

# Terms of Reference Request for Services

*IT Expert support for the development and implementation of eSystem in the  
Secretariat for Legislation in North Macedonia*

## 1. Background

The Regional School of Public Administration (ReSPA) is an inter-governmental organization that enhances regional cooperation, promotes shared learning, and supports the development of public administration in the Western Balkans. ReSPA Members are Albania, Bosnia and Herzegovina, Montenegro, North Macedonia and Serbia, while Kosovo\* is a beneficiary. ReSPA aims to help regional governments develop better public administration, public services, and overall governance systems for their citizens and businesses and prepare them for membership in the European Union.

ReSPA establishes close cooperation with ministers, senior public servants, and unit heads in member countries. ReSPA also works in partnership with the European Union, precisely the Directorate General for Enlargement and Eastern Neighbourhood (DG ENEST), other regional actors such as OECD/SIGMA and Regional Cooperation Council (RCC), as well as agencies and civil society organizations. Since its inception, ReSPA, as an international organization and a key regional endeavour in Public Administration Reform, has contributed to capacity-building and networking activities through on-demand support mechanisms, peering and the production of regional research materials.

The European Commission (EC) provides directly managed funds to support the ReSPA activities (research, training and networking programmes) in line with the EU accession process.

ReSPA works primarily through regional networks that operate at three levels: Ministerial, Senior Officials, and networks/working groups of experts and senior practitioners. There are four regional thematic groups: (1) Policy planning, better regulation and coordination of Centre of Government, (2) European integration and accession negotiations; (3) Human Resources Management and Professional Development; (4) Service Delivery (digitalization and quality management).

The assignment described in these Terms of Reference will be funded under the ReSPA eGovPilot instrument of support.

## 2. Problem statement and description of the assignment

The Secretariat for Legislation of the Government of North Macedonia (Secretariat) plays a pivotal role within the country's legal and institutional framework. As a key link in the legislative process, the Secretariat holds significant responsibility for ensuring legal consistency and supporting the implementation of regulatory reforms. Its contributions are especially critical in the context of the country's EU accession negotiations, where it must provide expert opinions on the alignment of national legislation with the EU acquis.

In accordance with the Law on the Government of North Macedonia, the Secretariat is tasked with ensuring coherence within the legal system. This includes:

- Providing expert opinions on draft laws and regulations;
- Ensuring their alignment with the Constitution, the laws of the Republic, EU legislation, and international agreements;

- Supporting the transposition of EU legislation as part of the EU accession criteria.

As the only competent body authorized to assess and align national draft laws and by-laws with EU legislation, the Secretariat evaluates compliance with EU legal principles, analyzes relevant EU directives, decisions, and regulations, and proposes necessary amendments or new laws. Its opinions form an integral part of legislative proposals submitted to the Assembly.

The Secretariat ensures methodological consistency in drafting laws and regulations, offering expert legal support to ministries and other public administration bodies. This includes:

- Providing legal drafting advice in line with national legal standards.
- Participating in the drafting process and offering expert guidance to the Government.
- Issuing opinions on constitutional and legal assessments, including those initiated by the Constitutional Court.

To support these functions, the Secretariat has developed tools such as the Manual on Nomotechnical Rules for Drafting Laws and the Manual for Transposition of EU Legislation.

Although part of the Government, the Secretariat operates as an independent institution. It occupies a horizontal position within the state administration, working with all ministries and administrative bodies. It exercises its competencies by issuing legal opinions, conducting verbal alignment sessions, and authorizing the publication of draft laws and acts. This ensures a harmonized and coherent legislative process and facilitates alignment with the EU legal framework.

According to the Public Administration Reform Strategy 2019–2024, institutional capacities for legal alignment with the EU remain limited. The high volume of legislative materials, combined with limited human and financial resources, highlights the need for enhanced organizational efficiency.

To address these challenges, the Secretariat has initiated the development of an electronic system (eSystem). This internal software solution aims to:

- Serve as a centralized institutional memory.
- Store materials, opinions, acts, and records of verbal alignments.
- Improve institutional knowledge sharing and sustainability.
- Provide support for ongoing and future legal alignment efforts.

In the preparation phase, the Secretariat analyzed the current state of the information technology at the Secretariat (Annex 1) and the concept for the eSystem (Annex 2). The Secretariat analyzed the Secretariat's current state, performed a training needs assessment, and identified significant challenges. The analysis involved email and online consultations, on-site meetings with Secretariat officials, and discussions with ICT staff. These interactions helped define the system's functionalities, structure, and key use cases.

