

Terms of Reference

Expert in supporting the Ministry for Digitalisation of North Macedonia in developing the National Electronic Archival and Records Management System

1. Background

The Regional School of Public Administration (ReSPA) is a regional organization established in 2010 as a joint initiative financed by European Commission and Western Balkans (WB) administrations. It is managed and governed by five ReSPA Members: Albania, Bosnia and Herzegovina, North Macedonia, Montenegro and Serbia, while Kosovo* is beneficiary. ReSPA's purpose is to assist governments in the region to develop better public administration, public services and overall governance systems for their citizens and businesses and prepare for the European Union membership.

Since its inception, ReSPA, as an international organization and a key regional endeavor in Public Administration Reform, has contributed to capacity-building and networking through regional training, workshops, conferences, seasonal schools, and on-demand support mechanisms, peering, and the development of regional research materials. ReSPA establishes close cooperation with Ministers, senior public servants and heads of units in its Members. ReSPA also works in partnership with the European Union, specifically Directorate General for Neighbourhood and Enlargement Negotiations (DG NEAR), other regional actors such as OECD/SIGMA and Regional Cooperation Council (RCC), as well as agencies and civil society organizations.

The European Commission (EC) provides directly managed funds to support ReSPA activities in line with the EU accession process. Currently, ReSPA is implementing the fifth EC Grant Contract "Support to the Regional School of Public Administration for implementing PAR Agenda and facilitating EU accession process in the WBs" which is active as of January 2023.

ReSPA works primarily through regional networks which operate at three levels: Ministerial, Senior Officials, and thematic groups of experts and senior practitioners. More specifically, the Programme Committee is composed of the senior civil servants representing ministries responsible for the Public Administration reform, and institutions in charge of the European Integration process, and 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).

*This designation is without prejudice to positions on status, and is in line with UNSCR 1244 and the ICJ Opinion on the Kosovo Declaration of Independence.

2. Problem statement and description of the assignment

The Ministry for Digital Transformation is mandated to execute duties pertaining to the advancement and promotion of the digital transformation, inclusive of the integrated information and communication network, databases, as well as the secure interconnection and exchange of information. It is also tasked with overseeing the development of infrastructure concerning state authorities, legal entities, and other individuals expressly entrusted by law to exercise public powers. The Ministry oversees developing and implementing national ICT systems that are used for digital transformation of the country.

To foster the establishment and advancement of a comprehensive business solution catering to electronic records and archival operations, we advocate for the development of a unified platform. This platform aims to serve as a centralized point for communication, ensuring that all entities within the public sector have a singular point of interaction.

In the contemporary landscape, there is an imperative to construct an integrated system that addresses both electronic record management and archival processes. This endeavor is positioned as a modern alternative to conventional paper document workflows. The proposed solution should align with regulatory standards, governing the creation, movement, preservation, access, and utilization of electronic documents. This strategic approach is indispensable for cultivating an efficient and effective public sector, ultimately benefiting citizens, and bolstering economic interests. The Ministry for Digital Transformation is spearheading a transformative initiative known as the "SmartMK" program, aimed at revolutionizing governance through comprehensive reforms and digitalization across all levels of the state. The primary objectives include fostering efficient administration, redefining communication with public administration, and delivering swift and easily accessible services to citizens and the economy through the digitization of processes.

The genesis of the Document Management System can be traced back a decade, conceptualized with the objective of establishing a unified ICT system to enhance the functioning of public institutions. This system envisions the complete electronic processing of documents and the implementation of processes within public institutions. Recognizing the challenge posed by individual institutions procuring equipment and adapting to disparate software systems, the Ministry, as the designated authority for digital transformation, has formulated a forward-thinking solution. A conceptual framework has been devised for the creation of a comprehensive **National Electronic Archival and Records Management System (NEARMS)**. This platform is envisioned to serve as a common ground, enabling all public institutions to seamlessly access and utilize the Electronic Archival and Records, requires a thorough process that combines technical expertise with legal compliance. Initial steps include reviewing project documentation and assessing the existing infrastructure to identify potential challenges. The system's design will involve defining high-level architecture, selecting suitable technologies, and ensuring that core functionalities comply with legal frameworks. Collaboration with legal experts is essential to align the technology stack, database design, and security measures with regulatory requirements, especially regarding data privacy. Additionally, protocols for integrating NEARMS with external systems will be developed, ensuring smooth data exchange. Quality assurance measures will be implemented to test system performance,

followed by the creation of technical specifications for procurement and comprehensive training materials. Ultimately, the project aims to deliver a secure, compliant, and efficient system for public administration.

