https://doi.org/10.33271/nvngu/2022-5/191

V. Pavlov[1],
orcid.org/0000-0001-7120-0876,
I. Shtuler[1],
orcid.org/0000-0002-0852-8526,
N. Gerasymchuk[2],
orcid.org/0000-0001-5302-8320,
T. Mirzoieva[3],
orcid.org/0000-0002-0034-6138,
A. Lisovyi[4],
orcid.org/0000-0003-1928-3138,
I. Kucher[5],
orcid.org/0000-0002-1833-6632

1 – National Academy of Management, Kyiv, Ukraine
2 – University of Humanities and Economics in Lodz, Lodz, the Republic of Poland, e-mail: info@nowa-bud.pl
3 – National University of Life and Environmental Sciences of Ukraine, Kyiv, Ukraine
4 – State Tax University, Irpin, Kyiv Region, Ukraine
5 – National University "Odesa Maritime Academy", Odesa, Ukraine

CONCEPT OF NATIONAL INNOVATION SYSTEM: ETYMOLOGIZATION AND COMPLICATIONS OF MANAGEMENT

Purpose. To develop the concept of the national innovation model which considers obstacles to the model implementation.

Methodology. The methods used are: scientific observation – to form the topic, purpose, objectives of the study; systematic approach – to analyze existing methods and structure of innovation system management bodies; methods of analysis and synthesis – to study interconnected structural elements of the national innovation system; scientific abstraction – to develop the concept of the national innovation system of Ukraine; logical analysis – to predict consequences of management actions; induction/deduction – for the analysis of resource saving component of the national innovation system; quantitative/qualitative comparison – for the analysis of regulatory-legislative support for regulation of innovation activity in economy.

Findings. Analysis of the different methods of creating the national innovation system is carried out, and as a result, a development management system model of the Ukraine's innovative economy is developed. This model is of integrative nature and can be used for convergent alignment of interests, functions, potential and specificity of activity of authorities, business, research institutions and consumers in the process of creating, implementing and disseminating innovation as a factor in stimulating the formation and development of Ukraine's innovative economy. According to our vision, the main goal of the development of the innovation economy is to ensure the economic development of Ukraine through the rational use of innovative potential, efficient organization, resource saving and management of innovation activity.

Originality. The novelty of the study is to build an integrative model of the system of managing the innovative economy development of Ukraine.

Practical value. Implementation of the developed model will contribute to the formation of an effective, innovative environment in the country, which is possible in the context of Ukraine due to structural shifts in strategically important spheres of economy, and expectedly lead to the emergence of progressive sectors and industrial-financial network links and disappearing or modification of old traditional ones as well as to creation of new activities and forms of interaction of economic entities on the basis of public/municipal-private partnerships.

Keywords: *innovation, economy, national innovation system, accounting and analytical support, resource saving*

Introduction. Management of Ukrainian economy development needs to achieve a state that will characterize it as an innovative system which covers a wide range of models, methods, mechanisms and tools that are applied at all levels.

This determines the direction of research on the problems of dynamic and balanced development of the Ukrainian economy. Formation of an innovative economy should become a target in the process of favorable conditions modeling for the goal of Ukrainian socio-economic development.

There is a need to form an effective management system for the development of innovation economy. Creation of an integrative model as a system, which should be based on theoretical and methodological concept of "innovation economy", as well as convergence models of innovative economy, taking into account the conditions and specifics of the domestic economy.

The basis for building a scientifically and practical integrative model of innovation economy management system for ensuring the economy development at the global level through innovation is an organic synthesis of management concepts of "transitive economy" and modern "innovation economy".

Literature review. Questions about state participation in economic regulation processes have been analyzed in the prism of scientific and technological progress and global crisis phenomena. At the same time, the anticipated development of the Ukrainian economy remains the most controversial problem in determining the priorities of innovative development of the national economy.

Problems of innovative development in economically developed countries are covered in the works of many scientists, namely Dorothy A. Leonard, A. Singhal and J. Dearing (2011), J. Millard (2014), R. Rothwell (1994), T. Utterback (1975).

Legal vision of the innovation development of Ukraine was first introduced by Kuchma in 2001 year in his President Decree [1]. Current legislation describes national innovation system in a Strategy of development of the sphere of innovative activity for the period till 2030 [2]. The Concept of innovation development in Ukraine was introduced by the pioneers of innovation science, namely S. A. Ierokhin [3]. Innovative development in developing countries and countries with transitional economics is investigated in the works by U. Mentel, M. Hajduk-Stelmachowicz [4]. Innovative development is investigated in the works by L. Hanushchak-Efimenko and V. Shcherbak [5]. Different aspects of innovation development in the globalization view were studied in the work by V. Nitsenko, at al. [6]. The contribution of these and other scholars to the research on the issues covered in the article is important, but there is a need to specify and structure the elements that ensure the effectiveness of the process of managing the innovation economy of Ukraine.

