

FEDERAL STATE BUDGET EDUCATIONAL INSTITUTION OF HIGHER
EDUCATION "RUSSIAN ACADEMY OF THE NATIONAL ECONOMY AND
PUBLIC SERVICE UNDER THE PRESIDENT OF THE RUSSIAN
FEDERATION"

As a manuscript

ROZENKOV MIKHAIL ALEKSEEVICH

MECHANISMS OF STRATEGIC DEVELOPMENT OF DEFENSE
INDUSTRIAL COMPLEX ORGANIZATIONS

Specialty: 5.2.6. - Management

Annotation
dissertations for a degree
Candidate of Economic Sciences

Scientific adviser:
Doctor of Economics, Professor
Lapygin Yu.N.

 Rozenkov M.A.

Moscow – 2023

The relevance of the topic of dissertation research.

Orientation towards achieving the goals of the implementation of the program for the development of the Russian military-industrial complex (DIC), aimed at increasing the competitiveness of manufactured products based on the implementation of innovative potential and stimulating the development of the DIC, provides for the search for innovative organizational forms and mechanisms of strategically significant management. In this regard, the actual task is to determine the essence and content of the mechanisms for managing the strategic development of organizations, as well as the process of formation and implementation of management from setting the task to delivering products to the customer.

In addition, against the background of the actual state of organizations under the pressure of sanctions and competition, changes in the structure of consumer demand, the emergence of emerging opportunities in terms of expanding the information space, digitalization and digitalization, the need for strategic planning mechanisms is increasing. However, the complex of methodological support does not fully contribute to the integration of knowledge and management tools for the implementation of the planned strategies, which limits the possibility of increasing the efficiency of this sector of the economy in our country.

The trends of recent years in the formation of clusters and business ecosystems require a generalization of the practice of applying the noted areas of strategic development of organizations and the construction of algorithms for the formation of mechanisms for managing the development of defense industry organizations from the standpoint of building strategic alliances.

A priori, it should be noted the problems in the implementation of mechanisms for managing the development of organizations related to the diversification and use of the results of intellectual activity in the production of both products for the Ministry of Defense of the country and civilian goods. The study of the whole complex of problems typical for defense industry organizations and related to the specifics of management mechanisms is also a significant task.

One of the mechanisms for ensuring effective innovative activity of the defense industry organization in the process of strategic development can be the implementation of the outstripping growth of the organization's human resources, however, due to the multifactorial nature of the process that ensures such growth, it is not possible to build a universal model based on a competency-based approach, which confirms the relevance of the designated task.

The aforementioned determines the relevance of the research problem, which consists in determining the set of procedures for the development of existing and the construction of new mechanisms for the strategic management of organizations of the military-industrial complex of the country.

The degree of development and study of the problem. The theoretical basis of the study was the system-wide principles outlined in the works of D.Kh. Meadows, J. O'Connor, and D.R. Abdrakhmanova, S.V. Garipova, A.T. Zuba, M.P. Kuropatkina, Yu.N. Lapygina, M.V. Loktionova, A.V. Malofeeva, A.V. Nemchenko, D.A. Novikova, L.I. Ryabenko, O.A. Smolyakova and others. With regard to ecosystems, the work was carried out from the standpoint of such domestic researchers as A.G. Bezdudnaya, V.V. Velikorossoy, N.A. Devyatkin, S.M. Egorshchikov, P.A. Ivchenko, T.I. Kuzmina, V.V. Kuimov, A.Yu. Nikitaeva, E.V. Popova, E.M. Puchkova, G.S. Rosenberg, N.Yu. Rosinskaya, R.D. Serdyukov, V.V. Statsenko, T.O. Tolstykh, M.G. Treiman, O.N. Chetverikov, as well as such foreign founders of the theory of ecosystems as J. F. Moore, A. Nolan and D. Hellek.

