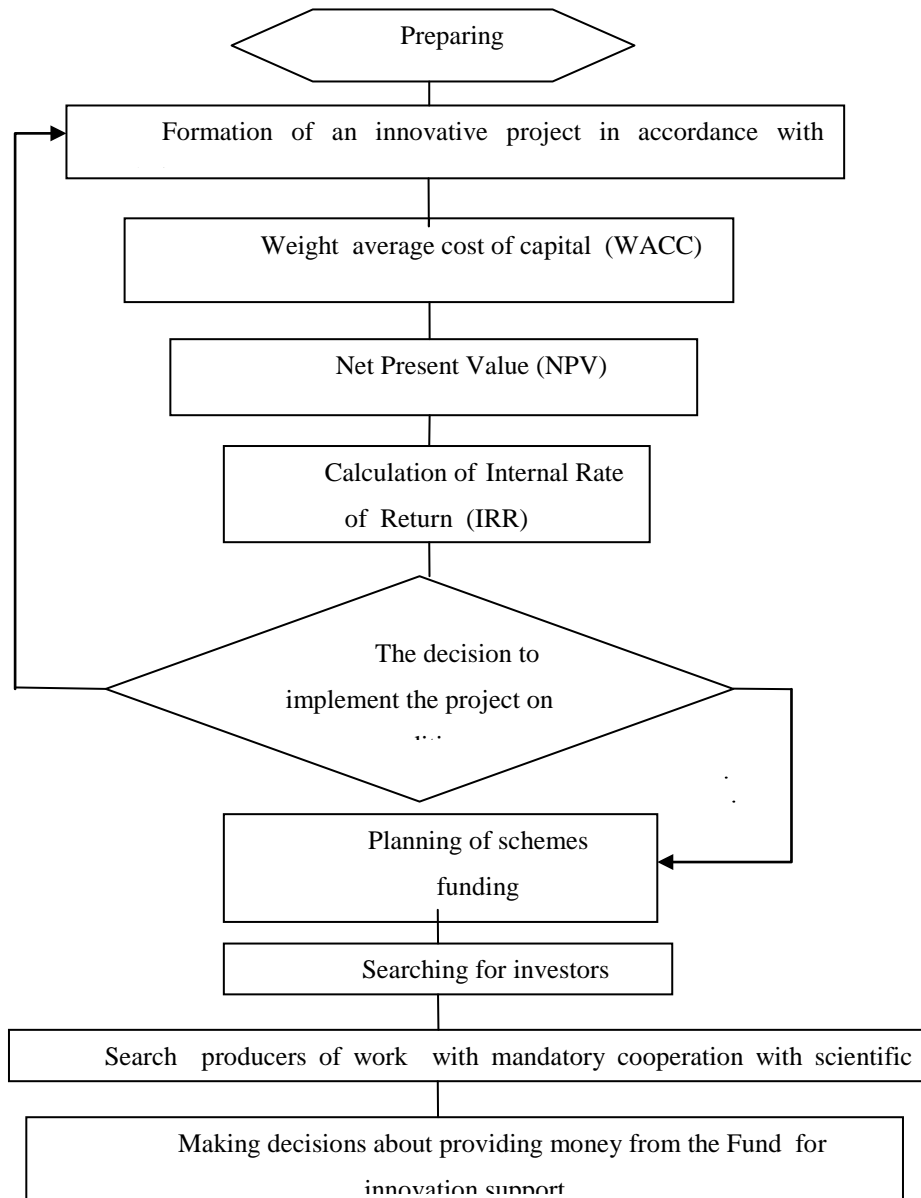


Fig. 1 Algorithm of the decision-making process of investing in innovative projects of agro-industrial complex

