

ANNEX 1 to the RfP 15/01026

**Elaboration of the Integrated Documents and Records
Management System for the Local Public Authorities from the
Republic of Moldova**

TECHNICAL REQUIREMENTS



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A. BACKGROUND

1.1 Purchaser

The purchaser of the proposed software solution is United Nations Development Programme (UNDP) through its Joint Integrated Local Development Programme (JILDLP).

UNDP programme in Moldova is guided by the Country Programme Document, and the UN-Moldova Partnership Framework "Towards Unity in Action" for 2013-2017 and its action plan, which is in line with the priorities of the Government of Moldova.

1.1.1 *General Description of Purchaser*

The Government of Moldova explicitly acknowledges that decentralization represents an essential item on the reform agenda of the country. The goal is to provide quality services to women and men equitably - including the rights of persons from vulnerable groups - through building autonomous and democratic local governments, able to manage efficiently their responsibilities. Thus, on April 5, 2012 the Parliament of the Republic of Moldova adopted the National Decentralization Strategy that represents the main policy document in the field of local public administration and establishes the national mechanisms to ensure genuine local autonomy.

Prior to the approval of the Strategy, the Government has benefited from the support provided by the Joint Integrated Local Development Programme/JILDLP implemented by UNDP and UN Women and funded by the Government of Sweden and UNDP. Given the stringent need to further advance the implementation of the Decentralization Strategy, and building on the successful cooperation with the Joint Integrated Local Development Programme, the State Chancellery together with United Nations have designed a new Programme phase to support the implementation of the Decentralization Strategy at policy and local levels.

The Overall Objective of the Programme is to support better and equitable service provision and sustainable local development, facilitated by the improved legal and institutional framework resulting from the implementation of the National Decentralization Strategy.

The Immediate Objectives of the Programme are:

- To support the Government in improving the policy and legal framework as mandated by the National Decentralization Strategy to ensure local autonomy, availability of resources, and more effective local management for better and equitable service provision.

- To improve the capacity of Local Public Authorities/LPAs to deliver efficient, equitable and accessible local public services, to facilitate sustainable development and foster social inclusion.

The interventions at the local level will aim at developing models of operational local governments - 'champions of change' - by providing support to implement changes in the operation and structure of local governments in line with the changes brought by the Decentralization strategy. JILDPA will assist LPAs in improving their capacity and operations, will support target communities and their local authorities to provide quality public services to achieve sustainable economic and social development, in the main areas affected by the Decentralization strategy.

1.1.2 Project's General Objectives

In a rapidly changing global environment, the work of UNDP and the broader UN family aligns with the new national development vision, Moldova 2020, and sector strategies.

On the other hand, the system aims to support the strategic goals of the Local Decentralization Reform in a comprehensive, programmatic and innovating manner. It will support this sector's long-term priorities, which will pave the way for the future requirements and future integration of public services.

The AIS will be integrated with a number of sub-systems, such as the State Register of Population and the National House of Social Insurance.

The purpose of the AIS is to implement a modern solution for cooperation, management and automation of workflows and document flow, provide a better service, make the decision making more transparent and quick manner in Local Public Authorities from the Republic of Moldova.

The major objectives to be achieved are to:

- reduce the actual time for submitting requests through automated data verification;
- automate the workflows inside the LPA and external interaction with other entities;
- improve performance of LPA's departments;
- organize information in a clear and more uniform manner;
- manage tasks and monitor their completion;
- reduce the time required for approval of documents and ensure the transparency of local decision making process;
- provide extended possibilities for the reporting process, and documents and workflows management;
- create a collaborative environment within the LPA, including subdivisions;

- create a clear and unique structure of data according to the LPA's needs;
- increase efficiency of LPAs' activity, transparency of the decision-making process, monitoring of tasks' completion;
- implement a reliable and efficient documents' management system, extended to a set of procedures of workflow automation, which should ensure rapid delivery of documents and monitoring of deadlines;
- reduce the effective time required to provide answers to citizens' requests;
- create a data repository for storage and versioning of documents developed by the LPA, as well as the documents borrowed from external resources;
- standardize information, messages and actions;
- guarantee rapid access to data and information regardless of their location according to the access rights and pre-defined roles;
- ensure an advanced and facile mechanism of information searching according to different criteria and key words.

1.1.3 Legal Issues and References

Constitution of Moldova of July 29, 1994

Law no.982-XIV of 11.05.2000 on the access to information, as amended (M.O. no.88-90 of 28.07.2000);

Law on personal data protection no. 133 of 08.07.2011 (M.O. no.170- 175 of 14.10.2011);

Law on electronic documents and digital signature no.264 of 15.07.2004 (M.O. no.132- 137 of 06.08.2004);

Law no.71-XVI of March 22, 2007 on registers (M.O. no.70- 73 of 25.05.2007)

The law no. 467-XV of November 21, 2003 on automation and state information resources;

Government Decision No. 128 of 20.02.2014 on joint governmental technological framework (M-Cloud)

Government Decision No. 1096 of 31.12.2013 on approval of the Action Plan for 2014 for implementation of Strategic Government Technological Modernization Program (e-Transformation)

Government Decision No. 710 of 20.09.2011 regarding the approval of the strategic Programme of the technological modernization of governance (e-Transformation)

Government Decision No. 1090 of 31.12.2013, on governmental electronic authentication and access control service (MPass), Published: 10.01.2014 in the Official Gazette No. 4-8, art. No. 2

Government Decision No. 719 of 16.09.2013, on the Public Institution e-Government Center

Government Decision No. 975 of 22.12.2012 to approve the Action Plan for 2013 on implementation of “Paperless Government” initiative

Order No. 21-d of 26.03.2012 for reorganization of official web pages of central public administration authorities

Government Decision No. 330 of 28.05.2012 on creation and administration of the single governmental portal of public services

Government Decision No. 188 of 03.04.2012 on official web pages of public administration authorities

Government Decision No. 499 of 06.07.2012 on e-Transformation sub-unit of the central public administration authority

Government Decision No. 760 of 18.08.2010 to approve the Statute of the Public Institution e-Government Center

Government Decision No. 392 of 19.05.2010, on establishment of e-Government Center

- 1.1.4 A legal restriction should be noted, as it ensured the safety of personal data managed through the proposed information system. The law no. 133 of 08.07.2011 “On protection of personal data” stipulates the compulsoriness of ensuring the confidentiality of personal data. Moreover, under this law, the owner of the Integrated Document and Record Management System for LPAs has to register the IT system in the State Registry of personal data users, which is managed by the National Center for Personal Data Protection. Stakeholders

UNDP/JILDP – The purchaser of the system

Local Public Authorities – the beneficiary and end user of the proposed information system.

State Chancellery of the Republic of Moldova – will take the ownership of the software product.

Special Telecommunication Center (STC) - the technical administrator.

The main responsibilities of STC activities at the are the following:

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- Implementation of national policies in area of special telecommunication;
 - Ensuring the secured data exchange for public authorities and state owned enterprises providing services for GoM;
 - Securing the storing process of sensitive national data and their management;
 - Ensuring necessary infrastructure for digital signatures;
 - System integration of secured solutions for national organizations and institutions;

In the frame of current procurement, STC will fully coordinate its activities with EGC in order to provide the following duties and to perform the following activities:

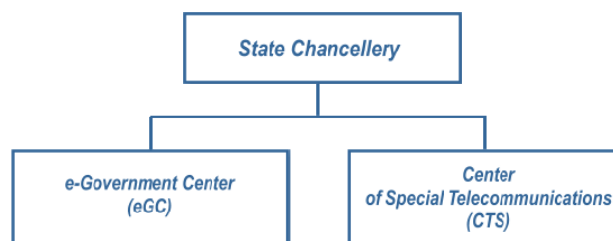
- Will be responsible for maintenance of the system;
- Will provide necessary digital signatures to System's users;
- and software of the Solution, which would allow researching the quality, relevance and appropriateness of provided services and thus achieving the objectives of project.

e-Government Center (<http://egov.md>) is a public entity established by the Government of Moldova in August 2010. The purpose of the e-Government Center is to promote and support the development of the technological modernization of the public sector as part of the efforts to implement the e-Transformation agenda. One of its major goals is to provide support to the public sector in relation to the use of ICT, thus contributing to a more efficient, transparent and connected Government.

The implementation of the e-Transformation agenda aims at:

- designing and implementing IT systems to support the public sector reform processes;
- developing ICT infrastructure in the public sector;
- ensuring transparent and improved performance of the central public administration authorities;
- building the ICT skills of the public sector employees;
- developing the e-governance legal framework.

The activity of EGC is conducted under the guidance of the e-Transformation Ministerial Council (headed by the PM), and directly coordinated with the State Chancellery, which has under its subordination both EGC and STC.



Interaction of EGC and STC is determined by their complementary functions. The EGC has the responsibility to develop policies; be Implementation Agency for the e-Transformation Project; coordinate e-Transformation activity at the national level. STC has the responsibility to host the MCloud solution in the datacenter; maintain it; maintain most of e-Services, particularly of ECMP and its applications.

1.2 Purchaser's Business Objectives

The objective of the purchaser is to help the Local Public Authorities from Republic of Moldova to become more efficient internally and also facilitate the interaction between citizens, business environment and LPAs.

