

ANALYSIS OF INAPPROPRIATELY PERFORMED EXPENSES OF THE REVITALIZATION PROJECTS OF DEGRADED AREAS

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Abstract

One of the most pressing problems of sustainable spatial development in Latvia is the existence of degraded areas. To address the issues of revitalization of degraded territories and to ensure sustainable development of the territory, Latvian municipalities could apply for support under the Specific Support Objective 5.6.2 (SSO 5.6.2) 'Revitalization of territories through regeneration of degraded territories in accordance with integrated development program of municipalities' during the European Union (EU) Structural Funds programming period 2014–2020. According to the Ministry of Finance (MF) data on project costs, it was found that during the implementation of the projects for revitalization of degraded territories, the local governments have not ensured an effective project management process in accordance with the implementation requirements of SSO 5.6.2, resulting in irregularities detected in the audits carried out on the projects, which have led to the decision on inappropriately performed expenses (IPE). Considering that the deadline for the implementation of projects under the 2014–2020 EU funds programming period is 31.12.2023, it is necessary to carry out an analysis of IPE to identify the reasons for the occurrence of IPE and to plan timely preventive actions to eliminate mistakes in the new programming period 2021–2027. The relevance and importance of the study lies in the analysis of the factors holding projects back - mistakes and irregularities and their prevention to ensure an efficient project management process.

Key words: municipality, revitalization projects, degraded area, requirements, inappropriately performed expenses, EU fund.

Introduction

The main objective of the SSO 5.6.2 project program is to prevent the existence of former industrial sites and other degraded areas, to promote employment and economic activity in municipalities, in accordance with the municipality's development program. The implementation of projects under SSO 5.6.2 is carried out in 4 project selection rounds and municipalities of national development centers – Daugavpils, Jelgava, Jekabpils, Jurmala, Liepaja, Rezekne, Riga, Valmiera and Ventspils – and municipalities of regional development centers are eligible for support. Within the framework of the projects, the municipality must involve as a cooperation partner, a business operator investing in the infrastructure owned by the applicant, which will be used for the benefit of the business operator (Stepina & Pelse, 2022).

According to the information report 'On the state of play of EU funds and foreign financial assistance under the responsibility of the Ministry of Finance until 1 September 2022 (semi-annual report)', the total investment allocation for the programming period 2014–2020 in the field of 'Information and Communication Technologies, Environment and Regional Development and Competitiveness of Merchants' is 744 million euro, of which the total amount disbursed in the field of environment and regional development is 35 million euro (Ministry

of Finance, 2022).

According to the theory by Dubrin, an effective management process is planning, organizing, controlling, and directing the implementation of activities to achieve the organization's goals (Dubrin, 2021). Considering the fact that the project as a set of activities aimed at achieving the goal and is limited in resources, which in the context of municipal operations are public funds, the implementers of municipal projects must effectively manage the use of financial resources (Mothupi, 2018). In the context of this study, the authors consider the effective use of funds to be the management of financial resources that ensures compliance with project requirements, avoiding mistakes that may result in IPE. The project implementation process in the context of the EU Funds is strictly regulated by the requirements of EU and Republic of Latvia (RL) legislation and the guidelines developed by the MF as the managing authority for monitoring the implementation of the EU Funds, non-compliance with which may dangers not only the achievement of the project objective, but also make the project implementation more difficult from the financial point of view, which may result in the identification of irregularities in the project. According to the Ministry of Finance Guidelines No 2.7 'Guidelines on the application of financial corrections, reporting of irregularities detected in the implementation of

EU funds, recovery of irregular expenditure in the 2014–2020. programming period', an irregularity is a breach of EU or national legislation in relation to its application, resulting in IPE (Ministry of Finance, 2022). In addition, the Guidelines define IPE as expenditure at the level of an individual project which, in accordance with the requirements set for the project, cannot be recognized as legal and regular expenditure and is recoverable from the EU budget. As mentioned in the mid-year report, from the beginning of the 2014–2020 programming period until 30 June 2022, a total of 64 million euro of IPE have been detected in EU Fund projects, which creates significant difficulties not only at project level but also additional burden for the municipality budget.

