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GUVERNUL ROMÂNIEI

Instrumente Structurale 2007 - 2013

Ministry of European Funds

Framework agreement for the evaluation of structural instruments during the period 2011-2015
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"Ex-ante evaluation of the Partnership Agreement 2014-2020"

Second Interim Evaluation Report on Electronic Systems for Information Exchange

15 April 2015

ECORYS LIDEEA

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Ex-ante evaluation of the Partnership Agreement 2014-2020

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Ministry of European Funds, Romania

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Table of Contents

List of Abbreviations

Abbreviation	Explanation
ActionWeb	Information system of the MA SOP HRD primarily used as an interface for Beneficiaries
APDRP	Agency for Funding Rural Investment
Art4SMIS	A reporting tool of the SMIS system
ASEP	A web-based application of ActionWeb used for the evaluation of the proposed projects
CA	Certification Authority
CBC Black Sea Basin	Black Sea Basin Cross Border Cooperation Programme
CBC RO-BG	Romania-Bulgaria Cross Border Cooperation Programme
CBC RO-SRB	Romania –Serbia Cross Border Cooperation Programme
CBC RO-UA-MD	Romania –Ukraine- Moldova Cross Border Cooperation Programme
CF	Cohesion Fund
CPR	Common Provision Regulation
CSF	Common Strategic Framework 2014-2020
DB	Database
EAFRD	European Agricultural Fund for Rural Development
EC	European Commission
E-cohesion	The European Commission's electronic exchange of information between beneficiaries and programme bodies during the 2014-2020 programming period
EMFF	European Maritime and Fisheries Fund
E-MS	Electronic System under development by INTERACT.
ERDF	European Regional Development Fund
ES	Electronic System
ESF	European Social Fund
ETC	European Territorial Cooperation
EU	European Union
HTTP	Hyper-Text Transfer Protocol
HTTPS	Secure HTTP
IACS	Integrated Administration and Control System
IB	Intermediate Body
ICT	Information and Communication Technology
INTERACT	The European Territorial Cooperation Programme
IT	Information Technology
MA	Managing Authority
MARD	Ministry of Agriculture and Regional Development
MIS-ETC	The electronic system for MA of the CBC Programmes
MySMIS	The SMIS linked web application intended as an interface for Structural Instruments beneficiaries, primarily OPTA
NPRD	National Programme for Rural Development

OC4J	core runtime component of Oracle Application Server, used as a SMIS component, which serves client-machine requests
OP	Operational Programme
OP ACD	Operational Programme Administrative Capacity Development
OPF	Operational Programme for Fishery
OPHRD	Human Resources Development OP
OPTA	Operational Programme for Technical Assistance
PA	Partnership Agreement
PROETC2014	Electronic system under development by MA of the RO-BG CBC OP
ROP	Regional Operational Programme
SAN	Storage-Area Network
SIMPOP	The electronic system for MA OPF
SIMPOSDRU	The Integrated Management Information System of MA SOP HRD complimentary to SMIS
SMIS	The Single Management Information System for the Structural Instruments in Romania for the 2007-2013 period
SMIS2014+	The Single Management Information System for the European Structural and Investment Funds in Romania for the 2014-2020 period
SOP E	Sectoral Operational Programme Environment
SOP HRD	Sectoral Operational Programme Human Resources Development
SOP IEC	Sectoral Operational Programme Increasing Economy Competitiveness
SOP T	Sectoral Operational Programme Transport
SPCDR	The electronic system for the Rural Development Programme
STS	The Special Telecommunications Service
ToR	Terms of Reference
VPN	Virtual Private Network

Executive Summary

This report presents results of evaluation of status of development of electronic systems used in Romania within implementation of various Operational Programmes of the 2007-2013 programming period. This evaluation has been concluded within ex-ante evaluation of the Romanian Partnership Agreement – a document prepared on 31 May 2013.

Concise update of the situation was completed, in December 2014, which comprised a general though limited review of changes and amendments introduced to those electronic systems since the first evaluation.

The evaluation aimed at answering to three evaluation questions:

1. Are there enough regulations and procedures in force for the data exchange required by the new regulations?
2. To what extent are electronic systems comprehensive enough?
3. To what extent do electronic systems meet the elements in the checklist to be drafted by evaluators (ease of use, reduced administrative burden, data aggregation, data quality, search options, data availability in due time, data security, etc.)?

Our methodology included use of documentary analysis with the most appropriate qualitative and quantitative methods, consultations and plausibility checks completed with all relevant stakeholders and sector experts:

- Documentary analysis: European Union's Regulations; Romanian regulations; previous evaluations; documentation of electronic systems => in total 29 documents have been reviewed (see annex 8);
- Check-lists containing 9 areas of analysis have been developed for 7 electronic systems that were analysed (see annex 1);
- 3 online questionnaires have been disseminated and completed. The one for beneficiaries was sent by email to over 9440 respondents, out of which 661 replied. The questionnaires for authorities, both for regular users and for coordinators and/or administrators of electronic systems, were sent by official letter to all Managing Authorities and intermediate Bodies (67 institutions). The links to the questionnaires were further distributed inside the relevant organisations to relevant users and coordinators/administrators of electronic systems for data exchange. As a result of this process, the evaluators received 175 answers from users of the electronic systems and 69 from coordinators/administrators (see annex 2);
- In the first half of 2013, interviews with 17 administrators or coordinators of the electronic systems from 8 institutions were held (see annexes 3 and 4);
- 2 focus groups were organised – with 17 representatives of all institutions managing various electronic systems and also with 17 representatives of the Common Strategic Framework 2014-2020 funds' beneficiaries (see annexes 5, 6 and 7).
- Within update of the evaluation in December 2014 interviews and questionnaires were filled by representatives of operators of the systems – providing a general though limited information on:
    - Development of the systems which might eventually happened in 2014 as well as
    - Efficiency and

- User-friendliness [the questionnaire and received responses are enclosed in annex 9].

The following were the main conclusions of the evaluation responding to the three questions above:

1. Conclusions related to the requirements of the new European Union Regulations and the existing national legal and procedural framework

At completion of the first evaluation all key pieces were in place vis-a-vis the national legal framework that should support the fulfilment of the e-Cohesion requirements – they are regulated by the existing Romanian laws relating to: electronic signature, archiving of electronic documents, electronic time stamping of documents and protection of personal data.

The situation remained the same – positive - in December 2014.

2. Conclusions related to comprehensiveness of existing electronic systems

In terms of fulfilling minimum requirements stemming from the new Regulations of the European Commission for the programming period 2014-2020, the only area of concern remains the specific e-Cohesion requirement – for "*full implementation of the electronic data exchange between beneficiaries and authorities*". At the completion of the first evaluation as well as during the recent update [end December'14] the existing electronic systems have practically not covered this requirement. Therefore the issue still needs focus of the relevant Romanian authorities. The exceptions are still few and limited.

The MySMIS system that has been developed recently, promised to solve most issues of that problem. For all the current Operational Programmes the system was designed with and for, MySMIS would fulfil entirely the e-Cohesion requirements.

3. Conclusions related to compliance of the electronic systems with the checklist

As a general image, the electronic systems are in place, they fulfil the minimum requirements. However, all the systems do require improvement of quality and functionality. From the technical point of view, all the systems prove to be satisfactory, with only few particular exceptions where improvements are required. These two latter conclusions are yet valid following the recent evaluation update late 2014.

Satisfying the users' needs constitutes the area where most of the systems disappoint, especially:

- All the systems need to improve their portfolio of predefined reports, in order to produce those reports as their specific users need. Especially, the SMIS lacks mostly the predefined specific reports required by its users, depending on their individual and specific needs.
- All systems would greatly benefit from a major revision in terms of features/functionality and data content as such to become more user oriented.

Recommendations are also split along those three main evaluation questions specified earlier:

Recommendations for ensuring the coverage of the e-Cohesion minimal requirements

1. Finalising the implementation of MySMIS for the current Operational Programmes it was designed for:
    a. The highest levels of management in each relevant Ministry have to be aware of the MySMIS implementation requirements and support the implementation process of the necessary changes in order to fulfil the requirements and get fully functioning system.
    b. All coordinating units for the information systems (either Information Technology units or other units) functioning inside each of the various involved bodies (Ministries, Managing Authorities, Intermediary Bodies, etc.) should coordinate and cooperate at all times. That requires, for example, establishment of a working Information Technology group, which would meet regularly to discuss, exchange information on joint implementation of the systems in their respective institutions and lead implementation of joint system in relevant institutions. That group, as one of the solutions, should possess a mandate to lead the coordination process and its conclusions should be implemented by each of the involved institutions.
    c. Each institution involved in the process should make an effort to implement appropriate and necessary changes stemming from the new system in their internal working procedures in order to ensure effective implementation of that new system.
    d. Training of users – there is still a need for assuring constant long-term schedule of training of users for any new Information Technology system, including series of trainings for beneficiaries (it can be financed, for example, from Operational Programme Technical Assistance- in the case of institutional beneficiaries).
    e. Last but not least, ensuring the full package of Information Technology services and resources for the new system (including: system administration, help-desk, data operators and technical maintenance) requires focus on preparing and assuring proper financing of those services, with necessary manpower and budgets.

2. Extending MySMIS in the area of European Territorial Cooperation
   This idea of the past to extend MySMIS to European Territorial Cooperation will not be implemented.

3. Covering the minimal requirements for Sectoral Operational Programme Human Resources Development
   Extending MySMIS to cover also the specific needs of Sectoral Operational Programme Human Resources Development and replacing ActionWeb with MySMIS.

Recommendations for improving the existing electronic systems used by the authorities

December'14 update evaluation confirmed that all systems should still undergo a major revision, which may be required anyway in order to update the electronic systems to the specific elements of the programming period 2014-2020:

1. Improvement of the portfolio of predefined reports, in order to produce those reports that the users need. The SMIS constitutes the system that needs mostly that improvement.
2. Improvement of features/functionality and data structures, in order to become more user-oriented. All systems should try providing more useful features for their users, allowing them to save working time while using the systems and to reduce the risk of human errors.
3. SMIS should be improved in its user interface (at least for the most important or complex forms currently used) in order to provide: easier understanding, better overview of data in the system, easier retrieving of needed data, etc.
4. SMIS and ActionWeb should ensure enough control mechanisms to allow timely identification of errors existing in the system.
5. SPCDR should revise its mechanisms of validation in order to cover all relevant input data in a reliable manner.
6. Improvement of mechanisms for help-desk and technical assistance for SMIS and ActionWeb is necessary, in order to reduce the rate of minor incidents and to improve the response time in case of incident (at all levels where the system is used).

General recommendations for all evaluated electronic systems

1. Ensuring continuous software development support, especially for MySMIS and SMIS:
    a. Quick repair of software deficiencies claimed by the users.
    b. Improvement of support provided to the various programmes, especially for their specific needs.
    c. Quick update to the changes in the real world environment.

    Although limited in scope, the update of the evaluation completed in December confirmed the above needs for continuous support made available.

2. Ensuring continuous training of all users:
    a. Introductory training for new users (to be repeated constantly every a priori defined certain periods of time).
    b. Second training for existing users, for refreshing knowledge on less obvious features (needed for more complex systems).
    c. Advanced training for specific categories of users (advanced features of the system and methods of solving certain complex tasks).
    d. Promoting important tools, modules, features, etc., that are less known and that might improve the users' experience. For example, Art4SMIS - the reporting tool for SMIS, deserves to be better promoted among the users, as it can allow them to build their own reports, accordingly to their needs. This tool is not so well known by the current regular users because it was added to SMIS at a later stage and only the supervisors benefited of training.

1 Introduction

This report presents results of evaluation of the electronic systems used within implementation of various Operational Programmes (OPs) of the 2007-2013 programming period, in Romania.

This evaluation has been concluded within the assignment implemented under the framework agreement no. 23/22.08.2011 for the evaluation of structural instruments during the period 2011-2015, lot 1 – evaluations for subsequent contract no. 5 “Ex-Ante evaluation of the Partnership Agreement 2014-2020”.

Concise update of the situation, which comprised a general though limited review of changes and amendments introduced to those electronic systems since the first evaluation had been completed, was done in December 2014.

The re-engagement of the electronic systems evaluation exercise was agreed in timing and scope with the project Beneficiary. Due to the limited changes of the current situation as compared with the initial situation analysed in 2013, only part of the evaluation tools and techniques used for the elaboration of the first Intermediate report were replicated for the update of the analysis in the second report.
Particularly, the limits on findings validity refer to the used of specific methods for data validation, as explained in chapter 2.

2 Approach and Methodology

2.1 Description of the assignment (objectives and evaluation questions)

The objective of this evaluation done within ex-ante evaluation of the Partnership Agreement (PA) as defined in the Terms of Reference (ToR) was to answer to the evaluation specific questions regarding the assessment of the electronic systems ensuring the information exchange between the Romanian authorities and the beneficiaries (Question III.1) during the programming period 2014-2020:

> III.1 Are there enough regulations and procedures in force for the data exchange required by the new regulations? To what extent are electronic systems comprehensive enough? To what extent do electronic systems meet the elements in the checklist to be drafted by evaluators (ease of use, reduced administrative burden, data aggregation, data quality, research options, data availability in due time, data security etc.)?

According to the ToR, the requirements have to be identified and included in the checklist tool for the electronic systems evaluation fundamental question above (Q.III.1).

2.2 Methodology

The evaluation of electronic systems for data exchange covered the last evaluation question of the current assignment – Q.III.1 – but following the same logic of evaluation as foreseen for major Question II.1, it has started with the launch of this project.

The methodology adopted combined documentary analysis with the most appropriate qualitative and quantitative methods, consultations and plausibility checks with all stakeholders and sector experts.

We started this part of evaluation with documentary analysis based on the new regulations issued by the European Commission, the procedures and regulations that are in force and the documentation on the electronic systems for data exchange. We added to results of the documentary analysis the information collected from interviews with administrators or coordinators of the analysed electronic systems.

We have gathered information on several information systems in place within different Managing Authorities and Intermediate Bodies. These systems are listed in the “Findings” section of this evaluation report. Therefore results of our evaluation contain information and analysis concerning the gathered data on those systems.

We have prepared an efficient checklist covering the full range of factors that are relevant to the Question related to electronic systems. The list covers: ease of use, reduced administrative burden, data aggregation, data quality, search options, data availability in due time, data security, etc. The completed checklists prepared by the experts for existing electronic systems are attached in the Annexes.

The full data collection needed for the completion of the checklist was achieved by additional tools like on-line questionnaires and a focus group similarly organised as for the administrative capacity evaluation (Q.II.1). Details of these tools can also be found in Annexes.

Based on the request of the contracting authority of this evaluation, concise update of the situation was done in December 2014. That update was foreseen as a quick exercise providing the units running the electronic systems with simple set of questions requesting them to answer in short period of time. That general though limited review of major changes and amendments introduced to those electronic systems since the first evaluation had been completed, based on few responses received [see annex 9].

Our methodology can be summed up:

- Documentary analysis – some of the main documents:
  - General EC Regulations;
  - Documents about e-Cohesion Regulation for 2014-2020;
  - Relevant Romanian legislation;
  - Previous evaluations, including references to electronic systems;
  - Documentation of existing electronic systems: presentation, users' manuals, technical documentation, procedures, etc.
- Check-lists;
- Online Questionnaires – 3 questionnaires were elaborated and published online to support filling in the checklists:
  - For beneficiaries (the questions related to electronic systems were incorporated within a common questionnaire used also for administrative capacity);
  - For authorities (regular users);
  - For authorities (coordinators or administrators of electronic systems);
- Interviews with administrators or coordinators of the electronic systems; (replicated for the second Intermediate report)
- Focus group – with representatives of all institutions managing various electronic systems.

For the update of the analysis, to elaborate the Second Intermediate Evaluation report on the electronic systems for information exchange, the coordinators of the major MISs have been interviewed, to find out about if any changes and updates occurred, rising from the development of defining and putting in place the 2014-2020 institutional and regulatory framework in Romania.
Also the list of literature was reviewed to verify if any other new documents need to be analysed.

Methodologically, the update of the analysis used the information from previous analysis: the desk research and checklist, the conclusions of the in-depth interviews and the online questionnaires answered by both user and administrators of systems, which were validated though focus groups with representatives of beneficiaries and authorities of CSF fund. The findings from the first report were updated by interviews with system coordinators to elaborate the second report. However the findings validity has been verified with specific methods for data validation, as indicated in the technical offer and inception report, only in the first exercise, as their use would have been justified in case critical changes in the systems had been occurred.

3 Findings

3.1 The requirements of the new EU Regulations and the existing national legal and procedural framework

The list of evaluation questions, as defined by the Terms of Reference of this ex-ante evaluation, contains a subset of three questions, under its section III.1 related to electronic systems for data exchange. The first of these three questions aims at gathering response to: *"Are there enough rules and procedures in place for the data exchange required by the new regulations?"*.

Answering this question required implementation of the desk-research analysis done in two steps:

- First, we had to identify which are the requirements comprised by the new EU Regulations, related specifically to the electronic data exchange.
- Secondly, given the requirements identified during that step one, we had to identify which is the needed support from the national legal and procedural frameworks and to what extent this support exists.

We identified all relevant articles included in the new European Regulations prepared for the programming period 2014-2020 that refer to the electronic systems to be run in the European Union Member States. The desk research was extended with analysis of several working documents of the European Commission that brought a better picture of, especially, the new elements of the e-Cohesion policy foreseen for the programming period 2014-2020.

Finding 3.1.1

Using the information gathered from the documentary analysis, we sorted and grouped the content of the above-mentioned articles from a technical perspective. We were able to organise the EU requirements regarding electronic systems into the following three groups:

1. Requirements regarding the data exchange between beneficiaries and authorities.
2. Requirements regarding electronic information systems for recording and storage of financial and monitoring information.
3. Requirements regarding the storage of electronic data.

It should be noted that only the first group of the requirements, which are the new e-Cohesion requirements, are directly related to the primary objective of this evaluation - specifically the electronic data exchange. The other two groups of these requirements bring additional information about electronic information systems used for programme implementation, in general.

Herein below, we present those three groups in more detail:

<u>1. Requirements regarding the data exchange between beneficiaries and authorities</u>

Finding 3.1.2

These are new requirements specific to the programming period 2014-2020 and they are the result of newly introduced rules of e-Cohesion policy. They also represent the central element of this evaluation. Those requirements have been defined by **Art. 112(3) of the Common Provision**

Regulation(CPR), under part III containing the general provisions applicable to European Regional Development Fund (ERDF), European Social Fund (ESF) and Cohesion Fund (CF), and they can be summarised as follows:

- **All exchanges of information between beneficiaries and managing authorities, certifying authorities, audit authorities and intermediate bodies can be carried out [solely] by means of electronic data exchange systems.**
- **The systems shall allow for the beneficiaries to submit all information only once.** In this respect, the systems shall facilitate interoperability between systems – the same operation should be accessible for all authorities implementing the same programme (regardless of whether this is an "Investment for growth and jobs" or "European Territorial Cooperation Programme").

It should be noted and remembered that these requirements are defined only for ERDF, ESF and CF.

2. Requirements regarding electronic information systems for recording and storage of financial and monitoring information

Finding 3.1.3

These requirements define the electronic information systems to be used by authorities as a support for the programme implementation:

- Managing authorities have to ensure that there is an appropriate secure electronic system to: record, maintain, manage and report key information on each operation selected for funding.
- The systems shall record and store key information required for the purposes of: monitoring, audit and evaluation of the programme implementation, including:
    - Key characteristics of the beneficiary and the project;
    - Financial and accounting data; and
    - Indicators and progress monitoring data.

The requirements are defined by the following articles:

- Art. 62(d) of CPR;
- Art. 77(1) of European Agricultural Fund for Rural Development (EAFRD) Regulation; and
- Art. 134(1) of European Maritime and Fisheries Fund (EMFF) Regulation.

And the following articles define the responsibility for the implementation, which is assigned to the managing authorities:

- Art. 114(2)(d) of CPR, under part III containing the general provisions applicable to ERDF, ESF and CF;
- Art. 73(1)(a) of EAFRD Regulation; and
- Art. 108(1)(a) of EMFF Regulation.

3. Requirements regarding the storage of electronic data

Finding 3.1.4

These requirements cover some particular technical issues regarding those electronic systems that comprise data that exist only in electronic version and that are subject to the retention rules.

The requirements are defined by Art. 132(6) of CPR and they state that:

- The systems shall comply with the commonly accepted security standards.
- The systems shall allow certification of data authenticity according to the national regulations of the Member State.
- The systems shall be viable for audit controls.

The responsibility for implementing the requirements pertains to each holder of data that exist only in electronic version and that are subject to retention rules.

General conclusions:

Finding 3.1.5

- Basically, those three sets of requirements altogether define, in very broad terms, the general architecture of an aggregated virtual system, composed of several individual electronic systems (see the figure on the next page).
- All these electronic systems working together should help the process of implementation and monitoring of the progress of the programmes

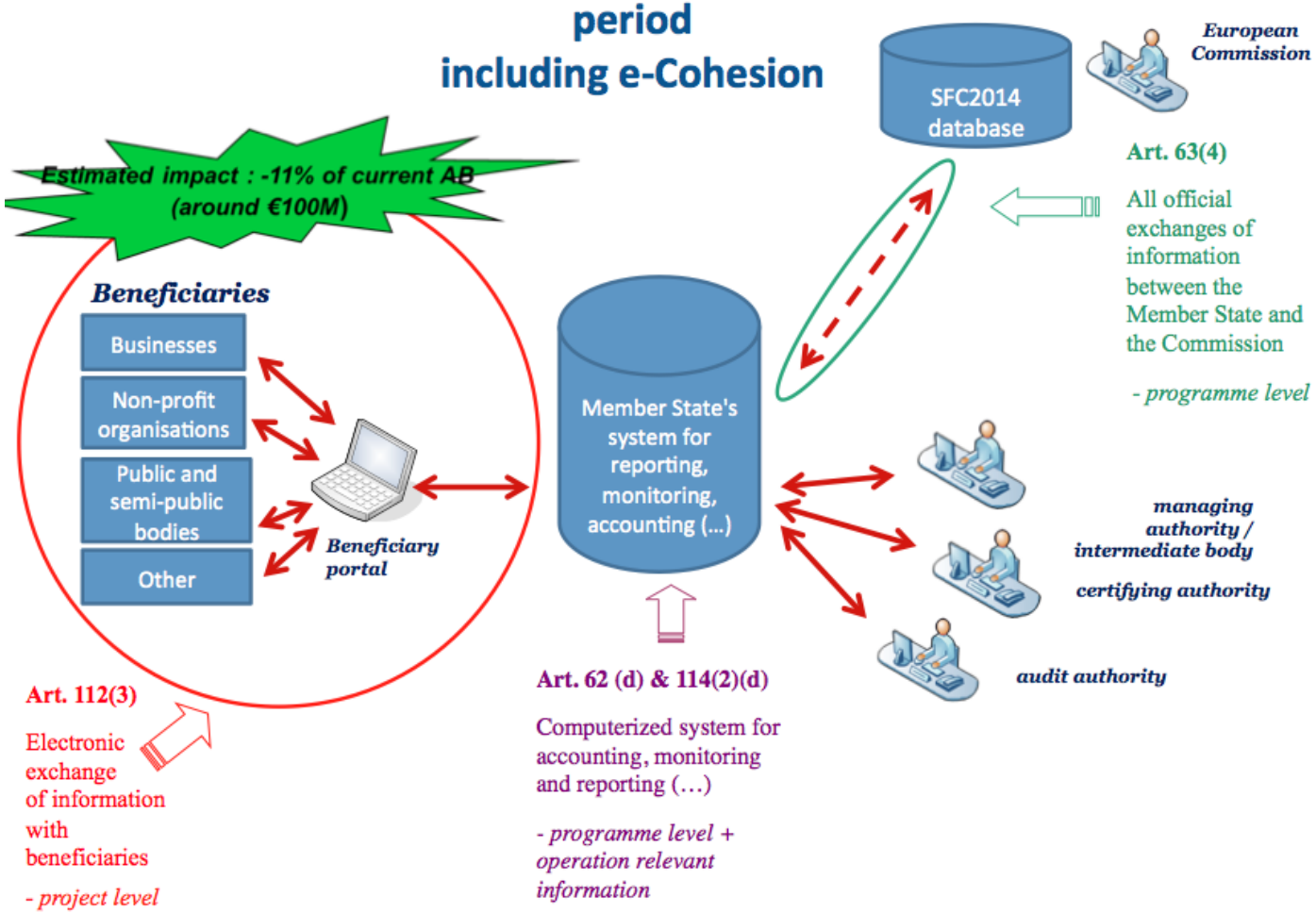
Finding 3.1.6

- The figure below presents the view within the e-Cohesion Regulation on the architecture of IT systems used by each EU Member State. The figure shows a sample generic architecture of information systems that includes the elements mentioned by the e-Cohesion requirements presented earlier.