The essence and content of mechanisms, as a socio-economic phenomenon, are considered on the basis of generalizing the results of research by such scientists as L.B. Vinnichuk, A.G. Goncharuk, S.A. Evseeva, D.Yu. Ivanov, S.G. Kuznetsov, O.G. Kuralenko, D.P. Malyshev, M.A. Nikolaev, D.A. Novikov, N.A. Osokin, A.N. Pytkin, T.P. Cherkasov, and the specifics of the mechanisms for managing the strategic development of organizations can be traced in the works of such researchers as A.A. Agulova, Yu.D. Vergeichik, S.V. Garipov, V.E. Komov, A.V. Kuznetsov, O.F. Malashkina, N.N. Pasmurtseva, I.A. Pryadko, L.I. Ryabenko, I.V. Taranova, A.V. Khoruzhenko, S.A. Shirokovskikh, O.V. Yashin.

As for the specifics of the strategic management of organizations, the study focuses on the work of foreign authors (D.A. Aaker, B. Alstrand, I. Ansoff, K. Bowman, D. Gelek, P. Genster, R.S. Kaplan, R. Koch, R. Levien, M. Lindgren, C. Lopez-Duarte, J. Lampel, J. Middleton, G. Mintzberg, J. F. Moore, A. Nolan, D. P. Norton, B. Tregow, M. Friedman, D. Hussey, M. Enright, M. Yancey), as well as domestic scientists - O.S. Vikhansky, A.L. Gaponenko, A.T. Zuba, V.S. Katkalo, O.Ya. Koleschuk, Yu.N. Lapygina, M.V. Loktionova, A.K. Lyasko, V.N. Parakhina, N.N. Pasmurtseva.

A significant contribution to the study of approaches to the innovative development of organizations was made by the works of such foreign scientists as H. Berkowitz, G. Hamel, J. F. Moore, T. Roelandt, P. Hertog, as well as domestic researchers (V.V. Biryukova, A. V. Vasina, A. Zhdanov, A. A. Ivanov, N. I. Karpenko, O. Ya. Koleschuk, Yu. B. Kostrova, M. I. Kravchenko, V. A. Leventsov, E. B. Lubyanskaya, V. Lyashchenko, D. M. Malikova, O. A. Markov, V. S. Nikolaenko, B. P. Pavlov, N. N. Pasmurtseva, V. L. Popov, N. M. Rozanova, E. D. Kostenko, M. I. Romanov, R. Yu. Simionov, G. V. Starchenko). The principles of the project approach were compiled by the works of such Russian researchers as M.M. Bashirova, A.N. Boyko, A.O. Vylegzhanina, A.V. Gurinov, E.A. Zhidko, E.V. Ishkova, A.A. Kozlova, D.N. Leletsky, A.O. Lisitsyn, D.M. Malikova, G.G. Minasyan, G.R. Mudarisova, V.S. Nikolaenko, V.L. Popov, D.M. Safina, E.P. Sedykh, R.Yu. Simionov, O.Yu. Sinyaeva, M.K. Soldatkin, A.K. Sotavov, O.L. Chulanova, V.E. Shirokov.

The specificity of the activities of defense industry organizations was studied by A.A. Akimov, I.P. Andreikov, Yu.A. Anikina, E. Antipina, V.V. Baskakov, A.M. Batkovsky, M.S. Gusev, V.V. Elistratov, D. Zhurenkov, N. Zolotikh, V.I. Kalyuzhny, G. Kukushkina, A.V. Leonov, D.M. Malikova, E.A. Morozov, D.V. Orekhov, R. Petruts, A.Yu. Pronin, A.A. Pyankov, M.A. Ragozina, M.I. Romanov, O.V. Firulev, A.N. Fomin, P. Fradkov, I.E. Frolov, I. Chubakha, A.A. Shirov, B. Yaryshevsky, and the construction of possible alliances of organizations was studied

by T.V. Vasilyeva, N.E. Egorova, V.A. Zhuravlev, V.A. Leventsov, E.A. Malinina, E.V. Palamarenko, D.S. Plaksina and K. Lopez-Duarte.