The main objectives are to:

- Reduce the LPA's costs regarding the manual processing of information, printing and related activities;
- Increasing the documentation quality;
- Reduce effective time for documents processing;
- Ensure the performance management of the LPA's servants;
- Ensure the control and transparency of the decision-making process;
- Provide to the LPA's servants adequate information from other external information resources through systems integration;
- Reduce the time related to the issued documents by the LPA's for citizens and business environment.
- Organize and optimize inside workflows and business-processes

1.3 Acronyms and Definitions

Table 0.3.1 Abbreviations and acronyms used in Terms of Reference

**ANNEX 1 to the RfP15/01026 Elaboration of the Integrated Documents and
Records Management System for the Local Public Authorities from the Republic
of Moldova**



	Acronym	Description
1	CPA	Central Public Authority
2	DRMS	Document and Records Management System
3	EGC	Electronic Government Center
4	G2B	Government To Business
5	G2C	Government To Citizen
6	GUI	Graphical User Interface
7	ICT	Information and Communications Technology
8	IDNO	(Organization's Identification Number) – identification number of legal entities.
9	IDNP	(Personal Identification Number) – short form of the identification number of a person used in the international practice.
10	JILD	Joint Integrated Local Development Programme
11	LAN	Local Area Network
12	LPA	Local Public Authority
13	MCloud	Governmental Cloud
14	MPass	M-Pass is the national service of authentication and access to electronic public services. It provides several login mechanisms – mobile signature, digital certificate, username and password.
16	MSign	MSign is a program that allows for digital signing of documents and verification of digitally signed documents. Moreover, MSign can use the SAM authentication module (Secure Application Module) – a secure access module, for document signing.
17	SA AIS	Social Assistance Automated Information System
18	SRLE	State Register of Legal Entities
19	SRP	State Register of Population
20	STC	Special Telecommunication Center

	Acronym	Description
21	UNDP	United Nations Development Programme
22	WAN	Wide Area network
23	CPA	Central Public Authority

Table 0.3.2 Largely used business definitions and terms

	Term	Definition
1	System Actor	Actors are the modeled system users. Every actor has a well defined role and may perform specific operations. An individual may act for one or several system actors, but will have just one role in every use case.
2	Data Bank	Technical informational system that includes one or several databases and their administration system.
3	Document management	Facilities enable an integrated document and records management system to be offered, so that the whole document and record lifecycle can be managed, from the creation, drafting and formalization of documents to the declaration, management and disposal of records.
4	Use Cases	Sequence of steps taken by the system user roles, defining to a certain extent the interaction between them.
5	Detailed Analysis and Design document	Detailed Analysis and Design document represent the detailed software specification, a deliverable usually that ends the Analysis and Design phase. The acceptance of a such document authorizes the development phase.
6	Metadata	Data describing the context, contents and structure of data and their management in time.
7	Concept	A document describing the philosophy of the automated informational system as a set of interconnected visions on the system operation.
8	Activity Diagram	Graphical representation of workflows of stepwise activities

		and actions.
9	Flow Chart	Graphical representation of the steps taken to get an output. The flowchart allows seeing the logic or lack of logic in the sequence of events.
10	Process Chart	Representation of any type of phased processes. As a rule, it looks like a logical scheme with shapes that represent process steps, connected by arrows that point to the next step.
11	Use Case Diagram	A use case diagram is a set of use cases and actors. It: <ul style="list-style-type: none"> • makes a general description of the way the system will be used; • makes an overview of the expected system features; • shows the interaction between the system and one or several actors; • makes the system produce the expected outputs.
12	Entity	Phenomena, processes, material or abstract things – nouns from the description of an activity. Examples of entities are Persons, Outputs, Beneficiaries, and Documents.
13	Business Entity	Person, Institution, System, Document involved in a specific activity (activities are part of processes, and processes are part of flows). While business entities are the entities involved in a specific activity area, application entities are the business entities that will be computerized in the Informational System.
14	State Entity	Public institution or Public Authority
15	Nomenclature	List of unique values of informational business entities in the system.

Table 0.3.3 Technical definitions and terms largely used in this document

Term	Definition
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	Term	Definition
1	Architecture	All the essential solutions related to the organization of the software system and the set of structural interfaces and elements and the cooperation defined by these elements.
2	Database	A collection of data organized according to specific rules that include general principles for data description, storage and processing.
3	Web Browser	A software application that allows visiting websites, opening a webpage to process, view or surf from one page to another.
4	Function	A set of actions in a process that deliver a useful output for a specific actor in a flow.
5	Object Identifier	Data attribute to name an informational object;
6	Internet	A global public network of interconnected computers that provides access to its information resources. Internet can be described as a network of local networks connected by routers.
7	Intranet (LAN)	Internal network that uses the Internet standards and principles with limited access.
8	Object	The virtual version of real both material and non-material entities that refers to state and behavior.
9	Web Portal	A set of software applications, including the technologies for integration and display of information received from different sources in the network. The web portal is made of search engines configured after consultation with users, changes performed in the mechanisms developed from flexible portlets of the modular structure and dynamic content.
10	Process	An exact sequence of events realized by a group of logically linked activities that use the organizational resources to get the best results towards organizational objectives.
11	Role	Specific behavior and obligations of an individual or several individuals that work in a team (working group).

	Term	Definition
12	Scenario	Presentation of knowledge with the help of an exact sequence of events to determine the outputs of the interaction between the known elements.
13	Automated Information System (AIS)	All the hardware and software resources used to process information and handle information resources and user infrastructure;
14	National Automated Information Systems	Automated Information Systems that operate in the state and public administration institutions. An integrated combination of all the telecommunications infrastructure, information resources, legal provisions, organizational structures and user infrastructure used to fulfill the specific tasks by a user;
15	Software application	All the programs and information processing systems and the program documents required for the operation of such programs.

B. FUNCTIONAL AND PERFORMANCE REQUIREMENTS System Functionalities

2.1.1 System components and conceptual architecture

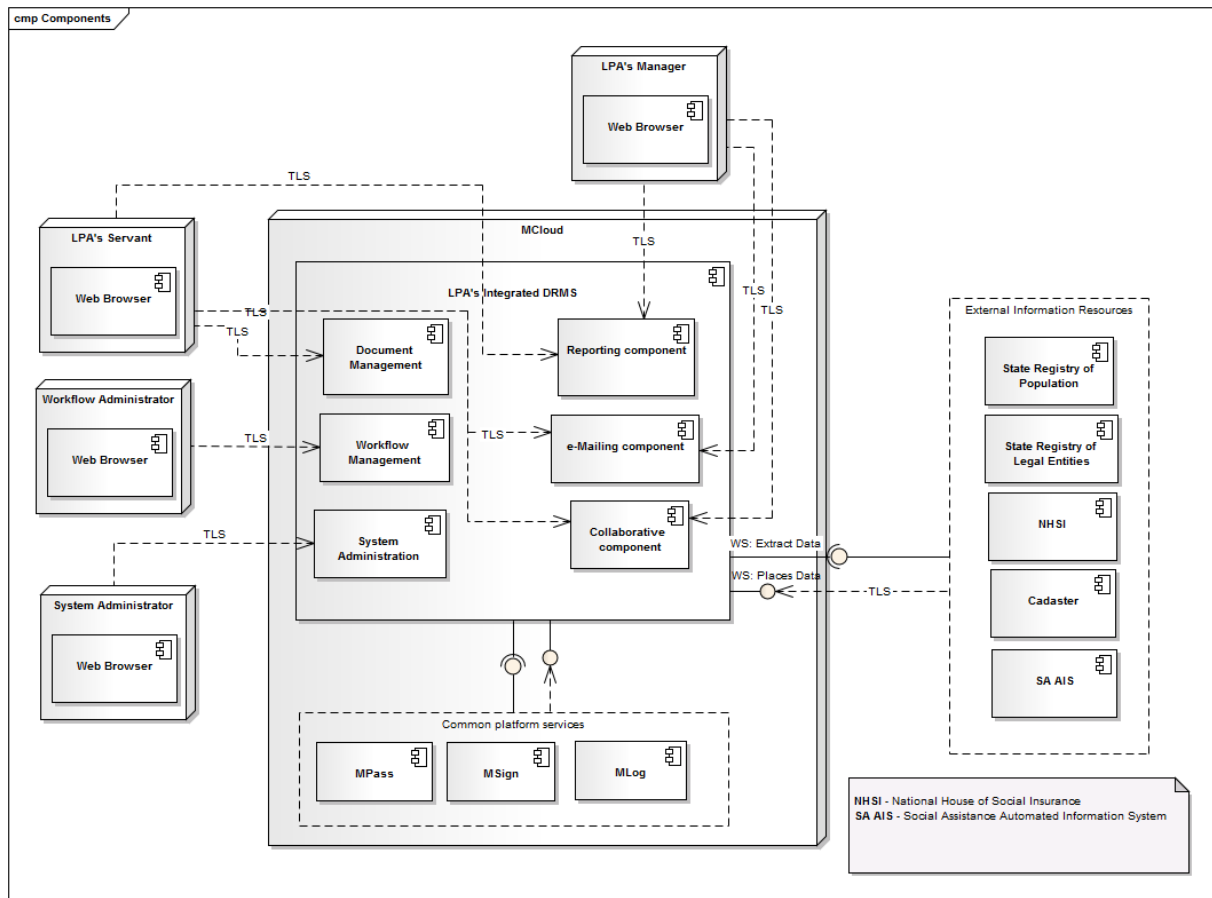
The proposed project is designated for the employees of the Local Public Authorities from the Republic of Moldova, for the internal use and aims to implement a modern ICT solution of collaboration between the inside LPA's subdivisions and other Central Public Authorities in order to improve the information processing, decision-making, workflows management, documents processing and flowing, which as a result should lead to the increase of the quality of provided public services and to the transparency of decision-making process. The proposed DRMS shall stimulate the use of informational technologies and communications (ITC) for the more efficient and transparent exercise of the tasks.

The proposed solution is defined as the totality of information storage and organization procedures, definition and management of workflows, measures of storage and use of the information meant to contribute to the fulfillment of the LPA's objectives.

It is important that the software architecture to be **multi-tenant**.

Software Multitenancy should allow an instance of the software solution to run multiple tenants. This means that for every LPA should be possible to create separately workspace and configure workflows without affecting other LPA's.

Multitenant architecture of the proposed software application must be designed to provide every tenant a dedicated share of the instance including its data, configuration, user management, tenant individual functionality and [non-functional properties](#). A tenant will be considered a group of LPA's users who share a common access with specific privileges to the software instance.



Picture 1 Components diagram

It is recommended that the proposed solution to be a web-based one. The objective of the web component of the system is to provide access to information independent of a PC via a standard web browser.