Finding 3.1.7

- There is the electronic data exchange system between beneficiaries and authorities required by art. 112(3) of CPR. And there is a computerised system for accounting, monitoring and reporting, as defined by art. 62(d) of CPR. This last system comprises also a central repository to ensure also the requirements of art. 132(6) of CPR, regarding the storage of electronic data.

Electronic exchange of information in 2014-2020 period including e-Cohesion



The second step in the process of answering the first question of this evaluation consisted of clarification of the current status of the national Romanian legal and procedural frameworks needed to support those identified EU e-Cohesion requirements for the programming period 2014-2020.

In this respect, for each of the EU requirements, the evaluation focused on what legal support still is or may be required. Then the desk research was concentrated on the issue if that legal support exists or not at the national level in Romania.

The result of this comparative analysis is presented in the following table:

Table 3.1.1. Comparative analysis of the required national legal and procedural support needed for the implementation of the EU requirements

Requirements of EU Regulations	National legal and procedural support		
	Needed	Existing	Covered?
1. Requirements regarding the data exchange between beneficiaries and authorities: · All exchanges of information between beneficiaries and managing authorities, certifying authorities, audit authorities and intermediate bodies can be carried out solely by means of electronic data exchange systems. · The systems shall allow for the beneficiaries to submit all information only once. In this respect, the systems shall facilitate their interoperability.	Protection of personal data being submitted by beneficiaries	• Law no. 677/2001 for protection of individuals with regard to the processing of personal data and on the free movement of such data • Order no. 52/2002 of the People's Advocate • Decision no. 132/2011 of the National Authority for Supervision of Personal Data Processing	Yes
	Legal support for authentication of documents submitted by beneficiaries only electronically	• Law no. 455/2001 regarding the electronic signature • Procedural framework defined by the Governmental Decision no. 1259/2001	Yes
	Legal support for authenticated time stamping of electronic documents submitted by beneficiaries	• Law no. 451/2004 regarding the time stamp • Procedural framework defined by the Order no. 492/2009 of the Ministry of Communication and Information Society	Yes
2. Requirements regarding electronic information systems for recording and storage of financial and monitoring information: · Managing authorities ensure that there is an appropriate secure electronic system to record, maintain, manage and report key information on each operation selected for funding.	Protection of personal data belonging to beneficiaries	• Law no. 677/2001 for protection of individuals with regard to the processing of personal data and on the free movement of such data • Order no. 52/2002 of the People's Advocate • Decision no. 132/2011 of the National Authority for Supervision of Personal Data Processing	Yes

· The systems shall record and store key information required for the purposes of monitoring, audit and evaluation of the programme implementation, including: key characteristics of the beneficiary and the project; financial and accounting data; indicators and progress monitoring data.			
3. Requirements regarding the storage of electronic data: · The systems shall comply with the commonly accepted security standards. · The systems shall allow certification of data authenticity according to the national regulations of the Member State. · The systems shall be viable for audit controls.	Protection of personal data	• Law no. 677/2001 for protection of individuals with regard to the processing of personal data and on the free movement of such data • Order no. 52/2002 of the People's Advocate • Decision no. 132/2011 of the National Authority for Supervision of Personal Data Processing	Yes
	Security requirements for archiving electronic documents	• Law no. 135/2007 regarding archiving of electronic documents • Procedural framework defined by the Order no. 493/2009 of the Ministry of Communication and Information Society	Yes
	Legal support for authentication of archived electronic documents	• Law no. 455/2001 regarding the electronic signature • Law no. 135/2007 regarding archiving of electronic documents • Procedural framework defined by the Governmental Decision no. 1259/2001, respectively by the Order no. 493/2009 of the Ministry of Communication and Information Society	Yes
	Legal support for authenticated time stamping of archived electronic documents	• Law no. 451/2004 regarding the time stamp • Law no. 135/2007 regarding archiving of electronic documents • Procedural framework defined by the Orders no. 492/2009, respectively 493/2009 of the Ministry of Communication and Information Society	Yes

Finding 3.1.8

As the above table comprehensively confirms, the national legal and procedural framework comprises all needed and required key elements, which have already been regulated through the following Romanian laws:

- Law no. 455/2001 regarding the electronic signature, together with the procedural framework defined by the Governmental Decision no. 1259/2001, ensure the legal and procedural framework needed for legal authentication of electronic data, thus allowing the replacement of original papers signed by hand with electronic data authenticated through electronic signature. This framework is needed in order to support the requirement that "*all exchanges of information between beneficiaries and […] authorities […] can be carried out solely by means of electronic data […]*", comprised by art. 112(3) of CPR, which implies that authorities will not receive any more papers with original hand signatures. The only possibility to ensure legal authentication of received data will remain through the electronic signature.
- Law no. 135/2007 regarding archiving of electronic documents, together with the procedural framework defined by the Order no. 493/2009 of the Ministry of Communication and Information Society, ensures the legal and procedural framework needed in order to support the requirements regarding the storage of electronic data, comprised by art. 132(6) of CPR.
- Law no. 451/2004 regarding the time stamp, together with the procedural framework defined by the Order no. 492/2009 of the Ministry of Communication and Information Society ensure accessory legal and procedural framework for the laws regarding electronic signature, respectively archiving of electronic documents, by providing means for getting legally valid stamps of date and time for the data that is electronically signed or archived in electronic format.
- Law no. 677/2001 for protection of individuals with regard to the processing of personal data and on the free movement of such data, together with the Order no. 52/2002 of the People's Advocate and the Decision no. 132/2011 of the National Authority for Supervision of Personal Data Processing ensure general legal and procedural framework for all systems that comprise personal data.

References

Data sources and methods	*Desk research; documentary analysis – see Annex 8, "List of Analysed Documents"*
Conclusions	*See section 1 of Chapter 4, "Conclusions"*
Recommendations	*As there are no pending issues (see conclusions), there is no reason for designing any recommendations*

3.2 Comprehensiveness of existing electronic systems

In order to answer to the second question of this Electronic System (ES) evaluation – *"Up to which extent are the electronic systems comprehensive?"* – the following electronic systems were analysed (listed in alphabetical order):

- ActionWeb – web-based system (https://actionweb.fseromania.ro) that allows data exchange between beneficiaries or potential beneficiaries and authorities, used for Sectoral Operational Programme Human Resources Development (SOP HRD):

  - It covers the entire project life cycle.
  - It is complemented by “ASEP”, a web-based application used for the evaluation of the proposed projects. Data is transferred electronically from ActionWeb to ASEP.
  - It is complemented by “SIMPOSDRU”, a system that incorporates a reporting tool allowing generation of various predefined or custom reports for the use of authorities. It extracts the needed data from the database of ActionWeb.
- MySMIS – web-based system (https://www.mysmis.ro) that allows data exchange between beneficiaries or potential beneficiaries and authorities, designed for the current 6 OPs (OP ACD, OPTA, Regional Operational Programme - ROP, Sectoral Operational Programme Environment - SOP E, Sectoral Operational Programme Increasing Economy Competitiveness - SOP IEC, Sectoral Operational Programme Transport - SOP T) – developed and tested:
  - It is integrated with SMIS.
  - It covers the entire project life cycle.
- Own internal Access database used for SOP IEC - Axis 3 – used only by authorities.
- SIMPOP – used only by authorities, for Operational Programme for Fishing (OPF), covering the entire project life cycle.
- SMIS – used only by authorities, for 7 OPs (Operational Programme Administrative Capacity Development - OP ACD, Operational Programme for Technical Assistance - OPTA, ROP, SOP E, SOP HRD, SOP IEC, SOP T), covering the entire project life cycle and including additional dedicated modules for programming, evaluation, audit and funds flow. It also comprises a dedicated module for parameters.
- SPCDR – used only by authorities, for National Programme for Rural Development (NPRD), covering the entire project life cycle.
- Web application for uploading of financing requests for SOP IEC - Axis 1 – used by beneficiaries.
- Web application for uploading of financing requests for SOP IEC - Axis 2 – used by beneficiaries.
- Web application for uploading of financing requests for SOP IEC - Axis 3 – used by beneficiaries.

A set of three systems that are used by APIA: Integrated Administration and Control System (IACS), SVAP and IPA on-line constitute a particular case. Each of these electronic systems is a part of an integrated system, where IACS and SVAP provide the “back-office” functions and IPA on-line provides the “front-office” functions. But altogether, they address a very specific issue, which is different from the process of monitoring projects implementation. These systems are used to support the payments to the farmers. The amounts of payments are calculated based on areas of land parcels. The systems are focused on proper GIS identification of land parcels referred in the payment requests and technical checking of correctness of parcels definition. Consequently, these systems were not approached further in this report because they are out of the scope of this evaluation.

Each of the above-mentioned systems was investigated in terms of scope, features, data structures and technical characteristics. The needed information was gathered from the technical documentation and manuals of the systems, whichever available, and the gaps were filled-in with the help of the interviews with the administrators of each of the systems. Thus, a complete image

with all the characteristics of interest (scope, features, data structures and technical characteristics) was built for each of the evaluated systems.

These sets of characteristics were analysed in relation to the EU requirements identified during the first phase of the evaluation (see chapter 3.1), with the objective to identify to what extent the existing electronic systems cover those requirements.

In order to get a better view of the whole overall picture of the systems available at national level, for all OPs, a grid was designed to present the whole potential coverage of those ESs, on two axes:

- X axis: Features & data structures – grouped by major functional areas;
- Y-axis: Scope – representing all OPs.

Two grids were drawn:

- One for electronic systems that are used by authorities – see Table 3.2.1 (further in the report); and
- One for electronic systems to provide the data exchange between beneficiaries and authorities – see Table 3.2.2 (also further in the report).

It should be noted that the axis of major functional areas is structured differently for each of the two grids, in order to fit to the specificities of those electronic systems.

Each square in the grid, at the intersection of a major functional area with an OP, shows if the given functionalities and data structures are covered by an electronic system, for the given OP:

- Full coverage is indicated by a solid background colour and the name of at least one electronic system inside that square. This means that the indicated electronic system(s) cover(s) entirely, for the given OP, all functionalities and data structures supposed by the given major functional area. It suggests that the electronic system(s) satisfy(ies) the EU requirements on that particular area.
- Partial coverage is indicated by a hashed background colour and the name of at least one electronic system, followed by a note symbol. This means that the indicated electronic system(s), although dealing with the given OP and the given major functional area, do(es) not cover all functionalities and data structures supposed by the given major functional area and the electronic system(s) do(es) not satisfy entirely the EU requirements on that particular area. Details are provided in the indicated note, below the table.
- No coverage is indicated by a blank (white) square.

Ideally, each square of each of the two grids should be fully covered by at least one system. However, it is necessary to note that both grids were drawn for full scope and full sets of **possible** functional areas in the context of programme implementation. It should also be reminded, that **the EU requirements address a narrower coverage**, namely the “Project implementation” group of functional areas (Art. 62(d) of CPR refers to “operation[s] **selected** for funding” and Art. 112(3) of CPR refers to “beneficiaries”, meaning entities **receiving** financial assistance). Moreover, as regards the data exchange between beneficiaries and authorities (the second grid), the respective EU requirements apply only to ERDF, ESF and CF (see chapter 3.1). This means that NPRD and OPF are excluded and the scope of the EU requirements is narrowed, too, for the second grid.

A thicker line on each of the two grids borders the coverage envisaged by the EU requirements. Consequently, full coverage of the EU requirements would be accomplished if

all the squares inside the thicker border were fully covered by at least one electronic system. If there is at least one blank square inside the area bordered by the thicker line, then the EU requirements are not entirely covered. The same is true in case of a square covered only partially.

Thus, the results of the comparative analysis of the electronic systems characteristics in relation to the EU requirements are synthesized in the following two grids showing up to which extent the electronic systems are comprehensive enough, from the point of view of the EU requirements.

Finding 3.2.1

The current coverage of the existing electronic systems is shown in a synthetic manner, in the following two tables:

- Table 3.2.1 shows the coverage of those electronic systems that are used only by authorities.
- Table 3.2.2 presents the coverage of those electronic systems that are used for data exchange between beneficiaries and authorities.

Table 3.2.1. Electronic systems that are used only by authorities

Programme	Major areas of data collections managed by the electronic systems in relation to the programme implementation				
	Project selection		Project implementation		
	Proposed projects	The selection process	Project and beneficiary data	Financial data	Progress monitoring data
ETC (all OPs)	MIS-ETC	MIS-ETC + eEvaluation	MIS-ETC	MIS-ETC	MIS-ETC
NPRD	SPCDR	SPCDR	SPCDR	SPCDR	SPCDR
OP ACD	SMIS	SMIS	SMIS	SMIS	SMIS
OPF	SIMPOP	SIMPOP	SIMPOP	SIMPOP	SIMPOP
OPTA	SMIS	SMIS	SMIS	SMIS	SMIS
ROP	SMIS	SMIS	SMIS	SMIS	SMIS
SOP E	SMIS	SMIS	SMIS	SMIS	SMIS
SOP HRD	ActionWeb & SMIS [1]	ASEP & SMIS [1]	ActionWeb + SIMPOSDRU & SMIS [1]	ActionWeb + SIMPOSDRU & SMIS [1]	ActionWeb + SIMPOSDRU & SMIS [1]
SOP IEC	SMIS	SMIS	SMIS & Internal Access DB for Axis 3 [2]	SMIS & Internal Access DB for Axis 3 [2]	SMIS & Internal Access DB for Axis 3 [2]
SOP T	SMIS	SMIS	SMIS	SMIS	SMIS

Notes:

[1] The ensemble of systems ActionWeb + ASEP + SIMPOSDRU is used as a primary tool by the Managing Authority (MA) and Intermediary Bodies (IBs) for SOP HRD. But the same data is entered also in SMIS for reporting towards the higher levels of aggregation. There is no electronic exchange of data between ActionWeb and SMIS. All data are entered twice, manually.

[2] The IB for SOP IEC - Axis 3 uses its own Access database for the internal reporting needs. But the same data is entered also in SMIS for reporting towards the higher levels of aggregation. There is no electronic exchange of data between the internal database and SMIS. All data are entered twice, manually.

Finding 3.2.2

In Table 3.2.1, the area surrounded by a thicker black border is the area envisaged by the minimum requirements of the EU Regulations, respectively the requirements defined by art. 62(d) of CPR, art. 77(1) of EAFRD Regulation and art. 134(1) of EMFF Regulation, respectively by Art. 132(6) of CPR (see chapter 3.1). Thus, it can be easily seen that as regards the recording and storage of financial and monitoring information, the existing electronic systems are comprehensive enough, covering entirely the area of project implementation, for all programmes (area that represents the minimum requirements). They even extend beyond the project implementation area, ensuring also full coverage of the area of project selection.

Finding 3.2.3

For some of the Operational Programmes (SOP HRD and SOP IEC - Axis 3), the main central system, the SMIS, is used in parallel with other systems that are specific to the respective programme(s). The authorities managing those programmes felt the need of additional features to help with their specific needs. Thus, specific systems were developed in addition to SMIS. Unfortunately, none of these systems has the ability to interface with SMIS for data exchange. Consequently, users have to enter certain sets of data twice: once in SMIS and once in one of the programme specific systems. For these programmes, data entered in SMIS often has quality gaps (e.g. available with significant delays, missing data, etc.).*This finding led to conclusion 4.1 in Chapter 4, "Conclusions", and to recommendation 4.1 in Chapter 5, "Recommendations".*

Table 3.2.2. Electronic systems that are used for data exchange between beneficiaries and authorities

Programme	Major areas of data collections managed by the electronic systems					
	Project selection		Project implementation			
	Proposed projects	Exchange of additional data	Procurement data	Financial data	Progress monitoring data	Exchange of additional data
ETC (all OPs)	eSubmission [1] [4]			eMonitoring [1] [2] [4]		
NPRD						
OP ACD	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]
OPF						
OPTA	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]
ROP	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]
SOP E	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]
SOP HRD	**ActionWeb** [4]			**ActionWeb** [3] [4]	**ActionWeb** [3] [4]	
SOP IEC	MySMIS[1] + Web app. for uploading requests for Axis 1 [4]	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]

	+ Web app. for uploading requests for Axis 2 [4] + Web app. for uploading requests for Axis 3 [4]					
SOP T	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]

Notes:

[1] MySMIS, e-Submission and e-Monitoring have not been used yet. They are developed and tested, but they were never used for real operation.

[2] E-Monitoring has limited features in the area of financial data. This system allows only the input of data related to the expenditures within the project.

[3] ActionWeb lacks some features in the areas of financial data and progress monitoring data. Financial data consists only of the expenditures of the project; the system does not include data about the financial flows between the beneficiary and the authorities (e.g. requested, paid). Progress monitor data consists mostly of data about the individuals participating in the project (e.g. final beneficiaries, experts); the system does not include indicators that are not linked directly to persons.

[4] E-Submission, e-Monitoring, ActionWeb and all the three web applications for uploading financing requests for SOP IEC - Axis 1, 2 and 3 do not implement yet the technology needed for electronic certification of authenticity for the data that is available only in electronic format.

Finding 3.2.4

In Table 3.2.2, the area surrounded by a thicker black border is the area envisaged by the minimum requirements of the EU Regulations, respectively the requirements defined by art. 112(3) of CPR (see chapter 3.1). Thus, it can be seen that in terms of **currently used** electronic systems for data exchange between beneficiaries and authorities, this area is almost totally not covered, as **MySMIS, e-Submission and e-Monitoring are not used at present** (see note [1] below the table). The only existing implementations are ActionWeb and the three web applications for uploading financing requests for SOP IEC - Axis 1, 2 and 3, which offer limited features for SOP HRD, respectively for SOP IEC. Strictly in the area of the minimum requirements of the EU Regulations, only ActionWeb covers partially only two sections (financial data and progress monitoring data – see also notes [3] and [4] of the table) and only for SOP HRD.

Finding 3.2.5

If the implementation of the recently developed system MySMIS is finalised in 100%, then most of the area of data exchange between beneficiaries and authorities will be covered. In this case, as it can be seen from Table 3.2.2, from the point of view of the minimal requirements (the area surrounded by a thicker black border), gaps will remain only for SOP HRD. It is worth to be noted here that the minimal requirements are not applicable to EAFRD and EMFF, corresponding to NPRD and OPF.

References

Data sources and methods	*Desk research; documentary analysis – see Annex 8, "List of Analysed Documents"* *Interviews with administrators of electronic systems – see Annex 3, "Interview Structure", and Annex 4, "List of Interviews"*
Conclusions	*See section 2 of Chapter 4, "Conclusions"*
Recommendations	*See section 1 of Chapter 5, "Recommendations"*

3.3 Compliance of the electronic systems with the checklist

The third and last question for the current ES evaluation asks *"Up to which extent do the electronic systems satisfy the items in the checklist to be elaborated by the evaluators?".*

One checklist was filled in for each of the relevant electronic systems that are currently used, based on the results of a survey conducted among the users of the electronic systems.

Three different questionnaires were designed for three target groups:

- Beneficiaries;
- Regular users within authorities; and
- Administrators / coordinators of the electronic systems.

The questionnaire for administrators / coordinators is the most extensive one, covering all the items in the checklist. The questionnaires for regular users, including the beneficiaries, are more restricted, in order to avoid technicalities that cannot always be known or understood by users. Consequently, the items of the checklist of more technical nature were filled in based only on the answers received from administrators or coordinators of electronic systems.

The answers to the questionnaires were collected and grouped by each electronic system. In order to get the results needed for the checklist, the answers from the questionnaires were synthesized for each electronic system as standard average for the numeric values or as percentile statistics of "*yes*" or "*no*" answers, upon the case.

In case of items in the checklist that were addressed in more questionnaires (e.g. for users and for administrators, too), all received answers for that item participated in the computation of the average value, meaning that all parties were taken into account, upon the case: beneficiaries, users and administrators.

The filled checklists can be found in the Annex 1 to this report.

The results obtained from the checklists were expanded by findings of the documentary analysis, the interviews and the focus group. It is necessary to be noted that no conflicting findings rose from this pool of sources.

A summary of the findings resulting from the data provided by the respondents through filled in checklists is presented below:

3.3.1 Ease of use

Finding 3.3.1.1

The following synthetic results were obtained for each of the items in this section of the checklist:

- Users' general opinion regarding the ease of use – Answers received from all types of users, including administrators / coordinators (on a scale from 1 to 5; satisfactory values above 3): SMIS – 2.95; ActionWeb – 3.57; SPCDR – 3.63; SIMPOP – 3.88; MIS-ETC – 2.25.

- Average number of training days required to get a new user prepared – Answers received from administrators / coordinators (days; satisfactory values max. 2): SMIS – 10.97; ActionWeb – 2; SPCDR – 5.5; SIMPOP – 6.5; MIS-ETC – 7.
- Average number of weeks required to get a new user fully accommodated with the system (proper accomplishment of all tasks without help) – Answers received from administrators / coordinators (weeks; satisfactory values max. 4): SMIS – 5.42; ActionWeb – 1.33; SPCDR – 10.25; SIMPOP – 3; MIS-ETC – 6.

Finding 3.3.1.2

It is necessary to be noted that the above figures are rough statistic computations based on users' opinions and **they should be interpreted with caution**. The following interpretations took into account also the opinions gathered from interviews, the results of the documentary analysis (based on manuals and technical documentation) and the confrontation of those statistical figures within the focus group.

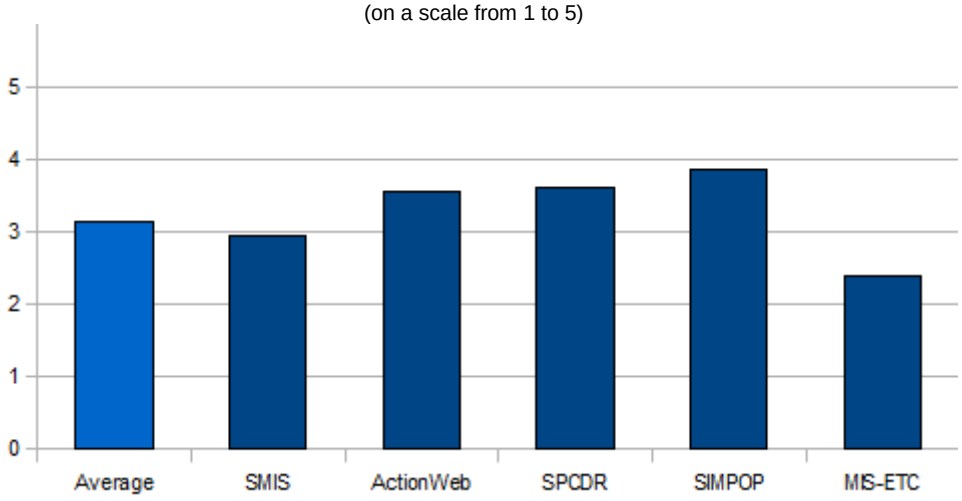
Finding 3.3.1.3

Most values in this section of the checklist are outside the satisfactory range and the rest of them are not far from the limit values of the satisfactory range. It may be concluded that, in general lines, the existing electronic systems are perceived by their users as not being very user friendly. The general trend for user friendliness is around the medium rating on the scale.