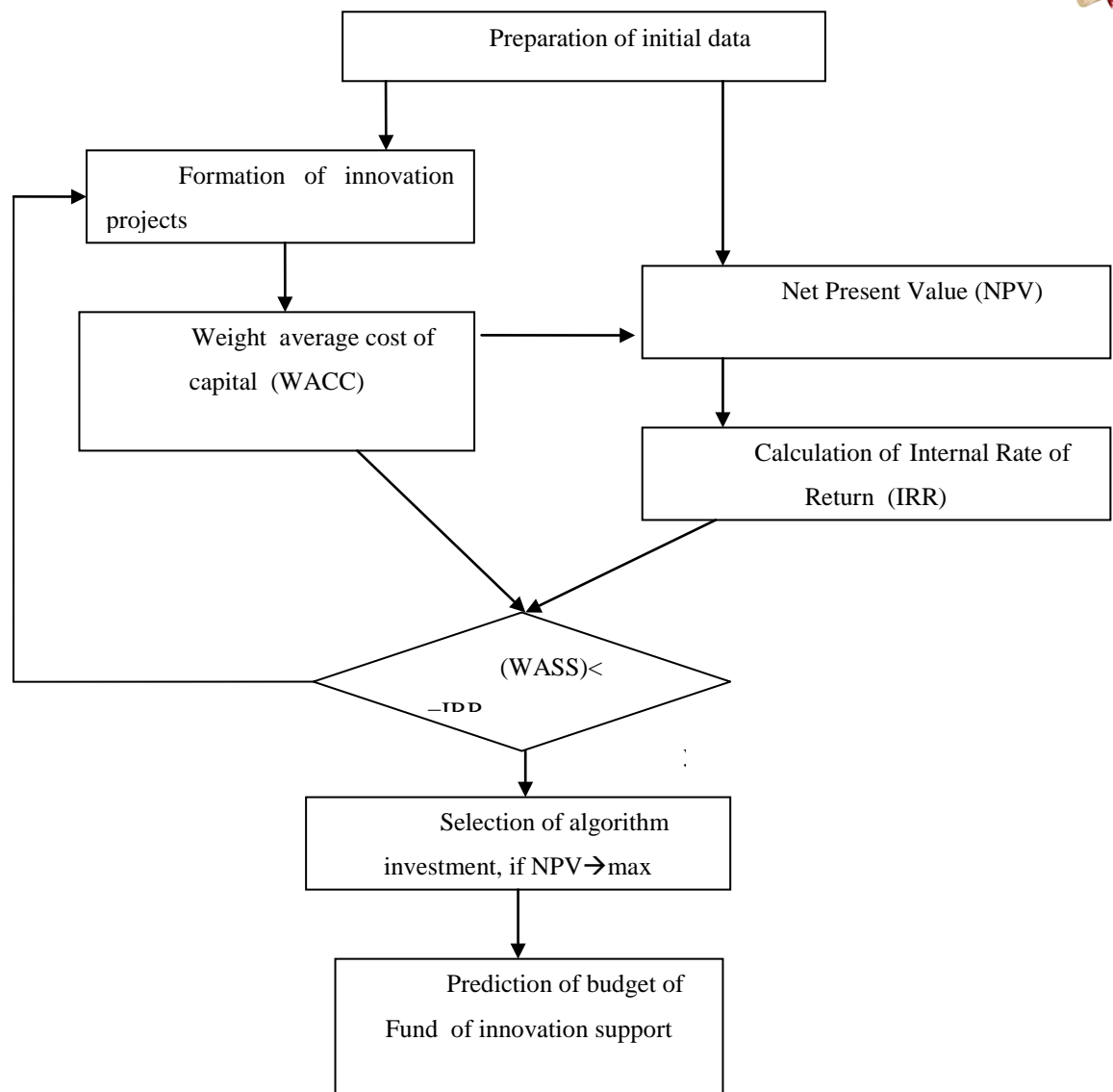


Fig. 2. Model of financing innovative investment projects

Based on the presented documentation and expert opinion, the Council of innovation policy decides on the funding and implementation of innovation projects.

The model can be used in the practical innovation activity of managers while choosing the optimal option of an investment project formation within the innovation program of agro-industrial complex on regional level.

Thus, the process of innovation enhancement with the use of improved financial and economic mechanism of innovative development of agriculture in Sumy region needs further development.

The advantage of the proposed model of management the innovative processes is the ability to adapt and use it while maintaining the inherent advantages in parallel and vertical structures of agricultural production. This will help increase the efficiency of innovation and investment process by means of expanding the sources of investment, optimizing their structure, complexity of implementation of innovative projects, reducing the time of implementation.



Summary. Innovative activity is a complex system of relations in the economic sphere, which determines its role in the social reproduction of economy.

The authors argue the direction of innovation enhancement in agriculture, consider the creation of appropriate structures and the formation of financial and economic mechanism for innovation development of the region.