The planned eSystem will:

- Act as a centralized hub for managing all relevant documents related to the Secretariat's work.
- Store legal opinions, alignment analyses, and related legislative materials.
- Track all activities related to the transposition of EU legislation.
- Be hosted and managed entirely by the Secretariat.

This tool is expected to bridge institutional and staffing gaps, support knowledge retention, and provide continuity regardless of personnel changes. It will also enhance transparency, efficiency, and overall effectiveness in managing legal alignment processes.

### 3. Tasks and responsibilities

Based on the main elements provided, the Expert sought with this ToR is expected to perform the following tasks:

1. **Analysis & Design (2 days)**
  - Analyze project requirements provided by the contractor
  - Develop the Software Requirements Specification (SRS) and Software Design Documents
  - Submit documentation for review by the Secretariat of Legislation
2. **System Development (14 days)**
  - Design and develop the eSystem in accordance with the approved specifications
3. **Testing (2 days)**
  - Prepare detailed test cases
  - Conduct end-to-end testing of the system
  - Perform internal and external testing cycles
  - Produce a Test Execution Report
  - Facilitate and document the User Acceptance Testing (UAT) process
4. **Training and Implementation (2 days)**
  - Develop a comprehensive training programme
  - Train system administrators
  - Provide training for end-users from the Secretariat
  - Deliver a detailed User Manual
  - Provide complete source code and technical documentation

### 4. Necessary Qualifications, Experience and Skills

The expert needs to have a diverse but compatible experience related to design and implementation of various IT tools relevant for the development and implementation of public policies and/or strategies. More specifically, the expert shall possess the following profile:

#### Qualifications and skills:

- University Degree in Applied Computer Engineering, Electronic Engineering, Control Systems Engineering,
- Master Degree will be considered an asset.

#### General professional experience:

- At least 10 years of experience ICT tools for monitoring, other IT infrastructures and ICT systems,

#### Specific professional experience:

- At least 5 years of experience working in or with the public sector and related assignments/positions, as public servant, consultant, expert, advisor, etc.

#### Skills:

- Excellent written and oral communication skills in English;
- Knowledge of official language(s) of North Macedonia will be considered an asset;
- Ability to prepare and deliver well-structured presentations;

Note: The expert shall not be civil/public servant in any of the Western Balkans' administrations in the moment he/she applies.

Other:

- Proficiency in programming languages;
- Proficiency in MySQL
- Proficiency in web development
- Ability to analyze complex problems and develop efficient and effective solutions.
- Understanding of algorithms and data structures to design and implement efficient and scalable software solutions.
- Knowledge of software development methodologies such as Agile, Scrum, or DevOps;
- Understanding of object-oriented programming principles and design patterns for creating modular and maintainable code.
- Familiarity with web development technologies;
- Proficiency in database technologies, and experience with database design, querying, and optimization;
- Ability to write unit tests, perform integration testing, and debug software to identify and fix issues;
- Ability to create clear and concise technical documentation for code, APIs, and systems architecture;
- Capacity to work effectively in a team environment, communicate with team members, and contribute to collective goals;
- Capability to prioritize tasks, manage time effectively, and meet project deadlines;
- Excellent presentation and moderation skills;
- Excellent written and oral communication skills in English.

## 5. Timing and Location

The assignment foresees work from home/office and on-site in the Secretariat premises (Skopje, North Macedonia). In addition, The Secretaria will provide the necessary logistics, print handouts, flip charts, and other materials. The assignment will be performed during **September – November 2025**.

## 6. Remunerations

The assignment foresees engagement of up to **20 (twenty) expert days of up to 12.000,00 EUR**.

The payment will be made in one installment upon completion of the assignment. The final outputs will be subject to approval from ReSPA before the payment is executed.

Note: No other costs will be covered besides the expert cost per day. The expert cost per day comprises the expert's fee and (if needed) a lump sum covering related expenses, including travel, accommodation, local transport, meals and other incidentals.

## 7. Approach and Methodology

Proposals must include the approach and Methodology to be submitted by the applicant.

The written Proposal must include:

- Describe the proposed technical approach;
- Describe relevant previous experience in the field (List of similar projects made in the past with possible links);

- Describe professional/organizational capacities (in case of a team of experts: including the key project team members and relevant experts that will directly work on design, development, or content creation, if applicable);
- If the applicant will be a company, it must describe how it will address requirements listed in this TOR and provide a detailed description of the activities, reporting, and quality assurance mechanisms that will be put in place, while demonstrating that the proposed methodology will be appropriate to the local conditions and context of the work. The company must provide the name(s), CVs and other supporting documents of the expert(s) that will be deployed for this assignment.