Workflows management

The proposed solution should manage all documents flows within the LPA. In this sense it is appropriate that this mechanism will contain a set of tools necessary for a best performance and which include the facilities of creation and management of workflows, which should allow the records and documents to flow all stages from elaboration to approval before reaching to the final stage. This component is necessary for the granting of assistance in managing a great

amount of documents and to define the set of steps that the document or the set of documents should undergo. In addition, the participants in the process and their role in the decisions-making process during the workflow should be realized by the solution.

The components should include a range of functionalities such as searching, editing, distribution of documents, controlling mechanisms on the completion of tasks within the workflow, alert mechanisms in case of non-observance of the deadlines regarding the user's assigned task.

All actions should be performed through user-friendly, intuitive and easy to use GUI, based on WEB technologies and that do not need the purchase and setting up of an additional software on the users' PCs.

The workflows of any LPA are similar to any other LPA included in the piloting phase and it should be mentioned that these are not complicated, almost related to the process of issuing the certificates requested by the citizens from the LPA or to internal documents processing.

The bidder will propose the optimized workflows for the business-processes during the Analysis and Design Phase together with LPA's representatives. The bidder will have the possibility to visit any LPA that are included in the piloting phase, in order to analyze the day-to-day activities of the LPA's servants and to define together the documents' flows to be implemented by the IT solution.

Electronic Document Management

Electronic Document Management will be used in order to control and management of electronic documents. This includes:

- The identification and creation of workspace to allow to working groups have access to the same set of documents and this way have access to the latest information
- The creation of a unique template of the input documents.
- The use of a control and versioning system to have access to the previous versions and to monitor the modification fulfilled in the document during its life cycle.
- The indexation of documents to facilitate the search and extraction of information.
- The accessibility to documents' data and the possibility of controlling the progress

Document versioning

After each document's modification the system will store the new version and will allow the posting of comments regarding the fulfilled changes.

Task Management

The proposed system will manage tasks for each user and will integrate them into the personal tasks agenda. The system will record any change of the task status, to help the managers to monitor its progress. The user will be notified at each modification of the status.

Files classification and organization scheme

Allow the storage of an electronic record together with other data assuring its context, by defining the method of organization of electronic data into electronic files and the relations between the files.

Search mechanism

The proposed system will help users to localize metadata, classes, sub-files, volumes and records.

e-Mail

Helps the users manage transparently and efficiently large email amounts, web forms and to send documents (as messages or attachments) within the LPA and/or outside this. The proposed solution will offer the facilities for integration with Microsoft Outlook.

Reporting tool

The system will provide a reporting tool in order to assure the system's users with reports generated based on the stored data.

Electronic Record Management

When a document is finished and approved, this document becomes a record. The records cannot be edited and they are used as reference within the LPA or are distributed.

The storage and classification of records must comply with the internal procedures of the LPA. The proposed system must allow the classification of records according to the LPA's norms and to allow their editing and modification just for certain roles having special access.

These procedures are fulfilled in the Electronic Record Management component (ERM), which includes, as a rule:

- The capture of objects, documents, informational records, that is declaring the object's version final so that this shall be entered as a system record. During the capture, it is grouped (aggregated) into a whole package record, which may include the contents of one or several documents, metadata, digital signatures, notices and decision signed eventually etc.
- A rigid classification scheme to classify the data according to their nature and implications.
- Records identifiers' assignation, for references.
- Record retention control, to assure the preservation of a record according to the legal and business practice
- Archiving and destruction of the record, to assure the correct archiving or the destruction of the record, once it is no longer used.
- Record editing, to allow distributing just several parts of the record and hiding other more sensitive parts. The editing is fulfilled by the administrative roles, and represent, in their turn, records.

2.1.2 Informational objects of DRMS AIS

The informational objects are all the System's objects, their attributes and scenarios according to which specific events happen in relation to them.

The informational objects have the following peculiarities:

- unicity (availability of a unique identifier that identifies and differentiates an object from other similar objects);
- state (the object state is defined by a set of attributes that describe the object's variable properties considered in the system);
- behavior (the object's behavior is defined by the sequence of events that happen and that are considered by the system),
- origin (own object is the object originally considered and identified in the system; borrowed object is the object taken together with its identifier from another system).

To make an informational object unique a coding system with the following parameters shall be available: issuer, type of document, version (if applicable) and other identifiers. The informational objects borrowed from other systems shall be recorded in DRMS AIS with the original code assigned by the issuing informational system (e.g. a borrowed object may be an individual that has a code in the State Register of Population). The borrowed objects that don't have own code shall be assigned such codes.

The DRMS shall operate with the following informational objects:

- **Person** – This is an informational object holding information about the person's identity (last name, first name, year of birth, place of residence, contact details). The unique identifier of the Person should be retrieved from the State Registry of Population – based on IDNP.
- **Authority** – The informational object holding information about the authority/institution (name, address, contact details). The object will be registered into the system as imported object from the State Registry of Legal Entities, based on the IDNO.
- **Input Document** – This represents the totality of defined forms to initiate a request to the LPA by different methods, in written, orally, by email, telephone or other sources. As incoming objects, there may also be internal interpellations within the organization to initiate a workflow, which will be finished by the production at different artefacts. The object is proper for the system and the codification will be performed depending on the type of request and the method of registration.
- **Additional Document** – This represents the totality of auxiliary documents aiming at presenting a more detailed analysis of the case, that lead to certain clarifications, expertise, opinions, statistical data. The additional file could be part of the case folder of a workflow.
- **Output document** – This represents the totality of forms and documents that are fulfilled or drawn up as a result of a final decision-making process on several cases, system statistical reports, analyses and informative notes, other documents executed as a result of a workflow process. The object is identified as being proper to the system and the corresponding codification should be applied depending on the type of the document and the issuing entity.
- **Records** – Records are virtual objects attesting the process of electronic recording of the information in a format proper to the information system. The object's identification and codification should be performed by the database of the System and according to the standards of capturing and recording the data.



The records should be organized into cognate groups for access and retrieval, management and eventual disposal, in which a complete group of records which relate to the same business activity, case or theme is maintained, so that the context of an individual record and the narrative of a sequence of records is preserved.

Also, the records need to be organized to facilitate management of a group of related records as a single unit, for purposes of scheduling, review, preservation and destruction, so that a management process is reliably applied to all records in the group at the same time.

Records on a specific topic should be grouped together into folders, which are allocated to a class.

Classes are arranged, usually in a hierarchical structure, to reflect and support the business activities of an organization. Specific scheduling and management characteristics will be attached to every individual folder (sometimes inherited by virtue of the class to which they belong), according to the record-keeping requirements of the business-process which they represent.

2.1.3 Users and their roles in the system

The actors are the modeled system users. Every actor has a well defined role that enables it to perform specific actions.

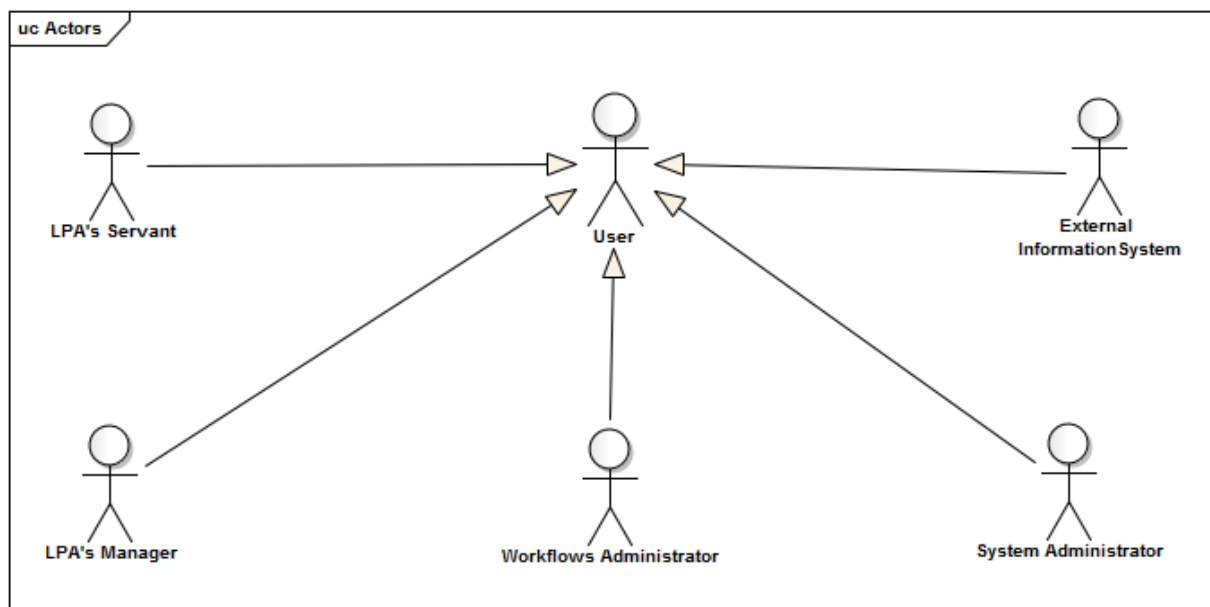
An individual may have the role of one or several actors in the system, but only one role in every *use case*.

An actor role may be also represented by a non-human system, such as a software application.