In numerous literature sources we select interesting issues which are the model for our consideration. R. Klóska's publica-

tions [7] are devoted to the findings of the proposed original concept that allows for joint consideration of regional innovation and regional development. His conception of Pro innovative regional development, introduced for a certain overriding criterion enabling to consider the discussed multidimensional economic categories together, gives us an idea of creating a complex model instead of many simple correlated models, as it is common in the USA's economic science. What R. Klóska has indicated may undoubtedly constitute an introduction to scientific discussions. The multi-faceted nature of innovative issues makes it difficult to expect clear-cut solutions and, therefore, the research studies in this scope should be continued.

Sołtysiak M. and Wyrwa D. [8] in their work investigated influence of research and development expenditure on economic growth in EU member states and proved that there is a significant relationship between countries' R&D efforts, innovation and per capita income. As a result, the authors stated that highly developed countries are conducting research to seek new sources of innovativeness and methods for creating innovative potential. This conclusion, though thought to be basic, but once more proven in the case of EU, was one of the pillars of our model concept.

Interesting results of the study were achieved in the work by O. Ilyash, I. Dzhadan, G. Ostasz [9], in which the approach proposed by the authors allows determining the best models of the industry's innovation development, as well as identifying possible opportunities for managing the industry's competitiveness. We in our concept agreed with that statement; however, for Ukraine the importance of innovations in agricultural sector could not be overviewed.

Another aspect of innovation development could be seen in the work by A. Karpińska [10], who did very deductive evaluation of innovation policy implemented by the Polish authorities since 2000. The author concludes that in Poland, the innovation policy is not effectively implemented mainly due to specific economic and social circumstances, which are different from those assumed, among others, in the Lisbon Strategy. Stunning finding from this work was a statement that the funds placed on stimulating innovation result decrease in the development activity and the displacement of private funds. The research done by this author in the neighbor country was very valuable on the issue of adaptation of our concept to the evaluation of innovation policy.

Unsolved aspects of the problem. Against this background, there is a need to adjust the traditional perspectives on the directions, paths and models of innovative development of Ukraine as a country with a transitive economy in the context of expanding the model of innovative economy on a global scale.

More and more countries, taking into account the globalization tendencies of developing adaptive mechanisms, capable of ensuring the viability and competitiveness of economic systems, are trying to formulate a system of actions capable of promoting the rapid production and commercialization of innovations when developing national strategies for the national development. The most effective tool in this regard is the transition to an innovative model of national economy development.

In today's condition of war raging through Ukraine, a concept of a national innovation system is one of the most topical scientific and practical tasks. Since the old systems are being destroyed, the economy of Ukraine has a unique chance to start anew with the help of our Western allies.

The purpose of the article. The article aims to develop the concept of the national innovation model which is based on the recognized obstacles to the management of model implementation, which allows the dynamic and balanced development of the Ukrainian economy, taking into account resource saving and other modern directions of the world economic development.

Methods. A set of general and special methods of cognition was used to perform the work. Methods of scientific observation and comparison are involved in formulating the relevance of the topic, purpose and objectives of the study. The method of systematic approach is applied to the developing of the concept of the national innovation system of Ukraine. Methods of analysis and synthesis were used to decompose interconnected structural elements of the national innovation system, induction and deduction allowed comparing the effectiveness of existing structures of the national innovation system and analyzing the resource saving component of the national innovation system. The method of scientific abstraction was introduced to develop a structural approach to the implementation of state innovation and resource saving policy. The method of logical analysis is used to predict consequences of management actions. The method of quantitative and qualitative comparison is involved in the analysis of existing methods for regulation of innovation activity.

Results. In the history of most developed countries, economic development took place over a long historical time. In this evolutionary way, the elements and mechanisms of the new economic system emerged in case of need and were shaped to the desired state alongside of the general state of society at each particular moment. Accordingly, at any stage of its formation, the economic system of these countries was in a stable state, the characteristics of each of its constituents, and the links between them formed in the same evolutionary way.

However, the next decade of the *21st* century dictates the need for revolutionary bases of the national economic policy, which cultivate such modernization priorities of development that ultimately determine a state strategy "ahead of the curve".