Finding 3.3.1.4

The systems that are dedicated to a single OP (like ActionWeb, SPCDR or SIMPOP) are regarded slightly positive (with average scores ranging from 3.5 to 3.8 on a scale from 1 to 5), opposed to the bigger systems like SMIS (covering 7 OPs) or MIS-ETC, which are regarded slightly negative (with average scores below 3).

Figure 3.3.1.1. How easy to use are the electronic systems?
(on a scale from 1 to 5)



Finding 3.3.1.5

This perception is sustained also by the estimate figures for the time needed to train new users and to have them fully accommodated with the system. It should be noted that the figures related to training **should not be regarded as absolute measurements** due to the risk of being altered by different methodologies of computation used by each of the administrators. The figures should be regarded and analysed only in terms of their magnitude.

References

Data sources and methods	*Questionnaires – see Annex 2, "Questionnaires"* *Checklists – see Annex 1, "Completed Checklists"* *Interviews with administrators of electronic systems – see Annex 3, "Interview Structure", and Annex 4, "List of Interviews"* *Focus group – see Annex 5, "Focus Group Agenda", Annex 6, "Focus Group Presentation" and Annex 7, "Focus Group List of Participants"* *Documentary analysis – see Annex 8, "List of Analysed Documents"*
Conclusions	*See conclusions 3.1 and 3.3 in section 3 of Chapter 4, "Conclusions"*
Recommendations	*See recommendations 2.2 and 2.3 in section 2 of Chapter 5, "Recommendations"*

3.3.2 Administrative burden

Finding 3.3.2.1

The following synthetic results were obtained for each of the items in this section of the checklist:

- Estimation of relative difference between the time required to fulfil the daily tasks using the system and the time required to fulfil the same tasks without using the system => Answers received from all types of users, including administrators / coordinators (satisfactory values are negative): SMIS – -0,11%; ActionWeb – -6,47%; SPCDR – -6,25%; SIMPOP – -4,11%; MIS-ETC – +2,5%.
- Estimation of relative difference between the average work time consumed by a beneficiary in relation with the authorities (including the preparatory work), in the case when the system is used and in the case when no information system is used – Answers received from beneficiaries (satisfactory values are negative): ActionWeb – -3.18% – ActionWeb is the only system used by beneficiaries.

Finding 3.3.2.2

It is necessary to be noted that the above figures are rough statistic computations based on users' opinions and **they should be interpreted with necessary caution**. The following interpretations took into account also the opinions gathered from interviews, the results of the documentary analysis (based on manuals and technical documentation) and the confrontation of the statistical figures within the focus group.

Finding 3.3.2.3

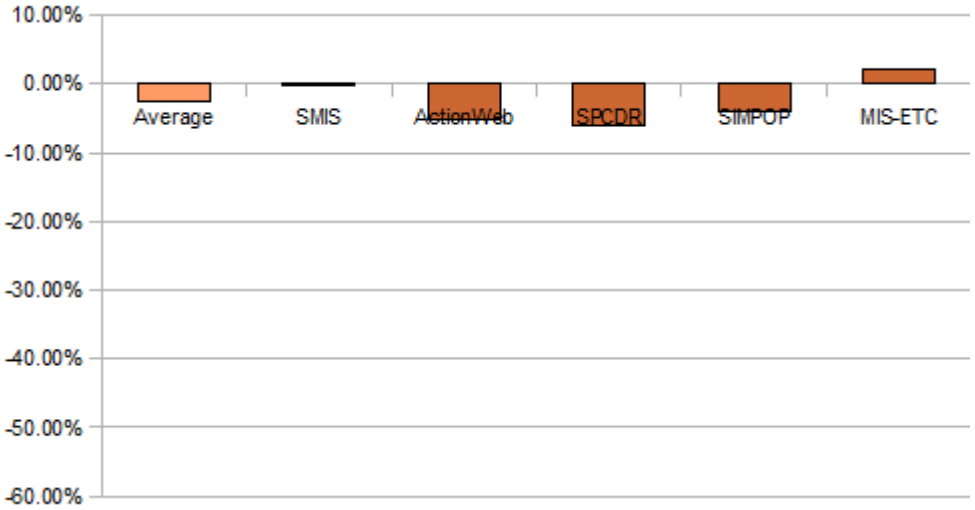
Most of the values are negative but still near the zero value – one digit figures, barely surpassing a 5 percentile points margin of statistical error, in the best cases. Consequently, the results of the questionnaires show that the general perception on the existing electronic systems is that they are not very efficient in reducing the administrative burden. The results show only a slight gain of working time through the implementation of the electronic system.

Finding 3.3.2.4

One of the main causes for this lack of performance is the fact that the existing electronic systems are not well fitted to the needs of the users. This can be seen in the correlation of the scores for this subject with the scores for general usefulness and for ease of use (see chapter 3.3.1).

Figure 3.3.2.1. Reducing the time consumed by the administrative burden

(the more negative the numbers, the better)



Finding 3.3.2.5

Other important factors that limit a potentially positive impact of electronic systems on reducing the administrative burden are the multiple parallel flows of the same data (on paper and electronically, sometimes even in more than one electronic system) and the lack of interfaces between the various electronic systems that should have allowed sharing common data (see also Table 3.2.1 above, in chapter 3.2, its notes and the references to conclusions and recommendations included there).

References

Data sources and methods	*Questionnaires – see Annex 2, "Questionnaires"* *Checklists – see Annex 1, "Completed Checklists"* *Interviews with administrators of electronic systems – see Annex 3, "Interview Structure", and Annex 4, "List of Interviews"* *Focus group – see Annex 5, "Focus Group Agenda", Annex 6, "Focus Group Presentation" and Annex 7, "Focus Group List of Participants"*
Conclusions	*See conclusions 3.1 and 3.3 in section 3 of Chapter 4, "Conclusions"*
Recommendations	*See recommendations 2.1, 2.2 and 2.3 in section 2 of Chapter 5, "Recommendations"*

3.3.3 General usefulness

Finding 3.3.3.1

The following synthetic results were obtained from the questionnaires for each of the items in this section of the checklist:

- Users' general opinion regarding the usefulness of the system for their daily activity – Answers received from all types of users, including administrators / coordinators (on a scale from 1 to 5; satisfactory values above 3): SMIS – 3.53; ActionWeb – 4.02; SPCDR – 4.5; SIMPOP – 4.2; MIS-ETC – 3.25.
- Relevance of the data content for the users' needs – Answers received from all types of users, including administrators / coordinators (on a scale from 1 to 5; satisfactory values

above 3): SMIS – 3.24; ActionWeb – 3.67; SPCDR – 3.85; SIMPOP – 4.49; MIS-ETC – 3.7.

- Usefulness of the reports generated by the system – Answers received from all types of users, including administrators / coordinators (on a scale from 1 to 5; satisfactory values above 3): SMIS – 3.03; ActionWeb – 3.04; SPCDR – 3.38; SIMPOP – 4.18; MIS-ETC – 2.25.

Finding 3.3.3.2

It is necessary to be noted that the above figures are rough statistic computations based on users' opinions and **they should be interpreted with much caution**. The following interpretations took into account also the opinions gathered from interviews, the results of the documentary analysis (based on manuals and technical documentation) and the confrontation of the statistical figures within the focus group.

Finding 3.3.3.3

In spite of modest results reported for the ease of use and for reducing the administrative burden (see chapters 3.3.1 and 3.3.2), the electronic systems are regarded however better in terms of general usefulness. Almost all values recorded for this section of the checklist are within the satisfactory range. Users appreciate that the electronic systems are, as marked in the questionnaire, "rather useful". This is a positive assessment, in the given context, and it is fed by a general positive attitude towards the concept of electronic systems.

Although the users are not always too content about certain features of their electronic systems (as indicated by the results obtained in the other sections of the checklist), they are generally positive about having an electronic system at hand as an alternative to paper files (as indicated by the results in this section of the checklist).

Figure 3.3.3.1. General usefulness of electronic systems
(on a scale from 1 to 5)

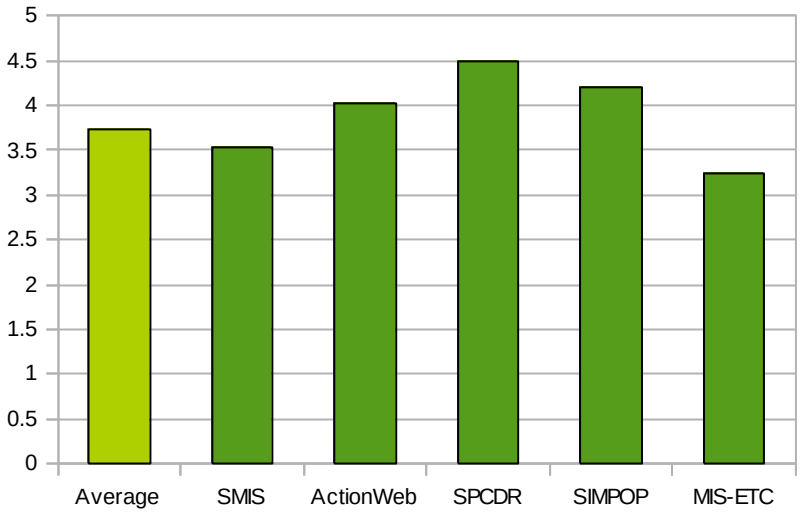


Figure 3.3.3.2. Relevance of the data provided by the electronic systems
(on a scale from 1 to 5)

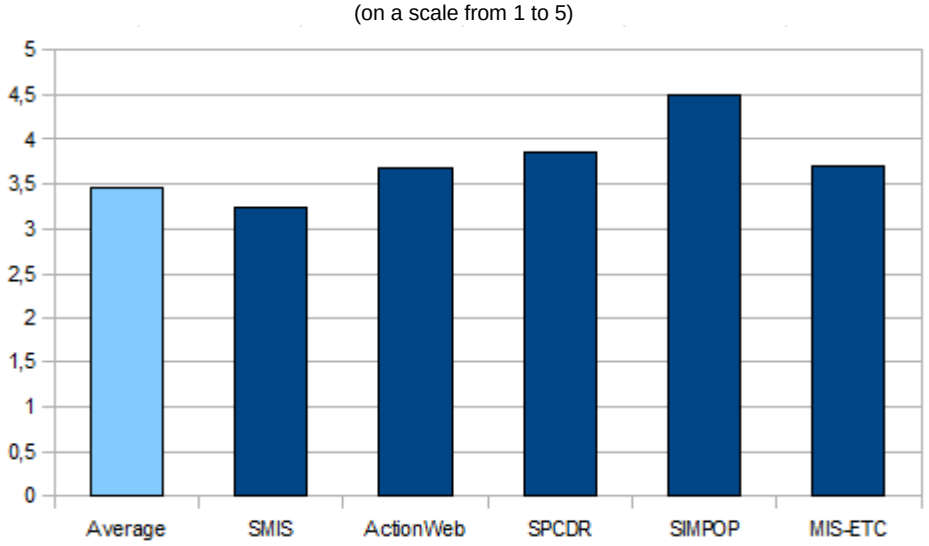
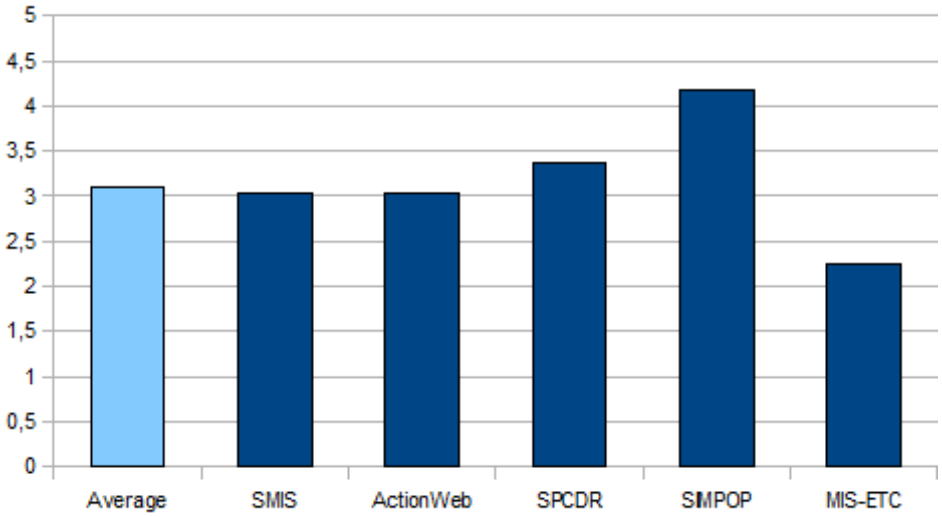


Figure 3.3.3.3. Usefulness of the reports
(on a scale from 1 to 5)



Finding 3.3.3.4

To be noted that the scores for general usefulness are high even in spite of the lower scores obtained for relevance of the data provided by the electronic system and the even lower scores obtained for usefulness of the reports generated by the system, which are only slightly above the medium rating (see the results presented above and the graphs).

Finding 3.3.3.5

Again, higher scores are obtained by the systems that are dedicated to a single OP (ActionWeb, SPCDR and SIMPOP, with score above 4 on a scale from 1 to 5). SMIS and MIS-ETC, which are broader systems, obtained lower scores but still above the medium level (see the results presented above and the graphs).

References

Data sources and methods	*Questionnaires – see Annex 2, "Questionnaires"* *Checklists – see Annex 1, "Completed Checklists"* *Interviews with administrators of electronic systems – see Annex 3, "Interview Structure", and Annex 4, "List of Interviews"* *Focus group – see Annex 5, "Focus Group Agenda", Annex 6, "Focus Group Presentation" and Annex 7, "Focus Group List of Participants"*
Conclusions	*See conclusions 3.1 and 3.3 in section 3 of Chapter 4, "Conclusions"*
Recommendations	*See recommendations 2.1 and 2.2 in section 2 of Chapter 5, "Recommendations"*

Finding 3.3.3.6

As a partial conclusion, the results obtained for all the first three sections of the checklist (see chapters 3.3.1, 3.3.2 and 3.3.3), which relate directly to the user satisfaction level, show that users are not very satisfied about the performance of the existing electronic systems (see the relatively low scores obtained for the various items relating to precise characteristics).

But the users are still positive about the idea of an electronic system helping them with the administrative tasks (see the relatively high scores obtained for the item relating to the "general usefulness").

3.3.4 Data querying and data aggregation

Finding 3.3.4.1

The following synthetic results were obtained for each of the items in this section of the checklist:

- Availability of functions for searching individual data – Answers received from administrators / coordinators (on a scale from 1 to 5; satisfactory values above 3): SMIS – 3.03; ActionWeb – 3.33; SPCDR – 3.25; SIMPOP – 3.75; MIS-ETC – 2.
- Availability of functions for listing a subset of a data collection (filtering) – Answers received from administrators / coordinators (on a scale from 1 to 5; satisfactory values above 3): SMIS – 3.16; ActionWeb – 2; SPCDR – 3; SIMPOP – 3.5; MIS-ETC – 2.
- Users' general opinion regarding the ease of retrieving needed data – Answers received from all types of users, including administrators / coordinators (on a scale from 1 to 5; satisfactory values above 3): SMIS – 3.22; ActionWeb – 3.38; SPCDR – 3.5; SIMPOP – 4; MIS-ETC – 2.25.
- Availability of functions for aggregating data – Answers received from administrators / coordinators (on a scale from 1 to 5; satisfactory values above 2): SMIS – 3; ActionWeb – 2.33; SPCDR – 3.25; SIMPOP – 3.5; MIS-ETC – 3.
- Availability of predefined reports – Answers received from administrators / coordinators (on a scale from 1 to 5; satisfactory values above 3): SMIS – 2,56; ActionWeb – 2; SPCDR – 3.5; SIMPOP – 3.75; MIS-ETC – 4.
- Availability of functions for building customised reports – Answers received from administrators / coordinators (on a scale from 1 to 5; satisfactory values above 2): SMIS – 2.66; ActionWeb – 2; SPCDR – 3.5; SIMPOP – 3.33; MIS-ETC – 3.

Finding 3.3.4.2

It is necessary to be noted that the above figures are rough statistic computations based on users' opinions and **they should be interpreted with much caution**. The following interpretations took into account also the opinions gathered from interviews, the results of the documentary analysis (based on manuals and technical documentation) and the confrontation of the statistical figures within the focus group.

Finding 3.3.4.3

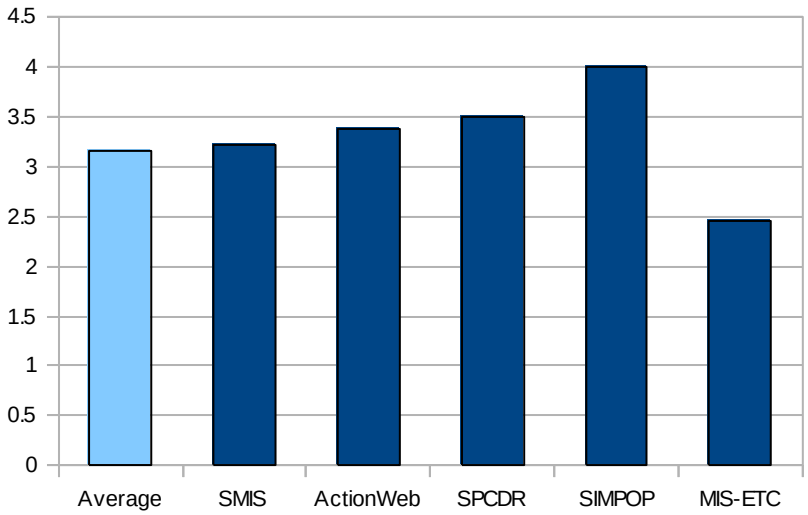
Similarly to the general user satisfaction level (see chapters 3.3.1, 3.3.2 and 3.3.3), the availability of sufficient and efficient features for data processing is seen as rather modest (most of the results are oscillating in the vicinity of the average level, which is also the limit for the satisfactory range).

Finding 3.3.4.4

The features related to the data extraction (e.g. searching, querying, and filtering) are appreciated slightly positive for all systems (scores ranging mostly from 3 to 3.5 on a scale from 1 to 5), except for MIS-ETC, which presents a rather negative perception (see the figures above and the graph below):

Figure 3.3.4.1. How easy is to retrieve the needed data?

(on a scale from 1 to 5)



Finding 3.3.4.5

The features related to data aggregation and especially to the availability of reports obtained lower scores for most of the systems, but still above the medium level of 3. SMIS obtained negative ratings (below the medium level) for the availability of useful reports (see the figures above). This could be explained by the broader scope of SMIS, which is not able to address the specific needs of each authority or OP. Also, many users are not enough acquainted with the ART4SMIS reporting tool that accompanies SMIS and they are not aware of the real capabilities of such a tool. Insufficient training regarding this tool (which was implemented at a later stage, after SMIS initial implementation) could also explain the low results.

Note: This led to recommendation 3.2.d, in Chapter 5, "Recommendations".

Finding 3.3.4.6

The very low scores obtained by ActionWeb for data aggregation tools (including reporting – see figures above) are explained by the fact that ActionWeb itself does not include reporting features.

For this purposes it works in conjunction with the more versatile reporting tool included in SIMPOSDRU. The combination of the two systems ensures the appropriate features needed by the users.

Note: Details are based on information gathered from documentary analysis and from interviews.

Finding 3.3.4.7

SPCDR and SIMPOP benefit of their own sets of reports incorporated in the system and designed specifically for the OPs they manage.

Note: Details are based on information gathered from documentary analysis and from interviews.

References

Data sources and methods	*Questionnaires – see Annex 2, "Questionnaires"* *Checklists – see Annex 1, "Completed Checklists"* *Interviews with administrators of electronic systems – see Annex 3, "Interview Structure", and Annex 4, "List of Interviews"* *Focus group – see Annex 5, "Focus Group Agenda", Annex 6, "Focus Group Presentation" and Annex 7, "Focus Group List of Participants"* *Documentary analysis – see Annex 8, "List of Analysed Documents"*
Conclusions	*See conclusions 3.1 and 3.3 in section 3 of Chapter 4, "Conclusions"*
Recommendations	*See recommendations 2.1, 2.2 and 2.3 in section 2 of Chapter 5, "Recommendations"*

3.3.5 Data quality

Finding 3.3.5.1

The following synthetic results were obtained for each of the items in this section of the checklist:

- Data input is based on trustworthy sources and clear procedures – Answers received from administrators / coordinators (% of "yes" answers): SMIS – 100%; ActionWeb – 100%; SPCDR – 100%; SIMPOP – 100%; MIS-ETC – 100%.
- Input data are validated properly – Answers received from administrators / coordinators (% of "yes" answers): SMIS – 84,4%; ActionWeb – 66,7%; SPCDR – 50%; SIMPOP – 100%; MIS-ETC – 100%.
- Checks are available to allow detection of errors – Answers received from administrators / coordinators (on a scale from 1 to 5; satisfactory values above 3): SMIS – 2.94; ActionWeb – 2.33; SPCDR – 3; SIMPOP – 4; MIS-ETC – 2.
- Required data are available in due time for the final recipients – Answers received from administrators / coordinators (on a scale from 1 to 5; satisfactory values above 3): SMIS – 4.03; ActionWeb – 4.67; SPCDR – 4.25; SIMPOP – 4.75; MIS-ETC – 3.5.

Finding 3.3.5.2

It is necessary to be noted that the above figures are rough statistic computations based on users' opinions and **they should be interpreted with much caution**. The following interpretations took into account also the opinions gathered from interviews, the results of the documentary analysis (based on manuals and technical documentation) and the confrontation of the statistical figures within the focus group.

Finding 3.3.5.3

The data entered in all systems are based entirely on trustworthy sources of information (like original documents or copies certified against their originals) – see figures above.

Finding 3.3.5.4

Most systems foresee validation of all relevant input data (automated or through manual validation procedures) – see figures above. Except for SPCDR, which relies rather on the inherent data processing flow that allows several persons to work on the same data, thus expecting that the invalid data would be spotted somewhere in the work flow (based on information gathered from documentary analysis and from interviews).

