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As a manuscript

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# STATE POLICY OF MANAGING THE DEVELOPMENT OF RESOURCE-EFFICIENT ECONOMY USING PUBLIC-PRIVATE PARTNERSHIP

Specialty 5.2.6 Management

Abstract on the thesis
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Relevance of the research topic. The need to study the opportunities for the development of domestic production and increase its energy efficiency is traced in the speeches of the President of the Russian Federation V.V. Putin. Putin. And here it should be noted that at present in our country there is not even a unified concept of formation of resource efficiency of enterprises of various industries and management of their development. In addition, to manage such development it is necessary to have an appropriate management system, including tools that would meet the needs of the economy.

In addition, the selected topic is relevant both from the scientific and practical points of view for the following reasons. First of all, it should be noted that the theoretical analysis of the features of public-private partnership (PPP) (and/or PPP in its interpretation before the 224-FZ) is still relevant in the world science, and in an interdisciplinary (management, economics, political science, law) context. Secondly, resource conservation and nature protection are among the hotly debated aspects in the economic, political and managerial scientific literature. Thirdly, it should be noted that the stimulation of ecologically oriented behavior of economic agents and nature conservation is an urgent practical goal fixed in the strategic documents of the state.

In this case, we mean the need to develop a toolkit of state policy to promote environmental responsibility and resource efficiency of domestic business, not only public-private partnership in the format of traditional forms of public-private partnership outlined in 224-FZ, as well as contracts and concessions, but also special economic zones as an environment for the implementation of partnership, as well as clusters and enclaves of energy efficiency as systems of interaction between the state and business, which have proven their effectiveness in the global economy, and also as a system of cooperation between the state and business.

Accordingly, the analysis of possibilities of state management of modernization of domestic business and development of resource-efficient production on the basis of public-private partnership as a tool of public management, identification of advantages and disadvantages, the main contradictions, the study of forms, tools and institutional environment of partnership should contribute to the development of a mechanism for the formation of resource-efficient economic system, which is especially important in the conditions of limited access of our country to the resources of the world economy.

Thus, the chosen topic of the dissertation is relevant, and its content is determined by the objective need for a comprehensive analysis of theoretical and methodological approaches and problems related to the development of public policy to ensure resource efficiency and environmental responsibility of domestic manufacturing business, and the development of practical recommendations for the implementation in Russian conditions of the state economic, primarily structural, policy of modernization of production, which is necessary to ensure socio-economic development of Russia.

Degree of scientific development of the problem. Partnership relations between the state and the private sector of the economy are several centuries old. The first studies devoted to this subject appeared in the XIX century in the works of the classics of economic thought. However, in the works of I.H. Ansoff, E.B. Atkinson, F. Bastiat, S.N. Bulgakov, J.M. Keynes, K. Marx, A. Marshall, K. Menger, J.St. Mill, J.B. Say, J.Y. Stiglitz, J.A. Schumpeter, as well as domestic economists and statesmen S.Y. Witte, G.V. Plekhanov, P.A. Stolypin, S.Y. Witte, G.V. Plekhanov, P.A. Stolypin, and others. Stolypin's relations between the state and business were considered almost exclusively in the context of the differences between the private and public sectors of the economy, analyzing the necessary boundaries of the state presence in the economy and its influence on economic processes.

Empirical analysis of the world experience of public-private partnership and its role in the development of economic systems can be found in the works of such authors as T. Atkinson, P. Burns, E. Chadwick, R. Carbonnier, J. Delmon, A. Estache, R. Pittman, M. Romero, J. Strong.

Among domestic economists we should highlight the works that are devoted to the study of the problems of transformation of the role of the state in the post-industrial economy, the change of technological patterns, the formation of public policy in the field of public-private partnership and economic development by such authors as G.A. Akhinov, Y.B. Vinslav, A.E. Gorodetsky, S.Y. Glazyev, S.M. Guriev, M.A. Deryabina, A.G. Zeldner, V.P. Kushlin, S.A. Lukash.

The issues of public-private partnership development in domestic science have been studied by V.P. Butkovsky, M.V. Vilisov, L.S. Demidova, N.P. Dergacheva, N.A. Ignatyuk, A.V. Naumkin, N.N. Nelyubova, I.M. Osadchaya, A.A. Pankratov, S.S. Sulakshin, A.A. Firsova, E.A. Khrustaleva, V.N. Shambir, O.A. Yastrebov and a number of other scientists. Yastrebov and a number of other scientists. Among the studies devoted to this topic we should separately emphasize the works of V.G. Varnavsky and V.A. Kabashkin, in which the main emphasis is placed on the study of public-private partnership opportunities, mainly in the form of concessions.