## 8. Reporting and Final Documentation

The expert/company will be requested to deliver the following documents before the payment is conducted:

### ***Outputs***

- Outputs of the meetings with the responsible units;
- Documentation for the system, including user manuals, source code stored on the beneficiary premises and technical documentation.

### ***Documents required for payment***

- Invoice (signed original);
- Timesheets (signed original);
- Final brief report on the assignment

## **ANNEX 1 CURRENT STATE OF THE INFORMATION TECHNOLOGY AT THE SECRETARIAT FOR LEGISLATION**

- Information Technology at the Secretariat

This section provides an overview of the use of Information Technology at the Secretariat. It discusses the Secretariat's IT Human Resources, IT infrastructure and the IT tools in use.

- Secretariat's IT Infrastructure

The Secretariat offices are in a building where other public institutions are situated, and accordingly, has an internal computer network to which all their devices are connected and communicate with each other. Additionally, this computer network is connected to the Internet so that Secretariat's employees can communicate with others outside of the Secretariat, using the same devices.

The Secretariat manages its internal computer network with its resources. It has a server room and servers where they host their website and several other IT tools they use. The Secretariat's experience with its internal network is positive. They are not experiencing issues related to the connectivity of their devices to this network. The Secretariat is well equipped with end-user devices (computers and laptops).

- Secretariat's IT Tools

During its everyday activities, the Secretariat's employees use different IT tools. Most of these tools are used by personal (individual) users for institutional activities. These tools include word processing applications, tabulating applications, applications for presentation, email client tools, tools for browsing the web etc.

The IT tools used on the Secretariat's computers (both desktop and laptops) are licensed with the device. Responsibility for the support related to these applications is officially with the IT employee within the Secretariat.

For easier reporting related to its work, the Secretariat uses an internal IT web application called Delovodnik (record book). Secretariat's employees are entering data in this web application about the cases they have worked (with details which institution opened the case and what type of documents were delivered as part of the case). Employees enter data about the output they have produced while working on a specific case. This application does not contain the original documents received at the Secretariat, neither the opinions produced by the Secretariat. It contains only information about them since it serves just as a database of activities so that the Secretariat can generate reports related to their workload.

There was also an attempt to develop a web application that would assist Secretary of the Secretariat to prepare for the Government meetings. The challenge that the Secretary faces is that she always must take huge amounts of paper documents on the Government meetings so that she can follow and be prepared for the items on the meeting agenda. Facing a situation that these items on the agenda are changing very fast, even at the moment of the meeting, it is very hard to manage the cases that are approved, returned or require additional work. Having a web application on place can make this process easier since the Secretary will have online access to all documents produced by the Secretariat and can indicate their status as the decisions are made on the Government meetings. However, the implementation of the web application was not still completed due to lack of resources.

Every employee at the Secretariat has an email address (with the domain: sz.gov.mk). IT employee within the Secretariat maintains the email server and all needs related to emails (for example: opening or closing or maintaining an email account). Everyday activities related to emails (for example: setting up the email on a local computer or giving instructions how to

access email account) are handled by the same employee who is helping the others to resolve small issues as described above.

The Secretariat has its own website available at <http://sz.gov.mk/>. It was developed using Secretariat's own technical resources. It is hosted on web servers that were configured and are maintained by the IT department from the Secretariat. The website was developed using Content Management System that provides the needed flexibility to the Secretariat to be able to easily maintain its content. The technical maintenance of the website is also done by the IT department from the Secretariat.

With the introduction of an eSystem at the Secretariat in the future, the public website could be connected with the eSystem and any opinion created by the Secretariat can be automatically published on the website and available for the wider public.



## **ANNEX 2 CONCEPT FOR THE eSYSTEM FOR LAWS AND BY-LAWS SUBJECT OF ALIGNMENT WITH THE EU LAW**

The eSystem for laws and by-laws subject of alignment with the EU law within the Secretariat of Legislation will serve as a central location that will keep and manage all relevant materials, information, acts and opinions given by the Secretariat of Legislation. It will create and keep institutional memory that will be available to all employees and will be a basis and a source of information in the process of managing the affairs under the competence of the Secretariat of Legislation for both, the employees of the Secretariat of Legislation and other institutions.