The construction of meta-organizations was worked out by G. Arne, H. Berkowitz, N. Bransson, P. Garaudel, N. Grashof, and also A.V. Bakalenko and E.A. Kovalev, and the study of clusters is reflected in the works of such foreign authors as T. Andersson, H. Batelt, E.M. Bergman, H. Berkowitz, B. Gann, N. Grashof, P. Hertog, L. Yveline, M. Porter, S. Rosenfeld, T. Rolandt, J. Sorvik, S.H. Sweeney, E.J. Feser, E.J. Feser, E.V. Hansson, S. Henn, S. Schwaag-Serger, M. Enright, as well as domestic researchers - E. Antipina, A.M. Batkovsky, N.S. Dalinchuk, D. Zhurenkov, E.A. Kovaleva, E.D. Kostenko, A.V. Leonova, A.Yu. Pronina, N.M. Rozanova, A.V. Fomina.

When considering the works of the listed areas of research, it was established that: new aspects of the formation of cluster structures have shown themselves; the accumulated problems and factors of development of defense industry organizations require clarification; there is a need for algorithms for constructing a set of mechanisms that determine strategically significant directions for the development of organizations. The noted determined the purpose and objectives of the study.

The purpose of the dissertation research is to update the provisions of the methodological support of the procedures for developing mechanisms for the strategic development of organizations in the military-industrial complex of the country. To achieve this goal, it is necessary to solve the following **tasks**:

- develop procedures for the implementation of mechanisms for managing the strategic development of organizations;
- identify the main types of alliances in which the mechanisms for the strategic development of defense industry organizations are implemented;
- develop a set of mechanisms for managing the strategic development of defense industry organizations from the standpoint of building alliances;
- determine the set of competencies necessary for the implementation of the project for the strategic development of defense industry organizations.

The object of the study is the planning procedures for the development of organizations of the military-industrial complex of the country. **The subject** of the study is managerial relations that arise in the process of strategic development of organizations in the military-industrial complex. **The field of study** corresponds to the passport of the scientific specialty 5.2.6. - Management (clause 14. Strategic management, methods and forms of its implementation. Business models of the organization. Corporate strategies. Strategic resources and organizational capabilities of the company).

The theoretical and methodological basis of the study was made up of works in the field of strategic planning, systems theory, decision theory, organization theory, as well as project, cluster, system and ecosystem approaches. Methods of analysis, expert assessments, modeling, activation of creative thinking and sociological research, as well as graphical, tabular and statistical analysis were used.

The information base was legislative and by-laws in the field of strategic planning, scientific articles and monographs, research results of scientific institutions, news agencies, materials of scientific conferences, publications posted in the Scopus database, as well as calculations and observations of the author.

The hypothesis of the study is that an independent and strategically significant project for the development of organizations of the military-industrial complex can be the construction of a business ecosystem with elements of clustering and the formation of meta-organizations.

The scientific novelty of the results obtained consists in the development of methodological support for the procedures for constructing mechanisms for the strategic development of organizations in the military-industrial complex of the country. New scientific results obtained in the study personally by the author are as follows:

An algorithm has been built that includes twelve interrelated blocks that characterize the cycle of implementation of the mechanisms for managing the strategic development of an organization, and the algorithm is distinguished by a

combination of decision-making methods, a project approach and strategic management, both in terms of setting the task, determining its solution and forming the target orientation of the organization, and in relation to preparation to the implementation of the developed solutions and evaluation of the results. It has been established that the decisions of the state customer and dynamic changes in the external environment, which are perceived as additional resources for the formation of a strategic development trajectory, including in the form of mechanisms for building strategic alliances, which are associations on the basis of partnership commitments for the cooperation of participants in the value chain to achieve agreed goals.

