

Project Management in The Public Sector. The Socio-Economic Approach

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ABSTRACT: In the process of strategic planning in the public sector, there is often a wide material scope of issues to be addressed, which is particularly related to the large number of implementation tasks linked to individual strategic objectives. The management of a large number of projects within the public economy can be a more difficult and complex process in comparison to the situation that exists in the private sector due to the aforementioned material scope of planned activities, as well as due to the limited possibilities of selecting financial resources for the implementation of such tasks. The purpose of the paper was to assess the conditions and possibilities of applying the concepts and methods of strategic project management in the functioning conditions of public sector entities, taking into account the economic and social context. In the presented results of the study, the premises justifying the implementation of methods specific to project management processes with consideration of the role of the public sector in creating development through investment processes were identified. Furthermore, the benefits possible through the project approach and multiple project management as a way to improve the usage of public funds were identified.

KEYWORDS: public sector, project management, strategic management

Introduction

The specifics of the functioning of the public sector, both in terms of identifying public needs and the sustainability of meeting those needs, make it necessary to take a long-term view of economic development processes in combination with the directions of transformation of public sector entities. In the implementation of tasks in the public sector, a key role is played by the proper systematization and strategic structuring of the main objectives, specific objectives, as well as tasks that will be subject to implementation in the future. Thus, strategic management in the public sector, including strategic management of investment projects, comes to the fore. The application of instruments and tools of strategic planning with regard to public sector entities is therefore a separate, and at the same time important, field of activity under the conditions of a market economy.

In the public sector, the significant complexity of the structure of strategic goals and, consequently, intermediate objectives and specific goals, which, as a rule, are identified and precisely defined in the strategic planning process, should be pointed out as a characteristic feature. Setting objectives in the process of strategic planning has its further reference to the possibility of determining the scope of tasks of an economic and social nature, as well as defining development projects. For the entity that prepares and implements the development strategy, this generally means accepting a complex set of lower-ranking objectives, which can be achieved simultaneously, or in sequential form, depending on the established priorities and hierarchy of objectives, as well as the final ranking of planned tasks and projects. This also justifies the need to study the effects of the undertaken projects,

taking into account the risks and benefits of their interaction, as well as demonstrates the relevance of the use of strategic analysis tools by public sector entities and the creation of customized mechanisms for strategic management of projects.

Taking into account the phenomena outlined above, the purpose of the prepared paper is to assess the conditions for the application of strategic management concepts and methods to public sector entities operating under market economy conditions, and to identify the rationale for implementing instruments that are characteristic for the project management processes. The objective also includes the identification of the advantages achievable with the use of the project approach and selected project management methods, with consideration of the economic and social dimensions.

For the purposes of the study, the desk research method of statistical resources, the comparative analysis method and the critical literature analysis method were used. A search of the resources of the databases of Eurostat and AMECO (*Annual macro-economic database of the European Commission's Directorate General for Economic and Financial Affairs*) was carried out, as well as studies and compilations of data available in the open-access resources. During the empirical part of the research, extensive statistical material was collected, but due to the adopted concept of the research, the time horizon presented in the text was reduced in accordance with specified problems.

Public management in a multi-project environment from a theoretical perspective

Under the conditions of a market economy, the implementation of strategic management in public sector entities must lead to the elimination of the negative impact of phenomena characteristic of a market economy, such as economic fluctuations or other crisis factors, which in the case of enterprises can lead to far-reaching negative consequences. Strategic management in public sector entities fulfills an important organizing function, both in terms of defining the objectives of development and in gathering resources for the implementation of specific tasks (Ferlie and Ongaro 2015, 166-180; Jarosiński and Opałka 2021, 131-139). The conduct of business in the public sector is characterized by a wide dispersion of the objectives set and a diverse scope of material tasks to be undertaken (Johanson 2012, 242-245; Jarosinski 2022, 137-143). The above situation has its objective justification, referring to the range of tasks and competencies of public sector units and the associated obligatory fields of activity. Therefore, it can be concluded that in the public sector there is a continuous development, which is based on the implementation of successive new projects of different scale and scope of impact, and at the same time there is a real problem concerning the ways of managing projects that would allow to achieve optimal results within the framework of available resources in the short term and strategic perspective (Wojciechowski 2003, 190-191; Hansen and Ferlie 2014, 3-14).

