Interreg V-A – Estonia-Latvia

Audit of management and control systems of the electronic monitoring system (eMS)

Audit No JKS-11/2017

Final Report

14.02.2018

REPUBLIC OF ESTONIA
MINISTRY OF FINANCE

EXECUTIVE SUMMARY

The purpose of this audit was to assess the effectiveness of the management and control systems (herewith as MCS) of Cooperation Programme Interreg V-A – Estonia-Latvia (herewith as Programme) in administrating the electronic monitoring system of the Programme (herewith as eMS).

The assessment was carried out on the basis of the key requirement 6 (herewith as KR6) as defined with the Commission Delegated Regulation (EU) No 480/2014 and specified with the EC Guidance for the Commission And Member States on a common methodology for the assessment of management and control systems in the Member States (EGESIF_14-0010 18/12/2014).

By compiling the final audit opinion the auditors took into account the evidence gathered and conclusions made during the audit work.

SUMMARY OF THE AUDIT RESULTS

As the result of this audit, the Audit Authority (herewith as AA) is in opinion that the MCS of the Programme in respect of the KR6 **works well, only minor improvements are needed** (Category 1[1]).

The detailed results by assessment criteria of the KR6 are presented in Part B of this report and the summary table of results in Annex 1.

During the audit, the following **significant**[2] findings were made:

Finding 6.2.1. The deductions and comments made by the Programme authorities during the processing of project reports should be viewable more easily (significant)

Finding 6.3.1. The replacement arrangement for the eMS Manager does not have similar rights in the eMS system (significant)

The auditors make the assumption that the information presented to them during the audit including both in written and verbal form describe the MCS of the Programme correctly and in accordance with its actuality. Should there exist information that was not known or not presented to the auditors at the time, the results and the opinion may have been different.

The audit has been carried out in accordance with internationally accepted internal auditing standards of the IIA – International Standards for the Professional Practice of Internal Auditing.

The final audit report will be published at the homepage of the Ministry of Finance.

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[1] Category 1 – Works well. No or only minor improvements needed
Category 2 - Works, but some improvements are needed
Category 3 – Works partially; substantial improvements are needed
Category 4 – Essentially does not work.
[2] **Significant findings** are findings that describe an error in the auditee's MCS which has a significant effect on the possibility of fulfilling its critical tasks and requirements (this may include systemic errors). Significant findings require immediate action from the auditee's management in order to correct those errors.

Non-significant findings are findings that describe an error in the auditee's MCS which has a non-significant effect on the possibility of fulfilling its critical tasks and requirements (this may include random errors). Non-significant findings require action from the auditee's management in order to correct those errors.

The audit team wishes to thank the employees of the Programme for their cooperation and assistance during the audit work.

Final Report consists of 12 pages.

Audit supervisor:	Audit manager:
(Signed electronically)	*(Signed electronically)*
Kadi Peets	Mart Pechter
Head of Audit Unit II Financial Control Department	Lead Auditor of Audit Unit II Financial Control Department

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PART A

1. Summary of the audit work

In accordance with the Article 127(1) of the CPR and the working plan of the AA for the year 2017, the AA carried out an audit on the MCS on the eMS of the Programme as used for the programming period of 2014-2020. The purpose of the audit was to give an independent opinion on the functioning and effectiveness of the MCS in that regard.

The audit was carried out between 03rd of October 2016 and 14th of February 2018. The audit was managed and the audit procedures carried out by a Lead Auditor of Audit Unit II of the Financial Control Department of the Ministry of Finance (herewith as FCD), Mart Pechter. The audit supervisor was the Head of Audit Unit II of the FCD, Kadi Peets.

In order to present an opinion, the MCS in regards to the eMS was analyzed and tested in accordance with the KR6 and the following sub-criteria[3]:

- 6.1 The existence of a computerized system capable to collect, record and store on each operation the data required by Annex III CDR, including data relating to indicators and milestones and on the progress of the programme in achieving its objectives provided by the MA under Article 125(2)(a) CPR.

- 6.2 Adequate procedures are in place to allow for the aggregation of the data where this is necessary for the purposes of evaluation, audits, as well as for payment applications and accounts, annual summaries, annual implementation and final reports, including reports on financial data, submitted to the Commission.

- 6.3 Adequate procedures are in place to ensure:

    A. the security and maintenance of this computerized system, data integrity taken account of internationally accepted standards as for example ISO/IEC 27001:2013 and ISO/IEC 27002:2013, data confidentiality, the authentication of the sender and storage of documents and data in particular in accordance with Articles 122(3), 125(4)(d), 125(8) and 140 CPR and

    B. the protection of individuals with regard to the processing of personal data.

The audit was based on the following documents:

- Programme Manual of the Programme (updated August 2017);

- Description of the MCS of the Programme (updated on the 15th of December, 2016);

- eMS Manual (version 3.2.1);

- Selected documents, such as applications, reports and tables in the eMS system.