Finding 3.3.5.5

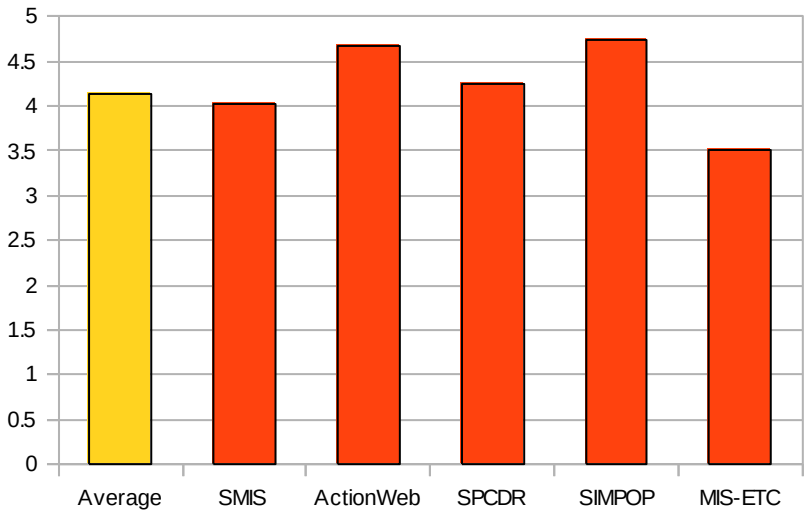
Generally, the effort for ensuring data quality is focused on the input of data. It seems, however, that the systems do not envisage enough controls to allow timely identification of errors already residing in the system (which either by-passed the control of input data or which were eventually generated by some system malfunctions). The scores recorded for this subject (see figures above) show concerns regarding the availability of enough checks to allow identification of errors in the system. The general perception in this respect is rather negative (below the medium level for SMIS, ActionWeb and MIS-ETC).

Finding 3.3.5.6

In terms of timely availability of data required from the electronic system, all the systems are performing very well (rated above 4 on a scale from 1 to 5).

Figure 3.3.5.1. Timely availability of needed data

(on a scale from 1 to 5)



References

Data sources and methods	*Questionnaires – see Annex 2, "Questionnaires"* *Checklists – see Annex 1, "Completed Checklists"* *Interviews with administrators of electronic systems – see Annex 3, "Interview Structure", and Annex 4, "List of Interviews"* *Focus group – see Annex 5, "Focus Group Agenda", Annex 6, "Focus Group Presentation" and Annex 7, "Focus Group List of Participants"*

	Documentary analysis – see Annex 8, "List of Analysed Documents"
Conclusions	*See conclusion 3.2 in section 3 of Chapter 4, "Conclusions"*
Recommendations	*See recommendations 2.4 and 2.5 in section 2 of Chapter 5, "Recommendations"*

3.3.6 Data security

Finding 3.3.6.1

The following synthetic results were obtained for each of the items in this section of the checklist:

- Only authenticated users are allowed to access non-public data or to modify data – Answers received from administrators / coordinators (% of "yes" answers): SMIS – 93,8%; ActionWeb – 100%; SPCDR – 100%; SIMPOP – 100%; MIS-ETC – 100%.
- Each user is limited to a specific set of access rights, for specific sections of the system – Answers received from administrators / coordinators (% of "yes" answers): SMIS – 90,6%; ActionWeb – 66,7%; SPCDR – 100%; SIMPOP – 100%; MIS-ETC – 100%.
- Communication channels used for exchanging sensitive data between various parts of the system are protected – Answers received from administrators / coordinators (% of "yes" answers): SMIS – 87,5%; ActionWeb – 66,7%; SPCDR – 100%; SIMPOP – 75%; MIS-ETC – 100%.

Finding 3.3.6.2

It is necessary to be noted that the above figures are rough statistic computations based on users' opinions and **they should be interpreted with much caution**. The following interpretations took into account also the opinions gathered from interviews, the results of the documentary analysis (based on manuals and technical documentation) and the confrontation of the statistical figures within the focus group.

Finding 3.3.6.3.

In general, all the systems are reasonably well secured, data security being considered in all cases (see figures above; also confronted with the results of the documentary analysis and the interviews). All systems require users to authenticate and foresee specific access rights limiting the access of users only to those areas that are pertinent for their roles.

Finding 3.3.6.4

Communication between the various locations of offices is done through secured channels, usually Virtual Private Network (VPNs) provided in many cases by the Special Telecommunications Service (STS), even for the most remote locations. In cases when the web applications are accessible through Internet (e.g. in order to allow access of beneficiaries or external evaluators), the communication is done entirely through Secure HTTP (HTTPS), ensuring a reasonable level of software protection.

Note: Details are based on information gathered from documentary analysis and from interviews.

References

Data sources and methods	*Questionnaires – see Annex 2, "Questionnaires"* *Checklists – see Annex 1, "Completed Checklists"* *Interviews with administrators of electronic systems – see Annex 3, "Interview Structure", and Annex 4, "List of Interviews"*

	Focus group – see Annex 5, "Focus Group Agenda", Annex 6, "Focus Group Presentation" and Annex 7, "Focus Group List of Participants" *Documentary analysis – see Annex 8, "List of Analysed Documents"*
Conclusions	*See conclusion 3.2 in section 3 of Chapter 4, "Conclusions"*
Recommendations	*As there are no pending issues (see conclusion: "all the systems prove to be satisfactory"), there is no point for recommendations.*

3.3.7 System stability

Finding 3.3.7.1

The following synthetic results were obtained for each of the items in this section of the checklist:

- Average downtime of the system in a month[1] – Answers received from administrators / coordinators (hours; satisfactory values max. 2): SMIS – 8.75; ActionWeb – 2.67; SPCDR – 1; SIMPOP – 5.75; MIS-ETC – 3.6.

The up-time measurement accuracy using statistical methods by surveys among users is inaccurate in a much too great to be taken into consideration.

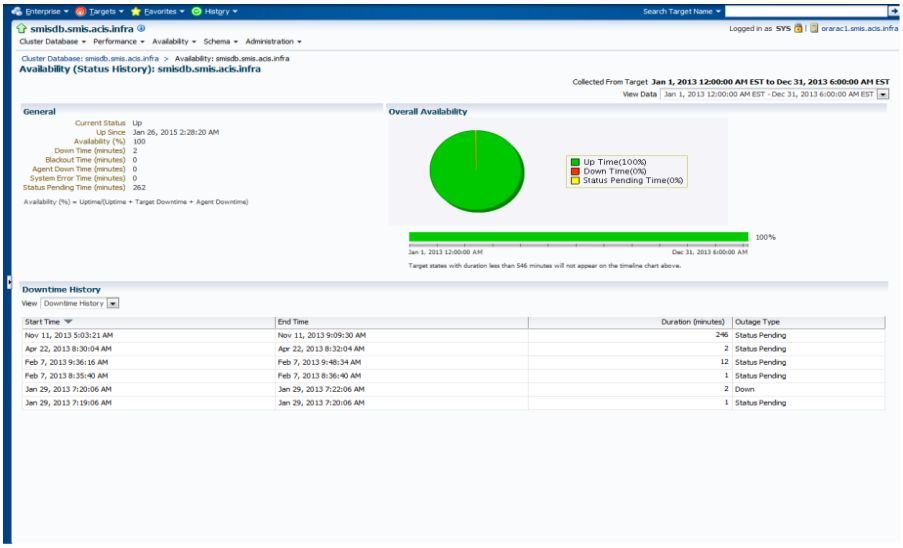
Regarding particularly SMIS. The users cannot know when the entire database (comprising a 3 node cluster, plus many other redundancy mechanisms that eliminate any single point of failure, Storage-Area Network (SAN) storage cluster nodes connected by bonding and multipath, redundancy in power supply, etc.) is unable to serve all users' requests (i.e. the definition of downtime). There are many reasons that a user cannot access SMIS application. The middleware component of the system is also made up of a cluster consisting of three nodes (application servers) and a load balancer, any accidental or planned shutdown of one of the servers leading to the closing sessions only for the users who were directed to the faulty node by load balancer and after reloading the browser will connect normal, so we deal with an incomplete downtime that occurs over short periods. This type of downtime cannot be monitored by Oracle Cloud Control. We approximate around 2 downtime hours per month per server (zero hours per month for the entire middleware cluster).

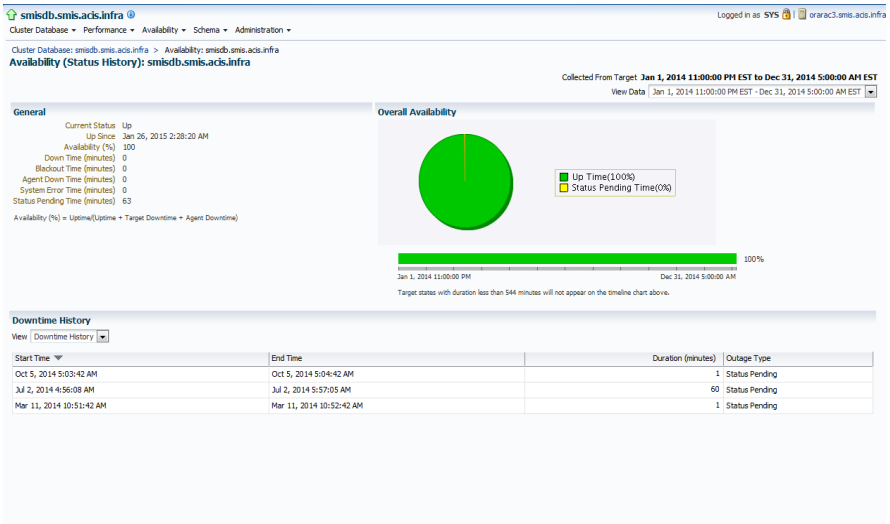
Other situations in which users tend to say that "SMIS doesn't work":

- dead lock mechanisms of the database determine a number of sessions to remain in pending over tens of minutes, but this situation is not to be considered an actual downtime;
- certain components of networking and operating system on the client machine malfunction, creating the impression that SMIS is the application whose function is impaired;
- the user notices that its session is closed and tries to reconnect, without success. This is caused by a component of the server application that signals if the server can serve requests to the load balancer device (HTTP component), continues to operate, although OC4J component, which serves client-machine requests is inoperable. This is a bug in Oracle Applications Server version 9 Forms and Reports, which the SMIS coordinators say it cannot be solved while SMIS application can function only installed on this version.

[1] The figures are statistical results computed from the answers received for the questionnaires. They are not intended as a final truth. The statistical results should be interpreted in the proper context, in case the persons answering to a questionnaire might be affected by some factors.

The above assertions are supported by two graphs of the database uptime that serves SMIS application over a period of two years: 01 January – 31 December 2013 and 01 January – 31 December 2014:





- Frequency of major failures of the system (requiring the intervention of administrators for restoring the system) – Answers received from administrators / coordinators (on a scale from 1 to 5; satisfactory values above 4): SMIS – 4.28; ActionWeb – 4.67; SPCDR – 4.67; SIMPOP – 5; MIS-ETC – 4.5.
- Frequency of significant malfunctions impeding the proper use of the system – Answers received from all types of users, including administrators / coordinators (on a scale from 1 to 5; satisfactory values above 4): SMIS – 3.43; ActionWeb – 3.64; SPCDR – 4.34; SIMPOP – 4.45; MIS-ETC – 4.

Finding 3.3.7.2

It is necessary to be noted that the above figures are rough statistic computations based on users' opinions and **they should be interpreted with much caution**. The following interpretations took into account also the opinions gathered from interviews, the results of the documentary analysis (based on manuals and technical documentation) and the confrontation of the statistical figures within the focus group.

Finding 3.3.7.3

Although the results obtained for system stability show a rather low frequency of malfunctions (see figures above), some of the indicated levels are not entirely satisfactory for a quality and reliable production system.

Finding 3.3.7.4

The major failures are very seldom for all systems (see figures above). But when they happen, it takes a lot of time to restore the system, as indicated by the high numbers of hours of downtime. One of the explanations is that most of the systems are managed by generally understaffed Information Technology (IT) units of public institutions, which cannot provide a 24/7 support.

Note: Details are based on information gathered from interviews and focus group.

Finding 3.3.7.5

A poorer performance is recorded in relation to the frequency of minor incidents, which averages around 4 on a scale from 1 to 5, meaning “seldom” but not “very seldom”. This indicates that at least for some of the systems, there are a significant number of cases of users that meet incidents regularly. One cause for this could be the web-based nature of most of the systems, thus relying on the proper functionality of the whole network of communication inter-connections, sometimes crossing the country from one end to the other. One failure of a device or a cable somewhere in the network could bring the electronic system unusable for some of the users.

Note: Details are based on information gathered from documentary analysis, interviews and focus group.

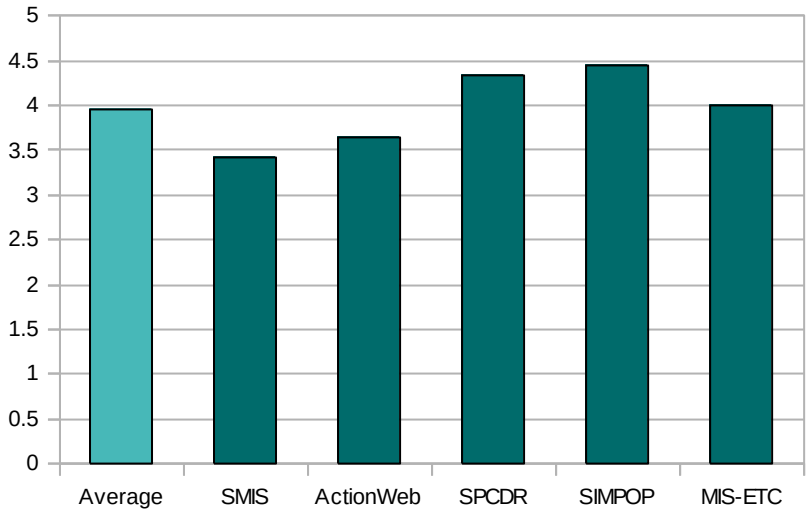
Finding 3.3.7.6

Another cause could be the software failures of some technical solutions that were left in a non-mature stage of development, due to the lack of appropriate services for continuous development of the software (needed both for repairing the hidden bugs discovered later and for updating the software to the changes appeared in the real world environment during time).

Note: Details are based on information gathered from documentary analysis, interviews and focus group.

Figure 3.3.7.1. Frequency of malfunctions that impede the proper use of the system

(on a scale from 1 to 5; the higher, the better: 5 means “very seldom”, 4 means “seldom”)



References

Data sources and methods	*Questionnaires – see Annex 2, "Questionnaires"* *Checklists – see Annex 1, "Completed Checklists"* *Interviews with administrators of electronic systems – see Annex 3, "Interview Structure", and Annex 4, "List of Interviews"* *Focus group – see Annex 5, "Focus Group Agenda", Annex 6, "Focus Group Presentation" and Annex 7, "Focus Group List of Participants"* *Documentary analysis – see Annex 8, "List of Analysed Documents"*
Conclusions	*See conclusion 3.2 in section 3 of Chapter 4, "Conclusions"*
Recommendations	*See recommendation 2.6 in section 2 of Chapter 5, "Recommendations"*

3.3.8 Technology

Finding 3.3.8.1

All the systems are based on web-based software, which is the more modern technical solution allowing for a high decrease of administration costs, broad accessibility and high flexibility in the evolution of the system. The drawback of this technology relates to high demands at the level of the central node (the servers) and the reliance on a properly functioning network reaching even the most distant users. But the continuous and fast improvements in the Information and Communication Technology (ICT) networks and systems in Romania should allow for easier fulfilment of these demands.

In terms of technical support, various solutions were approached. Bigger systems, like SMIS and MIS-ETC, have already migrated their hardware to specialised data centres; but the services are still managed internally. Other systems, like ActionWeb and SIMPOP, are entirely externalised. The hardware is hosted in other institutions that detain locations that are appropriate for this purpose. And all the services are provided by specialised IT companies, including services of continuous development (e.g. system and software updates). There is also the case of SPCDR, which is managed entirely internally (hardware and services).

More details are available in each of the checklists in Annex 1.

References

Data sources and methods	*Interviews with administrators of electronic systems – see Annex 3, "Interview Structure", and Annex 4, "List of Interviews"* *Documentary analysis – see Annex 8, "List of Analysed Documents"*
Conclusions	*See conclusion 3.2 in section 3 of Chapter 4, "Conclusions"*
Recommendations	*As there are no pending issues (see conclusion: "all the systems prove to be satisfactory"), there is no point for recommendations.*

3.4 Update of the situation in December 2014

3.4.1 Introduction

Based on the request of the contracting authority of this evaluation, concise update of the situation was done at the end of December 2014. That general though limited assessment was designed to provide information on major changes, improvements and amendments introduced to those electronic systems since the first evaluation had been completed. The update was planned to provide specific information if any of the previous recommendations has been already successfully implemented.

There were two methods used for collection of data: a questionnaire and interviews. That update was foreseen as a quick exercise providing the units running the electronic systems with simple set of questions requesting them to answer in short period of time. Unfortunately, a short period of time foreseen for this updated evaluation resulted in the limited number of received responses [3] and concluded interviews [1].

The questionnaire was sent together with invitation for an interview to the following operators of the relevant electronic systems:

1. Ministry of European Funds (MEF) – Directorate for System Coordination, operator of **SMIS** and **MySMIS;**
2. Ministry of Labour, Family, Social Protection and Elder Persons (MLFSPEP) – MA SOP HRD, operator of **ActionWeb**[2]**;**
3. Ministry for Regional Development and Public Administration – Managing Authority (MA) for the European Territorial Cooperation**,** operator of **MIS-ETC;**
4. Ministry of Agriculture and Rural Development – MA NPRD, operator of **SPCDR**; and
5. Ministry of Agriculture and Rural Development – MA OPF operator of **SIMPOP.**

The questionnaire is available as Annex 9.

3.4.2 General and Organizational aspects

The MA for Human Resources Development OP (OPHRD) has been transferred in the subordination of the Ministry of European Funds. That resulted in transfer of responsibility for managing and developing ActionWeb to the same team that handles both systems: SMIS and MySMIS. This transfer increased already existing lack of necessary human resources allocated for:

- Use,
- Maintenance,
- Further development,
- Support and coordination / supervision

for both SMIS and for MySMIS.

There is a team of only 8 persons working in the MEF that must ensure the smooth functioning of the entire IT infrastructure (both physical and logical administration's infrastructure – all the servers used by the ministry) for approximately 800 civil servants. The team has also additional responsibilities: maintenance, technical support and coordination of users for various electronic

[2] A direct answer/interview from the MA for Human Resources Development OP, operating the ActionWeb day-by-day activities, was not possible in very short available time.

systems, among which there are: SMIS, MySMIS,–and ActionWeb, recently added. Apart from that, part of the team also manages Active directory, e-mail, all the ministry's websites, etc.

In particular, MySMIS requires a strong technical support centre to provide assistance (i.e. hotline or online) also for large number - on the beneficiaries level as MySMIS is mainly used by project beneficiaries. This is in contrast to other systems that are used by much smaller groups of users - only by MA and IB civil servants.

The above-described tasks require strengthening of that IT team in the MEF both at the technical and business level. That conclusion of the first evaluation remains valid.

There is no involvement of institutions using SMIS in the development of that system, e.g. they do not request/propose what would be needed from SMIS; they do not test newer versions; they do not provide feedback on using SMIS, etc.. That kind of involvement would positively influence development of that electronic system.

There is no organizational support assured for the development of the SMIS. Development of that system, which is used by a large number of users in many institutions involved in project management of 7 OPs, is left solely to the responsibility of a small group of people within SMIS Coordination Unit covering business and technical sides of SMIS. Such a situation has not changed since the first evaluation.

During 2014 the IT infrastructure was further developed at all levels increasing hardware resources: processing, memory and storage. The Data Centre was moved to Special Telecommunication Service (STS) before 2014. And currently work is under way for creating a Disaster Recovery Centre in Brașov (in a location made available by the STS, too).

3.4.3 ActionWeb

Infrastructure for ActionWeb is still provided by the STS but it will soon be taken over by the MEF and the necessary preparations are under way.

In general, the system is still the same and the same people in charge of coordinating its use as at the period of conducting the first evaluation. However, there have been some notably developments, such as:

- ActionWeb now includes scanned copies of the original documents on paper as well those related to the records made in the system.
- ActionWeb is able now to export some data directly into the database of the SMIS, relieving users from OP HRD of the double introduction of data in ActionWeb and in the SMIS.
- .

However, such small developments do not seem sufficient in the process of preparation for fully-fledged electronic systems for running 2014-2020 OPs.

3.4.4 MySMIS

During the second quarter of 2014 a first pilot of MySMIS was launched in the OPTA implementation. It was decided that MySMIS to operate in parallel with the traditional documents flow.

Unfortunately, the results from that pilot half a year of using the system are below expectations / disappointing. Numerous problems and complaints appeared:

- Deficiencies noted in use:
  - Users did not know / did not understand how to use the system, having difficulties to input the data correctly.
  - The established flows for the system using were not respected.
  - These were the identified reasons of such a situation:
    - Users did not read and use the user manuals.
    - There was no adequate training provided (at least in the first phase, only later the issue was raised by the management).
    - The system turns out to be not altogether user-friendly.
- Bugs have been identified in the systems (and some were fixed).
- Weaknesses were found in the analysis phase which proved that the content of the system is not consistent with the reality. This situation stems from the fact that the user institutions were not really involved in development stage of MySMIS.

However, there have been advantages noted of introducing the MySMIS, of which the most important is that civil servants do not enter data in the SMIS. The data is introduced to the system directly by the beneficiaries - through MySMIS. However, the civil servants from MAs must still verify data from the SMIS comparing them with documents from beneficiaries (which still remains mandatory).

Ideas for the future:

- To eliminate paperwork on the flow between beneficiaries and civil servants and all data to be transmitted electronically only through MySMIS.
- A fully fledged call centre for users established (especially those from the beneficiaries).

These two ideas were not discussed during preparation of the first evaluation.

3.4.5 SMIS 2007-2013

By the end of the programming cycle the SMIS was introduced as the sole accepted instrument for drafting expenditures statements for all the OPs. All statements of expenditures to the Certification and Payment Authority (CPA) are accepted only if they are generated by that electronic system. All CPA expenditures statements to the Commission are generated by SMIS.

On the occasion of introducing SMIS as the only system to generate the final result / expenditures claims, it was discovered by rechecking the documents that there were errors present at all levels:

- Concerning data entry in the SMIS.
- In the Excel tools previously used in parallel with SMIS.
- Systemic errors in interpretation of certain data by civil servants (e.g. eligible expenditures that were not declared as such).

These errors were corrected by introducing an interface (Art4SMIS) that can take raw data directly from the SMIS database to be processed by different users through other instruments – (e.g. to generate other reports, statistics, graphs, etc.)

SMIS is also able to generate reports using data from the system, which in turn helps the user to interpret data not only to report it.

3.4.6 SMIS 2014-2020

It was decided to set up a completely new SMIS (SMIS2014+). Development of that new system based on SMIS is ongoing and is made by the STS in close collaboration with MEF (SMIS Coordination Unit). SMIS2014+ will be introduced into service gradually, per module, starting from May 2015. This is a new situation / system – leading away from previously discussed idea of establishing MySMIS as the main electronic system.

SMIS2014+ will contain two main components:

i. Gathering data online from other systems services in which users have actually entered data (of which the most important is MySMIS).
ii. Reporting tools: reports will be standardised / fixed and there will be tools for generating reports elaborated by users.

Apart from a module dedicated to Payments, SMIS2014+ will not have a data entry interface – this activity will be done mainly through MySMIS. Such a solution seems logical.

Introduction of a mechanism of direct electronic payment of reimbursements to beneficiaries from SMIS2014+ is also being considered.

3.4.7 SIMPOP 2007-2013

The final version of the OP to be run within the 2014-2020 programming period, has not yet been available. Additionally, manual for procedures was not prepared either. Therefore development of the IT application for the European Maritime and Fisheries Fund 2014-2020 has not started yet.

