# NON-STATE EDUCATIONAL PRIVATE INSTITUTION OF HIGHER EDUCATION SYNERGY MOSCOW FINANCIAL-INDUSTRIAL UNIVERSITY

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# IMPROVING THE MANAGEMENT OF NATIONAL PROJECT IMPLEMENTATION THROUGH THE USE OF FLEXIBLE PROJECT MANAGEMENT TECHNOLOGIES

5.2.6 Management

dissertation for the degree of PhD in economics

The **relevance** of the research topic is determined by the need to improve

the implementation of national projects based on the use of flexible management technologies and is a red thread in the main directions of the Government of the Russian Federation for the period up to 2024 and the planning period up to 2030. Thus, the development of strategic and project management mechanisms is singled out as one of the directions for improving the level of public administration, which "will improve the efficiency of the decision-making system through the concentration of financial, organisational and administrative resources within the framework of the implementation of the main directions of socioeconomic development of the Russian Federation at the federal and regional levels (national, federal, departmental and regional projects)".

In order to improve the management of national projects implementation, in our opinion, it is necessary to develop a modern methodology of qualitative analysis of the national projects management system in order to form a more comprehensive view of the factors of project management and emerging changes. The availability of such a methodology will make it possible to identify the current areas of management impact and develop a mechanism for transforming management impact to attract modern management technologies in the process of implementation of national projects.

Practical and theoretical studies of domestic and foreign authors show that the project management methodology can be used for projects of any complexity and scale, as it has an extensive set of tools and techniques that allow choosing algorithms of management decision-making personalised for each specific situation.

High adaptability and distinctive quality of project activity results together with the rapid pace of global economic development allowed project management to naturally become a part of the usual organisation of business processes in all spheres of activity.

With the development of the global economy, new management methods, such as "concurrent engineering", have entered the market. This method makes it possible to speed up the process of project realisation without reducing the quality

of the tasks performed. Consumers' desire for speed has changed the behaviour not only of business, but also of the public sector.

The issue of meeting rapidly changing market needs in a timely and quality manner is not only of interest to the private sector of business, but also of equal interest to the public sector, because the need will then be met elsewhere, perhaps outside the local economy. Project and programme managers leading critical areas must be prepared to adapt processes accordingly to become more agile.

Thus, improving the management of the implementation of national projects based on the use of flexible project technologies is an important task for the national economy, so the research topic is relevant and has a high potential in the domestic economy.

The **aim of the research** is to solve the scientific problem of improving the management of national projects.

In line with the objective, the study addresses the following **objectives**:

- 1) to classify systemic problems of using project management in the implementation of national projects in accordance with the nature of the source of problems:
- 2) to develop a methodology for qualitative analysis of the national project management system, taking into account the applicability of flexible management technologies;
- 3) to develop a mechanism of transformation of managerial impact when using flexible project technologies in the management of national projects;
- 4) synthesise a model of decentralised organisational structure of national project management for preliminary analysis of management options;
- 5) to create an algorithm for completing the traditional and adaptive organisational structure of national project management.

The object of the study is the process of integrating flexible technologies into the system of national project management.

The subject of the study is organisational, managerial and economic relations arising in the process of integrating flexible technologies into the national project management system.

Scientific novelty consists in solving the scientific problem of improving the management of national projects on the basis of integration of flexible technologies into the system of management of national projects implementation, taking into account the author's methodology of qualitative assessment of the applicability of flexible technologies in the system of national projects management, based on the author's classification of types of national projects in terms of high potential for the use of flexible management techniques.

## Extent of research and development of the topic.

Theoretical aspects of flexible technologies of national project management are substantiated in the studies of foreign scientists in a number of fields of knowledge. A significant contribution to the study of development and implementation of project technologies in the public sector was made by the works of such famous scientists as: Abrams R., Adizes I., Ansoff I., Gant G., Deming W., Coase R., Marshall A., Nordhaus W., Porter M., Sutherland J., Taylor F., Fromm E..