A model for constructing development prospects for the organization of the defense industry has been formed, which differs in that it is based on a combination of such categories as meta-organization, cluster and ecosystem, the content of which is refined based on the analysis of definitions formulated by domestic and foreign researchers. Moreover, it is proposed to consider the organization structure model as a fractal, the self-similarity of which extends to the content of the defense industry as a whole. The content of the meta-organization category has been clarified, which is proposed to be understood as an organization that ensures the cooperation of independent founding members in the implementation of agreed decisions. It is shown that the specification of the category "cluster" is that it is a network of value chain organizations in which the management company ensures the implementation of cluster effects based on partnership communications of integrated participants. The adjustment of the category "ecosystem" is justified, which is specific in that the ecosystem is a special cluster that ensures the co-evolution of participants, clients and the external environment in the process of strategic development and partnerships between participants. It is shown that the state, being a consumer of products of defense industry enterprises, is a participant in the strategic planning process and forms the conditions for building an ecosystem based on organizations. It has been established that the ecosystem as an organizational form is a stage of

development following the cluster, but unlike it, it includes both the consumer and other elements of the external environment, which is typical for a meta-organization.

The mechanisms for managing the strategic development of organizations in their new distribution according to the algorithm for building an ecosystem of defense industry organizations are determined, which is as follows. At the first step, as the basis for classifying the characteristics of clusters, a specialized organization (meta-organization), a business ecosystem, original mental maps were developed that differ in newly allocated blocks of characteristics, which allows you to correctly draw up a project task. The definition of factors and the analysis of the situation itself (steps 2 and 3), as well as the transition from the results of the analysis to the set of decisions (step 4) are carried out by known methods, however, the novelty of determining the goals and objectives of the project lies in the construction of morphological matrices that ensure the transition from solutions to goals and expected results (steps 5 and 6). The novelty of building a roadmap (step 8) lies in placing in its content not only activities, but also expected results, which allows you to correctly formulate adequate indicators (step 7) by building an original matrix "expected results-indicators", spaced according to strategic maps built for civil, military and exported products, as well as in relation to a specialized organization. Preparation for changes (step 9), which is based on the adjustment of the mental models of the employees of the organization and their competencies, is carried out by known methods, but determining the content of competencies contains novelty, which is revealed in the next paragraph of the novelty of the study. Implementation of decisions (step 10) and control of results (step 11) provide the construction of a structural diagram of the ecosystem (step 12). The novelty of the final stage is that by following a scenario based on expected results, which are compared with actual indicators, one can count on the exact correspondence of the results to the adopted goals. If there is a significant deviation from the goal, it is possible to provide feedback by returning to the first step on the project and repeating the cycle of steps. That is, novelty is present at each stage in the content of the individual steps of the algorithm for building the organization's ecosystem and the algorithm as a whole.

It is substantiated that the procedures for building an organization's ecosystem are implemented by members of project teams whose competencies are defined in a special way. The novelty of the solution lies in the construction of a morphological matrix of competencies laid down in the educational standard in relation to the direction of management and spaced according to the maturity levels of the organization. It is shown that the resulting formulations of competencies orient the organization towards overcoming the value-cognitive limitations in the minds of the staff and the formation of dynamic abilities for innovative activity within the framework of the strategic management of defense industry organizations.

The reliability and validity of the research results are due to the reliance on the current legislation of the Russian Federation, the use of scientific research materials, the participation of the author in scientific and practical conferences and is based on the methods of analysis and synthesis, the principles of a systematic approach and modeling.

The theoretical significance lies in the formulation and solution of methodological problems of implementing the mechanisms for managing the strategic development of an organization and the development of models for building business ecosystems of a defense industry organization, which manifested itself in the development of a sequence of procedures for performing the organizational and analytical stage, followed by determining the prospects for the strategic development of an organization and procedures for completing a project to form an ecosystem , as well as in the methodological support of this development in terms of determining the competencies of members of management teams implementing the project for the formation of the organization's business ecosystem.