It seems important from the point of view of the public economy to define the tasks that are the subject of implementation by public sector entities. Such an approach can apply not only directly to that part of the activity that is manifested in the implementation of investment projects, but also to the part related to administrative services, issuing decisions in the area of jurisdiction held, the provision of a range of public services appropriate to the entity, which in many cases are subject to standardization, as well as activities arising from the requirement of efficiency in the disposal of public assets and the formation of development processes in a given administrative unit (Prawelska-Skrzypek 2011, 196).

As noted by Crawford et al. (1999, 608-26), there are a relatively large number of separately defined tasks with which investment projects are later linked, as well as the associated transfer of a large value of physical and financial resources generally constituting the resources of a given public entity. When adopting the project approach, it is necessary to keep in mind the interrelationships that occur between individual projects. The definition of

a project implies treating it as a closed unit, and for this reason, projects are analyzed on an individualized basis, bearing in mind, however, that their implementation involves the use of the public resources that are at its disposal and the achievement of specific outputs of activity within the framework of each project. Strategic planning makes it possible to better identify the needs for obtaining certain results, which can be defined in advance, usually standing for certain values or phenomena of a positive nature, affecting the further course of socio-economic processes (Drobniak 2005, 7-35).

The problem of managing multiple projects is presented in the literature in a variety of approaches, emphasizing the dissimilarity in terms of economic conditions, type of organization or time perspective (Sońta-Drażkowska 2012, 11-17). As a rule, however, it takes into account the formation and arrangement of a group of projects that could be considered as interrelated and co-creating specific sequences in action. As a result, the aim is to achieve the best possible economic results, reflecting the expected benefits for the specific organization to be obtained by implementing the strategy through projects (European Commission 2014, 41-66; Svensson and Hultkrantz 2017, 49-51). The diversity of terminology used in the field of management of multiple projects and proposed by various authors in the literature is presented, among others, in the results of a study conducted by Brzozowski (2014, 9-24).

The conclusions of the above studies indicate that the common features of the terminology adopted by many authors are the focus on the achievement of strategic goals, the need to monitor and coordinate projects that are implemented simultaneously, the orientation towards the aggregation and co-financing of selected projects. Regardless of the terminological differences that arise, project grouping aims to improve the efficiency of the management of investment projects, designated within the framework of strategic planning and oriented towards the achievement of strategic goals. In public sector conditions, the grouped projects are most often interconnected in a certain way, which should lead to the aforementioned synergy effect and the occurrence of external benefits.

Thus, the answer to the increasingly emerging phenomenon of multi-projectism may be the consistent building of organizational project maturity, a necessary element of which is the ability to quantify the benefits in the economic and social spheres resulting from the implementation of structured project management in public sector entities (Gasik 2019, 1-25). This can undoubtedly be considered as solutions corresponding to the model processes of project maturity formation aimed at setting out project offices (Prawelska-Skrzypek 2011, 201). Effective project management contributes to increasing the efficiency of public sector operations by optimizing the use of resources, reducing costs, and increasing the availability and quality of public services. This is particularly important in the context of limited flows of supply to public budgets and rising public expectations.

Economic effects of project management - practical implications

The instability of economic phenomena in recent years makes it necessary for the achievement of the most important strategic goals in the public sector to have the cooperation of different entities and different sectors (Gasik 2019, 14-15; Jarosinski 2023, 242-46). The large number of undertaken development initiatives, the number of participating economic partners, the diversity of perspectives on the perception of expected benefits and the priorities for achieving them require the search for a common language and the continuous improvement of the quality and efficiency of the work of individuals and organizational units responsible for the preparation and implementation of projects (Aleinikova et al. 2020, 566-54). The above phenomena are already well recognized in the economic practice of highly developed countries, especially in the European Union, the UK and the US (Public Servant 2024; IPMA 2024; The White House 2024).

The effectiveness of the implementation of the development strategy, taking into account the management of multiple projects, brings certain conditions and the need to adapt the planned activities and the associated potential benefits to the existing real economic conditions in a given public sector unit (Wang 2010, 20-30; Jarosiński and Opałka 2021, 149-154). In particular, it is necessary to consider the financial capacity of the unit as a key determinant of the delivery of benefits to the stakeholders of a given unit, taking into account budget revenues, current and planned investments, as well as current expenditures, relating the above elements to the appropriate set of strategic objectives defined in the development strategy document (Filipiak and Dylewski 2011, 61-63). This means that the realization of the effects of the strategy requires a view on the whole of the values expected to be obtained by the public sector unit and consideration of the interrelationships that may occur between the projects planned for implementation.