The inability to successfully implement projects in the municipality is the result of ineffective project management – non-compliance with administration requirements and inconsistent implementation of project management principles cause projects to fail to meet intended goals. Consequently, local governments must implement strict internal control functions to ensure that they effectively and economically implement their priorities. Analyzing errors in project implementation, municipalities can develop and implement appropriate policies and support mechanisms that ensure successful compliance with project requirements, thereby ensuring inefficient use of public funds (Makwetu, 2017).

The European Commission (EC) has set the maximum allowable level of error in project implementation, which is 2%. Consequently, the project implementers have been provided with a project management process developed by the EC and the RL that complies with the requirements of regulatory acts (Ministry of Finance, 2022). To provide recommendations to municipalities for successful implementation of degraded areas revitalization projects in the new programming period – 2021–2027, it is necessary to study the mistakes of the previous programming period in terms of project requirements, to analyze the main causes of project IPE, thus ensuring legal absorption of EU funds. Therefore, the author of the article has set the aim of the study – to analyze the inappropriate expenditure incurred by municipalities in the revitalization of degraded areas and to develop recommendations for municipalities to eliminate the non-compliance.

Materials and Methods

The following research methods were used in the study: 1. Analysis of theoretical literature sources.

This method was chosen because it provides an opportunity to analyze the theoretical aspects of project management – the project life cycle model, the role of planning in project management and the indicators of project requirements – using scientific literature sources. The analysis of theoretical literature sources is based on scientific publications, conference papers, project management books. 2. The authors used statistical data analysis method – cluster analysis to identify similar and dissimilar municipalities as project implementers, and by combining them according to certain characteristics into one cluster, to analyze their unifying regularities and to interpret the results. The interpretation of the results deepens the understanding of the likely aspects of municipal performance that influence project implementation. The statistical data used were the indicators of irregular expenditure for SSO 5.6.2 projects collected by the MF, as well as publicly available statistical information on the overall absorption of ERDF funding in the cluster of municipalities (Ministry of Finance, 2022). The study analyzed all Latvian municipalities implementing degraded area revitalization projects under SSO 5.6.2. 3. The variables selected for this method are the IPE of degraded area revitalization projects and the reasons for their occurrence. Document analysis, within the framework of which, taking into account the object of the study – inappropriate expenditures of degraded areas revitalization projects, as well as in accordance with the aim of this study, the regulatory enactments regulating SSO 5.6.2 – Cabinet of Ministers Regulation No 645 of 10 November 2015 'Operational Program 'Growth and Employment' Special Support Objective 5.6.2 'Revitalization of the territory through regeneration of degraded areas according to local government' – were analyzed. Integrated Development Programme' (Cabinet Regulation No.645) and Guidelines No.2.1 'Guidelines for determining eligible and ineligible costs in the 2014–2020 programming period', Guidelines No.2.7 'Guidelines for applying financial corrections, reporting irregularities detected in the implementation of European Union funds, recovery of expenditure unduly incurred in the 2014–2020 programming period' developed by the Ministry of Finance, 03.07.2014. Law on the Management of the European Union Structural Funds and Cohesion Fund for the 2014–2020 programming period (EU Funds Management Law). The analysis of the documents was used with the aim to investigate the main requirements to be met by local authorities when

implementing projects under the SSO 5.6.2 program, as well as the potential risks of non-compliance.

Results and Discussion

The European Commission defines the term 'project' in the context of EU funds as a set of actions aimed at achieving a clearly defined objective within a given timeframe and budget (European Commission, 2004). SSO 5.6.2. project applicants – municipalities, when applying for EU funds support in project implementation, develop and prepare a project application that complies with the regulatory framework. A project application prepared in accordance with the regulatory framework and the project's objective is an integral part of a successful project, and weaknesses in its preparation are one of the main reasons why projects fail (Stepina & Pelse, 2021).

Project management is implemented according to the project life cycle model, which is a purposeful logical and sequential ordering of project phases and activities that ensures optimal project management and continuity (Takwi, 2014). Different literature sources interpret the project life cycle differently, considering the uniqueness and specificity of the project content, but in general the life cycle phases range from 4–6 phases and are similar in key aspects: initiation, planning, implementation, and closure. The Project Management Institute (PMI) proposes a five-phase project life cycle model - initiation, planning, implementation, control, closure (Project Management Institute, 2021). The above project life cycle models are defined in project management theory at project level, which municipalities should consider in their project management. The European Commission (EC) has defined a conceptual model of project implementation to be considered at national level, considering aspects of national development planning. The EC defines a model for project implementation consisting of six stages: program design (national development planning documents), tendering (preparation of project application), decision-making (contracting), implementation (preparation of progress reports), evaluation (evaluation report), audit (European Commission, 2004). As project promoters, it is the responsibility of the municipalities to be aware of and follow the project implementation process developed by the EC and to study the requirements set out in the documents to be prepared, considering that the final phase of implementation of projects co-financed by EU funds is subject to project audits