Their works have revealed to the business community the principles and tools of general and project management. Methodologies and techniques of effective change management in projects are presented, the mutual influence of business system and public administration system through public-private partnership is considered. The strategic prospects of project management for the public sector are substantiated, as well as the economic prospects of project management in public administration, increasing the competitiveness of public projects both within the country and in the international arena through the use of adaptive management technologies ensuring the competitiveness of public administration.

Methodological approaches, justifying the effectiveness of project tools and project technologies in the management of national projects, lie scientific materials of modern domestic authors; Borshevsky G.A., Volodin V.V., Dzakoev Z.L.,

Dmitriev A.G., Zub A.T., Lapin A.V., Mazur I.I., Merkulov A.V., Olderogge N.G., Safonov M.S., Uskova T.V., Khabarov V.I., Shapiro V.D..

In their research the authors studied the mechanisms and tools of project management, the methodology of their use and application in business structures of modern Russian economy. The mechanisms used for modern project management in public authorities are proposed. Modern trends in public administration are analysed, as well as the use of public-private partnership mechanisms as a tool for interaction between public and private project management systems.

Despite the high importance of domestic and foreign authors' studies for solving the existing problems of project management in the sector of public administration of projects and programmes, the issues of prerequisites for the introduction of project management in public authorities, as well as ensuring their effective integration into the existing system have not been studied. The issues of artificial nature of project technologies implementation in public administration in the Russian practice as opposed to empirical in foreign practice, as well as the readiness of the organisational structure of management for the application of project technologies are not considered.

The research results of domestic and foreign scientists do not reveal the issues of adaptive potential of traditional technologies of general, strategic and project management. The issues of using traditional project tools, as well as the issues of its transformation into a flexible technology with mandatory application in the practice of implementation of national projects and programmes are not comprehensively considered.

The hypothesis of the research is based on the modern scientific and practical base on the use of flexible technologies of project management. It is assumed that the improvement of the organisational structure of national project management through restructuring of communication links, together with the formation of a new project office will allow to retain the usual state apparatus management mechanisms, while ensuring the effective implementation of national

projects through the joint application of flexible and traditional management technologies in a new hybrid system of national project management.

**Methodology and research methods.** The study applied classical general scientific methods (analysis and synthesis, abstraction, generalisation, comparative analysis, deduction and induction), as well as project methods: bar charts, Gantt charts, critical path method, calendar planning method and network modelling.

The theoretical basis is the provisions of the theory of globalisation of management problems and integration of the best world practices of project management into complex processes of public administration, as well as approaches to the formation of mechanisms for the introduction of project management in public authorities, strengthening the integration of management tools through public private partnership.

The methodological basis of the research is based on the application of historical and systemic approaches to the study of the experience of integration mechanisms of countries in terms of the formation of an effective system of national projects and programmes management. This methodological basis allowed to form an opinion on the basic principles on which modern systems of national project management in the countries of the world are based and allowed to model the best practices and elementary bases of such systems on the modern structure of project management in the public authorities of the Russian Federation taking into account the needs of the national economy and mentality of the country.

#### Scientific novelty of the study

1. The classification of systemic problems in the use of project management in the implementation of national projects in accordance with the nature of the source of problems. The difference between this classification and others is the coefficients of applicability of flexible management technologies corresponding to the degree of bureaucratisation, scale, and the presence of an adaptive mechanism for the implementation of tasks and values in the project. The obtained classification formed the basis for the author's methodology of qualitative assessment of the current structure of national project management for the applicability of flexible

management technologies, which for the first time used the assessment of the implemented management functions in the organisational structure of national projects with the help of PEAI codes.

- 2. The methodology of qualitative analysis of the national project management system, taking into account the applicability of flexible management technologies, has been developed, which identifies two key areas: 1) the algorithm of qualitative assessment of the national project management system on the basis of PAEI codes of I. Adizes; 2) the model for assessing the effectiveness of the national project management system based on the comparison of weight indicators of necessary and sufficient conditions for the use of cascade and flexible management technologies. The methodology for the first time allows to carry out a comparative assessment of the use of flexible and traditional management technologies in the structure of the national project, as well as to identify the most important functions to be used in the management system and to determine the most applicable management technologies taking into account the specifics of the national project.
- 3. The mechanism of transformation of managerial impact when using flexible project technologies in the management of national projects has been developed, including the following elements: 1) methodology of qualitative analysis of the national project management system, taking into account the applicability of flexible management technologies; 2) transformation of the current redundant system of project control into an adaptive system; 3) transformation of the model of goal setting and the system of national project planning tools, as well as reducing the level of formalisation of management processes; 4) formation of a system of staff rotation; 5) model of a hybrid (mixed) organisational structure of national project management; 6) algorithm for implementing the principles of flexibility The difference of the proposed mechanism is that it synthesises traditional and flexible technologies of project management and creates opportunities for adaptive combination of different technologies in accordance with the needs of stakeholders;
- 4. A parametric model of decentralised organisational structure of national project management for preliminary analysis of management options based on the