The sustainability of the arrangements for undertaking public tasks in the public sector has a financial dimension through the flows of spending carried out within the framework of budgetary economy by the various entities that constitute the sector. In organizational terms of projects, investment activities are of a special nature, which also in the public sector are carried out using this very form of project and project management methodologies. While in the process of strategic planning the identification of projects comes to the fore, project management is already a strictly practical task and consists in linking the economic capabilities of public entities with expectations for new arrangements of a public, social and technical nature.

On this background, it is worth quoting figures characterizing public sector capital expenditures by public sector entities in selected countries of the world. This illustrates the role of public financial resources against the background of overall economic effects, while confirming the need to improve the methods of managing these resources. Table 1 provides figures characterizing changes in the ratio of capital expenditures to GDP of selected countries in 2018-2023.

Table 1. Contribution of total investment in the economy to GDP (investment rate) in selected European countries in %

Specification	2018	2019	2020	2021	2022	2023
European Union	21.3	22.3	22.3	22.2	22.5	22.4
Austria	24.3	25.1	25.1	25.9	25.5	24.9
Estonia	26.6	26.6	31.2	28.7	25.7	27.9
France	21.9	22.4	22.4	23.5	23.7	23.1
Germany	20.8	21.2	21.4	21.2	21.7	21.5
Norway	23.8	26.6	27.4	23.2	19.7	-
Poland	18.8	19.2	18.4	16.9	16.4	17.7
Portugal	17.8	18.4	19.5	20.5	20.6	20.1
Romania	21.1	23.1	23.3	24.4	25.0	27.0
Spain	19.7	20.3	20.6	20.2	20.4	19.7

Source: Own compilation based on data: <https://ec.europa.eu/eurostat/web/main/data>

In average view of the European Union, capital expenditures accounted for about 22% of the value of GDP. In the largest European economies, such as Germany and France, this share remained stable, slightly increasing in 2020-2022. In the case of Estonia, there was a clear increase in the indicator under study in 2020 (the highest level of 31.2%) and 2022-2023, while in Romania the indicator increased throughout the studied period, reaching 27.0% in 2023. In Poland, there was a decline in the period 2020-2022, and an increase in the value of capital expenditures and thus an increase in the indicator to 17.7% appeared just in 2023.

Table 2 shows the ratio of public investment to total investment in the economy in selected European countries. A significant role of public sector investment activity can be seen in the case of Poland, where the examined indicator in most years of the examined period exceeded 24%, and in 2023 it reached 28.5%. The values of the aforementioned indicator at a similar, although slightly lower, level were achieved by Norway and Estonia. The remaining countries in the examined group recorded significantly lower levels of the indicator. The lowest values were observed in Portugal and Spain, where they did not exceed the level of 15%. In 2020-2021, most countries experienced a noticeable increase in the value of the indicator, which reflected the important role of the public sector in shaping the level of investment under the crisis conditions following the Covid-19 pandemic.

Table 2. Share of general government investment in total investment in the economy in selected European countries in %

Specification	2018	2019	2020	2021	2022	2023
European Union	14.7	14.4	15.8	15.4	14.8	16.0
Austria	12.7	12.5	13.2	13.8	13.6	14.8
Bulgaria	16.4	18.0	17.3	16.4	13.5	20.5
Estonia	19.6	19.4	18.7	20.1	20.9	23.7
France	17.9	18.5	18.5	17.3	17.6	18.5
Germany	12.7	12.8	14.2	13.6	13.0	13.2
Norway	22.8	22.4	22.9	22.2	21.4	21.7
Poland	24.6	22.3	24.0	24.1	22.9	28.5
Portugal	10.4	10.0	11.9	12.6	11.6	12.9
Romania	11.9	14.5	18.9	16.6	17.4	20.0
Spain	10.9	10.7	12.8	13.5	13.3	15.0

Source: Own compilation based on data: <https://ec.europa.eu/eurostat/web/main/data>

As indicated in Figure 1, on average in the European Union, public sector investment produced just over 3% of the total value of GDP during the period under review. The presented examples of Romania and Poland are countries where the ratio of public investment expenditures to the value of GDP was the highest, reaching 5.4% and 5.1%, respectively. Particularly in the case of Poland, the above ratio remained high compared to the other countries analyzed.