Actor	Description
LPA's Servant	LPA's Servant is the user role from the lowest hieratical level. The user can process documents and perform activities according to the business-process workflow in which he is involved; can manage tasks agenda, access reports that contains data only to which he has access rights; can use the communication features of the collaborative component of the system.
LPA's Manager	LPA's Manager is the user role, which is part of the highest level of the user roles hierarchy and has significant power related to the decision-making process. The user will have the functionality of approval of documents according to the

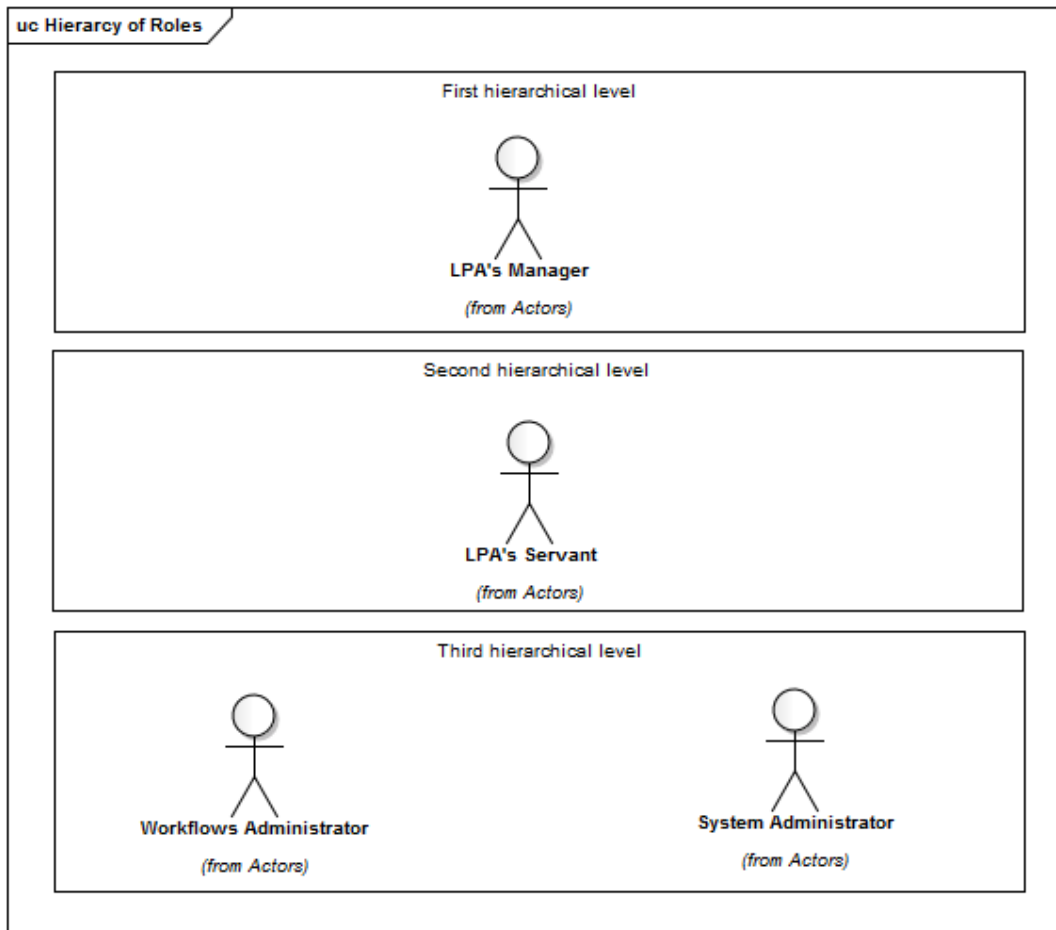
Actor	Description
	business-process workflows; the user can apply the digital signature and run reports that could contain data from all levels of access to information.
Workflow Administrator	Workflow Administrator is responsible for the business-process workflow configuration and adjustment.
System Administrator	The System Administrator is represented by a technical person responsible for the maintenance, support and configuration of the system. Also this user is responsible for the backup and restore operations.
External Information System	This user role is a non-human one and it could be represented by any other external information resource such as State Registry of Population, etc.

System Actors are displayed in the following diagram:



Picture 2 System Actors

Hierarchy of System Roles is shown in the following use case:



Picture 3 Hierarchy of System Roles

According to Picture 3 there are 3 (three) levels in the hierarchy of system roles.

2.1.4 Informational systems to be integrated with the DRMS

The electronic data exchange between the proposed solution and other information resources is recommended to be performed through the governmental interoperability platform "**MConnect**", using web-services and secured standards/protocols such as XML, SOAP, HTTPS, etc.

The interoperability platform is built to help to reduce the number of connections to other information resources of any Public Authorities.

The main concept of the interoperability platform consists of a kind of National Data Bus, that offers the possibility to IT solution to be connected only to the platform and it is up to the platform how to obtain the necessary data from other state information resources such as State Registry of the Legal Entities, State Registry of Population or any other information

system connected to the “MConnect”. In fact, there is only one information solution involved – the interoperability platform “MConnect” to which should be connected the future information system through web-services.

The proposed solution should consume data from the following information resources:

- State Register of Population
- State Register of Legal Entities
- National House of Social Insurances
- Social Assistance Automated Information System
- Governmental electronic services:
 - o **MPass** – governmental authentication service. To be used by all the system users.
 - o **MLog** – logging service.
 - o **MSign** - The integrated governmental electronic service of the digital signature is a reusable service provided at the level of the Government common technological platform which aims to provide an integrating, secured and flexible mechanism as well as various solutions for the application and verification of the digital signature authenticity by the users (including in the use of information systems and electronic services’ context), offered by the digital signature providers in accordance with the legislation in force.

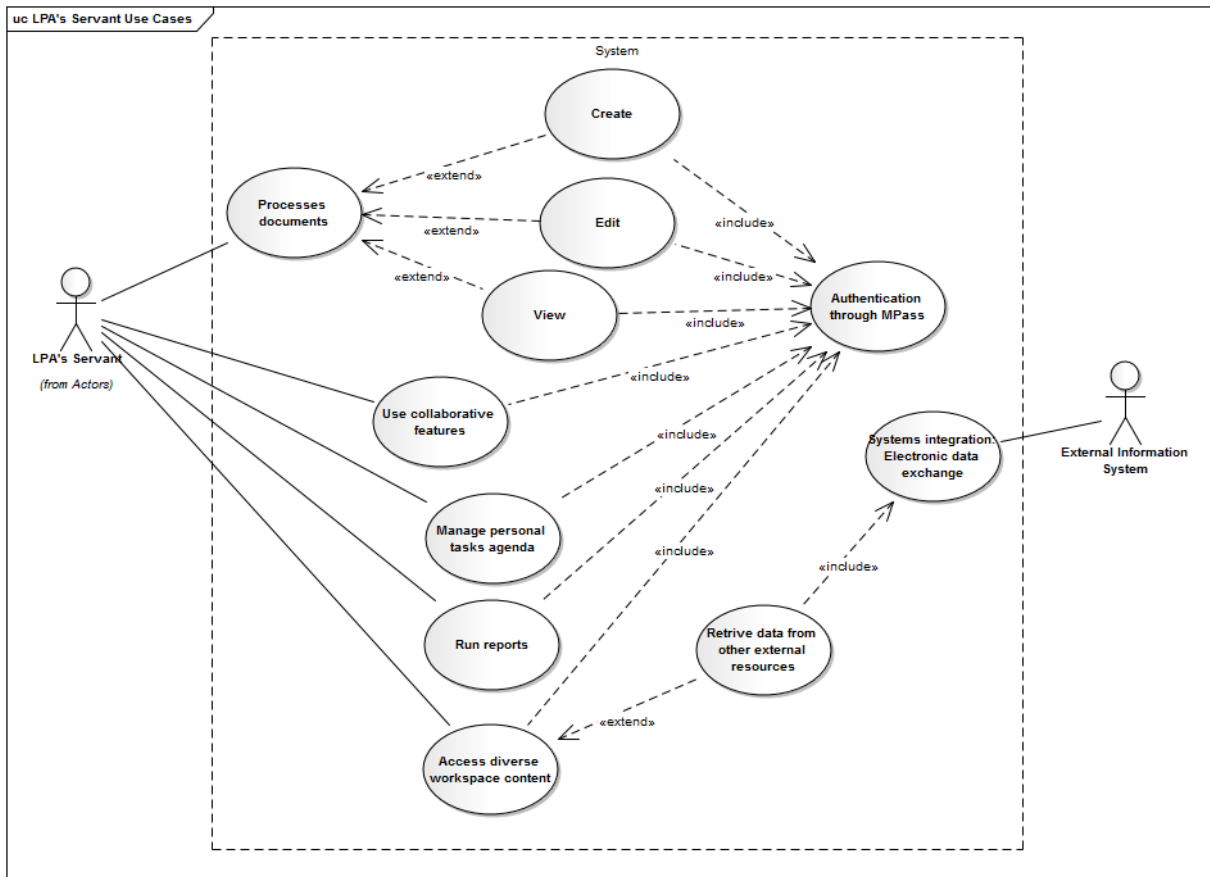
The Electronic Government Center will provide to the awarded company integration guides in order to help the developer company to realize the integration of the proposed system with the platform services.

2.1.5 Business functions and access scenarios for the system services

The use case diagrams are used in particular in the interaction between stakeholders. These diagrams represent the interaction between the external elements of a system (also called actors) and the system. They show the actions performed by the system when it interacts with an actor, but they shall not show how the system performs this action.