Ashby-Sedov entropy model of socio-economic efficiency of systems, including the following parameters, has been synthesised: 1) controllability of the system; 2) diversity (entropy) of the upper level of the hierarchy; 3) diversity (entropy) of the lower level of the hierarchy (system); 4) diversity (entropy) of the external environment before interaction with the system; 5) diversity (entropy) of the system's ignorance of the external environment. The model for the first time allows for real-time structural reorganisation of links between the elements of the management system, as well as the creation of a flexible framework for the management of a national project.

5. An algorithm for the introduction of an updated organisational structure of national project management based on the integration of traditional and flexible management technologies has been developed, which is a hierarchical sequence of steps for the formation of sustainable feedback for iterative adjustment of the process of introducing flexible project technologies at each level of management. This mechanism differs from the previously proposed ones in that it gives the highest priority to the results of a preliminary analysis of the advantages and disadvantages of a particular management technology, which is carried out by comparing the probabilistic effects of bundling.

### The theoretical relevance of the paper is:

- 1) in the development of the author's approach to identifying the problems of using flexible technologies in the system of public management of projects and programmes;
- 2) in the development of the theory of building organisational structures, as applied to government structures, in particular, identifying the impact of models of goal setting: "goals-down, tasks-down", "goals-up, tasks-up", "goals-down, tasks-up".
- 3) on the basis of generalisation of foreign experience in the development of national project management, the concept of empirical development of project management in the public sector of foreign countries in comparison with the

artificial introduction of project management in public administration in the Russian Federation is formulated.

Practical significance of the research consists in the fact that domestic authorities and companies receive a comprehensive toolkit for the application of flexible management technologies in national projects, including: 1) methodology of qualitative analysis of the national project management system; 2) mechanism of transformation of managerial impact when using flexible project technologies; 3) parametric model of decentralised organisational structure of national project management;

4) algorithm of implementation of updated organisational structure of national project management on the basis of complexing traditional and flexible management technologies. The developed toolkit can be useful for federal and regional authorities in the development of policies to achieve the target indicators of national goals of the Russian Federation, as well as the preparation of joint programmes and projects with foreign investors.

The materials of the dissertation research can be applied in the process of studying such academic disciplines as "Project Management", "National Project Management", "International Standards of Project Management", "Project Management by Flexible Methods". As well as in the development of proposals to improve the organisational structure of national project management, taking into account the existing problems of effective use of adaptive tools and mechanisms of project management, allowing to effectively organise interaction between key subjects of public administration.

Approbation of the research results. The provisions and conclusions of the dissertation have been approved in the course of practical activity of the author in "AvtoAudioCentre" LLC, discussed at methodological seminars of the Organisational Management Department of Synergy University. The main provisions and conclusions of the thesis were reported and discussed at: the XXXIV International Plekhanov Readings, 24 March 2021; XVII International Scientific Congress "The Role of Business in the Transformation of Society", 14 April 2022;

XVIII International Scientific Congress "The Role of Business in the Transformation of Society", 21 April 2023; Moscow Urban Forum "YOUR CITY - YOUR BUSINESS" 25 May 2023. Various aspects of the study are presented in fifteen publications, 8 of them in the journals of the list of Russian peer-reviewed scientific publications with a total volume of 4.2 p.l., and 7 papers with a total volume of 7.3 p.l. were published in peer-reviewed scientific publications defined by the VAK RF.

Structure and content of the work. The thesis consists of an introduction, three chapters, conclusion, bibliography and appendices.