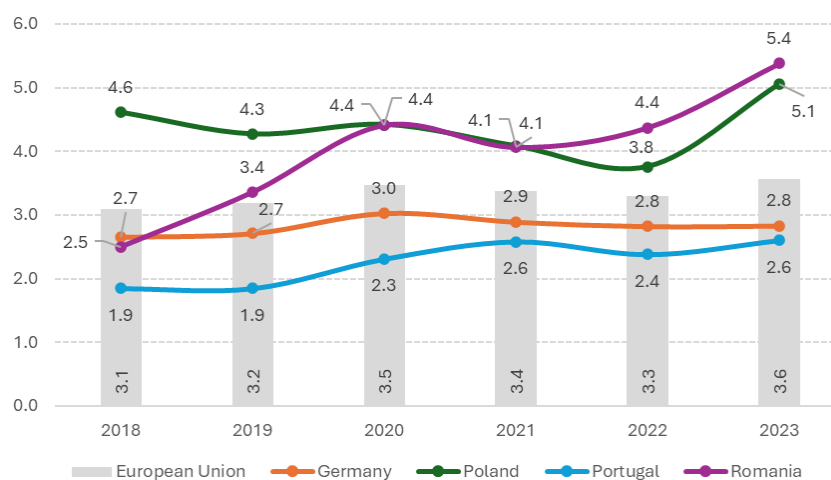


Figure 1. Contribution of general government investment to GDP in selected European countries in %

The indicated issues related to the implementation of development strategies through projects justify the application of the portfolio management concept to the field of public projects. The initial stage in the application of this concept is the need to specify the project portfolio as such, which, in general terms, is defined as a set of projects or programs considered collectively in order to create sustainable and effective conditions for their management to achieve the designated strategic objectives (Stawicki 2009, 82-86). An important contribution to the principles of constructing and managing a project portfolio, among others, is made by the standard introduced by the Project Management Institute (The Standard for Portfolio 2008, 12-19). According to it, a portfolio of projects is considered to be a collection of projects or programs that have been grouped together in order to facilitate their management and, as a result, contribute to the achievement of the designated strategic objectives (PMI 2013, 3-9).

In the public sector, the strategic approach to the implementation of tasks and projects more often takes into account another, quite commonly used organizational form, which is a program. The content of programs in such cases includes the entire set of tasks and projects, which comprehensively shape the operational scope of the achievement of the established general objectives of a given program, which are a refinement of any of the strategic objectives (Dylewski 2008, 88-90).

The program can be regarded as an important and useful tool for grouping projects within the process of strategy implementation by projects. Such a tool can be used when it is possible to establish interrelationships between projects and group them into specific sequences of activities, and the primary objective of the activities in the program is to make a permanent change in the organizational structure of the entity implementing the program or to change the process of manufacturing products or providing services. Synergy effects occurring within programs result from the existence of specific correlations between projects, which means that external effects make it possible to reduce the total cost of implementing projects within a program, as well as to achieve additional effects measured in material or financial terms, that would not be achieved by implementing each project separately.

Examples of practical solutions can be indicated in the public sector in the UK, often cited as a model for planning and implementation of investment programs (UK Government 2022, 11-32). Also, in Poland, it is possible to highlight specific activities of public administration units, undertaken at the central level and framed in as a combination of theoretical knowledge with examples of good practice and studies aimed at supporting the implementation of specific solutions in the conditions of public sector units, as well as the implemented ICT system “MonAliZa” (Janka and Kosieradzka 2019, 150-52; Gov.pl 2024). The materials available in the public domain include knowledge of strategic project management, strategic program management, the organization and role of the portfolio office in the institution, as well as practical information for program and project managers, including project techniques and tools (Gov.pl.2 2024).