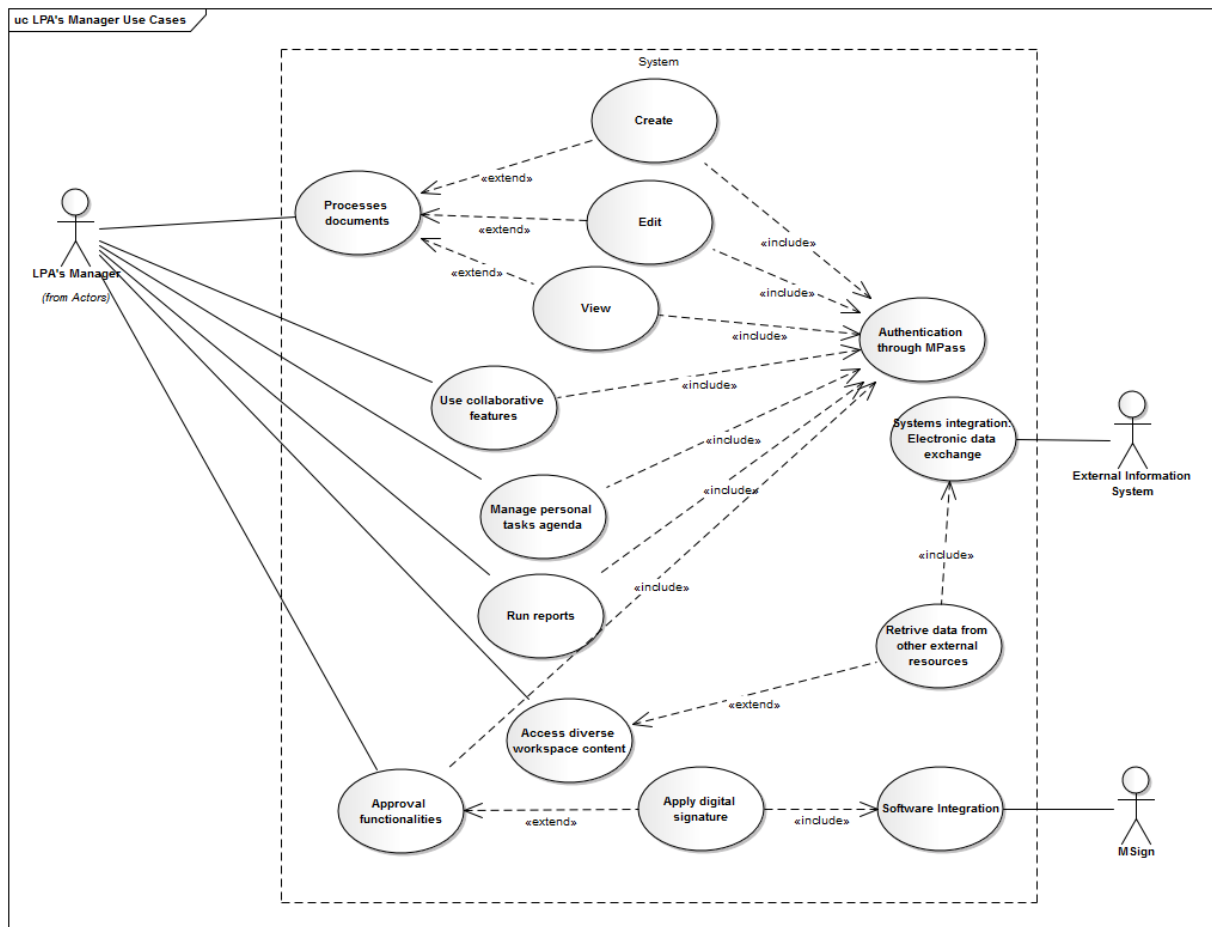
IMPORTANT: The described use cases diagrams in the document represents the minimum general functionalities for each system’s user role. Nevertheless, these are general and should be detailed during the Analysis and Design Phase of the project.

LPA’s Servant Use Cases are shown in the chart below:



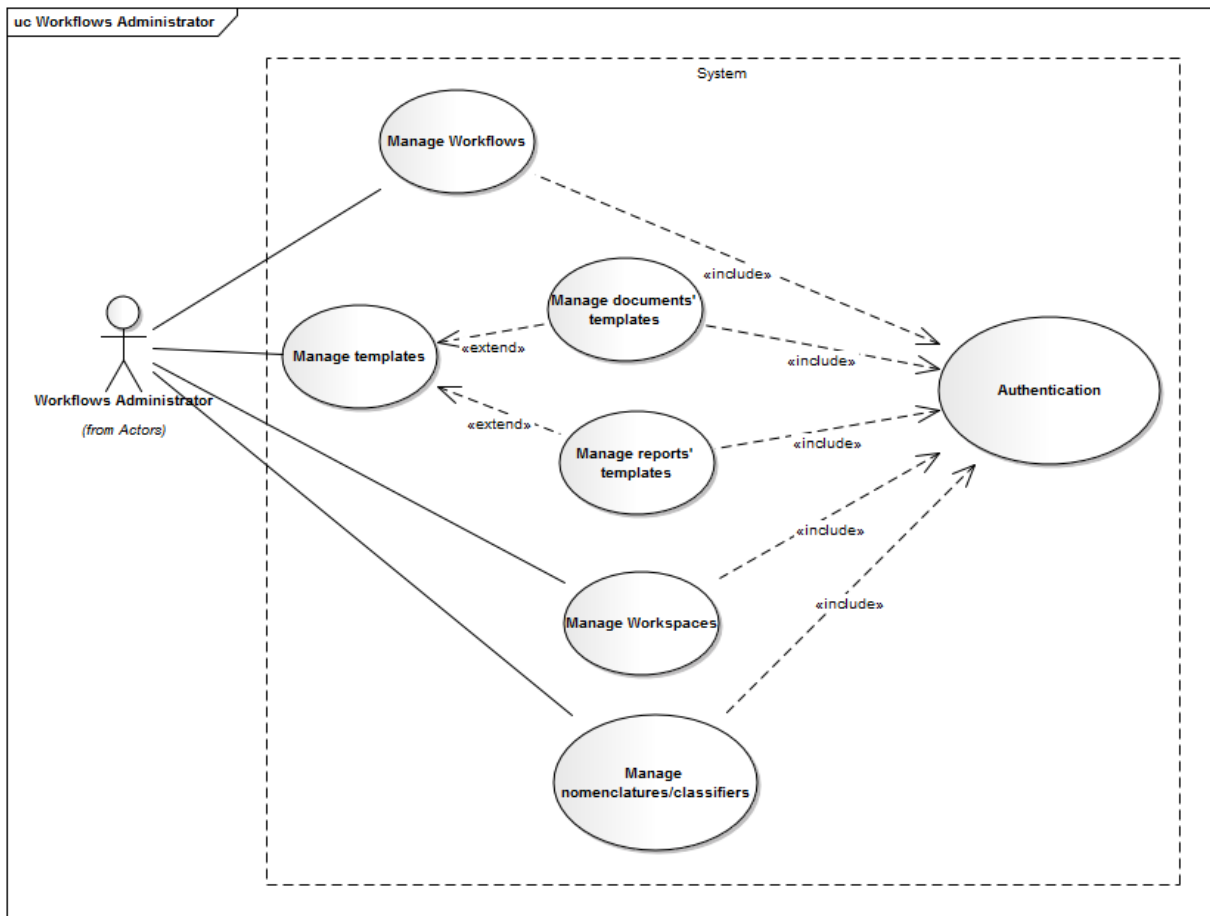
Picture. 4 Use Case Diagram for the LPA's Servant user role

LPA's Manager Use Cases are shown in the chart below:



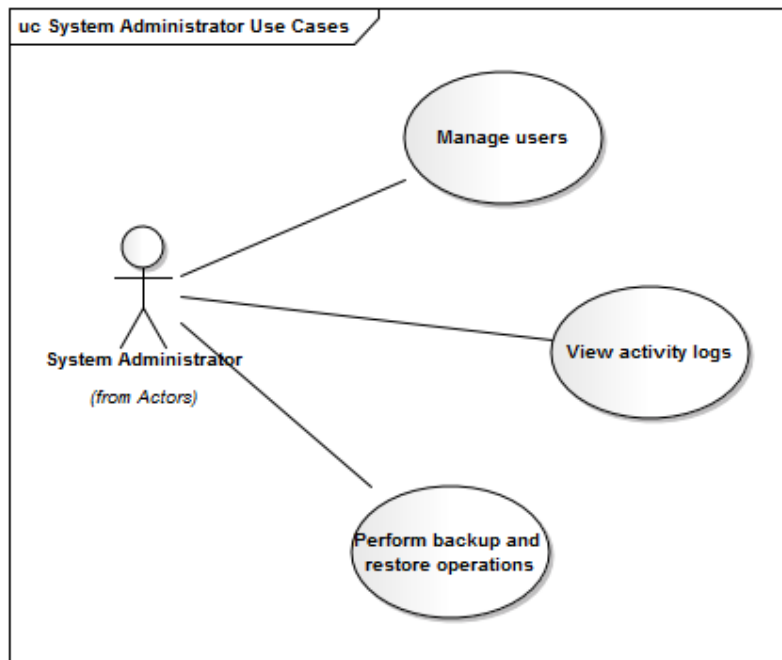
Picture. 5 Use Case Diagram for the LPA's Manager user role

Workflows Administrator Use Cases are shown in the chart below:



Picture. 6 Use Case Diagram for the Workflows Administrator user role

System Administrator Use Cases are shown in the chart below:



Picture. 7 Use Case Diagram for the System Administrator user role

2.1.6 Business Processes

The awarded bidder shall perform the analysis of the existing business-processes together with the LPA's representatives included in the piloting period and will include this analysis in the Detailed Analysis and Design document. According to the identified and described business-processes, the workflows will be configured.

2.2 Functional requirements to the IT system

Each numbered requirement is labelled as FRQ and could have the following marks:

(M) = Mandatory = “The system **must** ...”

(HD) = Highly Desirable = “The system **should** ...”

(D) = Desirable = “The system **may** ..”

MUST – means that the numbered requirement as defined is an absolute requirement.

MUST NOT – means that the numbered requirement as defined is an absolute prohibition.

SHOULD – means that there may exist valid reasons in particular circumstances to ignore a particular item, but the full implications must be understood and carefully weighed before choosing a different course. An implementation which does not include such an item **MUST** be prepared to interoperate with another implementation which does include the item, though perhaps with reduced functionality. An implementation which does include a particular item **MUST** be prepared to interoperate with another implementation which does not include the item (except of course for the feature which the item provides).

MAY – means that the numbered requirement is optional. One vendor may choose to include the requirement because a particular marketplace requires it or because the bidder feels that it enhances the product, while another bidder may omit the requirement. An implementation which does not include such an option **MUST** be prepared to interoperate with another implementation which does include the option, though perhaps with reduced functionality. An implementation which does include a particular option **MUST** be prepared to interoperate with another implementation which does not include the option (except of course for the feature which the option provides).