Among other materials that fall within the scope of work of the Secretariat, this eSystem will keep information about all activities performed in the process of transposition of national legislation with the legislation of the European Union. The eSystem to be developed in the upcoming period will be hosted and completely managed by the Secretariat of Legislation.

### **- Objectives of the platform**

At the moment Secretariat of Legislation performs all its activities on paper. Although there are well defined established procedures in place, there is no tool or system that can help automate the activities prescribed in regard to these procedures.

Considering the large number of materials Secretariat of Legislation receive for opinions and the large scope of activities that this operation entails, it is obvious that the Secretariat has limited institutional capacities to perform these activities. Therefore, there is a strong need and awareness inside the institution for establishment of an electronic tool that will automate and monitor their internal processes. There is a common understanding that such a tool will enhance the effectiveness and transparency of their work.

Besides improving the effectiveness and the transparency, an important goal that the Secretariat of Legislation will achieve with the implementation of the eSystem is to preserve the institutional memory, and by that bridge the gap between the changes that occur at the institutional and personnel level, so that every employee of the Secretariat have an equal access to all documents and materials according to its working position that will be of a huge professional support during the everyday operations within the Secretariat.

The possession of such an eSystem will increase the quality of work, the quality of drafting laws and by-laws, legal acts, as well as their full implementation in accordance with the given opinions and the unique views built in the processes by the Secretariat. Access to the electronic database shall assist the Secretariat in the following ways:

- Accelerate the accumulation and dissemination of the knowledge in the Secretariat;
- Provide easy and fast knowledge access and produce new knowledge;
- Eliminate time and space constraints in the communications;
- Stimulate the associates to experience the value of sharing knowledge between employees of other institutions;
- Improve the professional development of employees by creating professionals ready to respond to the challenges of frequently changing laws and other regulations and acts.

### **- Scope of the platform**

The eSystem will be used to improve the process of providing input (giving opinions, verbal alignment, issuing permission) by the Secretariat in the process of drafting laws and other regulations and acts in the country, monitoring the lifecycle of the legal acts from the moment they enter the Secretariat, as well as performing all types of analysis on available data regarding activities performed by the Secretariat.



It will automate the Secretariat's internal processes according to the existing regulations and procedures and speed up the processing of data. An advanced eSystem can also improve data exchange with external institutions, if needed, by the implementation of high security standards. For example, the system can exchange data with IT systems of the Secretariat for European Integration, the Government etc.

The implementation of the eSystem should not only address the limitations and the shortcomings of the current way of providing input to the legal acts that are being prepared, thus removing (or reducing) present deficiencies, but also the current requirements of Secretariat to address the challenges and the needs for support during the process of proving input. The proposed eSystem is aimed at improving the operational efficiency of Secretariat functions as well as strengthening compliance monitoring, improving effectiveness, and increasing transparency.

- High-level business model of the eSystem

The eSystem that will be implemented in the Secretariat consists of the following modules:

- Module for System Administration (User Management, User Group Management, Management of Permissions, Management of Secretariat organisation structure);
- Module for Workflow Management;
- Module for Document Management;
- Module for Government Meetings Preparation;
- Module for Reporting;
- Module for System Logs.

The business model shows interaction with the following types of external stakeholders:

- Secretariat of Legislation Employees - employees that will have access to the internal system in order to initiate and work on the cases;
- General public – able to access opinions from the Secretariat on the legal acts that are being proposed in the country. The Secretariat will be able to define which documents will be shared on their public website;
- External Parties – able to exchange data with other institutions IT systems in the country like the Secretariat for European Integration, the Government etc.

Figure 5 presents the business model of the electronic database system.