These researchers mainly focus on specific forms of partnership, legal aspects or general issues of formation of contracts and concessions. At the same time, there are practically no works devoted to the analysis of public-private partnership as a complex phenomenon that has a systemic nature and involves special forms and mechanisms of interaction between economic agents, especially in the context of the formation of resource-efficient economy in our country. Comprehensive studies devoted to the problems of formation of resource-efficient economy using the tools of public-private partnership in its connection with the institutional characteristics of the environment in the context of the evolution of national and global socio-economic systems are currently absent in Russian science.

On the problems of resource efficiency in domestic science there is a very significant number of publications, of which it is extremely difficult to select the most significant, but the closest to our topic are the works of the following

authors: I.P. Bogomolova, V.N. Borisov, A.E. Valiullin, S.R. Vasiliev and a number of other researchers and specialists.<sup>1</sup>

The relevance of these problems combined with the insufficient level of theoretical and practical elaboration of approaches to the problem of formation of resource-efficient economy on the basis of public-private partnership in the Russian Federation determined the choice of the topic, purpose and objectives of the study.

The aim of the dissertation work is to develop and substantiate the concept of public management of the formation of resource-efficient economy on the basis of using the tools of public-private partnership.

In accordance with the set goal, the following tasks were set and solved during the research process:

- the content and key properties of resource efficiency as an economic category and management object were studied;
- the role of the state and public-private partnership in managing the development of resource efficiency in different types of economic systems was analyzed;
- the advantages and disadvantages of public-private partnership as a tool of formation of resource efficiency of the economy were revealed;
- the forms of public-private partnership that influence the institutional environment and the potential for the formation of resource efficiency of the economy by adjusting the motivation of business entities that encourage them to environmentally responsible behavior has been identified;

<sup>&</sup>lt;sup>1</sup> 1. Bogomolova, I. P. Diversification as an effective tool for managing the quality of resource efficiency / I. P. Bogomolova, E. Y. Kolesova, O. A. Gerasimov // Economics. Innovations. Quality management. - 2015. - № 1(10). - C. 191-192.

<sup>2.</sup> Borisov, V. N. Problems and ways to improve energy and resource efficiency of industrial production in Russia / V. N. Borisov, N. V. Suvorov, I. A. Budanov // Alternative energy as a factor of modernization of the Russian economy: trends and prospects: Collection of scientific papers. - Moscow: Limited Liability Company «Scientific Consultant», 2016. - C. 56-80.

<sup>3.</sup> Valiullin, A. E. Modern tools of lean production management system to improve resource efficiency of industry / A. E. Valiullin, A. I. Shinkevich // Internauka. - 2020. - № 39(168). - C. 38-40.

<sup>4.</sup> Vasiliev, S. R. Analysis of resource efficiency and resource saving indicators / S. R. Vasiliev // Synergy of Sciences. - 2019. - № 42. - C. 251-256.

- the conceptual model of state policy implementation by forming a «framework» of resource efficiency of the economy using the tools of publicprivate partnership in the format of industrial-production clusters was formulated.

The object of the study is a set of economic relations arising in the state management of the processes of formation of resource efficiency of the economy using the tools of public-private partnership and environmental responsibility of business.

The subject of the study is the development of the mechanism of state management of the formation of resource efficiency of the economy on the basis of public-private partnership and environmental responsibility of business.

Theoretical and methodological basis of the study are fundamental works, scientific articles and applied developments of domestic and foreign scientists engaged in theoretical and practical aspects of public administration, works in the field of management, development and adoption of management decisions, as well as conceptual provisions developed in classical works and works of modern economists.

Instrumental and methodological apparatus of the work. This study used such methods of scientific analysis as dialectical, formal-logical method, formal-theoretical analysis, method of comparative economic and statistical, systemic, systemic-functional and historical-genetic analysis and method of scientific abstraction. Their complex application allowed to ensure the reliability of the conducted research, validity of theoretical conclusions and practical proposals.

The information and empirical basis of the study was statistical and factual data of the Federal State Statistics Service, ministries and federal agencies of the Russian Federation, works of domestic and foreign economists engaged in the study of public-private partnership, government programs, periodicals and the Internet.

The normative-legal base of the study consists of federal laws, decrees of the President of the Russian Federation and resolutions of the Government of the Russian Federation, regional normative-legal acts.