In order to form an opinion, the following audit procedures were carried out:

- The evaluation of compliance of the principles of the eMS set out in the description of the MCS with the principles of the KR6;

- The testing of compliance of these principles in the actual information and working processes contained within the eMS system ;

- The evaluation of the same compliance with the details of practice actually used in managing the eMS.

The audit work was based on the methodology developed by the FCD for the programming period of 2014-2020.

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[3] The criteria are described in detail in "Guidance for the Commission and Member States on a common methodology for the assessment of management and control systems in the Member States"

2. Sampling methodology

In order to test for the practice, different projects were selected for testing. For most of the testing for the processes leading from application, decision, contracting and reporting, six different projects were randomly selected.

Two separate projects were reviewed for the exclusion of ineligible costs as decided by the Financial Control (hereinafter as the FC), as the other projects contained no ineligible costs.

The tables and other information when connected to other processes not yet mentioned, that were compiled by the eMS, were viewed without singling out specific projects.

3. Background information

In accordance with the Article 127(1) of the CPR, the AA shall ensure that audits are carried out on the proper functioning of the MCS of the operational programme.

For the Programme in the 2014-2020 programming period, the previous relevant audit of the MCS has been a Compliance audit of the MA (No III-2/2016) from 14th of December 2016 with an **unqualified opinion** on the description of the MCS.

The audit at hand was added to the working plan of the AA for the following reasons:

- The results of Compliance audit set it out specifically, that a separate audit of the eMS was to be carried out, as the eMS system at the time was not fully functional nor included much data for actual testing of the system;

- The eMS contained a reasonable amount of data at the time of the audit, but the recommendations could be made before the Programme reached its maximum workload.

4. Follow-up and monitoring

The auditee must take into consideration all the findings and recommendations presented in the Part B of this report. The MA is responsible for the follow-up and monitoring of the implementation of measures taken as a result and will report of the results in a written form. The final opinion on the implementation of measures will be given by the AA. If necessary, a follow-up audit may be conducted.

PART B

FINDINGS AND RECOMMENDATIONS

Key requirement 6: Reliable system for collecting, recording and storing data for monitoring, evaluation, financial management, verification and audit purposes, including links with electronic data exchange systems with beneficiaries

As the result of this audit, the auditor finds that the MCS of the Programme of the eMS regarded via the KR6 **works well, only minor improvements are needed (Category 1)** [4]

Assessment criteria 6.1

The existence of a computerized system capable to collect, record and store on each operation the data required by Annex III CDR, including data relating to indicators and milestones and on the progress of the programme in achieving its objectives provided by the MA under Article 125(2)(a) of the CPR.

The AA is of the opinion that the eMS is in accordance with the principles of assessment criteria 6.1.

No findings.

Assessment criteria 6.2

Adequate procedures are in place to allow for the aggregation of the data where this is necessary for the purposes of evaluation, audits, as well as for payment applications and accounts, annual summaries, annual implementation and final reports, including reports on financial data, submitted to the Commission.

The AA is of the opinion that the eMS is generally in accordance with the principles of assessment criteria 6.2, but some improvements are needed.

Finding 6.2.1. The deductions and comments made by the Programme authorities during the processing of project reports should be viewable more easily (significant)

In the process of verification of the reports of projects in the eMS system, the Programme authorities, such as the FC, the Joint Secretariat (hereinafter as the JS), the Managing Authority fulfilling the functions of the Certifying Authority (hereinafter as the CA), and the MA to exclude costs that have been deemed ineligible.

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[4] Category 1 – Works well. No or only minor improvements needed
Category 2 - Works, but some improvements are needed
Category 3 – Works partially; substantial improvements are needed
Category 4 – Essentially does not work.

Those costs and the comments that explain the decisions are viewable under the specific reports and certificates. The excluded costs but not the comments are also viewable under the project living tables.

RISK: If there is no easy way to view the comments that explain the exclusion of those costs, there is a risk that any decisions that may affect the future costs in that project may go unnoticed by different officials in the future. Examples may include errors in public procurement which may lead to a flat-rate deductions from all future invoices based on that procurement, or any other recurring costs that have been deemed ineligible.

RECOMMENDATION: It is recommended for the eMS Manager to find out, whether there is a technical solution that would allow to make not only the excluded costs but also the comments that explain these decisions easily viewable on the project level. If no technical solution exists, it is recommended for the MA to search for other solutions, such as issuing new guidelines and training on this topic.