Along with the knowledge development, reduction of technological cycles and the increase in the speed of the economic development, we can observe the development of increasingly sophisticated and technologically advanced products that change consumer behavior and expectations.

Also changed approaches to innovation processes, humble attitudes to innovation processes are being replaced by more advanced and hence more complex forms. In this context, R. Rothwell (1994) recognized four generations of innovation models that determine progress in conceptualizing innovation:

- linear models;
- interaction models of different elements and feedback loops;
- parallel lines models (integration within the firm, with key suppliers and demanding and active clients, emphasis on connections and alliances);
- continuous innovative models (integration and branching network, flexible and individual approach).

There are two waves of linear modeling. In the initial, linear view, innovative processes are distinguished as a linear supply model (or demand model) and a sequence model.

The linear supply or demand model proves that a major role in initiating and progressing the innovation process has been given to scientific and technological progress, or in some cases – to market and social needs, leaving a passive role for the recipient of innovation. In this context, there are seven elements of the innovation process: idea generation, discovery of possibilities, research, development, invention, start of production and in the end – successful usage in real time frame.

Dorothy A. Leonard, A. Singhal and J. Dearing introduced a sequence model, a very interesting modified linear concept which focuses on six elements of the innovation process: idea and generation, development and testing, delivery or approval, sale or implementation, after-sales service, continuous improvement. These elements are affected by divergences and convergent thinking (Dorothy, A. L., Singhal, A., Dearing, J., 2011).

Third-generation models of innovation processes are known as stage-by-stage interaction models. Linear models have been replaced by more sophisticated, dynamic (interactive) models of the innovation process, which include multiple interactions and connections, taking into account the conditions of demand and supply in the phase of innovation creation and diffusion.

According to this approach, there is a simultaneous adaptation of the inventions of science to the needs of the market, directing the research to market expectations and, in fact, greater effectiveness of the conducted research. T. Utterback

uses a very simplistic approach, reducing the innovation process to only three stages, namely: idea generation, problem processing sub-process, and sub-process of implementation and diffusion (Utterback T., 1975).

Models of the fourth-generation innovation process are known as parallel linear models or integration models. J. Tidd described innovation as a result of combination of science, production and demand, including feedback information. An innovative process in an interactive mode model approach leads to the information that results from feedback between them, technical capabilities (generated by science and technology) and needs (created by the market or production), as well as the result of the interaction of science, technology and technology implementation activities inside the enterprise [11].

Next-generation innovation process models are known as continuous innovation models (integration and branching, flexible and customized approaches). The implementation of these models is driven by the speed of change, specialization, and globalization processes regarding the development of new concepts of innovation processes, in which source of success is interactions based on reactions and relationships.

Innovation processes are not only multi-purpose, but also international. Finding original solutions in the context of globalization requires communication, cooperation and involvement of subjects in the international environment. This concerns the development and adaptation of products and services delivered to the world market.

The innovation implementation process starts with the idea of reorganization of production, and is consistently passed through the stage of production of products according to the needs of the market; the ultimate success will be ensured by the new quality of the product, its new consumer properties. In this sense of particular importance is the law, which is called the law of transition of quantitative changes to qualitative ones. This law on the theory of innovation interprets how development occurs, what is the mechanism of this process. Therefore, development can generally be seen as a movement from simple to complex, from lower to higher, from the old consumer properties of products to new ones.

At a certain stage of development and under certain conditions, the product acquires fundamentally new qualities. The transition of quantitative changes to qualitative ones can be considered as an innovative leap. In addition, the transition to a qualitatively new state does not return to its original state, so it is legitimate to speak about the irreversibility of innovative development.

The processes taking place in the world economy state the deep crisis of the existing model of innovative development. The traditional industrial economy has come into a state of instability due to the depletion of vital resources and the dangerous level of environmental pollution that has already caused a global environmental catastrophe.

In these conditions, the process of globalization of the world economy has become the main trend of development. With the growing scarcity of resources and environmental threats, the path of new development is accompanied by the de-industrialization of the economy, the slowdown in economic growth, and the decline in population in transition economies. The main obstacles that obstruct the spread of innovation are lack of financial support, misguiding or lack of leadership, infrastructure constraints, copyrights misusage and many other obstacles can also lead to innovation. This is not a complete list of barriers facing innovation process.

The most effective way of overcoming obstacles and creating incentives to disseminate technological innovation is the cooperation of all stakeholders. Their decisions should be complete and specific. They should be related to the direction of activity, which is a future resource for future guidance when the answers work to realize new opportunities. Effectively, working on obstacles, everyone interested in spreading innovation is actually doing more than solving problems. Coordinated activities to disseminate such innovations create new opportunities and contribute to the full potential of the innovation.