Long-term social effects of project management in terms of practical solutions

In the case of a significant part of the public sector's activities, carried out through the provision of public services, it is possible to see the ability to determine their project nature. This applies, for example, to cultural services, such as a performance or concert arranged by a specialized organizational unit (theater, cultural center, museum) or tasks related to health prevention, promotion of behaviors that increase the level of public safety, etc. (Prawelska-Skrzypek 2011, 197-98). A given public sector unit usually undertakes several such tasks in the social sphere at the same time, so defining them in terms of a project and approaching their implementation in a structured way, in accordance with project management

methodology, can contribute to more efficient performance of the entire organization. Thus, the implementation of project management in a given organization represents a strengthening of its intellectual capital, formed in the processes of developing the competence and skills of public administration employees, which transfers to an increase in the efficiency and effectiveness of the activities carried out by individual units, and consequently an increase in the level of their project maturity.

In the research undertaken in this paper, the PRINCE2 methodology was highlighted, taking as a practical example of organizational solutions for project management that are predisposed to create effects that are of a social character in terms of growth of intellectual capital in the public sector (Takagi et al. 2024, 4-12). The PRINCE2 (Projects In Controlled Environments) methodology was designed to improve the effectiveness of projects in the public sector in the UK, where it has become the current standard. Made freely available to all interested parties, it has also been adopted as a project standard for the commercial sector. PRINCE2 is a management methodology that allows an organization to build governance for a variety of projects of different sizes and specialized products. The essence of implementing projects in a controllable environment is to characterize the ways and criteria for dividing a project into phases, enabling effective control of resources and covering the processes of project initiation, execution and closure with standardized control (Wodecka-Hyjek 2010, 363-364; PRINCE2 2024).

In PRINCE2, the certification process is overseen by Axelos. PRINCE2 offers three levels: Foundation, Practitioner and Professional (Axelos 2024). Of all the above, PRINCE2 Foundation is the most popular and also the simplest in terms of the content. The social effects created by improving project management skills come from the dissemination of the methodology, which can be measured by the number of total exams passed, including those taken by professionals involved in project implementation in the public sector. Figure 2 shows the change in the number of exams taken worldwide over the period 1996-2012.

According to Buehring (2024), by 2012, the total number of PRINCE2 exams taken worldwide had steadily increased, reaching a total of 1 million. Since then, the accreditation body has not published cyclical reports on exam statistics. Assuming that the same number of exams each year remained at the 2012 level of 145,000, it can be estimated that from 1996 to 2023, more than 2 million exams were taken worldwide.

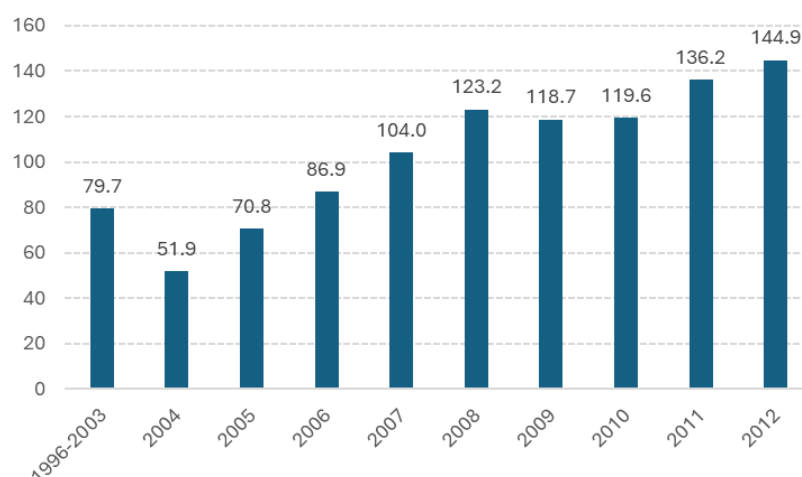


Figure 2. Number of PRINCE2 exams taken worldwide between 1996 and 2012 (in thousands)

The data shown in Figure 3 indicate that the United Kingdom had definitely the largest share of the total number of exams taken during the examined period. A significant number of exams were recorded in the Netherlands, as well as distinctive figures for the share of the total number of exams were seen in Germany and Poland. Among countries outside Europe, the relatively high share of exams taken in Australia stands out.