Identifier	Status	Description
FRQ001	M	The proposed solution must support representation of a business classification scheme, by which electronic folders are placed in an organized structure, consistent with the nature of the classification scheme; the classification scheme and the folders which are classified against this scheme together make up the File Plan.
FRQ002	M	The proposed DRMS solution must be capable of supporting a hierarchical business classification scheme, with a minimum of three levels below the root level; and must support the use of varying numbers of levels at different points in the

Identifier	Status	Description
		classification scheme.
FRQ003	M	The system will support the initial construction of a business classification scheme, in preparation for the creation of folders and before the receipt of electronic records.
FRQ004	M	Where a hierarchical classification scheme is in use, the system must allow the addition of folders to only the lowest level class in any single part of the scheme.
FRQ005	HD	The proposed solution should support an optional folder structured naming mechanism which includes names (e.g. personal or corporate names).
FRQ006	HD	When creating a new electronic folder in a classification scheme which uses a structured numerical or alphanumerical reference, the system should automatically generate the next sequential number available at that position within the scheme.
FRQ007	M	The proposed solution must not, by its own architecture or design, impose any practical limit on the number of folders that can be created under any class, or within the entire system.
FRQ008	M	The proposed system must support the use of metadata for folders, and must be capable of restricting the addition or amendment of metadata elements to authorized users.
FRQ009	M	The system must support inheritance of metadata by folders allocated to a class so that, by default, addition of a new folder results in automatic inclusion of those attributes which derive from the class to which it is allocated.
FRQ010	M	The proposed solution must be capable of configuration so that the ability to create new folders can be controlled according to user role.
FRQ011	M	The system must prevent the destruction or deletion of an electronic folder and any of its records and metadata at all times with the exceptions of deletion by an Administrator as

Identifier	Status	Description
		part of an audited procedure.
FRQ012	M	The system must allow an electronic folder or group of folders, and all parts and records that fall under that folder(s), to be re-classified, by an authorized user, to a different point in the classification scheme, and should retain a history of their location prior to re-classification.
FRQ013	M	The proposed must ensure that all electronic records and part(s) remain correctly allocated following the relocation of a folder or group of folders, so that all previous structural links between records, parts, and folders are retained.
FRQ014	HD	The proposed system should allow all relevant folder and record metadata attributes which are determined by the point in the classification scheme (including those determined by inheritance) to be, optionally, automatically updated following the re-location of a folder.
FRQ010	M	System's users must be able to comment on documents in a feed function. This should create immediate information transparency on a document's version history for available document versions.
FRQ011	HD	<p>The proposed solution must offer integration with Microsoft Office package (Outlook, Word, Excel), e.g.: a button/functionality "to register" in the user interfaces of Microsoft Word and Outlook so that users can save documents directly out of MS Office applications to the proposed DRMS solution database. Another solution could be a drag-and-drop function to DRMS files in MS Outlook and Word, tight integration to Windows Explorer.</p> <p>Another example could be a direct interface from Windows Explorer to DRMS for registration or easy to use drag and drop from Windows Explorer to the DRMS files, automatic tracking and import of documents or emails to the DRMS database after predefined rules.</p>
FRQ012	M	The proposed solution must offer functionalities for the automated archiving of documents that are printed or

Identifier	Status	Description
		created as a PDF. Business rules must be possible to be configured by the user in order to assure the processes to run automatically.
FRQ013	M	The proposed solution should have a function that lets users to jump from third-party applications to all documents associated with a process in the system.
FRQ014	M	The system must support the business-processes workflows configuration. It should be available a dedicated from designer that allows users to digitize business processes simply and quickly.
FRQ015	M	The proposed solution must provide features concerning the user interface customization. The functionality should allow to individually user to create own profiles and to configure preview components and the order in such a way that makes the most sense for work.
FRQ016	M	The system must provide an administration interface that allow user to access the settings, with the integrated function search.
FRQ017	M	The system must provide the possibility of creating dynamically folder structures.
FRQ018	M	The proposed solution must provide server-based e-mail features that offer comprehensive options via freely configurable rule sets for automatic e-mail processing.
FRQ019	M	The proposed system must provide all necessary functions for comprehensive e-mail lifecycle management. This includes the option for legally compliant storage and high-performance e-mail process management. All e-mails, from creation through to removal, should be processed, archived and managed in coordination with process links and pursuant to legal regulations.
FRQ020	HD	The system should allow for the combination of two e-mail archiving strategies, client- or server-based. Users should have the possibility to access archived documents and data at

Identifier	Status	Description
		any time from the e-mail system through a specialized access tools.
FRQ021	M	The proposed solution must be possible to be integrated with Microsoft Outlook
FRQ022	M	The proposed system must provide a dedicated workflow component in order to manage business-processes.
FRQ023	M	The workflow component must provide a graphic designer that will help users to define business-processes workflows.
FRQ024	M	The proposed solution should have the possibility to define processing rules for each business process (such as the underlying business logic). In combination with scripting options, all these functions should provide business processes digitally and automated.

Data registration

Identifier	Status	Description of functional requirement
FRQ025	M	The system shall have a graphical interface for data registration regarding the citizens' requests.
FRQ026	M	The system shall have a validation mechanism for the form's mandatory fields.
FRQ027	M	The system shall generate a unique identification number for every registered file.
FRQ028	M	The system shall generate a unique identification number for the registered application form.
FRQ029	M	The system shall allow printing out the application form once filled in.

Data editing

Identifier	Status	Description of functional requirement
FRQ030	M	The edit operation will be available in the system according to the user's access rights and the role in the system
FRQ031	M	The system will display the editing form filled in with the data already recorded in the system.
FRQ032	M	The system will have a field validation mechanism similar to registration.
FRQ033	M	The system shall save the date and time of edits and the user who made the modification.

Requirements related to reporting component

Identifier	Status	Description of functional requirement
FRQ034	M	The reports can be exported in PDF, MS Word, MS Excel formats, along with the automated delivery mechanisms (e.g. e-mail). The reports and their formats shall be agreed later by beneficiary at the analysis phase.
FRQ035	M	The solution shall enable defining templates
FRQ036	M	The solution shall enable creating, modifying or deleting the generated reports allowing for saving their configuration for further use.
FRQ037	M	The reports' templates will be managed by the Workflows Administrator.
FRQ038	M	Reports shall have filtering capabilities by different fields (e.g. period, organizational hierarchy, geographic location).
FRQ039	M	The solution shall allow for the creation, editing or deletion of reports and for saving their configuration for further use.
FRQ040	M	Groupings in the report – based on a list of fields in the

Identifier	Status	Description of functional requirement
		database (relational or multidimensional).
FRQ041	M	Columns/displayed information – based on a list of fields in the database (relational or multidimensional) allowing for specifying their type and size (in particular for further export). The application of the list of or potential operators on the selected fields shall also be possible.
FRQ042	M	Totals/subtotals – based on a list of fields in the database (relational or multidimensional), as well as on a list of functions or potential operators.
FRQ043	M	Possible filtering – based on a list of fields in the database (relational or multidimensional).
FRQ044	M	Filtering / implicit requirements – the field and value shall be specified.
FRQ045	M	Ordering – based on a list of fields in the database (relational or multidimensional).
FRQ046	M	Reports will contain header, logo, signatures, implicit texts.
FRQ047	M	Report type: normal or cross-tab (if fields to be grouped by rows and columns can be selected, as well as the displayed information/values)
FRQ048	M	Reports will contain a pre-defined name for export.
FRQ049	M	Reporting shall be done through a browser with no need to install other software applications.

Requirements related search mechanism

Identifier	Status	Description of functional requirement
FRQ050	M	The system shall have a flexible module that will enable retrieving documents and performing searches by various criteria;

Identifier	Status	Description of functional requirement
FRQ051	M	<p>The system shall have the following search components for users:</p> <ul style="list-style-type: none"> - Auto-complete (displaying several words that start with the entered characters); - Auto-correct (automatic correction of search terms); - Boolean search using logical operators like AND, OR, term removal, exact phrase, search range, disregard of upper case letters; - Activation of document indexes as search filters; - Search in additionally pre-defined fields; - Highlight search terms; - Inflected search (the system will use automatically all the inflections of the searched terms e.g. „to write” => „I write”).
FRQ052	M	It shall be possible to set up the system to perform searches in the documents' version. The search results can be printed out or saved in Excel or HTML format;
FRQ053	M	When the search is performed by word, other similar key words may generate relevant results.
FRQ054	M	The search results can be viewed as a list or in a shape of a tree;
FRQ055	M	The search engine shall provide information logically linked to the search request.
FRQ056	M	There will be two types of searches: simple and advanced. This is applicable to both portals – internal and external.

Event logging

Identifier	Status	Description of functional requirement
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Identifier	Status	Description of functional requirement
FRQ057	M	The system will designate the events to be logged.
FRQ058	M	The logging mechanism shall be the integrated logging subsystem from <i>MCloud</i> . The <i>MLog</i> subsystem will record business-related events. The other events shall be logged in a local log.
FRQ059	M	The system shall allow for viewing the history of the operations performed by users - date, time, and user.

User administration

Identifier	Status	Description of functional requirement
FRQ060	M	The system users shall login through <i>MPass</i> service.
FRQ061	M	Users will be managed in a centralized manner.

Administration of nomenclatures

Identifier	Status	Description of functional requirement
FRQ062	M	The system shall have a management mechanism for nomenclatures and classifiers that contain all the system metadata.
FRQ063	M	The system shall not allow for the suppression of a category of metadata if the latter is used at least in one database record.
FRQ064	M	For the system of internal nomenclatures, the IT solution shall have a mechanism for their definition and dynamic administration.