by the supervising authorities. The purpose of the audit is to provide assurance on the compliance of expenditure with the binding regulatory enactments (Ministry of Finance, 2022). According to the project life cycle model, which defines the phase of the project life cycle in which certain activities are to be carried out, it can be concluded that the development of a project application is the outcome of the project planning phase, which includes the main project requirements (Friberg *et al.*, 2016). Effective planning is not just about developing a detailed project application, it is about exploring the success criteria and identifying the potential risks of the project (Baker *et al.*, 2008). During the project planning phase, defining the project requirements is one of the key tasks to prepare the project for its execution. Requirements definition and management in a project is the term used to describe the process of defining, documenting, analyzing, prioritizing, and agreeing, controlling, and managing change and risk (Oberg *et al.*, 2000). The failure to define and manage project requirements, or the lack of quality of requirements, is one of the main causes of project failure. However, not all organizations successfully manage project requirements and follow up on requirements, addressing potential risks in a timely manner, resulting in errors that lead to project failures (Yang *et al.*, 2010). According to a study by Coventry T., published at the Project Management Institute (PMI) conference on 11.05.2015, the project requirements management process can be divided into the following stages: 1. Requirements definition – requirements are identified and grouped into areas based on the requirements and needs of the project stakeholders. 2. Capturing requirements and incorporating them into project plans; 3. Delegation of responsibility for the implementation of the requirements and definition of areas of responsibility. 4. monitoring and follow-up of requirements.

In addition, Coventry T. argues that project requirements can be identified under the plans of each project scope or can be developed as a separate project requirements plan (Coventry, 2015).

Burek P. divides project requirements into two categories: activity requirements, which define what is to be accomplished or help to define the goal to be achieved by the project and describe the possible changes that will occur as the project is implemented, and technology requirements, which define how the activities defined in the project are delivered (Burek, 2008). It can be concluded that compliance with the requirements is a key success factor of the project,

ensuring the successful achievement of the project objective. As the project is limited in both time and resources, the most important success factors of the project are – delivering the project on time and within the project budget, which is an indication of quality assurance (Lester, 2014).

To meet the requirements of the project activities, the project application should define the main project activities and identify the resources needed to carry them out. The implementation of the activities can be achieved by meeting the requirements of the project-specific activities – construction requirements, procurement requirements, requirements for the acquisition of fixed assets and services, requirements for the conditionality of State aid, project management requirements (Tuunanen *et al.*, 2007). The management of EU funds is divided between the European Commission and the Member States, so the rules and conditions, from a fund management perspective, are partly based on EU law and partly on national law (European Commission, 2014). The implementation of EU Fund projects is possible provided that all requirements are met to receive the public funding for which the municipality commits itself under the EU Funds Implementation Agreement. The agreement is concluded between the municipality as the beneficiary and the EU Funds cooperation body, the Central Financial and Contracts Agency. The agreement is drawn up in accordance with Cabinet Regulation No 645 and the EU Funds Management Law and includes the main types of requirements –

1. The eligible costs of the project, including ERDF funding, local authority funding, the amount of the state budget grant and other sources of funding.
2. Project implementation period.
3. The general obligations and rights of the beneficiary and the cooperation authority.
4. Conditions for commercial support.
5. The terms and conditions of cooperation between the beneficiary and its cooperation partner.
6. Procedures for on-site inspections.
7. Procurement procedures.
8. Procedures for the submission and processing of payment claims.
9. Procedures for reducing the amount of eligible expenditure.

It follows that the implementation of EU Fund projects is strictly regulated by requirements and their limitations, as defined by project management theory, have an impact on project finances and timing. In cases where the beneficiary of a project does not comply with the requirements set out in the agreement on the receipt of EU funds, irregular expenditure is detected, resulting in financial losses

at project level, as well as an additional burden on the municipality's budget as the expenditure incurred is not recovered and the project may be at risk of non-implementation. Therefore, the challenge for project promoters – local authorities – is to be able to identify the project requirements, gather their underlying conditions and ensure compliance with them to ensure an efficient decision-making process.