## The validity and reliability of the results of the study are ensured:

- using as an empirical base the results of research of leading scientists, data of international organizations, domestic and foreign authorities, statistical bodies;
- publication of the main results of the research in leading national publications;

discussion of the main results of the research by the professional community at scientific and practical conferences.

**Study area.** The subject area of the study is within the framework of specialty 5.2.6 «Management» under the following points: 8. State management of socio-economic processes. State policy, mechanisms and methods of its development and implementation in different historical and country conditions. 13. Corporate social responsibility. Social and environmental responsibility of business. Management of sustainable development of the organization.

The scientific novelty of the dissertation research lies in the formulation of a new concept of public administration with structural optimization and formation of resource-efficient economy based on the instrument of public-private partnership. Also, in the work the system of institutionally determined determinants of formation of resource efficiency and environmental responsibility of business as a set of factors and institutional environment affecting the development of production is proposed. The economic and mathematical model of the policy of ensuring optimal sustainable development of resource-efficient production is developed.

In theoretical, methodological and methodological aspects, the author personally obtained the following results for defense:

- 1. The conceptual approach to the institutional management of resourceefficient economy through the realization of:
- program-targeted planning as the basis for the technology of management of resource efficiency development of the region's industry;
  - programs for the development of the territory and industry markets (and,

consequently, industries) at the national and regional levels;

- instruments of influence on the development of the resource efficiency system of enterprises (including a system of sectoral standards of resource efficiency; information and financial support of enterprises; formation of industrial, eco-industrial, agro-industrial and other clusters, special economic zones; tax incentives; introduction of antimonopoly legislation; formation of network structures in sectoral and inter-sectoral markets; coordination of actions of economic agents; directive and indicative planning), forming.

This approach is necessary to improve the competitiveness of the domestic economy (item 8 of the Passport of scientific specialty 5.2.6.).

- 2. The term «complex resource efficiency of the economic system» is defined as a characteristic of the territorial concentration of production facilities and technologies within the industry cluster with the focus on the rational use of available resources in order to reduce costs and increase the resource efficiency of various types: energy, material, labor, etc. (item 8 of the Passport of scientific specialty 5.2.6.).
- 3. A new classification of forms of public-private partnership (PPP) (as a more flexible form of regulation compared to public-private partnership) according to the system of indicators (which includes the goal, the presence of the function of coordination of business entities, the formation of special characteristics of the institutional environment different from the surrounding landscape, the presence of spatial constraints) is developed. The allocation of a new form a cluster of public-private partnership, characterized by synergy in the implementation of individual goals of private partners (business) to achieve national economic goals, is substantiated. The classification expands the set of strategic approaches available for the development of complementary cooperation between the public and private sectors in the implementation of resource saving initiatives in the regions (item 8 of the Passport of scientific specialty 5.2.6.).
  - 4. The institutional framework for the formation of economic systems with

high resource efficiency within the framework of public-private partnership has been identified. Institutional bases imply the formulation of a set of provisions and measures aimed at improving the energy efficiency of existing industrial enterprises, the development of a program for comprehensive modernization of the country's industry on the basis of green standards and technologies, planning and construction of complexes of associated industries that meet energy efficiency standards (individually), the formation of energy efficiency clusters that meet the ideology of green economy for synergy within the cluster. The organizational and economic mechanism of regional development in terms of optimization of geographical concentration of production cycles, logistics chains, consistency of technological processes of rational use of natural resources and human capital through clusters of public-private partnership is developed and the main stages-elements of the concept of formation of spatial and sectoral «framework» of resource efficiency of domestic industry in the regions are presented (item 8 of the Passport of scientific specialty 5.2.6.).

5. The tools of influence on the multifunctional development of economic systems, including project financing on the basis of public-private partnership; development and implementation of industry standards of resource efficiency, safety and quality of products; public procurement of products of socially important and strategic nature; formation of industrial, eco-industrial, agroindustrial and other clusters, special economic zones, etc. are identified. The order of actions for the formation of the «framework» of resource efficiency of production and other basic subsystems of the economy is proposed, on the basis of which a framework model of managerial decision-making regarding the use of the mechanism of public and private interaction and partnership is further developed (item 13 of the Passport of scientific specialty 5.2.6.).

Theoretical significance of the study lies in the fact that the totality of the scientific results obtained in the process of this study is a basis for further scientific analysis of the problems of public-private partnership development in the system of state management of production development.

The practical significance of the study is justified by the fact that the conclusions and recommendations obtained as a result of the study can be used in the process of developing economically sound management decisions, regulations and programs aimed at the development of the Russian economy.

In addition, the results of this study, the conclusions and identified patterns can be used in the teaching of such disciplines as «Regional Economics», «Management», «Economics of the firm», including in the process of preparing educational and teaching aids.