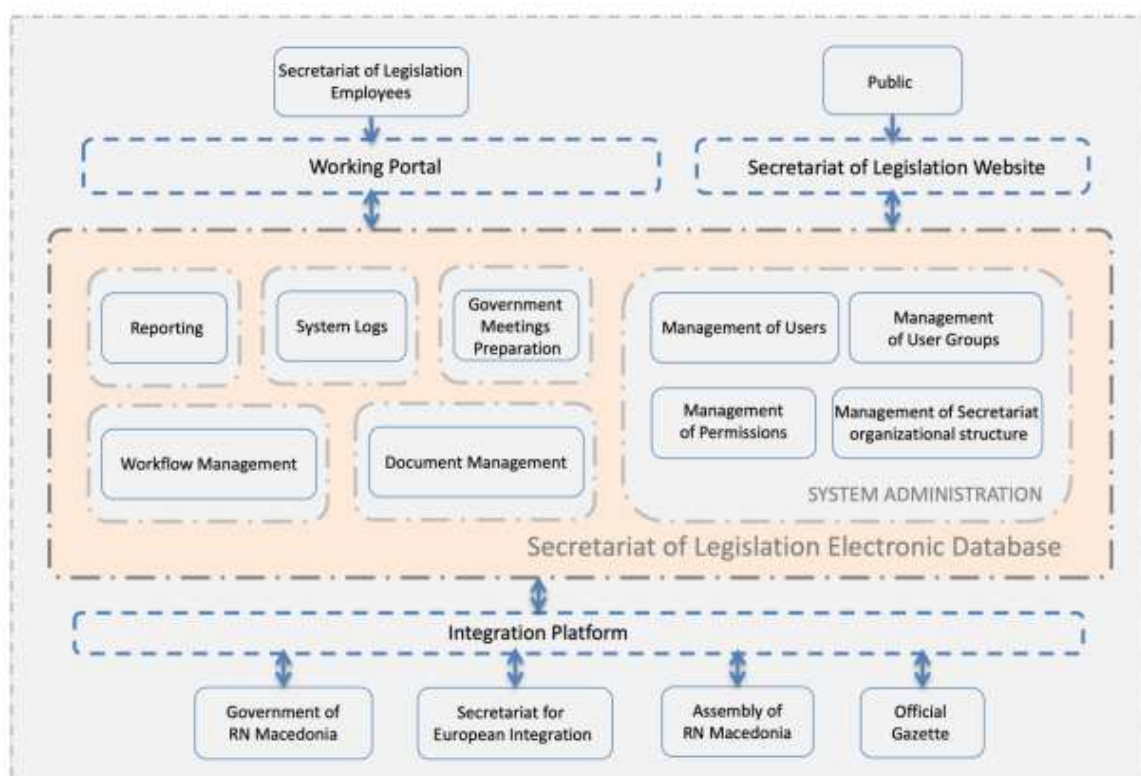


Figure 5 - Business model of the Secretariat of Legislation electronic database system

#### - Module for User Management

The User Management module should allow management of all users and their authentication features within the system. It shall provide the system administrators with the ability to identify and control the status of the users that will have the rights to log in and use the system.

All Secretariat employees will be registered as users of the eSystem through this module. During the registration process, for each user, specific information will be entered into the system, as for example its email address, the Sector/Department where it belongs etc. For logging into the system and accessing its functionalities, each user will receive username and password. The functionalities that will be available for each user will depend on their privileges that will be configured by using the Module for Management of Permissions.

The Module for User Management is closely connected to the Modules for User Group Management, Management of Permissions and Management of Secretariat of Legislation Organisational Structure.

Data within this module will be entered into the system and managed by the System Administrator (IT employee(s) at the Secretariat of Legislation).

This module shall provide at least the following functionalities:

- The system shall display a list of all registered users in a table with at least the following columns: Username, First Name and Last Name, E-mail Address and Sector/Department;
- The system shall provide functionality for adding new Users. The system shall request at least the following information about the User: First Name, Last Name, email address, Sector/Department (should be selected from drop-down – the management of Sectors/Departments is described in the Module for Management of Secretariat of Legislation Organisational Structure), Position within the Sector/Department (should be selected from drop-down - the

management of Positions is described in the Module for Management of Secretariat of Legislation Organisational Structure), User Group(s) (should be selected from list-box – the management of User Groups is described in the Module for Management of User Groups);

- The system shall provide functionalities for importing user accounts into the system using well formatted MS Excel or CSV file;
- The system shall provide functionality for adding/removing Users from User Group(s). The User Groups are defined in the Module for User Group Management;
- The system shall provide functionalities for viewing User's information;
- The system shall provide functionalities for deactivating/activating User's account;
- The system shall provide functionalities for editing User's information;
- The system shall provide functionalities for querying, filtering and sorting of the registered Users;
- The system shall provide functionalities for viewing information about the User activity in the system (including but not limited to user login counts and login times).

#### - Module for User Groups Management

Users in the eSystem shall be grouped into User Groups. The permission to access specific functionality of the system shall be based on belonging to one or more User Group. Each active user can belong to one or more User Group and each User Group shall give access to specific set of functionalities based on defined permissions for that user group (as defined in the Module for Management of Privileges).