Other requirements

Identifier	Status	Description of functional requirement
FRQ065	M	The proposed solution must support document versioning feature
FRQ066	M	The proposed system must retrieve data about the person from the State Registry of Population via governmental interoperability platform MConnect using web-services.
FRQ067	M	The information about the organizations, other state entities and economic operators will be retrieved from the State Registry of Legal Entities via governmental interoperability platform MConnect using web-services.
FRQ068	HD	The information regarding the land ownership should be retrieved/validate according to the information recourses of the State Enterprise "Cadastru".
FRQ069	M	The proposed system must assure functionalities regarding the record-keeping of family members. For this purpose the system should offer the add/edit/delete functionalities for the records regarding the family composition.
FRQ070	HD	The proposed solution should process data regarding the pension from the information resources of National House of Social Insurance.
FRQ071	M	The system architecture should take into account the flexibility aspect in order to be possible further to integrate diverse e-services of G2C and G2B types. For example: e-services in order to request and obtain certificate regarding the family members or issuing of other certificates that today involve too complicated and bureaucratic flows being a serious burden for citizens.
FRQ072	M	The proposed solution must allow changes to be made to a user profile at any time, and must restrict this ability to an Administrator.
FRQ073	M	The proposed system must support the definition of a set of user

Identifier	Status	Description of functional requirement
		roles, which control the assignment of rights to specific functions or groups of functions; and must restrict any ability to define or customize these roles to an Administrator.
FRQ074	M	The system must ensure that all users are allocated to one or more user role(s).
FRQ075	M	The proposed solution must be able to limit access to system functions and facilities, so that all users will only be able to carry out those functions that are permitted by the user role(s) to which they have been allocated.
FRQ076	HD	The proposed DRMS solution must support the definition of pre-defined access control groups that identify business or other functional groups, so that, in principle, any user can be a member of any group, and differing groups at differing times; and must restrict this ability to allocate and reallocate to an Administrator.
FRQ077	M	The system must consistently present user interface menus, commands and other facilities in all parts of the application.
FRQ078	M	The proposed DRMS system must use consistent terminology to label functions and actions in all parts of the application.
FRQ078	M	The proposed solution must produce error messages which are meaningful and appropriate, and should offer immediate prompts for actions to resolve the error wherever possible.
FRQ079	M	Where validation errors are detected, the proposed solution must unambiguously describe the nature of the error, and offer a method of correcting the error, or cancelling the action.
FRQ080	HD	The integrated DRMS should remove the visibility of functions from users who do not have access to those functions in their allocated user role.
FRQ081	M	Where on-screen windows are used, the system must ensure that where an end user is able to re-size and re-locate windows, the contents of those windows remain correctly aligned.

Identifier	Status	Description of functional requirement
FRQ082	M	The proposed DRM solution must provide an interface to standard e-mail clients, including Microsoft Outlook and Exchange, which enables e-mail messages to be captured directly into the system from the e-mail client.
FRQ083	HD	The proposed system should be able to integrate with the standard office system packages (for example, MS Office) which the system supports, so that the record can be captured by the system.
FRQ084	HD	<p>The proposed solution should be able of generating an e-mail message from within the application in order to attach:</p> <ul style="list-style-type: none"> • one or more records stored in the system’s database (in the same message) • active references to one or more records stored in the system • metadata for one or more records stored in the system.
FRQ085	M	The system must enforce data integrity, referential integrity and relational integrity at all times.
FRQ086	M	The proposed system must ensure that all occurrences of classes, folders, records, parts and extracts are allocated a system identifier which is unique within the system.
FRQ087	M	The proposed solution should support a distributed repository with multi-site service.
FRQ088	M	<p>The proposed DRM solution must provide evidence of the degree of scalability that it can support over time, as organizational needs change and develop. The metrics for scalability are:</p> <ul style="list-style-type: none"> • number of geographical locations at which users can be supported, while maintaining the performance metrics demonstrated; • total size of the record repository which can be

Identifier	Status	Description of functional requirement
		<p>supported, in Gigabytes or Terabytes, while maintaining the performance metrics demonstrated;</p> <ul style="list-style-type: none"> • number of total users which can be supported, while maintaining the performance metrics demonstrated; • systems management overhead in maintaining a growth rate for the number of records; • amount of re-configuration and downtime required to maintain a growth rate for the number of records; • amount of re-configuration and downtime required to make bulk changes to organizational structures, class and folder structures, and user roles with the number of folders, records.

C. TECHNICAL SPECIFICATIONS General technical requirements

Identifier	Status	Description
NFRQ001	M	The system shall have security elements to secure the integrity of communication between components, data integrity and will allow for the implementation of adequate security policies.
NFRQ002	M	Data integrity and system functionalities shall be ensured by limiting the access of the individuals who may manipulate data or system components.
NFRQ003	M	Database integrity shall be ensured both by introducing constraints at database level and a data validation mechanism at entry. There will be logins for the central database to guarantee data recovery and high availability. Data recovery is required both in case of disasters and to prevent fraud.
NFRQ004	M	<p>Login/Identification is precondition for any action to be performed by a user. The solution shall use an integrated login system that will enable the user to login first and then perform actions in the system. While logging in the user will also be identified – relevant information in the audit mechanisms.</p> <p>The user will log in using the user name and password and through integration with the M-Pass governmental service.</p>
NFRQ005	M	Access Control/ Authorization shall be performed during login when the user's authorization level will be determined, enabling the user to perform in the system (in any of its components) only the allowed actions and to work only with the appropriate data.
NFRQ006	M	Security audit shall be performed at the central application level by logging the actions performed by the connected users and the unsuccessful logins as well.
NFRQ007	M	The system shall have the functionality to export the lists in formats like XML, CSV and other relevant formats to be able

Identifier	Status	Description
		to be further taken over by other systems and/or IT tools.
NFRQ008	M	The technical solution shall have an ergonomic and user-friendly interface that will be coherent in terms of its design elements (structure, function keys, fonts, colors, menus, general layout, chaining monitors);
NFRQ009	M	The system shall have a mechanism to generate explicit error messages, log files to track the running of procedures and support messages to support users. For failed or successful actions alike the system shall send back a relevant message to the user.

Security requirements

Identifier	Status	Description
NFRQ010	M	Access to data and the specific functionalities of all roles shall be secured by a security system aimed to protect the solution from security threats.
NFRQ011	M	The system shall allow secure access to functionalities according to the user role and group policy.
NFRQ012	M	The security system shall allow for flexibility in configuration and low connection with the other subsystems.
NFRQ13	M	Security testing at least according to OWASP Top 10 vulnerabilities;
NFRQ14	M	All the fields in the forms filled in by users shall be validated by type both at client and server levels;
NFRQ15	M	During the communication of the system with other systems digital certificates shall be used for identification;
NFRQ16	M	For sensible transactions the timestamp application service

Security requirements

		shall be used;
NFRQ017	M	The electronic data exchange shall use secured transport protocols.
NFRQ018	M	The Authorization Component shall follow the Login of users.
NFRQ019	M	<p>The system shall be secured at the level of application from users.</p> <p>Moreover, the requested services shall be protected by own security mechanisms. A user shall not be able to use other features and data than the ones allowed according to the authorization level.</p>
NFRQ020	M	<p>Audit. The system shall deliver an interception, monitoring and audit (logging) mechanism of all events happening in the system, as well as all the use exceptions. This information shall be accessible for the users designated to perform the security audits. The information about events shall be accompanied by marking the time of all operations as well as the identity of the users that initiated them.</p>
NFRQ021	M	The transmission of data or edited messages among system components (including the client components, server components) shall be done through security mechanisms, protocols and standards, such as HTTPS.
NFRQ022	M	Data filtering. The system shall provide exclusive access to data by implementing general filtering mechanisms to apply to all the performed actions.
NFRQ023	M	Access limitations to prevent users from connecting to the system if an error occurs.
NFRQ024	M	Session management to automatically turn off the users' sessions if no actions were performed for a specific period of time.

Security requirements

NFRQ025	M	Users. The system shall allow for editing the user profiles.
NFRQ026	M	The user login will be done through the system's interface and mechanisms. The administration of information about users and their login data shall be done through the system's administration module accessible through the system's interface.

Performance requirements

Identifier	status	Description
NFRQ027	M	The system should support more than 100 concurrently connected users
NFRQ028	M	The system performance shall be tested against the performance requirements stated in the technical task and the basic business scenarios;
NFRQ029	M	The performance testing shall include at least two components – load testing and stress testing.

3.1 Specifications of the system's hardware components

The bid solution shall be installed in the governmental cloud ***M-Cloud***.

Bidder shall include in the technical bid the specifications of the appropriate hardware and software applications for the offered solution.

The cost of the hardware equipment and Microsoft Windows Server software licenses shall not be included in the price quotation.

D. TESTING AND QUALITY REQUIREMENTS

Planned inspections

3.1.1. Inspections at system development stage

3.1.1.1 Bidder shall keep a system development version in M-Cloud – Development Environment.

3.1.1.2 At least 70% of the developed specific system components will be subjected to unit testing.

3.1.1.3 Bidder shall regularly update the components of the development environment and support the regular reports with system demos.

3.1.1.4 Bidder shall document and address the beneficiary's requests that will be classified into defects and modification requests if appropriate.

3.1.2. Inspections at system delivery stage

3.1.2.1 To perform the delivery Bidder shall install the system components on an Integrated Environment (according to the configuration requested by Bidder).

3.1.2.2. Bidder shall install the system components according to the installation guidelines.

3.1.2.3 Bidder shall install the system components together with the Beneficiary's system administrator.

3.1.2.4 Bidder shall configure the system components on the integrated environment.

3.1.2.5 Bidder shall modify the configuration parameters according to the installation guidelines.

3.1.2.6 Bidder shall modify the configuration parameters together with the system administrator.

3.1.2.7 Bidder shall demonstrate the functionality of all the system components.

4.2 Pre-Acceptance Testing

3.2.1 In addition to the Supplier's standard check-out and set-up tests, the Supplier (with the assistance of the Purchaser) shall perform the following tests on the System and its Subsystems before installation will be deemed to have occurred and the Purchaser will issue the Installation Certificate(s) (pursuant to GCC Clause 26 and related SCC clauses).

3.2.2 Beneficiary will check if all the automatic mechanisms of integration with other computer subsystems meet the requirements.

3.2.3 Bidder will perform the accessibility testing according to the Web Content Accessibility Guidelines (WCAG) 2.0. Bidder will provide details about the testing method and the achieved results.

3.2.3 Bidder will perform the security testing at least according to OWASP Top 10 vulnerabilities. Bidder will provide details about the testing method and the achieved results.

Bidder will conduct the performance testing at least for two components

- A. load testing;
- B. stress testing.