Effective supervision of the innovation economy development, as shown by the examples of many countries, first of all implies the creation of conditions for generating demand for innovative products, which allows it to become an integral part of local, regional and state economic systems [12]. Factors in Fig. 1 show the ability of the subjects of the national innovation system of the country to put into practice the set of methods and tools for managing Ukraine's innovative economy development.

Ukraine's innovative economy development is determined by the complex action of factors of the global and macroeconomic environment, which determine the conditions, causes, parameters, indicators that influence the economic, industrial processes and the result of innovative activity of individual economic entities, scientific and educational institutions.

Innovative economy of Ukraine should be considered and formed as integrative, based on the concept of consideration of interests of stakeholders, namely subjects of the national innovation system of Ukraine: economic entities, authorities, institutions of science and education, as well as society, as a generalized beneficiary, and also on the concept of network interaction as a form of coordination of actions, based on the specific logic of building a national innovation system in a particular country [13].

Considering this, the model of the management system for development of the basis for understanding the essence of such a network is the understanding of the essence of the social network [14], which is a product of the confidence of the participants in the processes that accept, share and fulfill formal and informal norms and values, in particular, concerning the goals, principles, priorities, vectors of development and ways of achieving the goals of Ukraine's innovative economy development.

The integrative nature of this model is ensured through the convergent alignment of interests, functions, potential and spec-

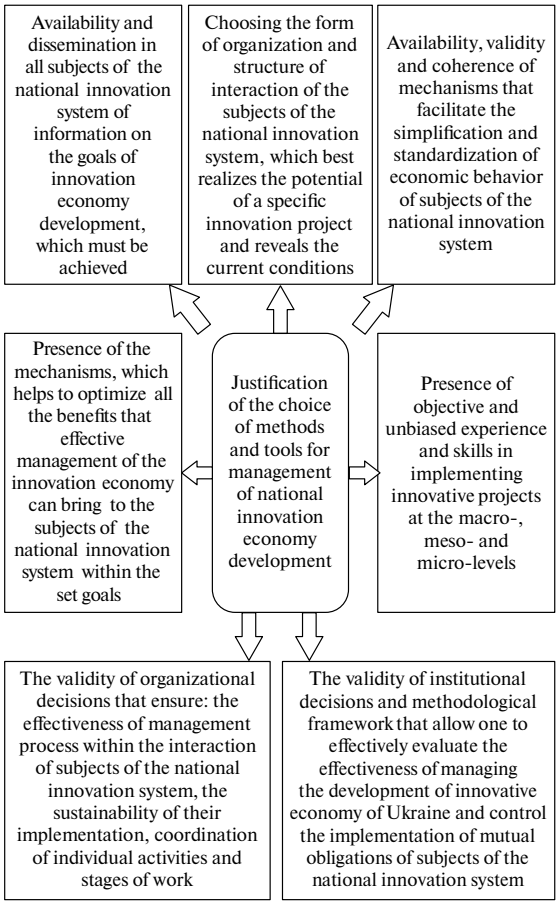

Fig. 1. Justification of the choice of management methods and tools for the national innovation economy development

ificity of activity of authorities, business, research institutions and consumers in the process of creation, implementation and dissemination of innovations as a factor which stimulates the formation and development of innovative economy in Ukraine.

Development of an integrative system of management for the development of the innovative economy of Ukraine must be characterized by:

- focus on development in today's market conditions, characterized by dynamic changes, both socio-economic and scientific and technological in nature;
- multidimensional assessment of the state and conditions of realization of directions and vectors of development of innovative economy of Ukraine;
- clear structure and ability to introduction into the practice.

The model is based on the modern paradigm of integrated management: a systematic approach, constant innovation, compliance of internal processes with the goals of development, compliance of actions with resources and functions, multi-parameter system of use of tools, taking advantage of strategic management [15].

This model also should be based on objective laws: the development of competition, supply and demand, the dependence of the relationship between production and consumption, the effect of scale production, the constant increase in consumer needs, limited resources and others [16].

The structure of the model for innovative economy development of Ukraine is presented in Fig. 2.

Characterizing the basis on which this model is formed and implemented to identify the following components:

1. The impact of the global environment on development processes through the involvement of socio-ecological and economic aspects of development.
2. Guidelines for the development of innovative economy.
3. The main goal of development of innovative economy.
4. Long-term, medium-term and short-term goals of innovation economy development.
5. Directions and vectors of innovative economy development.
6. Organizational, economic and institutional resources of the state.
7. Methods and tools for managing the development of an innovative economy.
8. The subject and object of management of development of innovative economy of Ukraine.