The Ministry of Environmental Protection and Regional Development, as the responsible authority for SSO 5.62, has prepared the SSO 5.6.2 project performance assessment on 29.09.2022, which indicates that in the projects for revitalization of degraded areas significant delays have been identified both in the project implementation deadlines due to delays in the execution of construction works and in the project cooperation partners - business operators unable to ensure non-financial investments in their own intangible investments and fixed assets, which creates high risks for the achievement of indicators. In addition, the report indicates that overall, during the reporting period, a total of 64 million euro of public funding, or 1.45% of the project payment claims, was identified as EU Structural Funds IPE, of which 29 million euro were recovered.

To analyze how Latvian municipalities ensured legal project management in the 2014–2020 programming period under SSO 5.6.2, the authors carried out an analysis of the statistical data prepared by the MF - eligible expenditure of implemented projects (until 05.02.2023) by cities/regions (euro). Initially, the overall absorption of financial indicators was analyzed to assess the level of investment in the rehabilitation of degraded areas. The analysis was carried out using the cluster analysis method, which aims to group sites into subsets or clusters based on a comparison of certain characteristics, to analyze their common patterns and to interpret the results. The interpretation of the results obtained deepens the understanding of the possible aspects of municipal performance that influence the implementation of projects. The object of the study is the municipality, and the descriptive parameters are the project financing by cost item – Europe Regional Development Fund (ERDF) budget, state budget grant to municipalities, municipal funding, other public funding, private investment. The analysis was carried out in the following steps:

1. Data selection and statistical significance. The data were selected based on information provided by the MF as the managing authority for the EU Structural Funds, respecting the principle of limited

availability and the data protection framework. To determine the statistical significance of the data used, the authors performed an analysis of variance

(ANOVA). In Table 1, the significance indicator shows that all factors used for the cluster analysis are statistically significant, i.e., $\text{Sig.} < 0.05$).

Table 1

ANOVA test result for statistical significance

Cost type	Cluster		Error		F	Sig.
	Mean Square	df	Mean Square	df		
ERAF (ReactEU) funding, EUR	167 521 288 842 652.00	3.00	1 128 803 794 416.80	28	148.406	0.000
State budget grants to municipalities, EUR	606 586 341 221.70	3.00	81 055 546 280.67	28	7.484	0.001
Municipality budget, EUR	4 244 437 463 175.20	3.00	1 010 766 108 838.16	28	4.199	0.014
Other public funding, EUR	2 888 964 518.56	3.00	1 380 363 515.15	28	2.093	0.124
Private eligible costs, EUR	2 738 211 362 561.41	3.00	388 278 863 090.70	28	7.052	0.001

** The F tests should be used only for descriptive purposes because the clusters have been chosen to maximize the differences among cases in different clusters. The observed significance levels are not corrected for this and thus cannot be interpreted as tests of the hypothesis that the cluster means are equal.*

2. Determining the number of clusters and the standard deviation of each cluster. The number of clusters was determined using the hierarchical clustering method and the Elbow rule and was 4. The municipalities were clustered using the k – means method, where the total number of municipalities is 32.

The division of municipalities into clusters is shown in Table 2. The distance indicates the relative ‘distance’ of the municipality from the cluster center, the smaller the distance the more typical the municipality is for this cluster.

Table 2

Number of clusters of municipalities and standard deviation of clusters

Case Number	Municipality	Cluster	Distance
1	Aizkraukle district	1	1 116 183.84
2	Aluksne district	3	761 664.20
3	Augšdaugava district	1	1 775 338.09
4	Balvi district	3	1 738 899.74
5	Bauska district	1	662 951.36
6	Cēsis district	1	1 016 458.87
7	Daugavpils	4	2 523 852.01
8	Dobele district	1	1 164 724.80
9	Gulbene district	3	1 476 213.36
10	Jelgava	3	1 122 506.60
11	Jekabpils district	2	2 117 318.42
12	Jurmala	2	625 926.92
13	Kraslava district	3	1 082 379.05
14	Kuldīga district	3	782 757.17