The following changes and information on SIMPOP 2007-2013 have been noticed:

i. There are new modules introduced into the system in 2014: the MA - suspension of payments, the Certification Authority (CA) - suspension of payments and payment request.
ii. The applicability of the system did not suffer any other major change in 2014 (e.g. extending or reducing the list of OPs for which that system is used).
iii. MySMIS was not launched for effective use in this OP.

The system was assessed as easy to use and train new users:

- New user is trained approximately in 1 hour for the MA, 2 days for the CA.
- An understanding of the current system takes 1 day after the user knows and understands the module's related procedure manual.
- The users master the system in 3 days after the administrator knows and understands the procedure manuals related to all the modules included in the SIMPOP.

Those period can be assessed as short.

The system decreases the administrative burden. And the general usefulness has been assessed

as very useful, with relevance for the daily activity are the data comprised by the system and useful reports.

All the following questions concerning the data have been answered positively [yes; satisfactorily; easy]:

c) General usefulness:

1. How useful is the current system, in general? very useful
2. How relevant for the daily activity are the data comprised by the system? relevant
3. How useful are the reports? very useful

d) Data querying:

1. Are the users able to perform searches on the data in the system; are there such functions available in the system? Yes
2. Are the users able to refine the results of their search (e.g. applying filters on the listed records in order to obtain subsets of the initial lists, accordingly to the user's needs)? Yes
3. Which is the general impression on the easiness of finding the needed data in the system? Easy

e) Data aggregation:

1. Does the system comprise aggregate functions (e.g. ability to compute sums, averages, etc., on the records listed by the system)? Yes
2. Are the predefined reports in the system satisfactory enough (having in view both quality and quantity)? Yes, satisfactory
3. Does the system allow building customised reports? Yes

f) Data quality:

1. Is the data input based only on reliable data sources and performed accordingly to clear procedures for data input? Yes
2. All input data are validated properly by the system? Yes, “4 eyes” system
3. Are there checks available in the system as to allow detection of errors or of inconsistent data? Yes
4. Are required data available in due time for the final recipients? Yes

g) Data security:

1. Can non-public data available in the system be accessed only by a authenticated users? Yes
2. Does each user have limited access to the system accordingly to its own set of access rights? Yes
3. Is the sensitive data (e.g. personal data, financial data) exchanged only through secure channels? Yes

All these positive answers confirm user-friendliness, completeness and stability of that system.

There was no need for any change in the hardware of the system as it was assessed as efficient and stable:

- Servers are restarted once or twice per month. This procedure lasts about 30 minutes.
- Since 2010 there was only 1 major failure of the system.

- There are about 10-15 bugs discovered and eliminated per month.

3.4.8 Systems in the Ministry of Regional Development and Public Administration The Ministry of Regional Development and Public Administration manages the following systems:

- MIS-ETC – will not be used for the programming period 2014-2020.
- E-MS - system under development by INTERACT.
- PROETC2014 - system under development by MA of the RO-BG CBC OP.

There were new major modules introduced into the system in 2014:

- Submission online of the Application forms,
- Progress reports and
- Reimbursement claims.

The systems were neither covering new nor less OPs. New modules are foreseen to be operational in 2015: Programming, Call for proposals, Project submission, Assessment and Selection, Contracting, Project implementation, Authorization and Payments, Irregularities and Certification. The MySMIS was not launched for effective use.

As the ETC systems are under construction and not operational, the Ministry was not able to specify any detail on efficiency of those new systems.

4 Conclusions

4.1 Conclusions related to the requirements of the new EU Regulations and the existing national legal and procedural framework

The conclusions in this section are based on the findings in Chapter 3.1, "The requirements of the new EU Regulations and the existing national legal and procedural framework".

Conclusion 1. As regards the national legal framework that should support the fulfilment of the e-Cohesion requirements, all key pieces are in place, being regulated by the Romanian laws relating to:

- Electronic signature,
- Archiving of electronic documents,
- Electronic time stamping of documents, and
- Protection of personal data.

The situation remained the same in December 2014.

4.2 Conclusions related to comprehensiveness of existing electronic systems

The conclusions in this section are based on the findings in Chapter 3.2, "Comprehensiveness of existing electronic systems".
Recommendations regarding the conclusions in this section can be found in section 1 of Chapter 5, "Recommendations".

Conclusion 2. In terms of fulfilling minimum requirements stemming from the new Regulations of the European Commission for the programming period 2014-2020, the only, however important, area of concern remains the specific e-Cohesion requirement – for "*full implementation of the electronic data exchange between beneficiaries and authorities*". At present, with the existing electronic systems, this area is practically uncovered. The exceptions are few and extremely limited. That observation is still valid after December 2014 limited review of the changes in the situation.

The details can be observed in table 4.1, on the next page. This table represents an extract from Table 3.2.2, in chapter 3.2, and focuses only on those areas representing the relevant EU requirements (marked by a thicker black border). For more details, see Table 3.2.2 (chapter 3.2, and its accompanying notes).

The MySMIS system that was developed recently and that has just undergone the testing stage, promised to solve most issues of that problem. For the current 7 OPs the system was designed with and for, MySMIS would fulfil entirely the e-Cohesion requirements. See also recommendation 1.1 in chapter 5. However, the observations and negative experiences from the first 6-months of MySMIS operations should be taken into account in further development of the systems for 2014-2020 perspective.

As a reminder – NPRD and OPF are not subject of consideration of the minimal requirements of e-Cohesion.

Therefore, only SOP HRD and the 4 OPs for ETC (would) remain uncovered. For SOP HRD, the ActionWeb system is successfully used since 2008, but its scope is still limited at present, not covering all e-Cohesion requirements. MIS-ETC has implemented e-Monitoring, a module of MIS-ETC Web Application, but this module is even more limited, dealing only with the beneficiary's expenditures, out of the whole area of financial data. See also recommendations 1.2 and 1.3 in chapter 5.

The Focus Group confirmed, with minority of different opinions, that MySMIS should be the one system developed further and used as the only system responding to the requirements of the e-Cohesion Regulation.

Table 4.1. Electronic systems coverage of the **e-Cohesion minimal requirements** (data exchange between beneficiaries and authorities)

Programme	Major areas of data collections related to project implementation, to be exchanged between beneficiaries and authorities			
	Procurement data	Financial data	Progress monitoring data	Exchange of additional data
ETC (all OPs)		eMonitoring[1] [2]		
OP ACD	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]
OPTA	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]
ROP	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]
SOP E	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]
SOP HRD		ActionWeb[2]	ActionWeb[2]	
SOP IEC	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]
SOP T	MySMIS[1]	MySMIS[1]	MySMIS[1]	MySMIS[1]

[1] Not implemented yet

[2] Limited features

4.3 Conclusions related to compliance of the electronic systems with the checklist

4.3.1 In terms of quality of the existing electronic systems, the results of this evaluation show that many improvements are needed in various aspects.

Conclusion 3.1 As a general image, the electronic systems are in place, they fulfil the minimum requirements, but they do not excel. Therefore they need further improvements/development.

This conclusion is based on the findings in chapters: 3.3.1, 3.3.2, 3.3.3 and 3.3.4.

This conclusion led to recommendations 2.1, 2.2 and 2.3 in section 2 of Chapter 5, "Recommendations".

4.3.2 Strictly from the technical point of view, all the systems prove to be satisfactory, with few required improvements

Conclusion 3.2 Strictly from the technical point of view, all the systems prove to be satisfactory, with only few particular exceptions where improvements are required:

- SMIS, ActionWeb and MIS-ETC lack enough check mechanisms for timely identification of errors existing in the system. All the other systems could improve these mechanisms, too.
  This conclusion is based on the findings in chapter 3.3.5.
  This conclusion led to recommendation 2.4 in Chapter 5, "Recommendations".

- SPCDR should revise its mechanisms of validation in order to cover all relevant input data in a reliable manner.
  This conclusion is based on the findings in chapter 3.3.5.
  This conclusion led to recommendation 2.5 in Chapter 5, "Recommendations".

- SMIS and ActionWeb display a too high frequency of minor incidents.
  This conclusion is based on the findings in chapter 3.3.7.
  This conclusion led to recommendation 2.6 in Chapter 5, "Recommendations".

4.3.3 The area where most of the systems disappoint:

Conclusion 3.3 The area where most of the systems disappoint relates to satisfying the users' needs:

- All the systems still need to improve their portfolio of predefined reports, in order to produce those reports their specific users need. Especially, SMIS lacks mostly of the predefined specific reports required by its users, depending on their individual and specific needs.
  This conclusion is based on the findings in chapters: 3.3.2, 3.3.3 and 3.3.4.
  This conclusion led to recommendation 2.1 in Chapter 5, "Recommendations".

- All systems would benefit of a major revision in terms of features/functionality and data content as such to become more user oriented. Beside the initial objective of covering the minimal requirements, now the systems should provide more useful features for their users. Especially SMIS [and MIS-ETC] need major improvements in terms of usefulness, but also in terms of user friendliness. For the latter issue, these systems need also a revision of their user interface in order to become easier to understand and to use.
  This conclusion is based on the findings in chapters: 3.3.1, 3.3.2 and 3.3.3.
  This conclusion led to recommendations 2.2 and 2.3 in Chapter 5, "Recommendations".

4.4 Other conclusions

4.4.1 Electronic systems inability to interface with each other.

Conclusion 4: The existing electronic systems are not able to interface each other

This leads to cases when users have to enter certain sets of data twice, in two different systems. This implies additional effort from users and additional risks regarding data quality (one of the systems being usually disregarded).

This conclusion is based on the finding in chapter 3.2, within the text related to table 3.2.1.

This conclusion led to recommendation 4.1 in Chapter 5, "Recommendations".

5 Recommendations

All recommendation are still valid after update of evaluation in December 2014.

5.1 Recommendations for ensuring the coverage of the e-Cohesion minimal requirements

The recommendations in this section are based on the conclusions in section 2 of Chapter 4, "Conclusions".

5.1.1 Finalising the implementation of MySMIS for the 6 current OPs it was designed for

Recommendation 1.1: To finalise the implementation of MySMIS for the 6 current OPs it was designed for

The following issues should be had in view, among many others:

a. The highest levels of management in each relevant Ministry have to be aware of the requirements and support more actively the implementation process of the necessary changes implementing MySMIS in their respective institutions in order to fully fulfil the requirements.
b. All coordinating units for the information systems (either IT units or other units)from the various involved bodies (Ministries, MAs, IBs, etc.) should coordinate and cooperate at all times within preparation and implementation of new programmes. That requires establishment of a working IT group possessing necessary powers of attorney, which would meet regularly to exchange information, discuss and put into action joint implementation of the systems in their respective institutions. Another solution assuring constant contact and cooperation among the specialists is to create 'a chat group" within MySMIS specifically for this IT working group.
c. Each institution involved in the process should make appropriate changes in their internal working procedures in order to ensure effective implementation of that "new system".
a. Training of users – there is a growing need for assuring constant long-term schedule of training of users for any IT system (that covers also users of MySMIS), including series of trainings for beneficiaries (that training can be financed from OPTA - in the case of institutional beneficiaries).
d. Ensuring the full package both of IT services, resources and business support for the new system SMIS2014+ (including system administration, help-desk and technical maintenance) – it requires financing of those services, with necessary manpower and budgets.

Suggested activities:

- Finalise the on-going development process of MySMIS (final stages of testing and, continued adjustments and developments to the system based on already gathered information).
- Develop the full package of manuals for MySMIS (including the one for beneficiaries) and a model of procedures.

- Conclude administrative decisions or protocols for implementation of MySMIS in each relevant institution. The information gathered in December 2014 confirms that this need becomes more and more important and urgent!
- Each institution should update their internal procedures, based on the provided model of procedures.
- Secure hosting for MySMIS (hardware resources, system administration, and technical maintenance) and finalise the installation process.
- Provide large-scale initial training of all users in all institutions – a basis for long-term training schedules during implementation of the programmes (covering new users but also updates to the system).
- Ensure data operators and initial population of the database with start-up data.
- Ensure a permanent help-desk service functioning in 24/7 mode.
- Promote MySMIS among the beneficiaries, including periodical sessions of training.
- Preparing the workforce analysis of the services provided by the MySMIS team and expand it accordingly - to fulfil growing number of services and requests managed by the team.

5.1.2 Extending MySMIS in the area of ETC

Recommendation 1.2 To further develop the software for MySMIS by upgrading the existing MySMIS, or developing a copy of MySMIS completely modified to fit the ETC requirements

December 2014 update of the evaluation brought the information that the issue is not valid any longer.

5.1.3 Covering the minimal requirements for SOP HRD

Recommendation 1.3: To cover the minimal requirements for SOP HRD.

One of two options can be used:

A. Extending the features of existing ActionWeb in order to comply with all the minimal e-Cohesion requirements and developing an interface for data exchange between ActionWeb and SMIS.
B. Extending MySMIS to cover also the specific needs of SOP HRD and replacing ActionWeb with MySMIS.

Each option has its own advantages and disadvantages. But the decisive question is who is better prepared for the required further process of software development and implementation. We suggest using the latter option (B) – expand MySMIS to become “The System” for the new programming period for all the new Romanian OPs.

Suggested activities for option B: the steps are the same as for recommendation 1.2. above.

5.2 Recommendations for improving the existing electronic systems used by the authorities

The recommendations in this section are based on the conclusions in section 3 of Chapter 4, “Conclusions”.

All systems should undergo a major revision, which may be required anyway in order to update the electronic systems to the specific elements of the future programming period.

During this revision, the following issues should be had in view for all systems:

Recommendation 2.1. Improvement of the portfolio of predefined reports, in order to produce those reports the users need. SMIS needs mostly such improvement.

This recommendation is based on the conclusions 3.1 and 3.3 in Chapter 4, "Conclusions".

Recommendation 2.2. Improvement of features and data structures, in order to become better user-oriented. All systems should try to provide more useful features for their users, allowing them to save working time and to reduce the risk of human errors.

This recommendation is based on the conclusions 3.1 and 3.3 in Chapter 4, "Conclusions".

Additionally, the following issues should be considered for certain systems, respectively:

Recommendation 2.3. SMIS should be improved in the user interface (at least for the most important or complex forms) in order to provide: easier understanding, better overview of data in the system, easier retrieving of needed data, etc.

This recommendation is based on the conclusions 3.1 and 3.3 in Chapter 4, "Conclusions".

Recommendation 2.4. SMIS, ActionWeb and MIS-ETC should ensure enough control mechanisms to allow timely identification of errors existing in the system.

This recommendation is based on the conclusion 3.2 in Chapter 4, "Conclusions".

Recommendation 2.5. SPCDR should revise its mechanisms of validation in order to cover all relevant input data in a reliable manner.

This recommendation is based on the conclusion 3.2 in Chapter 4, "Conclusions".

Recommendation 2.6. Improvement of mechanisms for help-desk and technical assistance for SMIS and ActionWeb in order to reduce the rate of minor incidents and to improve the response time in case of incident (at all levels where the system is used).

This recommendation is based on the conclusion 3.2 in Chapter 4, "Conclusions".

Suggested activities (for each of the electronic systems):

- Detailed analysis for the purpose to develop a new version of the system.
- General design of the new version of the system.
- Development of the new version of the system, until final stages of acceptance, including testing.
- Develop new manuals for the system and update the internal procedures of the institutions using the system.
- Upgrade the production version of the system with the new version, including data migration from the old database, if it is the case.
- Provide new training for all users.

5.3 General recommendations for all electronic systems

The recommendations in this section are the result of the synergetic effect of all information gathered and processed during this evaluation. They are typical best practice recommendations applied to the current cases, which may bring consistent improvement to the existing information systems.

5.3.1 Ensuring continuous software development support, especially for MySMIS and SMIS (which could be brought under the same ownership as SMIS in order to concentrate the efforts)

Recommendation 3.1. Ensuring continuous software development support, especially for MySMIS and SMIS (which could be brought under the same ownership as SMIS in order to concentrate the efforts):

a. Quick repair of software deficiencies claimed by the users.
b. Improvement of support provided to the various programmes, especially for their specific needs.
c. Quick update to the changes in the real world environment.

5.3.2 Ensuring continuous training of all users

Recommendation 3.2. Ensuring continuous training of all users:

a. Introductory training for new users.
b. Second training for existing users, for refreshing knowledge on less obvious features (needed for more complex systems).
c. Advanced training for specific categories of users (advanced features of the system and methods of solving certain complex tasks).
d. Promoting important tools, modules, features, etc., that are less known and that might improve the users' experience. For example, Art4SMIS, the reporting tool for SMIS, deserves to be better promoted among the users, as it can allow them to build their own reports, accordingly to their needs. This tool is not so well known by the regular users because it was added to SMIS at a later stage and only the supervisors benefited of training.

5.4 Other recommendations

5.4.1 Any new development should take into account the opportunity to use data already existing within other databases / systems.

Recommendation 4.1. Any new development should take into account the opportunity to use data already existing within other databases / systems

Thus it should be avoided duplication of data between several different systems. The users should not be required to input the same data twice. That would be avoided by using one, proposed above, new system.

Annexes

The following documents were prepared during gathering of data for this Evaluation Report.

Annex 1 Completed Checklists

Checklist for SMIS:

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
1. Ease of use				
1.1. Users' general opinion regarding the ease of use	Average value of at least 3 (on a scale from 1 to 5, where 1 is "very difficult to use" and 5 is "very easy to use")	2.95	No	The result is close to the limit for accomplishment, but it should be also regarded in correlation with the other results.
1.2. Average number of training days required to get a new user prepared	Maximum 2 days	10.97 days	No	The result is an absolute number and it should be regarded with a big margin of tolerance.
1.3. Average number of weeks required to get a new user fully accommodated with the system (proper accomplishment of all tasks without help)	Maximum 4 weeks	5.42 weeks	No	The result is an absolute number and it should be regarded with a big margin of tolerance.
2. Administrative burden				
2.1. Estimation of relative difference between the time required to fulfil the daily tasks using the system and the time required to fulfil the same tasks without using the system	Negative average value (decrease of time required in the case when the system is used)	-0.11%	Yes	Too close to the limit for accomplishment
2.2. Estimation of relative difference between the average work time consumed by a beneficiary in relation with the authorities (including the preparatory work), in the case	Negative average value (decrease of time required in the case when the system is used)	Not applicable	Not applicable	Beneficiaries are not users of this system.

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
when the system is used and in the case when no information system is used				
3. General usefulness				
3.1. Users' general opinion regarding the usefulness of the system for their daily activity	Average value of at least 3 (on a scale from 1 to 5, where 1 is “completely useless” and 5 is “very useful”)	3.53	Yes	
3.2. Relevance of the data content for the users' needs	Average value of at least 3 (on a scale from 1 to 5, where 1 is “completely useless” and 5 is “very useful”)	3.24	Yes	Too close to the limit for accomplishment
3.3. Usefulness of the reports generated by the system	Average value of at least 3 (on a scale from 1 to 5, where 1 is “completely useless” and 5 is “very useful”)	3.03	Yes	Too close to the limit for accomplishment
4. Data querying				
4.1. Availability of functions for searching individual data	Average value of at least 3 (on a scale from 1 to 5, where 1 is “no search functions” and 5 is “plenty of search functions”)	3.03	Yes	Too close to the limit for accomplishment
4.2. Availability of functions for listing a subset of a data collection (filtering)	Average value of at least 3 (on a scale from 1 to 5, where 1 is “no filtering functions” and 5 is “plenty of filtering functions”)	3.16	Yes	Too close to the limit for accomplishment
4.3. Users' general opinion regarding the ease of retrieving needed data	Average value of at least 3 (on a scale from 1 to 5, where 1 is “very difficult to retrieve data” and 5 is “very easy to retrieve data”)	3.22	Yes	Too close to the limit for accomplishment

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
5. Data aggregation				
5.1. Availability of functions for aggregating data	Average value of at least 2 (on a scale from 1 to 5, where 1 is "no aggregate functions" and 5 is "plenty of aggregate functions")	3.00	Yes	Too close to the limit for accomplishment
5.2. Availability of predefined reports	Average value of at least 3 (on a scale from 1 to 5, where 1 is "no predefined reports" and 5 is "plenty of predefined reports")	2.56	No	
5.3. Availability of functions for building customised reports	Average value of at least 2 (on a scale from 1 to 5, where 1 is "no functions for building customised reports" and 5 is "plenty of functions for building customised reports")	2.66	Yes	This result is due to insufficient knowledge about the "ART4SMIS" tool, among too many users.
6. Data quality				
6.1. Data input is based on trustworthy sources and clear procedures	All relevant input data are extracted from verifiable sources (e.g. documents), based on exact procedures that guide users how to find needed data	100.00% of "yes" answers	Yes	
6.2. Input data are validated properly	All relevant input data are validated before being used by the system	84.40% of "yes" answers	Yes	The result is good enough from the statistical point of view and it should be correlated with the knowledge gathered from documentation and interviews.
6.3. Checks are available to allow detection of errors	Average value of at least 3 (on a scale from 1 to 5, where 1 is "no checks available" and 5 is "plenty of checks available")	2.94	No	
6.4. Required data are available in	Average value of at least 3 (on a scale from 1 to 5, where	4.03	Yes	

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
due time for the final recipients	1 is “never available in due time” and 5 is “always available in due time”)			
7. Data security				
7.1. Only authenticated users are allowed to access non-public data or to modify data	No anonymous users may access non-public data or modify data	93.80% of “yes” answers	Yes	The result is good enough from the statistical point of view and it should be correlated with the knowledge gathered from documentation and interviews.
7.2. Each user is limited to a specific set of access rights, for specific sections of the system	All users are restricted by specific access rights	90.60% of “yes” answers	Yes	The result is good enough from the statistical point of view and it should be correlated with the knowledge gathered from documentation and interviews.
7.3. Communication channels used for exchanging sensitive data (e.g. personal data, financial data etc.) between various parts of the system are protected	All sensitive communication channels are protected	87.50% of “yes” answers	Yes	The result is good enough from the statistical point of view and it should be correlated with the knowledge gathered from documentation and interviews.
8. System stability				
8.1. Average downtime of the system in a month	Less than 2 hours	8.75 hours/month	No	The result is an absolute number and it should be regarded with a big margin of tolerance.
8.2. Frequency of major failures of the system (requiring the intervention of administrators for restoring the system)	Average value of at least 4 (on a scale from 1 to 5, where 1 is “very frequently” and 5 is “never”)	4.28	Yes	
8.3. Frequency of significant malfunctions impeding the proper use of the system	Average value of at least 4 (on a scale from 1 to 5, where 1 is “very frequently” and 5 is “never”)	3.43	No	
9. Technology				

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
9.1. Hardware	Descriptive	Servers hosted in a specialised data-centre, compliant with current security standards. Resources in the central node are exceeding the current needs and they can be expanded easily. Access is restricted within a dedicated private network available across all participant institutions.		
9.2. Software	Descriptive	Web-based system Built on Java and Oracle databases		
9.3. Special characteristics (e.g. no single point of failure, virtualisation)	Descriptive	Servers are hosted in a virtualised environment, allowing for easy scalability.		