Given that any development is a complex process of qualitative change of the system and development is affected by a large number of variables, the factors of the global environment in relation to the economy of Ukraine are factors that are not conditionally dependent on the actions of the leadership of the country and its economic entities and are unable to employ a tangible effect on the development of our country's innovation economy.

Factors which influence the realization of the proposed development management system model of Ukraine's innovative economy depends on economic, political and environmental conditions. In particular, they characterize world trends in scientific and technological development; climate change trends, environmental issues and how to address them globally; significant changes in the world economic and sociopolitical environment: the state of civilization, changing needs of citizen and society, changing the global investment climate, etc. These trends characterize the socio-ecological and economic aspects of global development.

Taking into account not only outside factors of influence, but also inside ones, we should, of course, mention still raging war in our country. In our opinion, all implementation of the new national innovative system strategy could take place only after our victory over the enemy. But it does not mean, that till this day nothing should be done in direction of creating a new vision of the national innovative economy. Moreover, the authors have their own numerous innovation scientific proposals, which were introduced into national strategies of different years, but due to the current situation some of them are not applicable, because the factors have changed and even expired. That fact made the authors work on a proposal of a new management model adapted to nowadays situation in the national innovation model concept with special attention to the obstacles to the implementation of the model.

Ukraine's innovative economy should be considered as a purposeful set of actions of appropriate and full reaction to changes and management of internal change processes (changes at the level of the national innovation system of Ukraine), i.e., as a timely adaptation to the dynamic external environment for the purpose prevention of deviations from the set goal and emergence of crisis situations. It is essential to rely on the targets of innovation economy development, formed on the basis of world experience, which influence the formulation of goals and objectives of development of innovative economy of Ukraine and at the results analysis stage of the development management allow us to evaluate the success of the implemented management actions.

According to our vision, the main goal of the development of the innovation economy could be expressed as *"ensuring the economic development of Ukraine through the rational use of innovative potential, efficient organization, resource saving and management of innovation activity"*.

This goal determines the need to implement specific directions and vectors for the development of Ukraine's innovative economy. The content of these directions and vectors, as well as the reality of their implementation in practice, are deter-

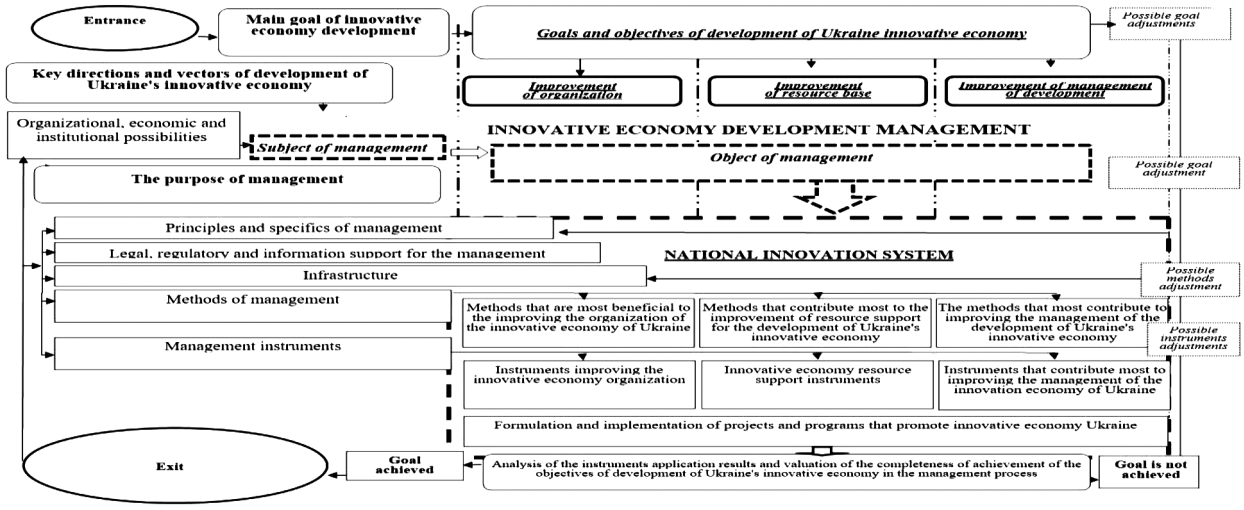

Fig. 2. Development management system model of Ukraine's innovative economy

mined by the existing organizational, economic and institutional capabilities of the country.