15	Liepaja	2	2 061 324.01
16	Limbazi district	1	196 554.49
17	Livani district	1	1 690 051.46
18	Ludza district	3	1 483 558.08
19	Madona district	1	722 938.15
20	Ogre district	1	719 876.78
21	Preili district	3	822 755.20
22	Rezekne	4	2 523 852.01
23	Rezekne district	3	1 592 774.44
24	Riga	3	2 934 182.79
25	Saldus district	1	2 787 572.32
26	Sigulda district	1	843 196.36
27	Smiltene district	1	1 320 404.06
28	Talsi district	1	971 506.43
29	Tukums ditriect	1	732 768.23
30	Valka district	1	1 943 412.59
31	Valmiera district	3	842 428.99
32	Ventspils	3	1 008 841.87

3. Interpretation of the results. As a result of the cluster identification, 4 clusters were identified, where the distribution of the studied municipalities by cluster is as follows. In the next step, the characteristics

identified above were summarized and grouped by cluster to identify their common and distinctive features (Table 3).

Table 3

Final cluster centers by cost types, EUR

Cost type	Cluster			
	1	2	3	4
ERAF (ReactEU) funding, EUR	4 433 750.2	11 689 378.8	7 938 473.6	19 888 187.2
State budget grants to municipalities, EUR	344 005.6	774 184.5	555 498.8	1 277 073.4
Municipality budget, EUR	1 235 724.6	2 773 737.0	1 771 334.8	3 430 686.9
Other public funding, EUR	0.0	0.0	33 065.3	33 817.5
Private eligible costs, EUR	357 676.59	1 550 145.17	354 952.86	2 002 038.14

According to Table 3, the fourth cluster, which is the smallest in terms of the number of sites, has the highest financial indicators in all cost groups, which shows that these municipalities – Rezekne and Daugavpils – have invested the most in the revitalization of their degraded areas. However,

data for the first cluster show that the municipalities belonging to this cluster have invested the least in the revitalization of their degraded areas, which can be explained by the fact that the first cluster represents regional centers of regional importance, does not include any of the cities of national importance, whose

financial capacity is different, and the priorities set for the development of the territory differ from the small municipalities. One of the conclusions of the authors is that these municipalities have the smallest number of degraded territories and relatively low chances for projects to attract entrepreneurs who would undertake to develop their business on the site of the degraded territory, ensuring the indicators to be achieved by the project – creation of new jobs. In terms of the indicators studied, except for ‘other public funding’ and ‘private funding’, the second and third clusters are the most similar although the number of sites in the cluster is very different - the second cluster has 3 municipalities, while the third has 12 municipalities. The second cluster is represented by two national cities – Liepaja and Jurmala, as well as the Jekabpils region, which leads to the conclusion that the development

prospects of the national cities and the financial resources required for its provision are significantly higher than those of the municipalities represented by the third cluster. In addition, the authors suggest that most entrepreneurs are concentrated in the cities of national importance, which have the potential to invest as project partners to create new enterprises in degraded areas.

To gain confidence in the total eligible expenditure and the financial size of the IPE under SSO 5.6.2, the authors used statistical data provided by the MF and summarized the results in a graph (Figure 1). The figure shows the eligible expenditure for SSO 5.6.2 projects by cost item – ERDF funding, state budget grant to local authorities, local authority funding, other public funding, private contributions and IPE identified because of mistakes by local authorities.

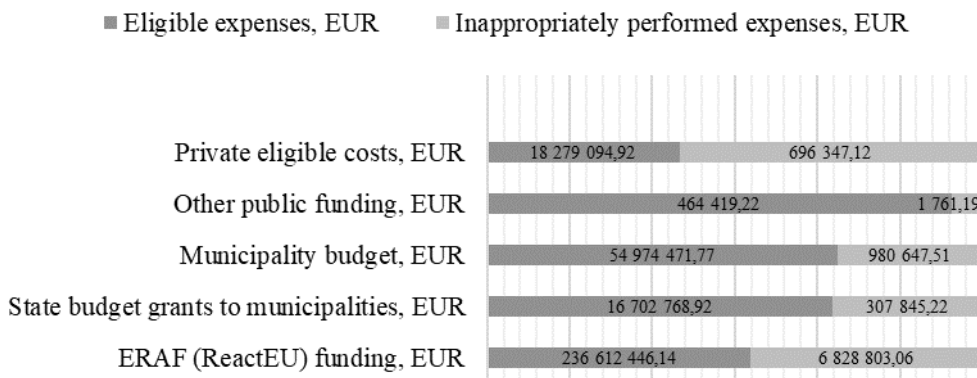
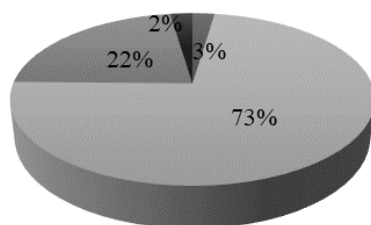


Figure 1. Eligible and inappropriate expenses, EUR (period 2016–2022).