The article offers a model for managing the innovation processes in agriculture, based on the approach of supporting the decision-making of innovation investment in agriculture.

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**J11607-002****Orlov N.M.****STATE APPROACH THE NEED DETERMINING THE COMPETENCE OF COMBAT CREWS OF UNMANNED AERIAL VEHICLES**

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Abstract. The paper discusses the need for national approaches to the definition of combat crew competence UAV. Substantiates the role of public authorities to identify areas of training combat crew UAV in order to improve their skills. The directions of further research discussed topics.

Key words: state power, the competence of a crew, an unmanned aerial vehicle.

Today, as in the world, and in Ukraine, more and more use unmanned aerial vehicles (UAV). This devices are use as in the economy (exploration hazardous areas where there have been floods, landslides, earthquakes, etc.), and in military affairs (exploration, dropping bombs, distribution of campaign material, etc.). According to the author that in the near future these UAV will be reduce to special aviation units in some of law enforcement agencies of Ukraine.

This device is managed specialists, which in practice refers to military attendants are: navigator - senior officials subservient; operator - UAV flight director; Engineer - Specialist engineering-aviation service.

Based on the above, it becomes clear: a) the problem of creating special aviation units, some of law enforcement agencies of Ukraine and ministries will be decision only under the constant supervision of higher public authorities; b) training of military attendants - is the subject of attention of the Ministry of Education and Science of Ukraine and officials of certain organizational structures of law enforcement agencies and ministries responsible who training of specialists and the safety of aircraft, under the control of public authorities is not only the center but also regions .

The law enforcement agencies understood how agencies identified as components of the security and defense of Ukraine [1]. Ministry, who may be interested in the application of UAV, these are: the Ministry of Defense, Ministry of Interior, Security Service of Ukraine and other ministries.

Only the efforts of the government can solve the problem as the creation of special units UAV aviation and military training experts subservient.

As described in the work [2, c.48–49] state power it is tool provide state and achieve its objectives, its mandatory attribute. State power is exercised by a special administrative staff on a defined territory covered by state sovereignty has to use this means of organized coercion and statutory and other forms of influence.

Of particular note is the combat training worker, namely the determination of competences officials subservient and areas of improvement. The problem of competence as personality, her abilities and professional skills patronize both domestic and foreign scientists [3–8].

Competent officials subservient combat UAV is understand as defined individuals, their abilities and skills needed to successfully perform its duties. These



concepts will in future be use to build a model of professional competence

Competencies for military officers attendants can be defined as:

- knowledge of building UAV, basics of aerodynamics of aircraft flying at low altitudes;
- knowledge zones flights of military and civil aircraft for the purpose of UAV flight out of defined areas;
- the ability to analyze the state of the air and ground situation according to the tasks to ensure the application of UAVs in the interest of stakeholders in the area of the flight vehicle;
- the value of consistency in decision-making tasks for the application of UAV tasks in the interests of terrestrial interactions.
- the ability to respond to changes in air and ground situation.

Obtaining these competencies carried out in teaching these people special programs agreed with the CUSTUMER (by relevant ministries).

In practice, in the preparation of military officials subservient simultaneously "working" school and each person independently. Thus, the school must provide knowledge on issues such as:

- control system aircraft in Ukraine;
- automated flight control system aircraft;
- the design and navigation of aircraft;
- fundamentals of Radio Engineering;
- aerial photography.

Officer: aviation meteorology, astronomy and cartography.

In determining the competence of individual member and military attendants in general should follow the following sequence:

- according to the unrelated individual member characteristics and combat service staff in general and their actions is a common semantic field, by their grouping by individual components, represent a certain semantic field;
- providing names and realignment exercise initially competencies;
- mutual agreement defined competencies and on this basis, the required integrated competence;
- formation of separate competencies for the bank officer and separately for workers, which can be used in future models of professional competence.

Thus, according to the author's work, good flight characteristics tactical UAV and a high level of competence of military service staff will provide the performance of any task within the capabilities of the aircraft. This will be achieve only when the control of higher authorities that may affect the design and production of UAV and the targeted training of military officers attendants.

Directions for further research will be: development of competency models specific combat UAV subservient; study of interaction of unmanned aviation complex of ground facilities in the area of the assignment.

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