These capabilities describe the ability of the country's innovative development managed by the authorities in the terms of subjective and objective approach to governance. It is the state authorities, as the subject of management, that use their opportunities to streamline, regulate the activity of the national innovation system of Ukraine as an object of management in the conditions of constant and dynamic changes of the internal and external environment.

Purposeful interaction between the subject and object in the management system is the element of organization of the process of achieving the goal of managing the development of Ukraine's innovative economy, which can be defined as "*systematic management of innovation activity, aimed at ensuring the economic development of Ukraine, formation and distribution in the country's "innovative economy model*". Such management is, in its essence, a conscious activity of decision-makers who influence the innovative development of the country, aimed at creating optimal conditions for the functioning of the management object – the national innovation system of Ukraine to achieve this goal, using selected methods and instruments.

Management of innovation activity should be implemented on a certain principle-based basis, in particular, guided by the principles of systematic, strategic focus; the continuity of the innovation process at the country level; integrative development potentials. Main pillars of development of Ukraine's innovative economy are appropriate legal, regulatory and information support.

The modern approach to building an effective innovation environment should ensure the identification and formation of an effective infrastructure of the national innovation system, which in particular entails the need to organize effective interaction of all key actors of the national innovation system – the state, society, private business, research and development institutions.

Methods for managing the innovation economy of Ukraine in a broad sense are generalized (in particular, more general and abstract than tools) as systematic ways of achieving the goals of development managing. In this context, the instruments for managing the development of an innovative economy are in some way arranged (formalized, methodologically organized, etc.) techniques used to get the objective regularities in the coexistence.

It is advisable to proceed from the most widely used typology of management methods and to distinguish the following groups of methods for innovative economy of Ukraine: inducement methods and methods of coercion, as well as direct and indirect influence. At the same time, the latter groups can be differentiated into administrative (organizational and administrative), economic, regulatory and socio-psychological management methods.

According to Fig. 2 model, for the realization of specific directions of Ukraine's innovative economy development due to the presence of some specificity in the stimulation there is a need for a formation of a separate combination of methods and instruments of management. For example, to ensure the efficient organization of economic processes, it may be more important to apply administrative methods initially to form an effective system of relationships between elements of the national innovation system; for resource support – economic methods; improving the effectiveness of innovation management requires a rational combination of social, psychological and administrative methods, etc.

Peculiarities of realization of potential of development of innovative economy of Ukraine in certain directions and vectors can be specifically revealed at the level of instrumental support. In particular, the organization of the innovation economy requires the development of tools for innovative design (development of organizational structure; organization of interaction of internal and external elements of the national innovation system, etc.). Also important is the toolkit for regulatory support (forms of interaction agreements; organizational documents; standards, etc.).

The direction of resource saving is another particular tool of evaluating the effectiveness of innovation process (both in time and by performance). That is, the most important tool for implementing this direction is related to the economic justification of using the available resources. Thus, stimulating the development of human resources is in priority due to the factor of its creativity, or the ability to create and translate innovations, to quickly acquire knowledge and skills in a dynamic environment, as a basis for effective use of intellectual and social capital of innovative economy. This process requires the use of tools such as staff assessment and formation of its stimulation and development plans, formation and application of creative technologies and more. Specifically, we distinguish human, environmental, information and technical resources, which could be involved in resource saving tools of innovative economy development process. This part of the model is unique compared to other similar models.

Efficiency improving direction of management involves, first and foremost, tools that can enhance the managerial capacity of the state as the management subject of the national innovation system of Ukraine, as well as the management of enterprises, research and educational institutions, as subjects of the micro level.

Increased inefficiency is reflected in growing the speed and rationality of management decisions, minimizing the cost of resources for its making, the efficiency of the management process and maximizing the full involvement of the resources of all its participants. Therefore, management tools should concentrate on providing these benchmarks by developing and implementing technology for managing processes, projects and programs, ensuring the protection and effective management of intellectual property objects, strengthening the stimulating function of the state policy of innovative development of the Ukrainian economy.

In the process and by the results of implementation of such programs and projects, it is necessary to analyze the toolkit application in the management process, which enables us:

- in case of insufficient achievement of development guidelines (goals and objectives), to adjust the goals, methods and tools (both in general and in specific areas) until the moment of goals achievement;
- in case of realization of the guidelines (goals and objectives) of development of innovative economy of Ukraine, to fix the fact of strengthening of organizational, economic and institutional capacities of the state and to model the approach to the next (qualitative and quantitative) level of economy development of Ukraine.