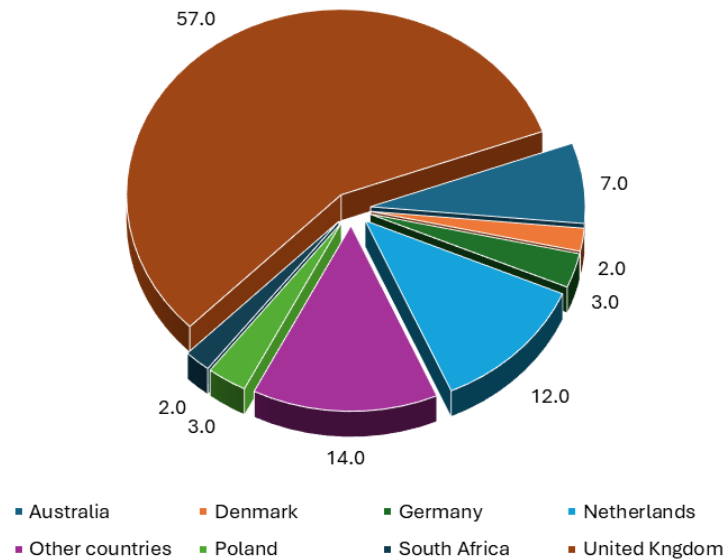


Figure 3. Number of PRINCE2 exams taken by selected regions in 2005-2012 (in %)

In terms of social effects, project management reduces the implementation time of complex investments and programs, which results in faster delivery of values to the public and increases the flexibility of the public sector in responding to changing conditions and needs. At the same time, it contributes to improving the quality of public services, as effective project management helps optimize the planning and implementation of activities by public sector entities. The aforementioned efficiency of project management refers to the use of public funds, which can be spent more efficiently due to the proper alignment of plans and methods of organizing and financing public projects with diagnosed social needs.

Discussion

The results of the analysis of selected organizational solutions for supporting the activities of public sector entities in a multi-project environment, presented above, indicate that project management instruments, using the experience and ability to identify economic benefits developed in the private sector, can contribute to the growth of innovation and economic development dynamics by promoting the experience developed by the private sector, as well as through the introduction of new technological and organizational solutions. This indicates the need to further develop management instruments that embrace the project approach as a strategic potential for public sector units to generate significant economic and social benefits that contribute to improving the quality of life of citizens and increasing competitiveness and development dynamics of regions and countries.

Portfolio management makes it possible to achieve the strategic goals set by the organization, while in program management, the main focus is on achieving defined effects for specified program recipient groups and inducing a sustainable change. In the context of the benefits in general, it should be noted that the adoption of the method of strategy implementation through projects and the activation of management tools, relating to defined

portfolios and programs, is one of the more effective mechanisms for achieving long-term strategic goals, including in particular the realization of investments in public sector entities.

The benefits associated with the implementation of project management in an economic context are primarily related to the improvement of the toolbox of public sector entities in terms of strengthening competencies in strategic planning, strategic analysis tools and project evaluation methods in financial and qualitative terms. The ability to use methods developed in the private sector strengthens the competence resource of public entities and provides opportunities to focus on economic effects, apply effective methods of project parameterization, including risk assessment and efficiency of the use of public funds. In the situation of the emergence of crisis phenomena in the economy, involving a reduction in the level of budget revenues, project management can be an important platform for establishing and maintaining cooperation of public sector entities in the forms of partnership with private entities, including organizational cooperation and co-financing of projects, especially infrastructure investments. This is undoubtedly important in the context of overcoming the limitations encountered in the public sector in terms of the ability to raise and use external capital.

The range of benefits in the social context, relating to the application of project management methods in the public sector, primarily includes the improvement of the relationship of public sector entities with a broad range of stakeholders, i.e. groups of recipients and communities to which the services of various public sector units and entities are addressed. Positive effects emerging from this perspective include improving the quality and accessibility of service delivery, matching the needs of recipients, and strengthening the transparency of public sector operations. In addition, it can be noted that this creates, on the one hand, an image of a modern public sector, functioning on the basis of competent, efficient and responsible human capital resources, and on the other hand, contributes to building public trust towards public sector entities, public involvement and the formation of civil society.

Conclusions

Project management in the public sector is part of the already well-established trend of public sector transformation in the world, in which the importance of strategic planning with the participation of broad groups of stakeholders is emphasized, and the focus on efficiency and rationality of the use of public resources is taken as important criteria for evaluating the effects of activities. In the face of emerging crisis phenomena, which are increasingly difficult to predict, it is necessary to use the positive effects of project management in the economic and social dimensions, which develop mutual involvement and cooperation between citizens and public administration structures, allow to stabilize the conditions for both the economic activity of society, as well as security and continuity of the provision of public services.

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