COMMENT FROM THE MA:

It is correctly pointed out in the report that programme authorities deductions and corresponding comments are viewable under specific reports and certificates. It is also correct that excluded costs, but not comments or explanations, are accessible from project living tables. The report recommends to "make not only the excluded costs but also the comments that explain these decisions easily viewable on the project level". MCS report does not mention that starting from the eMS version 3_2 there is monitoring types of FC/JS/MA corrections. It is a standardized way of assigning a predefined correction type to a deduction. One of the advantages of predefined list of correction types is that it allows the comparison and statistics based on different types.

From Programme Tables – Management verification overview –programme level statistics on correction types is accessible. Statistics can be drawn and sorted based on date and authority (FC/JS/MA). Information about correction types on project and beneficiary level can be accessed from progress reports (JS and MA cumulative and concrete certificate correction tables) and from partner reports (FLC documents – FLC Report).

While correction types on programme level is adequately available and also quite satisfactorily on report level, there is indeed a lack of connection between programme level and project level deductions and also between project level and report level deductions. There is currently no straightforward and user-friendly way to track down corrections to specific projects and reports. These deficiencies can be overcome only by modifying the source code of eMS and thus can be done only by Interact. Solution to set up connection between different level deductions is not very complicated, we have one proposal to use Programme Tables – Partner reports and Project reports tables in mind. Of course, prerequisite is that Interact and eMS user group agrees.

In the meanwhile, additional measures could be taken. One part of the solution is informing and training of the users of programme authorities so that they possess the power to use the full potential of available features in eMS in March 2018. A part of that measure is the development of eMS Manual for financial controllers in March-April 2018.

Second part of additional measures is to start using inherent risk and control risk assessment from March-April 2018. Auditors have pointed out that there is a risk of some recurring costs that are deemed ineligible could remain unnoticed by authorities in the future reports. Inherent risk and control risk assessments are exactly devised to mitigate that risk. Inherent risk assessment will be done by FC before issuing certificate and it assesses the risks inherent to project, partner, activity or expenditure. It is a checklist, and the information entered there will be copied from one report to another, but can be changed if necessary. Control risk assessment is similar FC checklist and it provides information on the quality of each report. It can be used also as a basis for sampling. Control risk assessment results are also copied from one report to another to keep track of previous assessment results. The checklists will be introduced to FC personnel during the training in March 2018; also the topic will be included to the eMS Manual for financial controllers in March-April 2018.

COMMENT FROM THE AA:

The AA agrees with the comments and explanations. Bringing the issue to Interact for a code-level solution would indeed probably produce the best solution, but training the FC staff and providing them with tools to notice and mitigate this risk is also a practical solution. The AA will review this during the FC systems audit in the first half of the year 2018.

Finding 6.2.2. The information in the Description of Management and Control Systems needs updating (non-significant)

During the review of the procedures described in the description of the MCS and the ones actually in place in the general practice of the eMS, the following information was found in need of corrections.

- Under the points 2.2.1 and 4.1.7, Init Tarkvara OÜ has been mentioned as the IT service provider for Enterprise Estonia.

In practice, they have been replaced by Grid Group. This information should be updated in the description.

- Under the points 2.2.1 and 4.1.7 it is mentioned that a maintenance service for the eMS was planned to be contracted.

In practice, the idea has not been acted on, but rather it has been thought the eMS Manager has sufficient skills for handling the maintenance service. If the MA accepts this based on a sufficient analysis this information should be clarified in the eMS.

- Under the point 4.1 it is described that there are no links for electronic exchange of data between the eMS and other information systems.

In practice, the eMS in general uses links for the ECB currency exchange rate and for the KEEP database. There are also plans for a link with the SFC2014 database, as described in the point 3.2.2.2. The last mentioned item has also been planned to be done by the eMS Manager instead of outsourcing it. This information should be updated in the description.

- Under the point 4.1.4 it is described that a backup copy of the data in the eMS is created every evening, it is stored for one day; additionally a backup copy is made at the end of each month

In addition to that, weekly backup copies are also made. This information should be updated in the description.

- In several instances (such as points 2.1.3, 2.2.3.7, 2.3.1, 3.2.2.2 and 4.1.4), the system Postipoiss is mentioned.

This system is no longer in practical use and should be replaced in the description with the correct systems.

RISK: Information in the description, which is unclear or out of date, may adversely affect the actual working processes of the Programme

RECOMMENDATION: It is recommended for the MA to clarify and update the information in the description.

COMMENT FROM THE MA:

MA will update information brought out in finding 6.2.2, the frames of amendment of the MCS before July 2018.

COMMENT FROM THE AA:

The AA agrees with the comments and explanations and considers the finding closed.