Conclusions. The concept of the national innovation system of Ukraine could be represented as a complex of interconnected structural elements. This study presents a model of this system, whose integrative nature is ensured through the convergent alignment of interests, functions, potential and specificity of activity of authorities, business, research institutions and consumers in the process of creating, implementing and disseminating innovation as a factor in stimulating the formation and development of Ukraine's innovative economy.

Today's situation of the war raging through Ukraine creates a new situation, which was unpredictable in the year of creation and acceptance of the national Strategy of innovation, so the authors proposed a new one, which is based on the already introduced concept, which was created and implemented previously. Damage and destruction caused by war are, at the same time, creating new possibilities to start anew, without clinging to the old ways, as it was before. Certainly, restoration from the war will be not simple and have its difficulties, that is why in the new concept the authors concentrated on complications of its realization, as well as accounting and analytical support (since investment will be possibly of foreign origin), resource saving (not only because of the lack of resources, but also to start with the sustainable development principles).

It is found that the most effective way of overcoming obstacles and creating incentives to disseminate technological innovation is the cooperation of all stakeholders. Their decisions will be

complete and specific. They should be related to the direction of activity, which is a future resource for future guidance when the answers work to realize new opportunities. Spreading innovation is the most effective way to pass the obstacles, with everyone interested in it, actually doing more than solving problems. Coordinated activities to disseminate such innovations create new opportunities and contribute to the full potential of the innovation.

The created model foresees integrative interaction between business, science, education and government by connecting the potential of the intellectual, social, physical and institutional capital of the country's economy. Its implementation invokes changes in the social division of labor as a result of enhancing the potential of the competitiveness of economic entities and the country's economy as a whole by engaging in the processes of development, implementation and dissemination of innovations.

References.

1. Verkhovna Rada of Ukraine (n.d.). *Presidential Decree On the decision of the National Security and Defense Council of Ukraine dated July 3, 2001 "On urgent measures to withdraw from the crisis state of the scientific and technological sphere of Ukraine and creating real conditions for the transition of the economy on an innovative model of development] (Ukraine), 3.07.2001, No. 640/2001 with changes No. 118/2021 from 24.03.2021.* Retrieved from https://zakon.rada.gov.ua/laws/show/640/2001#Text.

2. Verkhovna Rada of Ukraine (n.d.). *Strategy of development of the sphere of innovative activity for the period till 2030 (Ukraine), 10.07.2019, No. 526-p.* Retrieved from https://zakon.rada.gov.ua/laws/show/526-2019-%D1%80#Text.

3. Ierokhin, S.A. (2019). Innovation markets: from idea to results. *Actual problems of economics*, *11*(221), 4-11.

4. Mentel, U., & Hajduk-Stelmachowicz, M. (2020). Does standardization have an impact on innovation activity in different countries? *Problems and Perspectives in Management*, *18*(4), 486-503. https://doi.org/10.21511/ppm.18(4).2020.39.

5. Hanushchak-Efimenko, L. M., & Shcherbak, V. G. (2016). Innovative entrepreneurship development based on cluster organization. *Actual problems of economics*, *11*(185), 88-96.

6. Nitsenko, V., Chukurna, O., Mardani, A., Streimikis, J., Gerasymchuk, N., Golubkova, I., & Levinska, T. (2019). Pricing in the Concept of Cognitive Marketing in the Context of Globalization: Theoretical, Methodological and Applied Aspects. *Montenegrin Journal of Economics*, *15*(4), 131-147. https://doi.org/10.14254/1800-5845/2019.15-4.10.

7. Klóska, R. (2019). Proinnovative regional development in Poland in the second decade of the *21st* century in a statistical context. *Modern Management Review*, *XXIV*(26/1), 47-56. https://doi.org/10.7862/rz.2019.mmr.4.

8. Sołtysiak, M., & Wyrwa, D. (2018). Dilemmas of the creation of innovation policy in member states. *Modern Management Review*, *XXIII*(25/2), 77-88. https://doi.org/10.7862/rz.2018.mmr.18.

9. Ilyash, O., Dzhadan, I., & Ostasz, G. (2018). The influence of the industry's innovation activities indices on the industrial products' revenue of Ukraine. *Economics and Sociology*, *11*(4), 317-331. https://doi.org/10.14254/2071-789X.2018/11-4/21.

10. Karpińska, A. (2019). Problems with innovation. The analysis of regional innovation systems in Poland. *Humanities and Social Sciences*, *XXIV*(26/1), 39-48. https://doi.org/10.7862/rz.2019.hss.4.