There shall be two pre-defined User Groups in the system (System Administrators and Users)

Secretariat's employees can be grouped in different User Groups. For example, they can be grouped into User Groups based on Sectors/Departments, working positions (Heads of Sectors for example), State Counsellors, System Administrators etc. One user can belong to more than one User Group. For example, the Head of Political System sector will belong to a User Group called Political System Sector and at the same time belong to a User Group called Heads of Sectors. The access rights to specific functionalities and documents into the system will be based on belonging to a User Group (for example, the Head of Political System sector will have access to all documents related to heads of sectors because he/she belongs to a User Group called Heads of Sectors, but he/she will not have access to documents related to the sector for Economic Policy because he/she does not belong to that User Group). Permissions to specific documents and/or functionalities is defined using the Module for Management of Permissions.

This module shall provide at least the following functionalities:

- The system shall display a list of all existing User Groups in a table with at least the following columns: User Group Name;
- The system shall provide functionality for adding new User Group. The system shall request at least the following information about the user group: User Group Name, and Users that will belong to the new User Group;
- The system shall provide functionality for adding/removing User from User Group(s);
- The system shall provide functionalities for viewing User Group's information including information about the Users that are belonging to that User Group;
- The system shall provide functionality for managing permissions for a User Group. The Permissions are defined in the Module for Management of Permissions;

- The system shall provide functionalities for deactivating/activating User Group;
- The system shall provide functionalities for editing User Group's information; •  
The system shall provide functionalities for querying, filtering and sorting of the existing User Groups;

- Module for Management of Permissions

This module manages the permission for access to specific functionalities of the eSystem. The system shall keep a list of all functionalities grouped by modules and using this module the system administrator shall be able to dynamically manage the permissions of a specific user group to a specific functionality.

The eSystem has a finite set of functionalities. For example, in the context of the Secretariat it would be: initiating a case (request for opinion), allocating the case to a responsible person, submitting an opinion on a specific case, approving a submitted opinion etc. Using this module, the administrator of the system will be able to give/remove access to these functionalities to defined User Groups. For example, the members of the user group Heads of Sectors will have a permission to approve a submitted opinions from the domain experts withing the sectors.

This module shall provide at least the following functionalities:

- The system shall display a list of all functionalities of the eSystem in a table, grouped by modules, with at least the following columns: Functionality Name;
- The system shall display a list of all permissions to the functionalities of the eSystem for a specific User Group in a table, grouped by modules, with at least the following columns: Functionality Name. In order to display this list, the system administrator shall select an existing User Group from a dropdown menu. Selected checkbox in front of the name of a functionality may mean that the selected user group has privileges to that functionality;
- The system shall provide functionality for adding permission to a User Group. During this process, the system administrator shall select an existing User Group from a dropdown menu and then using the checkboxes that shall exist in front of each functionality add permission to a specific functionality by selecting the corresponding checkbox. If the system administrator wants to add permission to all functionalities within a specific module to a specific User Group, then he/she shall select the checkbox in front of the module name. As a result, the system shall automatically select all checkboxes in front of the names of the functionalities within that module;
- The system shall provide functionality for removing permission to a User Group. During this process, the system administrator shall select an existing User Group from a dropdown menu and then using the checkboxes that shall exist in front of each functionality remove permission to a specific functionality by deselecting the corresponding checkbox. If the system administrator wants to remove permission from all functionalities within a specific module to a specific User Group, then he/she shall deselect the checkbox in front of the module name. As a result, the system shall automatically deselect all checkboxes in front of the names of the functionalities within that module.

- Module for Management of Secretariat of Legislation Organisational Structure.

This module manages the organizational structure of the Secretariat of Legislation. It defines the sectors, their hierarchical dependencies as well as the working positions (roles) within each of these sectors. This structure will be used to connect the users of the eSystem with the organizational structure and their working positions. These structures will be used within the module for workflow management during the processing of cases (who is able to act on a

specific case, when and what privileges that person will have). This module shall provide at least the following functionalities:

- The system shall display a list of all Instances (Sectors, Departments) within the organizational structure of the Secretariat of Legislation in a table with at least the following columns: Instance Name, Parent Instance, number of Positions;
- The system shall provide functionality for adding new Instance. The system shall request at least the following information about the Instance: Instance Name, Parent Instance (should be selected from drop-down – the drop-down should contain all previously entered instances by name in a tree structure);
- The system shall display a list of all Positions within an Instance in a table with at least the following columns: Position Name, First and Last name of the User in that Position (vacant if no user has the Position);
- The system shall provide functionality for adding new Position within an Instance. The system shall request at least the following information about the Position: Position Name, Instance (should be selected from drop-down – the drop-down should contain all previously entered instances by name in a tree structure), User (should be selected from drop-down – the drop-down should contain all registered users);
- The system shall provide functionalities for viewing Instance information;
- The system shall provide functionalities for editing Instance information;
- The system shall provide functionalities for viewing Position's information;
- The system shall provide functionalities for editing Position's information;
- The system shall provide functionalities for querying, filtering and sorting the list of registered Instances and Positions;

- Module for Workflow Management

This module provides automation of all internal processes at the Secretariat. The internal processes at the Secretariat are well defined on paper with detailed information about the steps in the process, the actors and the available actions in each step of these business processes. For example, the available procedures define who can initiate a case, who receives the case to work on, who submits an opinion as output of the Secretariat's work, who is able to approve the submitted opinion etc.

Users, depending on their privileges, should be able to initiate a request (case) and monitor its flow through its lifecycle.

Specific users of the system (like members of State Councillors or Secretary user groups for example) will be able to monitor all defined performance indicators for the automated processes (for example the number of initiated cases, their status as well as all information related to that case – who initiated it, who is working on a specific case, whether an opinion has been submitted on time, is it approved and by whom etc.). These users will also be able to view different reports that the system will be able generate using the Module for Reporting. This module should be connected to and exchange data with the Secretariat's website.

This module shall provide at least the following functionalities:

- The system must automate and digitize the entire lifecycle of the internal processes within the Secretariat of Legislation;
- The workflow management module should have the ability of defining, storing, and managing any number of processes. Each process definition may contain any number of activities which have to be completed before the process is completed. The system must have the ability to control flow of work of process instances;
- The workflow management module should have a process definition tool that will be able to define data about processes and activities such as: processes attributes, activity relations, activity attributes and rules including flow control, role allocation,



process invocation. A basic interactive graphic user interface should be offered for process definition;

- The workflow management module should have a functionality for allocation of roles (user groups) to processes and activities. The monitoring and resource management functions should include capability to assign workflow participants to process instances;
- The workflow management module should provide monitoring functionality for showing the state of one, several, or all process instances. The workflow management module should provide report/statistical functions showing: workload, throughput and bottlenecks;
- The workflow management module should include a notification engine that will send messages to the users when they receive an assignment as a part of some process;
- The workflow management module should have a functionality that records information about the status of process instances in a service instance log;
- The workflow management module should allow for alarms to be set on certain events that will notify responsible users when the alarms have been triggered;
- The workflow management module should provide a comprehensive dashboard with list of pending activities for the user, status of the activities where the user is involved, alerts on activities that are late etc.;
- The workflow management module should provide functionalities for querying, filtering and sorting the list of process instances by various parameters (ex: type of process, status, dates etc.);
- The workflow management module should be able to generate production statistics on processes over defined time periods. The reports shall be generated using a report generation tool defined in the Module for Reporting.

- Module for Document Management

A document management module records all documents at input and output level, including paper and electronic documents. Coding and archiving are to be defined and supported. Connection with the e-Archive should be supported. This module manages all documents that are entered into the eSystem. This module is tightly connected to the Module for Workflow

Management since most of the documents that are entered in the system by the users are entered at specific stages of the automated processes.

This module shall provide at least the following functionalities:

- The system shall be able to record all documents at input and output level with appropriate well-defined coding and archiving, including paper and electronic documents;
- The system should provide full text and metadata indexing engine that will be applied to each input and output document;
- The system should be able to implement high security measures according to the legal requirements for the protection of privacy of the documents where applicable;
- The system should provide functionality for searching the repository of all documents (full text and metadata for the documents entered into the system, created by the Secretariat employees and delivered to external parties).

This functionality should be available to specific users according to the privileges to specific User Groups defined in the Module for Management of Permissions,

- Module for Reporting

This is a module that shall generate all regular and ad-hoc statistical reports related to the processes at the Secretariat of Legislation. The module must be able to implement operations as data load, transfer and extract from the implemented underlying data base model.

Users belonging to a specific user group with specific rights to view and generate reports should have access to this module (for example Heads of Sectors and Secretary). They will be able to generate a set of reports. For example, report with number of cases by Sectors/Departments and status of these cases, report about engagement or performances of different employees when working on cases etc.