Assessment criteria 6.3

Adequate procedures are in place to ensure:

A. the security and maintenance of this computerized system, data integrity taken account of internationally accepted standards as for example ISO/IEC 27001:2013 and ISO/IEC 27002:2013, data confidentiality, the authentication of the sender and storage of documents and data in particular in accordance with Articles 122(3), 125(4)(d), 125(8) and 140 of the CPR and

B. the protection of individuals with regard to the processing of personal data.

The AA is of the opinion that the eMS is generally in accordance with the principles of assessment criteria 6.3, but some improvements are needed.

Finding 6.3.1. The replacement arrangement for the eMS Manager does not have similar rights in the eMS system (significant)

In the description of the MCS, under the point 2.2.1 it is mentioned that the eMS Manager can be replaced by another staff member of the JS, who understands the work procedures of the programme and the work flows of the eMS.

In practice, the replacement of the eMS Manager has no similar rights in the system to effectively replace the eMS Manager. They are only able to advise the users using general information, but not to fulfil any specific tasks using rights that the eMS manager has.

RISK: As the Programme is managed completely via the eMS, any disruptions to the system that the eMS manager's replacement cannot deal with may hinder or halt the functioning of the entire Programme. This risk may be exacerbated in unexpected situations when the eMS manager cannot return to work to deal with those issues.

RECOMMENDATION: It is recommended for the Managing Authority (hereinafter as the MA) to plan for an additional replacement policy for the eMS Manager to complement the existing one. The additional policy should take into account the cases where critical disruptions arise when the eMS Manager is not available to deal with them.

COMMENT FROM THE MA:

Audit report points out a risk of functioning of the Programme if some system disruption occurs that eMS manager replacement can't handle. It stems from the fact that the replacement doesn't have similar rights that eMS manager has. There are several components that need to be pointed out:

1. In case of system crashes or unresponsiveness on the server side (either Apache server or SQL server) the risk is mitigated by the fact that we use Enterprise Estonia IT infrastructure and Grid Group as server service provider. Server side problems are their responsibility. Server hosting institution provides reliability, availability, scalability and security.
2. Application-side management is more of an issue here. Application maintenance, responding to error reports, user rights management, configuring or adapting settings are all part of concern. Possible mitigation strategies, some of them implemented already, are the following:
   a. JS users can replace eMS manager, as they have sufficient user rights to deal with more common configuration and user management issues, has been implemented already;
   b. JS has access to all technical documentation needed to perform eMS admin tasks from Basecamp, where all the technical documentation is available and regularly updated;
   c. Further training of the admin user operations is planned for all JS employees in April 2018; and eMS manager can be contacted off work hours;
   d. Admin user credentials are planned to be stored in a safe and secure place that is accessible for JS upon need starting from April 2018, as soon as the JS employees have been trained for the tasks.

COMMENT FROM THE AA:

The AA agrees with the comments and explanations, as it is indeed the application-side management that is the central issue of this finding. It is true that the JS users can handle simpler issues that are also more frequent. Issuing both additional training to the JS staff and allowing the administration credentials to be accessed in an emergency is certainly a practical solution. The AA will review this during the JC systems audit in the future.

Finding 6.3.2. The testing of system developments and updates is recommended to include a write-up (non-significant)

During the review of the procedures in the general practice of the eMS, it was described by the eMS Manager that testing the system during changes and updates for possible errors is generally not documented.

RISK: When the testing of changes and updates is not continuously documented, the knowledge of issues found and errors corrected may be lost, which may hinder any future troubleshooting and corrections.

RECOMMENDATION: It is recommended for the MA in cooperation with the eMS Manager to set up a procedure for the documentation of testing and changes.

COMMENT FROM THE MA:

Consistent documentation on test results and found bugs is advised by the audit report. The reason for not setting up bug tracking system is that eMS manager does not perform full-scale testing of new versions, he tests only programme-specific configurations. Interact has set up bug tracking ticket system where they collect bugs they found themselves, and bugs and requests that are reported by programmes. This ticketing system is shared with the software developer. Programmes that use eMS are not directly in contact with the software developer, therefore there is no need to duplicate the ticketing system.

While full-scale bug tracking system is not optimal because eMS manager has quite limited recourses for testing, more consistent bug documentation system will be implemented from April 2018.

COMMENT FROM THE AA:

The AA agrees with the comments and explanations and considers the finding closed.

ANNEX 1 – Summary opinion of the auditee's MCS

Key requirement	Category 1	Category 2	Category 3	Category 4
Key requirement 6: Reliable system for collecting, recording and storing data for monitoring, evaluation, financial management, verification and audit purposes, including links with electronic data exchange systems with beneficiaries	X			
Summary opinion of the auditee's MCS	X			