11. Tidd, J. (2021). *Managing Knowledge, Absorptive Capacity and Innovation*. Series on Technology Management, Vol. 37. USA: World Scientific Publishing Co., Inc. https://doi.org/10.1142/q0303.

12. Borrás, S. (2016). Organisations in Innovation Systems: Entrepreneurship, Intrapreneurship and Public Policy. *DBP Working Papers, Copenhagen Business School,* (19). Retrieved from https://research-api.cbs.dk/ws/portalfiles/portal/58770611/Working_paper_no90.pdf.

13. Hnatenko, I., Orlova-Kurilova, O., Shtuler, I., Serzhanov, V., & Rubezhanska, V. (2020). An approach to innovation potential evaluation as a means of enterprise management improving. *International Journal of Supply and Operations Management, 7*(1), 112-118. https://doi.org/10.22034/IJSOM.2020.1.7.

14. Ierokhin, S., Shtan, M., & Pavlov, V. (2021). Human capital in the system led to the development of the national economy on innovative principles. *Actual problems of economics*, (4), 80-89. https://doi.org/10.32752/1993-6788-2021-1-238-80-89.

15. Roth, F. (2016). V. William J. Abernathy et James M. Utterback. Le cycle des innovations technologiques. In Thierry Burger-Helmchen (Ed.) (2016). *Les Grands Auteurs en Management de l'innovation et de la créativité,* (pp. 103-120). Caen: EMS Editions. https://doi.org/10.3917/ems.burge.2016.01.0103.

16. Gerasymchuk, N. (2019). Formation of Resource-Saving Strategy for the Development of the Agro-Industrial Complex. *Modern Management Review, 26*(4), 17-24. https://doi.org/10.7862/rz.2019.mmr.26.

Концепція національної інноваційної системи: типологізація й перешкоди реалізації моделі управління

В. В. Павлов[1], *І. Ю. Штулер*[1], *Н. А. Герасимчук*[2], *Т. В. Мірзоєва*[3], *А. В. Лісовий*[4], *І. С. Кучер*[5]

1 – Національна академія управління, м. Київ, Україна
2 – Академія гуманітарних наук та економіки в Лодзі, м. Лодзь, Республіка Польща
3 – Національний університет біоресурсів і природокористування України, м. Київ, Україна
4 – Державний податковий університет, м. Ірпінь, Україна
5 – Національний університет «Одеська морська академія», м. Одеса, Україна

Мета. Розробка концепції національної інноваційної моделі з урахуванням перешкод на шляху впровадження.

Методика. Наукове спостереження – для формування теми, мети, завдань дослідження; системний підхід – для аналізу існуючих методів і структури органів управління інноваційною системою; методи аналізу й синтезу – для вивчення взаємозв'язку структурних елементів національної інноваційної системи; метод наукової абстракції – для розробки концепції національної інноваційної системи України; логічний аналіз – для прогнозування наслідків управлінських дій; індукція/дедукція – для аналізу ресурсозберігаючої складової національної інноваційної системи; кількісне/якісне порівняння – для аналізу нормативно-правового забезпечення регулювання інноваційної діяльності в економіці.

Результати. Проведено аналіз різних методів створення національної інноваційної системи та в результаті складена модель системи управління розвитком інноваційної економіки України. Ця модель має інтегративний характер і може бути використана для конвергентного вирівнювання інтересів, функцій, потенціалу та специфіки діяльності органів влади, бізнесу, наукових установ і споживачів у процесі створення, впровадження й поширення інновацій як чинника стимулювання формування й розвитку інноваційної економіки України. Згідно з нашим баченням, головна мета розвитку інноваційної економіки – забезпечення економічного розвитку України шляхом раціонального використання інноваційного потенціалу, ефективної організації, ресурсозбереження та управління інноваційною діяльністю.

Наукова новизна. Новизна дослідження полягає в побудові інтегративної моделі системи управління розвитком інноваційної економіки України.

Практична значимість. Упровадження розробленої моделі сприятиме формуванню у країні ефективного, інноваційного середовища, що можливо в умовах України за рахунок структурних зрушень у стратегічно важливих сферах економіки, та очікувано призведе до появи прогресивних чи модифікації традиційних галузей і промислово-фінансових мережевих зав'язків, а також до створення нових видів діяльності та форм взаємодії суб'єктів господарювання на основі державно/муніципально-приватного партнерства.

Ключові слова: *інновація, економіка, національна інноваційна система, обліково-аналітичне забезпечення, ресурсозбереження*

The manuscript was submitted 28.01.22.