3.2.4 Beneficiary may request an expertise of the testing results from third parties.

3.2.5 The acceptance criteria for pre-acceptance testing are:

- C. 100% of the nonconformities detected at delivery were addressed;
- D. 80% of the accessibility tests for A level are successful;
- E. 100% of the security tests are successful;
- F. performance is better than required;
- G. no critical nonconformities and less than 2 major nonconformities and 30 average and minor nonconformities were detected.

3.2.6 The acceptance date will be the point when all the nonconformities detected when the system is put into production have been addressed.

4.3 Operational Acceptance Testing

3.3.1 Pursuant to GCC Clause 27 and related SCC clauses, the Purchaser (with the assistance of the Supplier) will perform the following tests on the System and its Subsystems following installation to determine whether the System and the Subsystems meet all the requirements mandated for Operational Acceptance.

3.3.2 Beneficiary will check the entire business cycle and the related technical performance through operational tests. More specifically:

3.3.3 The operational acceptance criteria: Beneficiary will consider accepting the system if:

- all the positive scenarios have been successful;
- at least 80% of the negative scenarios must be successfully handled;

- no testing scenario will corrupt the data integrity.

3.3.4 The system shall be deemed as accepted when it will operate according to the normal parameters and no major operation deficiencies are detected during one month. Major deficiencies shall be considered the errors that cause obstruction of system functionalities that prevents avoiding or overcoming a situation that requires the involvement of the System Administrator or even system developers.

D. PROJECT IMPLEMENTATION REQUIREMENTS Project Management

5.1.1 Methodology

Project Management activities must be conducted in accordance with internationally recognized methodology by specific Project Management professional bodies.

In the technical proposal the Bidder shall submit detailed description of Project Management methodology that will be used in the project and will describe how the proposed experts will be involved.

In the technical proposal, the Bidder shall submit the detailed plan for provision of services for the entire term of the contract. The service provision plan should contain all requested services, by stages.

In the technical proposal, the Bidder shall describe how the progress in project activities will be reported. The Bidder shall describe in detail the reporting procedure in terms of reporting periods, forms used, the information to be contained in reports, and the progress report approval circuit.

The Bidder shall describe in the project how communication between project participants will be ensured.

The Bidder will describe in the technical proposal how problems that may arise during the project will be solved. The procedures and forms to be used for management of problems, their escalation and resolution will be presented.

The Bidder will present in the technical proposal the plan of acceptance to be used in the project for partial receptions / acceptances and the final reception/acceptance. The plan divided by staged and the forms for partial and final reception/acceptance shall be submitted.

The Bidder will describe in the technical proposal how changes during project implementation will be treated (within the Terms of Reference). The procedure related to change management and the forms to be used in this process will be described.

The Bidder has to size the project management team so that, for the entire duration of the contract, the people responsible for carrying out this activity are available on-site to ensure the best implementation of the project.

Given the complexity and duration of the project, bidders should consider the need for provision of adequate number of man-days for Project Management activities by allocating key and non-key experts. The key experts for these activities are Project Managers.

The Bid must include an initial project plan, with as many details as possible, to meet the requirements of staging and the project deadline.

The implementation of the entire system should cover the following steps:

- Analysis
- Design
- Development /configuration, including internal testing
- Implementation
- Acceptance Tests
- Production entering

Technical assistance and support during the initial plan required to be submitted with the Bid must cover all the steps mentioned above.

5.1.2 Analysis and design

The Bidders should describe in detail the methodology by which analysis and design activities will be conducted.

The Bidders must submit along with the Bid the procedures and work instructions for analysis and design implemented within their organizations. The Bidders must describe the tools that they use so that to ensure:

- collection and record of requirements
- full coverage of the project theme
- requirement changes tracking
- traceability of requirements from project objectives to technical specifications
- modeling of processes and activities in accordance with recognized modeling and representation standards (UML or equivalent)

The Bidders must submit detailed deliverables that will result from appropriate service delivery at the stages of development and design. The description should include at least the following information:

- form/forms to be used for each deliverable
- description of the contents of each deliverable
- how the content of deliverables will be interpreted

5.1.3 Development / configuration and internal testing

The Bidders should describe in detail the methodology by which they will conduct development/configuration and internal testing activities and demonstrate the integration of these procedures for analysis and design procedures.

The bidders must submit with the bid the procedures and work instructions for development/configuration and internal testing implemented within their organization

The Bidders must submit detailed deliverables that will result from appropriate service delivery at stages of development / configuration and internal testing.

5.1.4 Implementation

The Bidders should describe in detail the methodology by which they will conduct implementation activities.

The Bidders must submit with the bid the procedures and the instructions for implementation within their organization and will demonstrate the integration of these procedures with procedures related to development/configuration and internal testing.

The Bidders must submit detailed deliverables that will result from the provision of appropriate services in the implementation phase. The description should include at least the following information:

- form/forms to be used for each deliverable description, description of the contents of each deliverable, description of how the content of deliverables will be interpreted

The Bidders shall describe the procedure of user training. The procedure should include at least the following information:

- description of courses and expected results
- course assessment method
- trainee assessment method
- forms to be used

5.1.5 Acceptance Tests

The Bidders will present in detail the methodology and procedures by which specific acceptance testing activities will be conducted. The methodology will be adapted to the project.

The Bidders shall demonstrate that the proposed methodology and procedures they will use fully cover the topic of the project so that it is possible to test all the functionalities identified in the analysis and design phase.

5.1.6 Production entry

The Bidders must submit the plan to be used upon system’s entry into production. The submitted plan must take into account the logical links between subsystems so as to ensure a coherent production entry.

Requirements regarding the users’ trainings

Identifier	status	Training and Training materials
TRRQ001	M	The Supplier will prepare the curricula for training of the following target groups: (a) LPA’s Manager(s); (b) LPA’s Servant(s); (c) Workflows Administrator; (d) the System administrator on applications administration / maintenance; The purchaser will approve the curricula before starting the training.
TRRQ002	M	The Supplier will provide training materials in form of manuals for each target group.
TRRQ003	M	The curricula for Group (c) and (d) – will contain the entire set of components and controls used for the configuration of the system, containing theoretical and practical lessons. The final exam will be conducted after the trainees will implement an individual task of configuration of the system to be ready for the new training session (simple but covering main components and functions).
TRRQ004	M	The curriculum for Group (c) and (d) – Workflows and System administrators – will contain description of administration tools provided by the system.
TRRQ005	M	The Supplier will provide hands-on training to several specialists appointed by the Purchaser, considered as target group (c) and (d), aimed to deliver skills in future maintenance of the provided solution. Along with it a curriculum for formal training will be developed, including relevant system maintenance questions, and

		help desk maintenance aspects.
TRRQ006	M	The curriculum for Group (a), (b) and (c) users – will contain detailed explanation of the utilization of the application(s) for interaction between different users and roles and the utilization of the DRMS platform; detailed responsibilities of each role, utilization of application to implement necessary activities, reporting and other appropriate information. The training will also contain practical utilization and walkthroughs for easier understanding of materials. The exam is obligatory.
TRRQ007	M	The Supplier will conduct at least 100 hours of formal training and hands-on training during the period of installation of the system, and during the piloting period.
TRRQ008	M	Training for all groups must be conducted in Romanian.

E. REQUIRED FORMAT OF TECHNICAL BIDS Description of Information Technologies, Materials, Other Goods, and Services

5.1.1 The Bidder must provide detailed descriptions of the essential technical, performance, or other relevant characteristics of all key Information Technologies, Materials, other Goods, and Services offered in the bid (e.g., version, release, and model numbers). Without providing sufficient clear detail, Bidders run the risk of their bids being declared non-responsive.

5.1.2 To assist in the bid evaluation, the detailed descriptions should be organized and cross referenced in the same manner as the Bidder’s item-by-item commentary on the Technical Requirements Chapter 2.2 Functional Requirements. All information provided by cross reference must, at a minimum, include clear titles and page numbers.

6.2 Item-by-Item Commentary on the Technical Requirements

6.2.1 The Bidder must provide an item-by-item commentary on the Purchaser’s Technical Requirements, demonstrating the substantial responsiveness of the overall design of the System and the individual Information Technologies, Goods, and Services offered to those Requirements.

- 6.2.2 In demonstrating the responsiveness of its bid, the Bidder is strongly urged to use the Technical Responsiveness Checklist of the Technical Requirements. Failure to do so, increases significantly the risk that the Bidder's Technical Bid will be declared technically non-responsive. Among other things, the checklist should contain explicit cross references to the relevant pages in the Bidder's Technical Bid.

Note to Bidders: For each of the Technical Requirements, the Bidder must describe how its Technical Bid responds to each Requirement. In addition, the Bidder must provide cross references to the relevant supporting information, if any, included in the bid. The cross reference should identify the relevant document(s), page number(s), and paragraph(s). The Technical Responsiveness Checklist does not supersede the rest of the Technical Requirements (or any other part of the Bidding Documents). If a requirement is not mentioned in the Checklist, that does not relieve the Bidder from the responsibility of including supporting evidence of compliance with that other requirement in its Technical Bid. One- or two-word responses (e.g. "Yes," "No," "Will comply," etc.) are normally not sufficient to confirm technical responsiveness with Technical Requirements. References to Internet resources in are not acceptable and will be treated by evaluators as missing information.

6.3 Preliminary Project Plan

- 6.3.1 The Bidder must prepare a Preliminary Project Plan describing, among other things, the methods and human and material resources that the Bidder proposes to employ in the design, management, coordination, and execution of all its responsibilities, if awarded the Contract, as well as the estimated duration and completion date for each major activity. The Preliminary Project Plan should also state the Bidder's assessment of the major responsibilities of the Purchaser and any other involved third parties in System supply and installation, as well as the Bidder's proposed means for coordinating activities by each of the involved parties to avoid delays or interference.
- 6.3.2 In addition to the topics and points of emphasis, the Preliminary Project Plan **MUST** address all activities listed in the Implementation Schedule.

6.4 Confirmation of Responsibility for Integration and Interoperability of Information Technologies

- 6.4.1 The Bidder must submit a written confirmation that, if awarded the Contract, it shall accept responsibility for successful integration and interoperability of all the proposed Information Technologies included in the System, as further specified in the Bidding Document.