The practical significance is determined by the possibility of applying the results of the study in the practice of transition of defense industry organizations from holding structures to building business ecosystems that implement the mechanisms for managing the strategic development of both defense industry organizations and the system of the country's military-industrial complex. The application of methodological recommendations for the formation of business

ecosystems of the defense industry will ensure the modernization of the country's military-industrial complex, and will also allow the implementation of cluster (systemic) effects both in social and economic terms.

The new results of the study can be used by universities in teaching disciplines: "Strategic planning", "Strategic analysis", "Strategic decision making".

Testing and implementation of research results. New results were reported and approved at the scientific and practical conferences "Strategic management as a method of anti-crisis management of a municipality" (Vladimir, November 19, 2021), "Industrial development of Russia: problems, prospects" (Nizhny Novgorod, November 11, 2021), "Actual problems of modern law and the economy of Russia and foreign countries" (Vladimir, November 18-19, 2021), "Actual problems of the development of industry markets: national and regional level" (Voronezh, April 7, 2022).

The results of the research were accepted for use by the administration of VNII "Signal" in the formation of the organization's development plan until 2030 (confirmed by a certificate of use) and in the educational process of the Vladimir branch of the RANEPa in the preparation of undergraduates in the discipline "Strategic Management" (confirmed by a certificate).

Publications. On the topic of the study, 19 scientific papers were published with a total volume of 19.35 p.l. (17.85 p.p. ed.), which reflect the main results, of which 7 articles with a volume of 3.7 p.p. (3.2 pp. author) - in scientific publications included in the list of peer-reviewed publications recommended by the Higher Attestation Commission of the Ministry of Science and Higher Education of the Russian Federation.

The list of the author's main publications includes:

**Articles in journals recommended by the RANEPa Academic Council
for the publication of articles on economic sciences**

1. Rozenkov M.A. Model toolkit for strategic planning of industrial enterprise development: methodological aspect // Management consulting. 2021. No. 7. P. 97-106. - DOI: 10.22394/1726-1139-2021-7-97-106.

2. Rozenkov M.A., Lapygin Yu.N. Mental maps of strategic alliances // Management consulting. 2022. No. 6. - S. 79-87. - DOI 10.22394/1726-1139-2022-6-88-97.

Monograph

3. Rozenkov M.A., Lapygin Yu.N. Management Mechanisms: Strategic Alliances (monograph). - Vladimir: VF RANEPa, 2022. - 240 p.

Articles in economics journals recommended by the Higher Attestation Commission of the Ministry of Science and Higher Education of the Russian Federation

4. Rozenkov M.A., Lapygin Yu.N. Pilot production innovation management from the standpoint of project management // Bulletin of the Academy of Knowledge. - 2021. - No. 6 (36). - S. 313-316.

5. Rozenkov M.A., Lapygin Yu.N. Mental model of control mechanisms // Natural-humanitarian research. International magazine. - 2022 - No. 39 (1). – S. 270-275. - DOI: 10.24412/2309-4788-2022-1-39-270-275.

6. Rozenkov M. A., Lapygin Yu. N. Team competencies at the stages of project implementation // State and municipal management. Scientific notes. 2022. No. 2. S. 29–34. <https://doi.org/10.22394/2079-1690-2022-1-2-29-34>.

7. Rozenkov M.A., Lapygin Yu.N. Strategic alliances: advantages and disadvantages // Municipal Academy. - 2022 - No. 1 (27). - S. 132-137.

8. Rozenkov M.A., Lapygin Yu.N. Ecosystem model of the defense industry organization // Bulletin of the Academy of Knowledge. - 2022. - No. 2 (38). - S. 303-307.

Articles in scientific journals, collections of papers and other sources

9. Rozenkov M.A. Problems of project management in pilot production // Uchenye zapiski: Scientific and practical journal. - 2021. - No. 3 -S. 36-40.