Checklist for ActionWeb + ASEP + SIMPOSDRU:

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
1. Ease of use				
1.1. Users' general opinion regarding the ease of use	Average value of at least 3 (on a scale from 1 to 5, where 1 is “very difficult to use” and 5 is “very easy to use”)	3.57	Yes	
1.2. Average number of training days required to get a new user prepared	Maximum 2 days	2.00 days	Yes	The result is an absolute number and it should be regarded with a big margin of tolerance.
1.3. Average number of weeks required to get a new user fully accommodated with the system (proper accomplishment of all tasks without help)	Maximum 4 weeks	1.33 weeks	Yes	The result is an absolute number and it should be regarded with a big margin of tolerance.
2. Administrative burden				
2.1. Estimation of relative difference	Negative average value	-6.47%	Yes	

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
between the time required to fulfil the daily tasks using the system and the time required to fulfil the same tasks without using the system	(decrease of time required in the case when the system is used)			
2.2. Estimation of relative difference between the average work time consumed by a beneficiary in relation with the authorities (including the preparatory work), in the case when the system is used and in the case when no information system is used	Negative average value (decrease of time required in the case when the system is used)	-3.18%	Yes	
3. General usefulness				
3.1. Users' general opinion regarding the usefulness of the system for their daily activity	Average value of at least 3 (on a scale from 1 to 5, where 1 is “completely useless” and 5 is “very useful”)	4.02	Yes	
3.2. Relevance of the data content for the users' needs	Average value of at least 3 (on a scale from 1 to 5, where 1 is “completely useless” and 5 is “very useful”)	3.67	Yes	
3.3. Usefulness of the reports generated by the system	Average value of at least 3 (on a scale from 1 to 5, where 1 is “completely useless” and 5 is “very useful”)	3.04	Yes	Too close to the limit for accomplishment
4. Data querying				
4.1. Availability of functions for searching individual data	Average value of at least 3 (on a scale from 1 to 5, where 1 is “no search functions” and 5 is “plenty of search	3.33	Yes	Too close to the limit for accomplishment

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
	functions")			
4.2. Availability of functions for listing a subset of a data collection (filtering)	Average value of at least 3 (on a scale from 1 to 5, where 1 is "no filtering functions" and 5 is "plenty of filtering functions")	2.00	Yes	The result ignores the features of the reporting tool included in SIMPOSDRU, which provides extensive features in this area.
4.3. Users' general opinion regarding the ease of retrieving needed data	Average value of at least 3 (on a scale from 1 to 5, where 1 is "very difficult to retrieve data" and 5 is "very easy to retrieve data")	3.38	Yes	Too close to the limit for accomplishment
5. Data aggregation				
5.1. Availability of functions for aggregating data	Average value of at least 2 (on a scale from 1 to 5, where 1 is "no aggregate functions" and 5 is "plenty of aggregate functions")	2.33	Yes	The result ignores the features of the reporting tool included in SIMPOSDRU, which provides extensive features in this area.
5.2. Availability of predefined reports	Average value of at least 3 (on a scale from 1 to 5, where 1 is "no predefined reports" and 5 is "plenty of predefined reports")	2.00	Yes	The result ignores the features of the reporting tool included in SIMPOSDRU, which provides extensive features in this area.
5.3. Availability of functions for building customised reports	Average value of at least 2 (on a scale from 1 to 5, where 1 is "no functions for building customised reports" and 5 is "plenty of functions for building customised reports")	2.00	Yes	The result ignores the features of the reporting tool included in SIMPOSDRU, which provides extensive features in this area.
6. Data quality				
6.1. Data input is based on trustworthy sources and clear procedures	All relevant input data are extracted from verifiable sources (e.g. documents), based on exact procedures that guide users how to find	100.00% of "yes" answers	Yes	

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
	needed data			
6.2. Input data are validated properly	All relevant input data are validated before being used by the system	66.70% of "yes" answers	Yes	The result should be regarded from the statistical point of view and it should be correlated with the knowledge gathered from documentation and interviews.
6.3. Checks are available to allow detection of errors	Average value of at least 3 (on a scale from 1 to 5, where 1 is "no checks available" and 5 is "plenty of checks available")	2.33	No	
6.4. Required data are available in due time for the final recipients	Average value of at least 3 (on a scale from 1 to 5, where 1 is "never available in due time" and 5 is "always available in due time")	4.67	Yes	
7. Data security				
7.1. Only authenticated users are allowed to access non-public data or to modify data	No anonymous users may access non-public data or modify data	100.00% of "yes" answers	Yes	
7.2. Each user is limited to a specific set of access rights, for specific sections of the system	All users are restricted by specific access rights	66.70% of "yes" answers	Yes	The result should be regarded from the statistical point of view and it should be correlated with the knowledge gathered from documentation and interviews.
7.3. Communication channels used for exchanging sensitive data (e.g. personal data, financial data etc.) between various parts of the system are protected	All sensitive communication channels are protected	66.70% of "yes" answers	Yes	The result should be regarded from the statistical point of view and it should be correlated with the knowledge gathered from documentation and interviews.
8. System stability				
8.1. Average downtime of the system	Less than 2 hours	2.67 hours/month	Yes	The result is an absolute number and it should be regarded with a big margin of tolerance.

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
in a month				
8.2. Frequency of major failures of the system (requiring the intervention of administrators for restoring the system)	Average value of at least 4 (on a scale from 1 to 5, where 1 is “very frequently” and 5 is “never”)	4.67	Yes	
8.3. Frequency of significant malfunctions impeding the proper use of the system	Average value of at least 4 (on a scale from 1 to 5, where 1 is “very frequently” and 5 is “never”)	3.64	No	
9. Technology				
9.1. Hardware	Descriptive	All the servers (for all the three systems) are hosted by STS and maintained by each system’s own provider.		
9.2. Software	Descriptive	All the three systems are web-based systems, accessible from Internet.		
9.3. Special characteristics (e.g. no single point of failure, virtualisation)	Descriptive	Not applicable		

Checklist for SPCDR:

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
1. Ease of use				
1.1. Users' general opinion regarding the ease of use	Average value of at least 3 (on a scale from 1 to 5, where 1 is “very difficult to use” and 5 is “very easy to use”)	3.63	Yes	
1.2. Average number of training days	Maximum 2 days	5.50 days	Yes	The result is an absolute number and it should be

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
required to get a new user prepared				regarded with a big margin of tolerance. Also it should be correlated with the other results and with the knowledge gathered from documentation and interviews.
1.3. Average number of weeks required to get a new user fully accommodated with the system (proper accomplishment of all tasks without help)	Maximum 4 weeks	10.25 weeks	Yes	The result is an absolute number and it should be regarded with a big margin of tolerance. Also it should be correlated with the other results and with the knowledge gathered from documentation and interviews.
2. Administrative burden				
2.1. Estimation of relative difference between the time required to fulfil the daily tasks using the system and the time required to fulfil the same tasks without using the system	Negative average value (decrease of time required in the case when the system is used)	-6.25%	Yes	
2.2. Estimation of relative difference between the average work time consumed by a beneficiary in relation with the authorities (including the preparatory work), in the case when the system is used and in the case when no information system is used	Negative average value (decrease of time required in the case when the system is used)	Not applicable	Not applicable	Beneficiaries are not users of this system.
3. General usefulness				
3.1. Users' general opinion regarding the usefulness of the system for their daily activity	Average value of at least 3 (on a scale from 1 to 5, where 1 is “completely useless” and 5 is “very useful”)	4.50	Yes	

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
3.2. Relevance of the data content for the users' needs	Average value of at least 3 (on a scale from 1 to 5, where 1 is “completely useless” and 5 is “very useful”)	3.85	Yes	
3.3. Usefulness of the reports generated by the system	Average value of at least 3 (on a scale from 1 to 5, where 1 is “completely useless” and 5 is “very useful”)	3.38	Yes	Too close to the limit for accomplishment
4. Data querying				
4.1. Availability of functions for searching individual data	Average value of at least 3 (on a scale from 1 to 5, where 1 is “no search functions” and 5 is “plenty of search functions”)	3.25	Yes	Too close to the limit for accomplishment
4.2. Availability of functions for listing a subset of a data collection (filtering)	Average value of at least 3 (on a scale from 1 to 5, where 1 is “no filtering functions” and 5 is “plenty of filtering functions”)	3.00	Yes	Too close to the limit for accomplishment
4.3. Users' general opinion regarding the ease of retrieving needed data	Average value of at least 3 (on a scale from 1 to 5, where 1 is “very difficult to retrieve data” and 5 is “very easy to retrieve data”)	3.50	Yes	
5. Data aggregation				
5.1. Availability of functions for aggregating data	Average value of at least 2 (on a scale from 1 to 5, where 1 is “no aggregate functions” and 5 is “plenty of aggregate functions”)	3.25	Yes	Too close to the limit for accomplishment
5.2. Availability of predefined reports	Average value of at least 3 (on a scale from 1 to 5, where 1 is “no predefined reports” and 5 is “plenty of predefined	3.50	Yes	

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
	reports")			
5.3. Availability of functions for building customised reports	Average value of at least 2 (on a scale from 1 to 5, where 1 is "no functions for building customised reports" and 5 is "plenty of functions for building customised reports")	3.50	Yes	
6. Data quality				
6.1. Data input is based on trustworthy sources and clear procedures	All relevant input data are extracted from verifiable sources (e.g. documents), based on exact procedures that guide users how to find needed data	100.00% of "yes" answers	Yes	
6.2. Input data are validated properly	All relevant input data are validated before being used by the system	50.00% of "yes" answers	No	
6.3. Checks are available to allow detection of errors	Average value of at least 3 (on a scale from 1 to 5, where 1 is "no checks available" and 5 is "plenty of checks available")	3.00	Yes	Too close to the limit for accomplishment
6.4. Required data are available in due time for the final recipients	Average value of at least 3 (on a scale from 1 to 5, where 1 is "never available in due time" and 5 is "always available in due time")	4.25	Yes	
7. Data security				
7.1. Only authenticated users are allowed to access non-public data or to modify data	No anonymous users may access non-public data or modify data	100.00% of "yes" answers	Yes	
7.2. Each user is limited to a specific	All users are restricted by specific access rights	100.00% of "yes"	Yes	

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
set of access rights, for specific sections of the system		answers		
7.3. Communication channels used for exchanging sensitive data (e.g. personal data, financial data etc.) between various parts of the system are protected	All sensitive communication channels are protected	100.00% of "yes" answers	Yes	
8. System stability				
8.1. Average downtime of the system in a month	Less than 2 hours	1.00 hours/month	Yes	The result is an absolute number and it should be regarded with a big margin of tolerance.
8.2. Frequency of major failures of the system (requiring the intervention of administrators for restoring the system)	Average value of at least 4 (on a scale from 1 to 5, where 1 is "very frequently" and 5 is "never")	4.67	Yes	
8.3. Frequency of significant malfunctions impeding the proper use of the system	Average value of at least 4 (on a scale from 1 to 5, where 1 is "very frequently" and 5 is "never")	4.34	Yes	
9. Technology				
9.1. Hardware	Descriptive	Servers hosted by APDRP, by its own IT Department Accessible from internal networks of the central office and all regional and county offices, connected through a dedicated network provided by STS; MA accesses the system through a VPN		
9.2. Software	Descriptive	Web-based system, built around Oracle databases		
9.3. Special characteristics (e.g. no single point of failure, virtualisation)	Descriptive	Not applicable		

Checklist for SIMPOP:

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
1. Ease of use				
1.1. Users' general opinion regarding the ease of use	Average value of at least 3 (on a scale from 1 to 5, where 1 is "very difficult to use" and 5 is "very easy to use")	3.88	Yes	
1.2. Average number of training days required to get a new user prepared	Maximum 2 days	6.5 days	Yes	The result is an absolute number and it should be regarded with a big margin of tolerance. Also it should be correlated with the other results and with the knowledge gathered from documentation and interviews.
1.3. Average number of weeks required to get a new user fully accommodated with the system (proper accomplishment of all tasks without help)	Maximum 4 weeks	3.00 weeks	Yes	The result is an absolute number and it should be regarded with a big margin of tolerance.
2. Administrative burden				
2.1. Estimation of relative difference between the time required to fulfil the daily tasks using the system and the time required to fulfil the same tasks without using the system	Negative average value (decrease of time required in the case when the system is used)	-4.11%	Yes	
2.2. Estimation of relative difference between the average work time consumed by a beneficiary in relation with the authorities (including the preparatory work), in the case	Negative average value (decrease of time required in the case when the system is used)	Not applicable	Not applicable	Beneficiaries are not users of this system.

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
when the system is used and in the case when no information system is used				
3. General usefulness				
3.1. Users' general opinion regarding the usefulness of the system for their daily activity	Average value of at least 3 (on a scale from 1 to 5, where 1 is “completely useless” and 5 is “very useful”)	4.20	Yes	
3.2. Relevance of the data content for the users' needs	Average value of at least 3 (on a scale from 1 to 5, where 1 is “completely useless” and 5 is “very useful”)	4.49	Yes	
3.3. Usefulness of the reports generated by the system	Average value of at least 3 (on a scale from 1 to 5, where 1 is “completely useless” and 5 is “very useful”)	4.18	Yes	
4. Data querying				
4.1. Availability of functions for searching individual data	Average value of at least 3 (on a scale from 1 to 5, where 1 is “no search functions” and 5 is “plenty of search functions”)	3.75	Yes	
4.2. Availability of functions for listing a subset of a data collection (filtering)	Average value of at least 3 (on a scale from 1 to 5, where 1 is “no filtering functions” and 5 is “plenty of filtering functions”)	3.50	Yes	
4.3. Users' general opinion regarding the ease of retrieving needed data	Average value of at least 3 (on a scale from 1 to 5, where 1 is “very difficult to retrieve data” and 5 is “very easy to retrieve data”)	4.00	Yes	

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
5. Data aggregation				
5.1. Availability of functions for aggregating data	Average value of at least 2 (on a scale from 1 to 5, where 1 is "no aggregate functions" and 5 is "plenty of aggregate functions")	3.50	Yes	
5.2. Availability of predefined reports	Average value of at least 3 (on a scale from 1 to 5, where 1 is "no predefined reports" and 5 is "plenty of predefined reports")	3.75	Yes	
5.3. Availability of functions for building customised reports	Average value of at least 2 (on a scale from 1 to 5, where 1 is "no functions for building customised reports" and 5 is "plenty of functions for building customised reports")	3.33	Yes	Too close to the limit for accomplishment
6. Data quality				
6.1. Data input is based on trustworthy sources and clear procedures	All relevant input data are extracted from verifiable sources (e.g. documents), based on exact procedures that guide users how to find needed data	100.00% of "yes" answers	Yes	
6.2. Input data are validated properly	All relevant input data are validated before being used by the system	100.00% of "yes" answers	Yes	
6.3. Checks are available to allow detection of errors	Average value of at least 3 (on a scale from 1 to 5, where 1 is "no checks available" and 5 is "plenty of checks available")	4.00	Yes	
6.4. Required data are available in	Average value of at least 3 (on a scale from 1 to 5, where	4.75	Yes	

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
due time for the final recipients	1 is “never available in due time” and 5 is “always available in due time”)			
7. Data security				
7.1. Only authenticated users are allowed to access non-public data or to modify data	No anonymous users may access non-public data or modify data	100.00% of “yes” answers	Yes	
7.2. Each user is limited to a specific set of access rights, for specific sections of the system	All users are restricted by specific access rights	100.00% of “yes” answers	Yes	
7.3. Communication channels used for exchanging sensitive data (e.g. personal data, financial data etc.) between various parts of the system are protected	All sensitive communication channels are protected	75.00% of “yes” answers	Yes	The result is good enough from the statistical point of view and it should be correlated with the knowledge gathered from documentation and interviews.
8. System stability				
8.1. Average downtime of the system in a month	Less than 2 hours	5.75 hours/month	Yes	The result is an absolute number and it should be regarded with a big margin of tolerance. Also it should be correlated with the other results and with the knowledge gathered from documentation and interviews.
8.2. Frequency of major failures of the system (requiring the intervention of administrators for restoring the system)	Average value of at least 4 (on a scale from 1 to 5, where 1 is “very frequently” and 5 is “never”)	5.00	Yes	
8.3. Frequency of significant malfunctions impeding the proper use of the system	Average value of at least 4 (on a scale from 1 to 5, where 1 is “very frequently” and 5 is “never”)	4.45	Yes	

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
9. Technology				
9.1. Hardware	Descriptive	Servers hosted in a secured location of the Ministry of Agriculture and Rural Development (MARD) and maintained by the provider of the system Accessible from internal networks of the central office and all regional offices, connected through a dedicated network provided by STS; extended through VPN to all other institutions using the system (Audit Authority, Certification Authority, Paying Agency, other directorates of MARD)		
9.2. Software	Descriptive	Web-based system Built on Java and Oracle databases		
9.3. Special characteristics (e.g. no single point of failure, virtualisation)	Descriptive	Not applicable		

Checklist for MIS-ETC:

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
1. Ease of use				
1.1. Users' general opinion regarding the ease of use	Average value of at least 3 (on a scale from 1 to 5, where 1 is “very difficult to use” and 5 is “very easy to use”)	2.25	No	
1.2. Average number of training days required to get a new user prepared	Maximum 2 days	7.00 days	No	The result is an absolute number and it should be regarded with a big margin of tolerance.
1.3. Average number of weeks required to get a new user fully accommodated with the system (proper accomplishment of all tasks	Maximum 4 weeks	6.00 weeks	No	The result is an absolute number and it should be regarded with a big margin of tolerance.

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
without help)				
2. Administrative burden				
2.1. Estimation of relative difference between the time required to fulfil the daily tasks using the system and the time required to fulfil the same tasks without using the system	Negative average value (decrease of time required in the case when the system is used)	+2.50%	No	
2.2. Estimation of relative difference between the average work time consumed by a beneficiary in relation with the authorities (including the preparatory work), in the case when the system is used and in the case when no information system is used	Negative average value (decrease of time required in the case when the system is used)	Not applicable	Not applicable	Beneficiaries are not users of this system.
3. General usefulness				
3.1. Users' general opinion regarding the usefulness of the system for their daily activity	Average value of at least 3 (on a scale from 1 to 5, where 1 is “completely useless” and 5 is “very useful”)	3.25	Yes	Too close to the limit for accomplishment
3.2. Relevance of the data content for the users' needs	Average value of at least 3 (on a scale from 1 to 5, where 1 is “completely useless” and 5 is “very useful”)	3.70	Yes	
3.3. Usefulness of the reports generated by the system	Average value of at least 3 (on a scale from 1 to 5, where 1 is “completely useless” and 5 is “very useful”)	2.25	No	
4. Data querying				

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
4.1. Availability of functions for searching individual data	Average value of at least 3 (on a scale from 1 to 5, where 1 is “no search functions” and 5 is “plenty of search functions”)	2.00	No	
4.2. Availability of functions for listing a subset of a data collection (filtering)	Average value of at least 3 (on a scale from 1 to 5, where 1 is “no filtering functions” and 5 is “plenty of filtering functions”)	2.00	No	Interpolated value with the results obtained for the very similar SMIS system (due to the very small pool of data available for MIS-ETC) and correlated with the knowledge gathered from documentation and interviews
4.3. Users' general opinion regarding the ease of retrieving needed data	Average value of at least 3 (on a scale from 1 to 5, where 1 is “very difficult to retrieve data” and 5 is “very easy to retrieve data”)	2.25	No	
5. Data aggregation				
5.1. Availability of functions for aggregating data	Average value of at least 2 (on a scale from 1 to 5, where 1 is “no aggregate functions” and 5 is “plenty of aggregate functions”)	3.00	Yes	
5.2. Availability of predefined reports	Average value of at least 3 (on a scale from 1 to 5, where 1 is “no predefined reports” and 5 is “plenty of predefined reports”)	4.00	Yes	Interpolated value with the results obtained for the very similar SMIS system (due to the very small pool of data available for MIS-ETC) and correlated with the knowledge gathered from documentation and interviews
5.3. Availability of functions for building customised reports	Average value of at least 2 (on a scale from 1 to 5, where 1 is “no functions for building customised reports” and 5 is “plenty of functions for building customised reports”)	3.00	Yes	Interpolated value with the results obtained for the very similar SMIS system (due to the very small pool of data available for MIS-ETC) and correlated with the knowledge gathered from documentation and interviews
6. Data quality				
6.1. Data input is based on	All relevant input data are	100.00% of “yes”	Yes	Interpolated value with the results obtained for the

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
trustworthy sources and clear procedures	extracted from verifiable sources (e.g. documents), based on exact procedures that guide users how to find needed data	answers		very similar SMIS system (due to the very small pool of data available for MIS-ETC) and correlated with the knowledge gathered from documentation and interviews
6.2. Input data are validated properly	All relevant input data are validated before being used by the system	100.00% of "yes" answers	Yes	
6.3. Checks are available to allow detection of errors	Average value of at least 3 (on a scale from 1 to 5, where 1 is "no checks available" and 5 is "plenty of checks available")	2.00	No	
6.4. Required data are available in due time for the final recipients	Average value of at least 3 (on a scale from 1 to 5, where 1 is "never available in due time" and 5 is "always available in due time")	3.50	Yes	Interpolated value with the results obtained for the very similar SMIS system (due to the very small pool of data available for MIS-ETC) and correlated with the knowledge gathered from documentation and interviews
7. Data security				
7.1. Only authenticated users are allowed to access non-public data or to modify data	No anonymous users may access non-public data or modify data	100.00% of "yes" answers	Yes	
7.2. Each user is limited to a specific set of access rights, for specific sections of the system	All users are restricted by specific access rights	100.00% of "yes" answers	Yes	
7.3. Communication channels used for exchanging sensitive data (e.g. personal data, financial data etc.) between various parts of the system are protected	All sensitive communication channels are protected	100.00% of "yes" answers	Yes	

Check	Criterion for accomplishment	Result synthesized from questionnaires	Status – Yes/No/On-going implementation	Comment
8. System stability				
8.1. Average downtime of the system in a month	Less than 2 hours	36.00 hours/month	No	The result is an absolute number and it should be regarded with a big margin of tolerance.
8.2. Frequency of major failures of the system (requiring the intervention of administrators for restoring the system)	Average value of at least 4 (on a scale from 1 to 5, where 1 is “very frequently” and 5 is “never”)	4.50	Yes	Interpolated value with the results obtained for the very similar SMIS system (due to the very small pool of data available for MIS-ETC) and correlated with the knowledge gathered from documentation and interviews
8.3. Frequency of significant malfunctions impeding the proper use of the system	Average value of at least 4 (on a scale from 1 to 5, where 1 is “very frequently” and 5 is “never”)	4.00	Yes	
9. Technology				
9.1. Hardware	Descriptive	Servers hosted in a specialised data-centre, compliant with current security standards. Resources in the central node are exceeding the current needs and they can be expanded easily. Access is restricted within a dedicated private network available across all participant institutions.		
9.2. Software	Descriptive	Web-based system Built on Java and Oracle databases		
9.3. Special characteristics (e.g. no single point of failure, virtualisation)	Descriptive	Servers are hosted in a virtualised environment, allowing for easy scalability.		

Annex 2 Questionnaires

Electronic Systems Questionnaire for Coordinators or Administrators within Authorities

A. Identification

A.1. Operational programme

¤	ROP
¤	SOP IEC
¤	SOP Environment
¤	SOP Transport
¤	SOP HRD
¤	OP ACD
¤	OPTA
¤	NPRD
¤	OPF
¤	CBC RO-BG
¤	CBC RO-SRB
¤	CBC RO-UA-MD
¤	CBC Black Sea Basin
¤	Other – *Please, name it: .....*

A.2. Type of Authority

(one choice only)

¤	Management Authority
¤	Intermediate Body
¤	Certification Authority
¤	Audit Authority
¤	Other – *Please, name it: .....*

A.3. Which of the following electronic systems do you use?