Overall, the total amount of NSIs in euro in relation to eligible expenditure ranges from 0.5%–3.8%. The highest NCI rate was found in the ERDF funding section – 3.8% of project eligible expenditure, which is explained by the fact that the implementation of projects respects the ERDF aid intensity of 85% of total eligible costs, i.e., ERDF funding accounts for most project funding. According to the European Commission’s tolerable error rate for projects of 2%,

the implementation of SSO 5.6.2 projects exceeds the tolerable limit, indicating the need to investigate the reasons for the occurrence of IPE so that an error analysis can be carried out in the next programming period. The statistical data provided by the MF showing both the reasons for non-compliance and the number of non-compliances detected by type of projects audited is presented in Figure 2.



- Suspicion of fraud or organized crime
- Violations of procurement regulations
- Failure to comply with the requirements of projects
- Failure to comply with Article 71 of Regulation No. 1303/2013

Figure 2. Types of non-conformances in project implementation.

According to the information presented in Figure 2, it can be concluded that the highest number of IPE was found in the non-compliance with the project procurement norms, which amounted to 62 violations or 73% of the total number of violations found – 85. The above shows that the procurement process and its management provided by local governments is ineffective and needs improvement. In addition, audit findings concerning non-compliance with project implementation requirements – 22% or 19 breaches out of the total number of breaches – also require attention. In general, according to the information provided by the MF, these mistakes concern non-compliance with the conditions of the project implementation agreement, non-compliance with the requirements of the Cabinet Regulations on SSO 5.6.2, as well as breaches of the procurement contract which are not classified as a breach of procurement rules. A relatively small percentage of the total IPE – 2% – is accounted for by audit findings in cases of suspected fraud or organized crime. Although this percentage does not indicate serious risks, it is nevertheless significant as the EC has firmly established that EU public funds are in no case or form linked to fraud and crime and in such cases the implementation of the project is suspended.

Conclusions

1. The implementation of EU Fund projects is strictly regulated by the requirements of national and EU legislation, and non-compliance risks the repayment of funds paid to the EU budget and the termination of project implementation. Compliance with requirements and the adoption of legally compliant decisions is an indicator of the effectiveness of EU Funds project management.
2. The projects implemented by municipalities in the revitalization of degraded areas have been implemented using the level of EU Fund support that addresses the specific territorial development issues of each municipality, based on the individual development priorities of the municipality, assessing the financial capacity of the budget and the number of degraded areas in the municipality.
3. The project implementation process is assured with an error rate of 3% in the ERDF funding section, which is higher than the tolerable error rate of 2% set by the MoF. This situation may lead to the possibility of an increase in the number of audits to be carried out both by the Latvian Audit Authority and the EC.
4. The main causes of IPE concern the area of non-compliance with procurement rules and non-compliance with project requirements, which reflects insufficient knowledge, lack of risk management and ineffective decision-making.
5. Weaknesses in knowledge of legislation and regulations in the project management decision-making process.

Recommendations:

1. Ensure an effective project management process in the implementation of projects, with senior professionals with the appropriate level of knowledge and expertise to ensure that all project requirements are met.
2. Use the advisory support of the EU Funds' cooperation body, the Central Financial and Contracts Agency before starting the procurement process or making changes to the project, thus ensuring a common understanding of the interpretation of legal requirements.
3. Prior to the preparation of the project application, draw up detailed requirements plans to ensure that the entire project team is aware of the most up-to-date and relevant requirements for the project.
4. At the end of the 2014–2020 programming period, carry out an evaluation of the projects implemented and analyze the mistakes made to avoid potential risks in the new programming period.
5. Ensure effective control of the tasks to be carried out in the project management process to be able to identify in good time the areas of project implementation exposed to risks.

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