10. Rozenkov M.A. Principal approaches to project management // Actual problems of management, economics and law: a collection of scientific papers / - Vladimir: Vladimir branch of the RANEPa, 2021. - 708 p. – S. 468-474.

11. Rozenkov M.A. Model of implementation of control mechanisms // Uchenye zapiski: Scientific and practical journal. - 2021. - No. 4 -S. 67-75.
12. Rozenkov M.A. A systematic approach to the management of pilot production. Vestnik VLSU. Series: Economic Sciences, No. 3 (29), 2021, pp. 18-22.
13. Rozenkov M.A. Innovativeness of strategic management. - Strategic management as a method of anti-crisis management of a municipality: materials of the XIX scientific-practical conference on the problems of strategic management on November 19, 2021. - Vladimir: Vladimir branch of the RANEPa, 2022. - 140 p. - S. 96-100.
14. Rozenkov M.A. Project approach to the introduction of innovations. - Industrial development of Russia: problems, prospects. XIX International Scientific and Practical Conference. (November 11, 2021). - Nizhny-Novgorod: NGPU. 2021. - 194 p. - S. 64-66.
15. Rozenkov M.A. Project approach in the development of the organization / XV Interregional scientific and practical conference on the problems of the regional economy (Gutman readings) "The role of municipalities in the strategic development of the regional economy": (Vladimir, May 13, 2022) / under general. ed. A. E. Illarionova. - Vladimir: Vladimir branch of the RANEPa, 2022. - 250 p. - With. 230-233. - ISBN 978-5-907389-53-3.
16. Rozenkov M.A. Mechanisms for managing organizations of the military-industrial complex from the standpoint of the project approach. Vestnik VIGU. Series: Economic Sciences, No. 4 (30), 2021, pp. 85-92.
17. Rozenkov M.A. Conceptual approaches to managing organizations in the value chain // Uchenye zapiski: Scientific and practical journal. - 2022. - No. 1 -S. 67-75.
18. Rozenkov M.A. The need for dual-purpose clusters. - VI International scientific and practical conference "Actual problems of development of industry markets: national and regional level" (April 7, 2022) - Voronezh: VSU, 2022. - 146 p. pp. 103-106.

19. Rozenkov M.A. Target scenario for the development of the defense industry organization // Uchenye zapiski: Scientific and practical journal. - 2022. - No. 2 - S. 53-56. – ISSN 2409-6814.

The structure of the study is represented by an introduction, three chapters and a conclusion. The text is illustrated with 24 figures and 20 tables. The used literature is represented by a list of 255 items. The text is placed on 174 pages of the main text. 21 appendices contain illustrative material.

The introduction defines the relevance and problems of the chosen research topic; the purpose of the study and the tasks to achieve it; object and subject of research; theoretical and methodological base of the research; main scientific results and elements of scientific novelty; theoretical and practical significance of the research results.

The first chapter "Theoretical foundations for building strategic management mechanisms in the implementation of innovative projects" shows a systematic approach to pilot production, as well as the specifics of project management in the structure of strategic management of the development of a research organization. It is shown that the management of innovations in pilot production from the standpoint of project management ensures the implementation of mechanisms for transferring innovations into the category of innovations.

In the second chapter "Analysis of the mechanisms of strategic management of innovative projects of organizations of the military-industrial complex" is presented by building a model of the configurator of control mechanisms in organizations, as well as an analysis of the mechanisms of project management in organizations of the military-industrial complex on the basis of strategic alliances, which made it possible to determine the mechanisms of strategic project management of organizations military-industrial complex.

In the third chapter, "Defining the conceptual mechanisms for project management for state defense orders from the standpoint of the ecosystem approach," the mechanisms for strategic project management from the standpoint of the ecosystem approach and the formation of a methodology for the strategic

development of organizations in the military-industrial complex as business ecosystems are presented.

In conclusion, the results of the dissertation research are presented, the main conclusions of the dissertation work are formed.