(one choice only)

¤	SMIS
¤	ActionWeb
¤	Web application for uploading of financing requests for SOP IEC - Axis 1
¤	Web application for uploading of financing requests for SOP IEC - Axis 2

¤	Web application for uploading of financing requests for SOP IEC - Axis 3
¤	SPCDR
¤	SIMPOP
¤	MIS-ETC (the information system for CBC RO-BG, CBC RO-SE, CBC RO-UA-MD, CBC Black Sea Basin)
¤	SIMPOSDRU
¤	Other system – *Please, name it: .....*

B. Usage

B.1. How easy is to use the system? (based on the general opinion of the users you coordinate/supervise/manage)

1 (very difficult to use)	2 (rather difficult to use)	3 (medium rating)	4 (rather easy to use)	5 (very easy to use)	I don' know / N.A.

B.2. What is the average number of training days required to get a new user prepared? (count only for regular users; approximation based on data from previous training sessions and data from evaluations for future needed training sessions)

	(input here your estimation on the average number of training days)

B.3. What is the average number of weeks required to get a new user fully accommodated with the system (proper accomplishment of all tasks without help)? (count only for regular users; approximation based on your experience with the users you coordinate/supervise/manage)

	(input here your estimation on the average number of weeks)

B.4. How do you evaluate the total time required for the fulfilment of the daily tasks using the system, by comparison to the time that would have been needed to fulfil the same tasks without using the system? (general approximation at the level of the group of users you coordinate/supervise/manage)

It takes a lot less time by using the system	It takes less time by using the system	No significant difference	It takes more time by using the system	It takes much more time by using the system	I don' know / N.A.

B.5. How do you rate the general usefulness of the system? (based on the general opinion of the users you coordinate/supervise/manage)

1 (completely useless)	2 (rather useless)	3 (medium rating)	4 (rather useful)	5 (very useful)	I don' know / N.A.

B.6. Does the system contain all the data required for the fulfilment of the purpose of the system?

1 (not at all)	2 (too few)	3 (medium rating)	4 (most of them)	5 (almost everything)	I don' know / N.A.

B.7. Are there useless data in the system?

1 (most of the data are useless)	2 (many)	3 (medium rating)	4 (only few)	5 (almost everything is useful)	I don' know / N.A.

B.8. Do the reports generated by the system cover the users' needs?

1 (not at all)	2 (too little)	3 (medium rating)	4 (most of the needs)	5 (almost all the needs)	I don' know / N.A.

C. Features

C.1. How do you rate the availability of functions for searching individual data?

1 (no search functions)	2 (few search functions)	3 (medium rating)	4 (enough search functions)	5 (plenty of search functions)	I don' know / N.A.

C.2. How do you rate the availability of functions for listing a subset of a data collection (filtering)?

1 (no filtering functions)	2 (few filtering functions)	3 (medium rating)	4 (enough filtering functions)	5 (plenty of filtering functions)	I don' know / N.A.

C.3. How easy is to retrieve the needed data in the system? (based on the general opinion of the users you coordinate/supervise/manage)

1 (very difficult)	2 (rather difficult)	3 (medium rating)	4 (rather easy)	5 (very easy)	I don' know / N.A.

C.4. How do you rate the availability of functions for aggregating data?

1 (no aggregate functions)	2 (few aggregate functions)	3 (medium rating)	4 (enough aggregate functions)	5 (plenty of aggregate functions)	I don' know / N.A.

C.5. How do you rate the availability of predefined reports?

1 (no predefined reports)	2 (few predefined reports)	3 (medium rating)	4 (enough predefined	5 (plenty of predefined	I don' know / N.A.

			reports)	reports)	

C.6. How do you rate the availability of functions for building customised reports?

1 (no functions)	2 (few functions)	3 (medium rating)	4 (enough functions)	5 (plenty of functions)	I don' know / N.A.

D. Data quality

D.1. Are all relevant input data extracted from verifiable sources (e.g. original documents or trustable copies, other trustable sources of data etc.)?

¤	Yes
¤	Mostly yes
¤	Mostly no
¤	No
¤	I don' know / N.A.

D.2. Are all relevant input data collected accordingly to exact procedures that guide users how to find needed data?

¤	Yes
¤	Mostly yes
¤	Mostly no
¤	No
¤	I don' know / N.A.

D.3. Are all relevant input data validated before being used by the system?

¤	Yes
¤	No
¤	I don' know / N.A.

D.4. How do you rate the availability of checks that allow the detection of errors?

1 (no checks)	2 (few checks)	3 (medium rating)	4 (enough checks)	5 (plenty of checks)	I don' know / N.A.

D.5. How do you rate the timely availability of data at the final recipients? (general approximation at the level of the group of users you coordinate/supervise/manage)

1	2	3	4	5	I don' know /

(almost never available in due time)	(only seldom available in due time)	(medium rating)	(usually available in due time)	(almost always available in due time)	N.A.

E. Data security

E.1. Can an anonymous user (not authenticated) access non-public data or modify some data?

¤	Yes
¤	No
¤	I don' know / N.A.

E.2. Are there any users that are not restricted by own specific access rights?

¤	Yes
¤	No
¤	I don' know / N.A.

E.3. Are all sensitive communication channels protected? (sensitive communication channels are used for exchanging sensitive data between various parts of the system)

¤	Yes
¤	No
¤	I don' know / N.A.

F. Stability

F.1. What is the average downtime of the system, in a month? (measured in hours, rounded to 1 digit after the decimal separator)

	(input here your estimation on the average number of hours of downtime, rounded to 1 digit after the decimal separator)

F.2. How frequent are the malfunctions that impede the proper use of the system?

1 (very frequent)	2 (rather frequent)	3 (medium rating)	4 (seldom)	5 (very seldom)	I don' know / N.A.

F.3. How frequent are the major failures of the system (requiring special intervention in order to restore the normal functionality of the system)?

1 (very frequent)	2 (rather frequent)	3 (medium rating)	4 (seldom)	5 (very seldom)	I don' know / N.A.

Electronic Systems Questionnaire for Regular Users within Authorities

A. Identification

A.1. Operational programme

¤	ROP
¤	SOP IEC
¤	SOP Environment
¤	SOP Transport
¤	SOP HRD
¤	OP ACD
¤	OPTA
¤	NPRD
¤	OPF
¤	CBC RO-BG
¤	CBC RO-SRB
¤	CBC RO-UA-MD
¤	CBC Black Sea Basin
¤	Other – *Please, name it: .....*

A.2. Type of Authority

(one choice only)

¤	Management Authority
¤	Intermediate Body
¤	Certification Authority
¤	Audit Authority
¤	Other – *Please, name it: .....*

A.3. Which of the following electronic systems do you use?

(one choice only)

¤	SMIS
¤	ActionWeb
¤	Web application for uploading of financing requests for SOP IEC - Axis 1
¤	Web application for uploading of financing requests for SOP IEC - Axis 2
¤	Web application for uploading of financing requests for SOP IEC - Axis 3

¤	SPCDR
¤	SIMPOP
¤	MIS-ETC (the information system for CBC RO-BG, CBC RO-SE, CBC RO-UA-MD, CBC Black Sea Basin)
¤	SIMPOSDRU
¤	Other system – *Please, name it: .....*

B. About the electronic system

B.1. What is your opinion on how easy is to use the system?

1 (very difficult to use)	2 (rather difficult to use)	3 (medium rating)	4 (rather easy to use)	5 (very easy to use)	I don' know / N.A.

B.2. How do you evaluate the time required to fulfil your tasks using the system by comparison to the time that would have been needed to fulfil the same tasks without using the system?

It takes a lot less time by using the system	It takes less time by using the system	No significant difference	It takes more time by using the system	It takes much more time by using the system	I don' know / N.A.

B.3. How do you rate the usefulness of the system?

1 (completely useless)	2 (rather useless)	3 (medium rating)	4 (rather useful)	5 (very useful)	I don' know / N.A.

B.4. Does the system contain all the data required for the fulfilment of the purpose of the system?

1 (not at all)	2 (too few)	3 (medium rating)	4 (most of them)	5 (almost everything)	I don' know / N.A.

B.5. Are there useless data in the system?

1 (most of the data are useless)	2 (many)	3 (medium rating)	4 (only few)	5 (almost everything is useful)	I don' know / N.A.

B.6. Do the reports generated by the system cover the users' needs?

1 (not at all)	2 (too little)	3 (medium rating)	4 (most of the needs)	5 (almost all the needs)	I don' know / N.A.

B.7. How easy is to retrieve the data you need in the system?

1 (very difficult)	2 (rather difficult)	3 (medium rating)	4 (rather easy)	5 (very easy)	I don' know / N.A.

B.8. How often did you meet a significant malfunction of the system that impeded its proper use?

1 (very frequently)	2 (rather frequently)	3 (medium rating)	4 (seldom)	5 (almost never)	I don' know / N.A.

Electronic Systems Questionnaire for Beneficiaries

(the questions related to electronic systems, which are included in the common questionnaire for administrative capacity and electronic systems, addressed to beneficiaries)

A. Identification

A.1. Operational programme

[this question is already included by the Administrative Capacity Questionnaire]

A.2. Type of Beneficiary

[this question is already included by the Administrative Capacity Questionnaire]

A.3. Which of the following electronic systems do you use for reporting to / exchange data with authorities?

(one choice only)

¤	SMIS / MySMIS
¤	ActionWeb
¤	Web application for uploading of financing requests for SOP IEC - Axis 1
¤	Web application for uploading of financing requests for SOP IEC - Axis 2
¤	Web application for uploading of financing requests for SOP IEC - Axis 3
¤	SPCDR
¤	SIMPOP
¤	Web-application for MIS-ETC (e-Submission / e-Monitoring for CBC RO-BG, CBC RO-SE, CBC RO-UA-MD, CBC Black Sea Basin)
¤	SIMPOSDRU
¤	Other system – *Please, name it: .....*
¤	There is no electronic system I can use for reporting to / exchange data with authorities. *[In this case, skip the entire section "B. About the electronic system" of the questionnaire.]*
¤	I don't use any, although there is such an electronic system for Beneficiaries. *[In this case, skip the entire section "B. About the electronic system" of the questionnaire.]*

B. About the electronic system

B.1. What is your opinion on how easy is to use the system?

1 (very difficult to use)	2 (rather difficult to use)	3 (medium rating)	4 (rather easy to use)	5 (very easy to use)	I don' know / N.A.

B.2. How do you evaluate the time required to fulfil your tasks using the system by comparison to the time that would have been needed to fulfil the same tasks without using the system?

It takes a lot less time by using the system	It takes less time by using the system	No significant difference	It takes more time by using the system	It takes much more time by using the system	I don' know / N.A.

B.3. How do you rate the usefulness of the system?

1 (completely useless)	2 (rather useless)	3 (medium rating)	4 (rather useful)	5 (very useful)	I don' know / N.A.

B.4. How easy is to retrieve the data you need in the system?

1 (very difficult)	2 (rather difficult)	3 (medium rating)	4 (rather easy)	5 (very easy)	I don' know / N.A.

B.5. How often did you meet a significant malfunction of the system that impeded its proper use?

1 (very frequently)	2 (rather frequently)	3 (medium rating)	4 (seldom)	5 (almost never)	I don' know / N.A.

Annex 3 Interview Structure

1. Description of the electronic system (ES):
    a. Main data collections – scope (e.g. which programmes are covered)
    b. Users – institutions that use ES
    c. Other general information about ES:
        i. Hosting,
        ii. Maintenance,
        iii. Location,
        iv. Software.
    d. Main data collections – structure:
        i. Elements/phases of the projects' lifecycle covered by ES:
            1. Application,
            2. Selection,
            3. Contacts,
            4. Payments,
            5. Monitoring and evaluation,
            6. Audit.
        ii. Details for the data structures that are transferred between systems.
    e. Usage of ES and integration into the current activity: procedures, legal framework, etc.

2. Related to the check-list for question no. 3:
    a) Ease of use – general opinion, time needed to get a new user prepared
    b) Administrative burden – reducing the administrative burden through the use of ES
    c) General usefulness – general opinion, data relevance, usefulness of reports
    d) Data querying – search of data, listing filtered sets of data

e) Data aggregation – aggregate functions, predefined reports and customised reports
f) Data quality – sources of information, data validation, error checking, timely availability of data
g) Data security – users authentication, access rights, protection of communication channels
h) System stability – average downtime, frequency of failures
i) Technology – hardware, software, no single point of failure, virtualisation

Annex 4 List of Interviews

Interviewed institution	Date, hour	Participants
Ministry of Agriculture and Rural Development Managing Authority for National Programme for Rural Development (MA NPRD)	May 8th, 2013, 11:00-12:00	• Mr. Mihai HERCIU, General Director MA NPRD • Mrs. Andreea TUINEA, Head of Monitoring Unit • Mr. Radu MATEI, counsellor of Monitoring Unit • Mr. Dan MIHĂILESCU, counsellor of Methodology Unit • Mrs. Mihaela CONSTANTINESCU, evaluation expert • Mr. Valentin DRAGOMIR, evaluation expert
Ministry of Agriculture and Rural Development Payment Agency for Rural Development and Fishery (PARDF)	May 8th, 2013, 12:45-13:45	• Mr. Daniel IFRIM, Director of IT Directorate • Mr. Adrian MORAREŢ, Head of Project Management Unit • Mr. Valentin DRAGOMIR, evaluation expert
Ministry of Agriculture and Rural Development Payment and Intervention Agency for Agriculture (PIAA)	May 9th, 2013, 12:00-12:50	• Mr. Alexandru CONSTANTINESCU, Director of IT Directorate • Mr. Valentin DRAGOMIR, evaluation expert
Ministry for European Funds, System Coordination Directorate (SCD)	May 9th, 2013, 14:00-15:45	• Mrs. Andra CHIRILĂ, Director SCD • Mr. Eugen GRIGORE, Head of SMIS service • Mr. Radoslaw PIONTEK, evaluation expert • Mr. Valentin DRAGOMIR, evaluation expert
Ministry of Regional Development and Public Administration Management Authority for the European Teritorial Cooperation Programmes (MA CBC)	May 9th, 2013, 10:30-11:30	• Mr. Nicu BUZGURE, counsellor of ETC Directorate and MIS-ETC coordinator • Mr. Alexandru CULEA, counsellor of ETC Directorate and MIS-ETC coordinator • Mrs. Mihaela CONSTANTINESCU, evaluation expert
Ministry for Information Society Interim Body for SOP IEC – Axis 3	May 9th, 2013, 14:30-15:50	• Mr. Alexandru GEAMBAȘU, counsellor of MIS - European Programmes and SMIS

		coordinator • Mrs. Mihaela CONSTANTINESCU, evaluation expert
Ministry of Agriculture and Rural Development Management Authority for Operational Programme for Fishery (MA OPF)	May 13th, 2013, 10:00-10:30	• Mrs. Florentina TUDOR, Director • Mrs. Alina ALEXE, senior adviser of Methodology and Monitoring Compartment • Mr. Valentin DRAGOMIR, evaluation expert
Ministry of Labour, Family, Social Protection and Elderly Management Authority for Sectoral Operational Programme Human Resources Development (MA SOP HRD)	May 14th, 2013, 10:00-11:00	• Mr. Marius ŞTEFAN, expert of IT Compartment • Mrs. Irina MATEI, expert of Monitoring Compartment • Mr. Ciprian DOBRICI, expert of IT Compartment • Mr. Valentin DRAGOMIR, evaluation expert

Annex 5 Focus Group Agenda

AGENDA

Focus group with authorities of CSF funds
On the evaluation of electronic systems for data exchange

10th May 2013
Location: Hotel Intercontinental, Opereta room
No. 4 Nicolae Balcescu Blvd., Bucharest -1

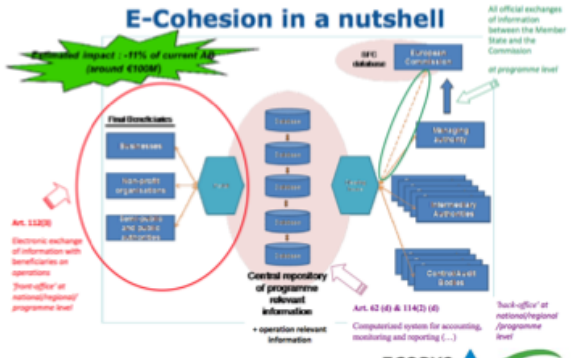
8,30 – 9.00	**Participants' registration and welcome coffee**
9.00 – 9.10	**Introduction** *The purpose of the event* *Summary of the Ex-ante Evaluation of the Partnership Agreement 2014-2020 project*
9.10 – 9.20	*Presentation of the participants*
9.20 – 9.45	*Presentation of the preliminary findings of the evaluation of electronic systems for data exchange*
9.45 – 10.30	*Discussion on question 1: How well the existing electronic systems fulfil the needs?*
10.30 – 11.00	**Coffee Break**
11.00 – 12.15	*Discussion on question 2: Do the actual electronic systems fulfil the minimum requirements?*

	Discussion on question 3: What options for future systems development [2014-2020] should be adopted – 1 system or multiple systems?
12.15 – 12.30	*Conclusions*
13.00	**Lunch**

Annex 6 Focus Group Presentation

The following screen-shots were presented during the Focus Group:

E-Cohesion in a nutshell



7

Article 112 (3) – minimum requirements

- Electronic exchange – only for post-award processes;
- 'Only once' encoding + interoperability – within the same OP;
- Minimum technical requirements:
  - data integrity + confidentiality,
  - authentication of the sender (Directive 1999/93/EC),
  - storage in compliance with defined retention rules (Article 132 of the CPR).
- No technical requirements on software platforms and protocols;
- Electronic audit trail -in compliance with Art. 112, 132 +national requirements on the availability of documents.

8

Plan for the Focus Group

- 9:00 – 12:30
- A break at 10:30 (15-30 minutes)
- Short presentation of the project –10 minutes
- Tour de table – 10 minutes
- Presentation of preliminary results of the beneficiaries questionnaire – 10 minutes (but also throughout the focus group)
- Discussions – Session 1 (focus on preparation): clarification of some questions and verification of preliminary conclusions – 60 minutes
- Discussions – Session 2 (focus on implementation): clarification of some questions and verification of preliminary conclusions – 80 minutes
- Wrap-up – 10 minutes

9

'Tour de table'

- Name
- Type of institution/organization
- Used system – in 2-3 sentences

Preliminary findings – ES for Authorities, related to project implementation

Sistem electronic	Program											
	POR	POSCCE Axa 1	POSCCE Axa 2	POSCCE Axa 3	POS Mediu	POS Transport	POSDRU	PODCA	POAT	PNDR	POP	PCT (note 4)
MIS-ETC												
MIS-ETC Web Application												
MySMIS												
SIMPOP												
SMIS												
SPCDR												
Aplicație pt. încărcarea cererilor de finanțare pentru POSCCE-Axa 3												
Bază de date internă (Access) pt. POSCCE Axa 3												
ActionWeb							?					
Aplicație pt. încărcarea cererilor de finanțare pentru POSCCE-Axa 1												
Aplicație pt. încărcarea cererilor de finanțare pentru POSCCE-Axa 2												
SIMPOSDRU							?					

Preliminary findings – ES for Authorities, related to project selection

Sistem electronic	Program											
	POR	POSCCE Axa 1	POSCCE Axa 2	POSCCE Axa 3	POS Mediu	POS Transport	POSDRU	PODCA	POAT	PNDR	POP	PCT (note 4)
MIS-ETC												
MIS-ETC Web Application												
MySMIS												
SIMPOP												
SMIS												
SPCDR												
Aplicație pt. încărcarea cererilor de finanțare pentru POSCCE-Axa 3												
Bază de date internă (Access) pt. POSCCE Axa 3												
ActionWeb							?					
Aplicație pt. încărcarea cererilor de finanțare pentru POSCCE-Axa 1												
Aplicație pt. încărcarea cererilor de finanțare pentru POSCCE-Axa 2												
SIMPOSDRU							?					

Preliminary findings – ES for Beneficiaries, related to project implementation

Ex-ante evaluation of the Partnership Agreement 2014 - 2020

Sistem electronic	Program											
	POR	POSCCE Axa 1	POSCCE Axa 2	POSCCE Axa 3	POS Mediu	POS Transport	POSDRU	PODCA	POAT	PNDR	POP	PCT (toate 4)
MIS-ETC												
MIS-ETC Web Application												!
MySMIS	!	!	!	!	!	!	?	!	!			
SIMPOP												
SMIS												
SPCDR												
Aplicatie pt. Incărcarea cererilor de finantare pentru POSCCE Axa 3												
Bază de date internă (Access) pt. POSCCE Axa 3												
ActionWeb							?					
Aplicatie pt. Incărcarea cererilor de finantare pentru POSCCE Axa 1												
Aplicatie pt. Incărcarea cererilor de finantare pentru POSCCE Axa 2												
SIMPOSDRU							?					

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13

Preliminary findings – ES for Beneficiaries, related to project selection

Ex-ante evaluation of the Partnership Agreement 2014 - 2020

Sistem electronic	Program											
	POR	POSCCE Axa 1	POSCCE Axa 2	POSCCE Axa 3	POS Mediu	POS Transport	POSDRU	PODCA	POAT	PNDR	POP	PCT (toate 4)
MIS-ETC												
MIS-ETC Web Application										Adjust table column		!
MySMIS	!	!	!	!	!	!	?	!	!			
SIMPOP												
SMIS												
SPCDR												
Aplicatie pt. Incărcarea cererilor de finantare pentru POSCCE Axa 3												
Bază de date internă (Access) pt. POSCCE Axa 3												
ActionWeb							?					
Aplicatie pt. Incărcarea cererilor de finantare pentru POSCCE Axa 1		?										
Aplicatie pt. Incărcarea cererilor de finantare pentru POSCCE Axa 2			?									
SIMPOSDRU							?					