This module must provide tools for querying the collected data in the database and for creating, storing and reusing predefined and ad hoc reports. The module must provide visualization tools and a dashboard for tracking and reduction of the decision-making process and time for setting, monitoring and visualizing progress and deadlines of the cases, KPIs (key performance indicators), as well as possibility to drill into the collected data in specified directions. The module must provide exporting functionalities in the most frequently used formats.

This module shall provide at least the following functionalities:

- System shall be able to produce the specific set of regular and ad-hoc reports using the data within the system and according the needs of Secretariat through a user-friendly graphical interface without the need for coding or scripting;
  - System shall provide functionality for definition and monitoring of custom KPIs (key performance indicators) using data stored in the database.
  - System shall provide functionality for saving and reusing the defined KPIs and reports;
  - System shall provide functionality for tracking and monitoring KPIs movement over periods of time;
  - The system shall provide visualization tools and interactive dashboard for each user. Users should be able to configure the set of KPIs (from the available ones) that will be part of their dashboard;
  - System shall provide drill-down analysis tool both for the indicators and the reports.
- Module for Government Meetings Preparation This module is a tool that will assist Secretary of the Secretariat to prepare for the Government meetings. It will also have functionalities that will assist the Secretary to better perform his/her work during the Government meetings by having online access to the system and by that to all necessary documents that are part of a specific case. It will allow access



to the latest version of the documents (opinions) as well as functionalities to update the status of the documents and cases based on the decisions made on the Government meetings.

This module shall provide at least the following functionalities:

- The system shall be able to import (or to receive automatically) the finalized agenda of the planned/scheduled Government meetings;
- The system shall provide functionality to connect the existing cases and all documents (within these cases) with the items from the agenda that will be part of the upcoming Government meetings;
- The system shall provide users that belong to a user group with privileges to access these cases (and documents within the cases) with a functionality to update their status (for example: adopted by the Government or delayed for the next meetings).
- The system shall provide search and reporting functionality for all cases (documents) that have been adopted on Government meetings and those that are on the future agendas. Module for System Logs This module provides information about the specific actions that happened in the eSystem that may be of future interest for observation and analysis. Examples of such actions can be: system errors, specific user actions, changes of important information etc. This module shall provide at least the following functionalities: • The system shall be able to display a list of all information about the specific actions that were performed in the system that may be of future interest for observation and analysis; • The system shall provide only view permissions to the information about the System Logs. For the purposes of consistency, non-repudiation and security, no action shall be allowed on this data.

- Other functional requirements

Besides the functional requirements defined in the previous section, additional functional requirements can be identified, which will be of importance when developing the system.

#### Management of Codebooks

The eSystem should provide functionalities for management of different codebooks. For example: codebook of institutions that send documents to the Secretariat for opinion, codebook of document statuses etc. The final list of codebooks will be identified during the development phase.

#### Search

The eSystem should provide a central search functionality so users can easily search for information and documents. The search should be accessible as simple and advanced search. The simple search should be used by entering free text in a single search input and the system

should search for matching results. The advanced search should allow for multiple search criteria to be defined so the users can find the most relevant results easier.

The search criteria can be filtered by:

- Sectors/Departments
- Institutions
- Users
- Case Initiation or competition date.

## Design

The eSystem should be designed using responsive web technologies and principles, so the content adapts to different screen sizes, ensuring seamless user experience on different devices, such as desktops, laptops, tables, and smartphones.

### - Technical aspects

The eSystem should be delivered as a web application based on state-of-the-art web technologies. By using the latest technologies in web development, the web application should provide a highly responsive, interactive, and immersive user experience. Modern front-end frameworks (such as React or Angular) should be used to ensure a smooth and dynamic interface. In contrast, robust server-side technologies should be used to optimise the platform's performance, scalability, and security.

The eSystem should be at the Secretariat premises and should meet all standards prescribed by that institution, including the technologies used for its development. Manuals and appropriate training should be provided to all Secretariat employees, including those who will be responsible for the configuration and maintenance of the system.

The entity that will develop and maintain the eSystem should ensure that robust security measures are implemented, including secure coding practices, thorough vulnerability assessments, and periodic penetration testing. Regular security audits and updates should be performed to identify and address any emerging threats proactively.

The eSystem should be integrated with the Secretariat website so that documents that should be available to the public can be automatically published when they are finally approved within the system. The decision on what and when to publish is made by the Secretariat.

The source code of the application should be comprehensively documented, and the source code should be proprietary to the Secretariat.