Approbation of the research results. The key provisions of the thesis were reflected in 5 publications of the author in peer-reviewed publications recommended by the Higher Attestation Commission of the Ministry of Education and Science of the Russian Federation, and 13 publications in collections placed in the RSCI database.

The results of the study were approved at the IX All-Russian scientificpractical conference with international participation «Research of innovative potential of society and formation of directions of its strategic development», (Kursk, YuZGU, December 30, 2019); XIV International scientific-practical conference of students, graduate students and young scientists «Youth and scientific and technological progress», (Gubkin, Gubkin branch of V.G. Shukhov Belarusian State Technical University, April 8-9, 2021); XV International Scientific and Practical Conference «Digital Transformations in the Development of Economy and Society», (Lipetsk, Lipetsk Branch of the Russian Academy of National Economy and Public Administration, April 21, 2021); regional profile seminar «School of Young Scientists on the problems of humanities», (Elets, YSU named after I.A. Bunin, June 3, 2021); III All-Russian Scientific and Practical Conference with international participation «Actual socio-economic problems of society development in Russia and abroad», (Volgograd, Volgograd, Volgograd, Volgograd). I.A. Bunin, June 3, 2021); III All-Russian scientificpractical conference with international participation «Actual socio-economic problems of society development in Russia and abroad», (Volgograd, ANO VO

«Volgograd Institute of Business», November 30, 2021); All-Russian scientificpractical conference «The role of special, free and other special zones in the development of the state socio-economic system», (Kaliningrad, Western Branch of the Russian Academy of National Economy and Public Administration, November 17-18, 2022); XV International Scientific and Practical Conference of students, postgraduates and young scientists «Youth and scientific and technological progress», (Gubkin, Gubkin branch of the V.G. Shukhov Belarusian State Technical University, April 7, 2022). Gubkin, Gubkin branch of V.G. Shukhov State Technical University, April 7, 2022); XVII All-Russian fulltime scientific-practical conference «World, society, economy, man: paradigm shift» (Lipetsk, Lipetsk branch of RANEPA, April 18, 2023); XVIII All-Russian full-time scientific and practical conference «World, society, economy, person: paradigm shift» (Lipetsk, Lipetsk branch of the Russian Academy of National Economy and Public Administration, April 24, 2024), the first international Scientific Conference «Science for Public Administration in Russia» (Moscow, Presidential Academy, October 24, 2024).

In addition, the results of the study were used in the preparation of lecture material for the disciplines «Economics of the public and municipal sector», «Management of the organization: economics and management», «Project management», «Change management», «Management of state programs».

The provisions of the dissertation research are implemented in the activities of economic entities, about what there are relevant certificates.

Structure and scope of the work. The dissertation consists of an introduction, three chapters, conclusion, bibliography, appendices and contains 45 figures, 18 tables. The bibliographic list includes 348 titles.

### The main content of the work.

The introduction presents the main provisions obtained in the course of the study, identifies and justifies the relevance of the work, describes the degree of its scientific development, specifies the object, subject, purpose, objectives of the study, characterizes the applied methodology, as well as the theoretical and

practical basis of the study; also substantiates the scientific novelty, theoretical and practical significance of the conducted research and describes the structure of the thesis.

In the first chapter «The role of public management in the system of formation of resource-efficient economy» the economic essence of the state policy of management of economic systems in the context of ensuring resource efficiency of the domestic economy is defined, in the framework of which the analysis of traditional forms, methods, as well as tools of realization of the state policy in the sphere of resource efficiency, including on the basis of environmental responsibility of business, on the basis of which the author's concept of opportunities and fires was formulated.

In the second chapter «Formation of the state policy toolkit for the development of resource-efficient economy» the analysis of the current state of resource efficiency in the economic system of the country was made, the possibilities of public-private partnership as institutional and instrumental forms of impact on the environmental responsibility of business through the formation of an institutional environment that ensures the profitability of such behavior for business-agents were considered and the world experience in the application of such a format as eco-industry was reviewed.

The third chapter «Management of resource-efficient development of meso-level economic systems on the basis of environmental responsibility of business using the instrument of public-private partnership» presents the institutional framework for the formation of resource-efficient production in the regions of the country developed by the author, the organizational and economic mechanism for the formation of energy efficiency clusters as an environment for the implementation of public-private partnership and the economic and mathematical model of the policy to ensure optimal sustainable development of the meso-level economic systems.

The conclusion reflects the main conclusions and provisions obtained in the course of the dissertation research.