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14

Presentation of preliminary questionnaire results

Ex-ante evaluation of the Partnership Agreement 2014 - 2020

Subject	Range / M.U.	SMIS		ActionWeb		SPCDR	
		Coord./Admin.	Users	Coord./Admin.	Users	Coord./Admin.	Users
1. Ease of use							
1.1. Users' general opinion regarding the ease of use	1-5	2.88	3.08	3.33 (Adjust table row)	4.00	3.75	3.50
1.2. Average number of training days required to get a new user prepared	days	11.09 days		2.00 days		5.50 days	
1.3. Average number of weeks required to get a new user fully accommodated with the system (proper accomplishment of all tasks without help)	weeks	5.47 weeks		1.33 weeks		10.25 weeks	
2. Administrative burden							
2.1. Estimation of relative difference between the time required to fulfil the daily tasks using the system and the time required to fulfil the same tasks without using the system	% (-/+)	-1.07%	0.00%	-3.33%	-9.60%	-2.50%	-10.00%

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15

Presentation of preliminary questionnaire results

Ex-ante evaluation of the Partnership Agreement 2014 - 2020

Subject	Range / M.U.	SMIS		ActionWeb		SPCDR	
3. General usefulness							
3.1. Users' general opinion regarding the usefulness of the system for their daily activity	1-5	3.66	3.46	4.33	4.12	4.50	4.50
3.2. Relevance of the data content for the users' needs	1-5	3.55	3.45	3.80	3.53	3.90	3.8
3.3. Usefulness of the reports generated by the system	1-5	3.00	3.05	3.33	2.74	3.75	3.00
4. Data querying							
4.1. Availability of functions for searching individual data	1-5	3.03		3.33		3.25	
4.2. Availability of functions for listing a subset of a data collection (filtering)	1-5	3.19		2.00		3.00	
4.3. Users' general opinion regarding the ease of retrieving needed data	1-5	3.13	3.36	2.67	3.76	3.50	3.50

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Presentation of preliminary questionnaire results

Ex-ante evaluation of the Partnership Agreement 2014 - 2020

Subject	Range / M.U.	SMIS		ActionWeb		SPCDR	
5. Data aggregation							
5.1. Availability of functions for aggregating data	1-5	3.00		2.33		3.25	
5.2. Availability of predefined reports	1-5	2.58		2.00		3.50	
5.3. Availability of functions for building customised reports	1-5	2.68		2.00		3.50	
6. Data quality							
6.1. Data input is based on trustworthy sources and clear procedures	% of "yes"	100%		66.7%		100%	
6.2. Input data are validated properly	% of "yes"	83.9%		66.7%		50%	
6.3. Checks are available to allow detection of errors	1-5	2.94		2.33		3.00	
6.4. Required data are available in due time for the final recipients	1-5	4.00		4.67		4.25	

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Presentation of preliminary questionnaire results

Ex-ante evaluation of the Partnership Agreement 2014 - 2020

Subject	Range / M.U.	SMIS		ActionWeb		SPCDR	
7. Data security							
7.1. Only authenticated users are allowed to access non-public data or to modify data	% of "yes"	93.5%		100%		100%	
7.2. Each user is limited to a specific set of access rights, for specific sections of the system	% of "yes"	90.3%		66.7%		100%	
7.3. Communication channels used for exchanging sensitive data between various parts of the system are protected	% of "yes"	87.1%		66.7%		100%	
8. System stability							
8.1. Average downtime of the system in a month	hours	9.00 hours		2.67 hours		1.00 hours	
8.2. Frequency of major failures of the system (requiring the intervention of administrators for restoring the system)	1-5	4.26		4.67		4.67	
8.3. Frequency of significant malfunctions impeding the proper use of the system	1-5	3.77	3.10	4.00	3.68	4.67	4.00

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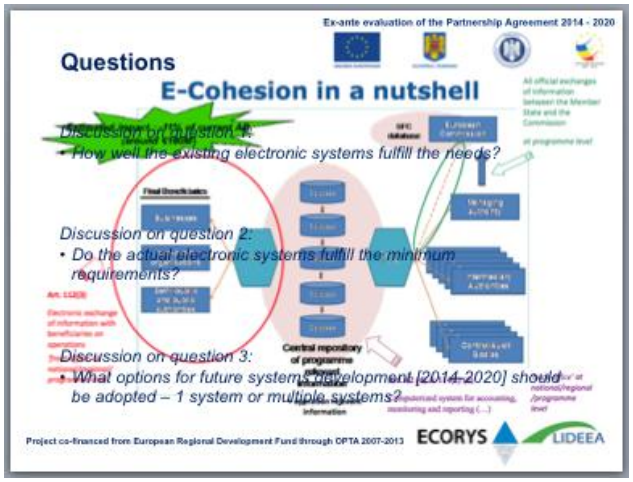
Ex-ante evaluation of the Partnership Agreement 2014 - 2020
Questions
E-Cohesion in a nutshell
Discussion on question 1:
• How well the existing electronic systems fulfill the needs?
Discussion on question 2:
• Do the actual electronic systems fulfill the minimum requirements?
Discussion on question 3:
• What options for future systems development [2014-2020] should be adopted – 1 system or multiple systems?
Central repository of programme information
Project co-financed from European Regional Development Fund through OPTA 2007-2013
ECORYS
LIDEEA

Annex 7 Focus Group List of Participants

Participants to the Focus Group for evaluating the electronic systems for data exchange*, organised with authorities of EU funds, on* 10th May 2013, at the Intercontinental Hotel, in Bucharest, Opereta room

Romanian Court of Accounts	1	CIOCOIU Cristina	External public Auditor, Audit Authority
Ministry for European Funds	2	BOLCHIS Sorin	Senior counsellor, System Coordination Department
	3	GRIGORE Eugen	Head of Sims Service, System Coordination Department
	4	GORGONEȚU Adriana	expert, Managing Authority for Technical Assistance Operational Programme (MA OPTA)
Ministry of Agriculture and Rural Development	5	PREDA Georgiana	Director, Methodology and Monitoring Department, Managing Authority for Rural Development National Programme (MA NPRD)
	6	MATEI Radu	counsellor, Monitoring Service, Managing Authority for Rural Development National Programme (MA NPRD)
Ministry of Economy	7	SANDU Val Cosmin	counsellor, Energy IB
Ministry of Environment and Climate Change	8	CZEDLY Carol	counsellor, Technical Assistance Department, SOP Environment
Ministry of Internal Affairs	9	ZLOTARIU Ionel	counsellor, Managing Authority for Administrative Capacity Development Operational Programme (MA OPACD)
Ministry of Labour, Family, Social Protection and Social Protection	10	ȘTEFAN Marius	IT Expert, Sectoral Operational Programme Human Resources Development (SOPHRD MA)
Ministry of National Education	11	PĂSĂREL Adina	Director of Education IB, SOP HRD
	12	LUNGOCI Eugen	coordinator of Education IB, SOP HRD
National Agency for Scientific Research (NASR)	13	IONAȘ Viorel	counsellor, Research IB, Increase of Economic Competitiveness Sectoral Operational Programme (Research IB SOP IEC)
National Authority for Tourism	14	HAURES Ștefan	counsellor for Evaluation and analysis, Tourism IB, Regional Operational Programme (ROP)
National Agency for Employment	15	OPREA Cătălin	Senior Counsellor, Intermediate Body of the Sectoral Operational Programme for Human Resources Development (SOPHRD IB)
National Centre for the Development of Vocational and Technical Education	16	NICULAE Cristina	Deputy Director, Sectoral Operational Programme Human Resources Development (SOPHRD IB)

North-East Regional Intermediary Body for Human Resources Development Sectoral Operational Programme (SOP HRD N-E RIB)	17	BĂICĂNESCU Mugurel	senior Inspector SOP HRD N-E RIB
ECORYS – LIDEEA, "Ex-Ante Evaluation of the Partnership Agreement 2014-2020"	18	PIONTEK Radoslaw	Evaluation expert
	19	DRAGOMIR Valentin	Evaluation expert
	20	SINESCU Catrina	Project assistant

Annex 8 List of Analysed Documents

List of Main Analysed Documents

1	Europe 2020 - A European strategy for smart, sustainable and inclusive growth
2	Proposal for a Regulation of the European Parliament and of the Council laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund covered by the Common Strategic Framework and laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and repealing Council Regulation (EC) No 1083/2006
3	Proposal for a Regulation of the European Parliament and of the Council on specific provisions concerning the European Regional Development Fund and the Investment for growth and jobs goal and repealing Regulation (EC) No 1080/2006
4	Proposal for a Regulation of the European Parliament and of the Council on specific provisions concerning the investment from the European Regional Development Fund for the objective of European Territorial Cooperation
5	Proposal for a Regulation of the European Parliament and of the Council on the Cohesion Fund and repealing Council Regulation (EC) No 1084/2006
6	Proposal for a Regulation of the European Parliament and of The Council on the European Social Fund and repealing Council Regulation (EC) No 1081/2006
7	Proposal for a Regulation of the European Parliament and of the Council on the investment for rural development from the European Agricultural Fund for Rural Development
8	Proposal for a Regulation of the European Parliament and of the Council on the European Maritime and Fisheries Fund [repealing Council Regulation (EC) No 1198/2006 and Council Regulation(EC) No 861/2006 and Council Regulation No XXX/2011 on integrated maritime policy
9	Elements for a Common Strategic Framework 2014 to 2020 – Commission Staff Working Document
10	Guidance document on ex-ante evaluation – DG REGIO
11	e-Cohesion policy: new requirements for 2014 – 2020 programmes – DG REGIO
12	e-Cohesion Policy - Management and Control, Common Provisions Regulation - Fiche no 11 – working paper
13	Opinion of the High Level Group - Subject: Administrative burden reduction; priority area Cohesion Policy, third opinion - eCohesion Policy
14	Measuring the impact of changing regulatory requirements to administrative cost and

	administrative burden of managing EU Structural Funds (ERDF and Cohesion Funds) – DG REGIO
15	Conducting Evaluations for the Period 2009-10 - A Formative Evaluation of Structural Instruments in Romania - Final Report
16	Intermediary evaluation of OPTA
17	Intermediary evaluation of SOP-HRD
18	Intermediary evaluation of the SOP T
19	Interim evaluation of OP ETC Romania - Bulgaria
20	Interim evaluation of the ROP
21	Interim evaluation of the SOP-IEC
22	Documentation of Web application for uploading of financing requests for SOP IEC - Axis 2
23	Documentation package for MIS-ETC (user manuals and procedures)
24	Documentation package for SIMPOP (user manuals and general description of the system)
25	Documentation package for MySMIS (general description of the system and presentation)
26	Documentation package for ActionWeb (user manuals and instructions)
27	Documentation of ASEP – User Manual
28	Documentation of SIMPOSDRU – General description of the reporting tool
29	Documentation package for SMIS (user manuals and procedures)

Annex 9 Updating the evaluation in December 2014

The following questionnaire was sent to the ***Authorities managing Electronic Systems:***

*1. MEF – DCS, for **SMIS** and **MySMIS***

*2. Ministry of Labour, Family, Social Protection and Elder Persons (MLFSPEP) – MA SOP HRD, for **ActionWeb***

*3. MARD – MA NPRD for MIS used in NPRD **(SPCDR)***

*4. MARD – MA OPF for MIS used in OPF **(SIMPOP)***

5.** Ministry for Regional Development and Public Administration – MA for the European Territorial Cooperation**,** for MIS used in CBC RO-BG, CBC RO-RS, CBC RO-UA-MD, and CBC Back Sea Basin **(MIS-ETC)

* * *

Electronic Systems – Questionnaire for Updated Evaluation

Introduction

This set of questions is focused on updating the information gathered few months ago on electronic systems used [to be used] within implementation of various structural funds within the EU financial perspective 2014-2020.

There are two aspects of the electronic systems which are subject of the analysis:

- *Comprehensiveness of existing electronic systems &*
- *Compliance of the electronic systems with the evaluation checklist.*

Structure for the questionnaire/questions to be answered:

Name of the Electronic System you were in charge with:

- SMIS,
- MySMIS,
- ActionWeb,
- SPCDR
- SIMPOP,
- MIS-ETC,

i. Are there any new major modules introduced into the system in 2014? If "Yes" – what are these new modules?
ii. Did the applicability of the system suffered a major change in 2014 (e.g. extending or reducing the list of OPs for which that system is used)? If "Yes" – what were these changes?
iii. Is there a new system in place in 2014? If "Yes" – what are these new modules?
iv. Was MySMIS launched for effective use?

If any of those four questions i.-iv. above was answered "Yes", the following questions should also be answered:

a) Ease of use:

1. How easy is it to use the current system?
2. How long [days, hours, minutes] does it take to train a new user?
3. How long does it take for an average user to:
   a. Get a real understanding of the current system [days, hours, minutes]?
   b. Master the system [days, hours, minutes]?

b) Administrative burden:

1. Which is the estimated impact of the system on the administrative burden?
   a. Increase or decrease of the administrative burden;
   b. Significantly or not.

c) General usefulness:

4. How useful is the current system, in general?
5. How relevant for the daily activity are the data comprised by the system?
6. How useful are the reports?

d) Data querying:

4. Are the users able to perform searches on the data in the system; are there such functions available in the system?
5. Are the users able to refine the results of their search (e.g. applying filters on the listed records in order to obtain subsets of the initial lists, accordingly to the user's needs)?
6. Which is the general impression on the easiness of finding the needed data in the system?

e) Data aggregation:

4. Does the system comprise aggregate functions (e.g. ability to compute sums, averages, etc., on the records listed by the system)?
5. Are the predefined reports in the system satisfactory enough (having in view both quality and quantity)?
6. Does the system allow building customised reports?

f) Data quality:

5. Is the data input based only on reliable data sources and performed accordingly to clear procedures for data input?
6. All input data are validated properly by the system?
7. Are there checks available in the system as to allow detection of errors or of inconsistent data?
8. Are required data available in due time for the final recipients?

g) Data security:

4. Can non-public data available in the system be accessed only by a authenticated users?
5. Does each user have limited access to the system accordingly to its own set of access rights?
6. Is the sensitive data (e.g. personal data, financial data) exchanged only through secure channels?

h) System stability:

1. What is the average downtime of the system?
2. What is the frequency of major failures of the system (requiring intervention of system administrator)?
3. What is the frequency of various malfunctions impeding the proper use of the system?

i) Technology:

1. Hardware technology used – what are the differences/changes compared to 2013
2. Software technology used – what are the differences/changes compared to 2013.
3. Other relevant technical characteristics - what are the differences/changes compared to 2013.

Annex 10 Members of the Evaluation Coordination Committee

The following institutions have been represented in the last Evaluation Coordination Committee for approval of project deliverables and progress reports, the held 03.04.2015, at MEF headquarters.

Third Evaluation Coordination Committee for discussing and approving the final deliverables of the Ex-ante Evaluation of the Partnership Agreement 2014-2020, and of the Third and the Final Progress Report	
Institution	**Number of participants**
Ministry of European Funds – General Directorate for Analysis, Programming and evaluation	7
Ministry of European Funds – Managing Authority for Sectoral Operational Programme Human Resources Development	2
Ministry of European Funds Managing Authority for Sectoral Operational Programme Environment	1
Ministry of European Funds Managing Authority for Sectoral Operational Programme Increase of Economic Competitiveness	1
Ministry of European Funds Managing Authority for Operational Programme Technical Assistance	1
Ministry of Regional Development and Public Administration - Managing Authority for Regional Operational Programme	3
Ministry of Regional Development and Public Administration - Managing Authority for Operational Programme Administrative Capacity Development	1
Ministry of Regional Development and Public Administration - Managing Authority for the European Territorial Cooperation Programmes	2
Ministry of Regional Development and Public Administration Managing – Payments Unit	1
Ministry of Agriculture and Rural Development – Managing Authority for National Rural Development Programme	1
Ministry of European Funds – General Directorate for System Coordination and Technical Assistance, Contracts Management Unit	3
Ministry of European Funds General Directorate for System Coordination and Technical Assistance, SMIS Coordination Unit	1
Total participants	**24**

During the session, the ECC approved the report, with the condition to address the comments of the SMIS coordination Unit transmitted separately and to comply with all the pending issues from the Quality control grid.
The comments on the report were received and they were addressed in the current version of the report. A treatment table of the stakeholder's comments is presented in the next Annex.

Annex 11 Summary of Stakeholders comments addressed

No	Stakeholder	Section of the report commented	Stakeholder comment	Addressed? (Y/N)	Explanation
1	MFE, SMIS Coord. Unit	Recommendations for ensuring the coverage of the e-Cohesion minimal requirements 1.B …., establishment of a working IT group, which would meet regularly to discuss, exchange information on joint implementation of the systems in their respective institutions and lead implementation of joint system in relevant institutions.	MySMIS is not a tool to be administered by the IT services. It is technically administered by SMIS Coordination Unit but, at the business level the responsibility goes to the relevant units within the involved bodies. The idea is that SMIS and MySMIS usage is not an IT attribute	Yes	Statement modified replacement of "IT services" with a broader definition, "coordinating units for the information systems (which could be IT units or other units)
2	MFE, SMIS Coord. Unit	Recommendations for improving the existing electronic systems used by the authorities	Any improvement attempt can be considered obsolete due to the time limit in the investment sustainability issue.	No	No action can be taken regarding this comment. The purpose of the study was to make recommendations on the existing and planned systems.
3	MFE, SMIS Coord. Unit	Chapter 3.3.7 System stability "Average downtime of the system in a month … SMIS 8.75… "	Suggestion to reduce the number of 8.75 and Request to include an extended explanation on the reasons why a user cannot access SMIS application	Yes	The suggested additional text was inserted However the 8.75 figure cannot be modified, as this is a statistical result computed from the answers we received for the questionnaires. Also following the statement is mentioned in chapter 3.3.7 for several findings (3.3.1.2, 3.3.2.2, 3.3.3.2, 3.3.4.2, 3.3.5.2, 3.3.6.2, 3.3.7.2): *"It is necessary to be noted that the above figures are rough statistic computations based on users' opinions and they should be interpreted with much caution"*

4	MFE, SMIS Coord. Unit	Chapter 3.4.2 - General and Organizational aspects	Various completions and refinements of the statements related to technical aspects	Yes	Text changes accepted
5	MFE, SMIS Coord. Unit	Chapter 3.4.3 ActionWeb ActionWeb is able now to export some data directly into the database of the SMIS, relieving users from OP HRD of the double introduction of data in ActionWeb and in the SMIS.	This happed only once on OP HRD' request, but this is not a current practice	Yes	Text maintained It has no relevance if that feature was used once or several times. Because it relates to data exchange abilities of these systems, it deserves to be mentioned anyway.
6	MFE, SMIS Coord. Unit	Chapter 3.4.5 - SMIS 2014-2020	Various completions and refinements of the statements related to technical aspects	Yes	Text changes accepted
7	MFE, SMIS Coord. Unit	5.1.1 Finalising the implementation of MySMIS for the 6 current OPs it was designed for Recomedation1.1 b	Idem comment 1	Yes	Iddem comment 1
8	MFE, SMIS Coord. Unit	5.1.1 Finalising the implementation of MySMIS for the 6 current OPs it was designed for Recommendation 1.1d	Data operators are not necessary if the data is filled in the systems in real time. SMIS2014+ doesn't need data input.	Yes	Text maintained The evaluators are in favour of maintaining this recommendation, despite the lack of need for data input for SMIS2014+ currently foreseen, in order to keep it a future reference point to be decided upon during actual implementation
9	MFE, SMIS Coord. Unit	Annex 1 Completed Checklist for SMIS 8.1. Average downtime of the system in a month 8.75 hours/month	Idem comment 3	Yes	See comment 3
10	MFE, SMIS Coord. Unit	Annex 9 Updating the evaluation in December 2014	To remove the actual answers from MIS coordinators	Yes	Answers removed
11	MFE DGAPE	Technical box of the report	To mention the duration of evaluation exercise	Yes	Technical box of the report updated
12	MFE DGAPE	Technical box of the report	To specify the evaluation budget	Yes	Technical box of the report updated
13	MFE DGAPE	Executive summary	Exclude acronyms from the executive	Yes	Executive summary revised

			summary		
14	MFE DGAPE	Body text	Explain how all evaluation tools and techniques foreseen in the Technical Offer and Inception Report have been applied	Yes	All envisioned tool were used for the initial analysis, which were explained and described throughout the report. Additional text about the update of the analysis exercise and the selection of tools used was added to the introduction and methodology sections.
15	MFE DGAPE	Body text	Explain how specific methods for data validation have been applied, where applicable necessary	Yes	Additional text added to the introduction and methodology sections.
16	MFE DGAPE	Body text	Define limits of findings' validity	Yes	Additional text added to the introduction and methodology sections.
17	MFE DGAPE	Body text	Number each finding	Yes	All finding in the report have been numbered. Note that, all the existing conclusions were drawn from the initial findings. Therefore the updated information from chapter 3.4 is treated as a presentation, which was not numbered.
18	MFE DGAPE	Annexes	To attach the list of members of the Final Evaluation Coordination Committee	Yes	Annex 10 -Members of the Evaluation Coordination Committee – attached
19	MFE DGAPE	Annexes	To attach a treatment table for the stakeholder's comments	Yes	Annex 11- Summary of Stakeholders comments addressed - added
20	MFE DGAPE	Annexes	Include an annex where the link between conclusions, findings and recommendations should be clearly presented	Yes	Annex 12 - Correspondence between conclusions findings and recommendations – added
21	MFE DGAPE	Annexes	Include an annex where the recommendations are linked to suggested responsible structures, including deadlines, and prioritization scoring, according to the discussion during the ESC	Yes	Annex 13- Suggested follow-up on recommendations – added

Annex 12 Correspondence between conclusions findings and recommendations

Conclusions (see chapter 4)	Findings which the conclusion was based on	Recommendations
Conclusion no. 1.1 – (sub-chapter 4.1) Conclusions related to the requirements of the new EU Regulations and the existing national legal and procedural framework	3.1.1-3.1.8 (see sub-chapter 3.1)	No recommendations needed
Conclusion no. 2.1 – (sub-chapter 4.2) Conclusions related to comprehensiveness of existing electronic systems	3.2.1-3.2.5 (see sub-chapter 3.2)	1.1, 1.2, 1.3 (see sub-chapter 5.1)
Conclusion no. 3.1 – (sub-chapter 4.3.1) In terms of quality of the existing electronic systems, the results of this evaluation show that many improvements are needed in various aspects	3.3.1.1-3.3.1.5 3.3.2.1-3.3.2.5 3.3.3.1-3.3.3.6 3.3.4.1-3.3.4.7 (see sub-chapter 3.3)	2.1, 2.2, 2.3 (see sub-chapter 5.2)
Conclusion no. 3.2 (sub-chapter 4.3.2) Strictly from the technical point of view, all the systems prove to be satisfactory, with only few particular exceptions where improvements are required	3.3.5.1-3.3.5.6 3.3.7.1-3.3.7.6 (see chapter 3.3)	2.4, 2.5, 2.6 (see sub-chapter 5.2)
Conclusion no. 3.3 (sub-chapter 4.3.3) The area where most of the systems disappoint relates to satisfying the users' needs	3.3.1.1-3.3.1.5 3.3.2.1-3.3.2.5 3.3.3.1-3.3.3.6 3.3.4.1-3.3.4.7 (see sub-chapter 3.3)	2.1, 2.2, 2.3 (see sub-chapter 5.2)
Conclusion no. 4 (sub-chapter 4.4.1) The existing electronic systems are not able to interface each other	3.2.3 (see sub-chapter 3.2)	4.1 (see sub-chapter 5.4)

Annex 13 Suggested follow-up on recommendations

Recommendations (see chapter 5)	Responsible structures	Deadline	Priority
1.1. Finalising the implementation of MySMIS for the 6 current OPs it was designed for	An inter-ministerial committee should be created in order to decide and nominate the responsible entities for each action. The committee should be created at the earliest convenience, depending on the status of finalizing the procedures for the new Operational programmes	end of 2015	**1 (important)**
1.3. Covering the minimal requirements for SOP HRD		during 2016	**2 (improvements)**
2.1. Improvement of the portfolio of predefined reports, in order to produce those reports the users need. SMIS needs mostly such improvement.		end of 2015	**1 (important)**
2.2. Improvement of features and data structures, in order to become more user oriented. All systems should try to provide more useful features for their users, allowing them to save working time and to reduce the risk of human errors.		during 2016	**2 (improvements)**
2.3. SMIS and MIS-ETC should be improved in their user interface (at least for the most important or complex forms) in order to provide: easier understanding, better overview of data in the system, easier retrieving of needed data etc.		2017-2018 period	**3 (fine-tuning)**
2.4. SMIS, ActionWeb and MIS-ETC should ensure enough control mechanisms to allow timely identification of errors existing in the system.		2017-2018 period	**3 (fine-tuning)**
2.5. SPCDR should revise its mechanisms of validation in order to cover all relevant input data in a reliable manner.		2017-2018 period	**3 (fine-tuning)**
2.6. Improvement of mechanisms for help-desk and technical assistance for SMIS and ActionWeb in order to reduce the rate of minor incidents and to improve the response time in case of incident (at all levels where the system is used).		during 2016	**2 (improvements)**
3.1. Ensuring continuous software development support, especially for MySMIS, SMIS and MIS-ETC (which could be brought under the same ownership as SMIS in order to concentrate the efforts)		end of 2015	**1 (important)**
3.2. Ensuring continuous training of all users		end of 2015	**1 (important)**
4.1. Any new development should take into account the opportunity to use data already existing within other databases / systems.		during 2016	**2 (improvements)**

Note: recommendation 1.2. “Extending MySMIS in the area of ETC” is not applicable anymore.

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