In essence, the Ministry's initiative not only strives to bring about technological advancements but also aims to foster a collaborative and interconnected digital environment that transcends organizational boundaries, promoting a more efficient and responsive public sector.

In that regard, a Concept at the Government level for establishing and developing a business solution for the functioning of utilize the aims to establish a single platform was proposed, in which all entities in the public sector will have a single point of communication.

To advance the development of the Concept for Establishing a Platform for Electronic Archival and Records ("Concept") work, MDT recognizes the need for expert support. The expertise provided will play a role in shaping and refining the platform, ensuring its effectiveness, and giving legal ground for it.

The proposed activity is fully in line with Public Administration Reform Strategy 2023 – 2030, in particular A.4.1.3.6 which is expected to contribute to better institutional and legal framework for applying information and communication technologies, uptake of digital government services and electronic exchange of data and documents.

3. Tasks and responsibilities

Expert will closely collaborate with the working group and ministry units responsible for drafting archiving law and bylaws and implementing technical solutions. He/she will work with the IT team in the ministry and other public sector units. Over 15 weeks, his/her tasks include analyzing technical needs, designing system architecture, evaluating technological options, designing databases, designing key features, and setting up security measures. Based on this, the expert needs to deliver a clear technical specification for the new platform, aligning with regulatory changes, comprising all abovementioned features and aspects and meeting public sector needs.

Additionally, the expert will work with the team managing the current Document Management System (or a group working on its modernization) to coordinate with other public sector bodies during the development of the documentation. Collaboration with technical and support teams ensures a smooth development and delivery of the technical specification for the new Platform for National Electronic Archival and Records Management System.

The results of the expert's support need to be:

- Contribute to the preparation of the Action Plan, with different Projects in line with the Concept and linkages between the objectives, measures, and activities.
- Contribute to the Design of the Program for development the Platform for National Electronic Archival and Records Management System.
- Contribute to preparation of the first consolidated draft Law on Archival Matters and related bylaws, in line with the Concept.

- Develop a technical specification and market analysis for the Platform for National Electronic Archival and Records Management System, that would include all aspects described in this point of application.

The Expert shall, indicatively, perform the following tasks:

1. Initial Review of Project Documentation and Infrastructure Analysis

This includes evaluating the current **technical infrastructure** and identifying potential challenges that may arise during the development and implementation of NEARMS. The preliminary analysis of existing infrastructure provides insights into the gaps, limitations, and opportunities for enhancing the system's capabilities. It helps to determine whether the current infrastructure can support the anticipated demands of NEARMS or whether upgrades and optimizations are necessary.

2. System Requirements and High-Level Architecture Design

Once the preliminary review is complete, the next phase involves gathering and analyzing the **system requirements** for NEARMS. These requirements must be comprehensive and should cover all aspects of the system's functionalities, user needs, legal constraints, and security provisions. The technical team must collaborate closely with legal experts to ensure that the system's design aligns with applicable **legal and regulatory frameworks**.

Following the requirements analysis, the technical team develops a **high-level system architecture design**. This design serves as the blueprint for the overall system, outlining the various components, their interactions, and the overall flow of data. It ensures that the system is both scalable and robust, capable of meeting both current and future needs. Close collaboration between legal and technical experts is vital to ensure that the **architecture** supports not only technical efficiency but also compliance with legal mandates.

3. Technology Selection and Database Design

The selection of the appropriate **technology stack** for NEARMS is a pivotal decision in the development process. The technology choices must meet the system's functional requirements while adhering to **legal frameworks**. The technology stack should be scalable, secure, and compatible with the existing infrastructure. The technical team, in collaboration with legal experts, evaluates different **technologies** based on their suitability for NEARMS development and their ability to comply with the legal requirements, especially in the context of **data privacy** and **regulatory standards**.

A key element of the system's architecture is its **database structure**. The design of a **comprehensive data model** is crucial for ensuring that NEARMS can efficiently manage the vast amount of data it will process. The database structure should align with both **technical requirements** and **legal obligations**, including data storage, retrieval, and processing. The data model must reflect legal frameworks for data protection, privacy, and transparency, ensuring that the system is capable of supporting compliant data operations.

4. Defining Core Functionalities and Legal Compliance

The next step involves defining the **core functionalities** of NEARMS. These functionalities will drive the system's effectiveness in supporting its intended users and fulfilling its objectives. Key functionalities might include **data registration**, **document management**, **report generation**, and **user access control**. As with the system's architecture and technology choices, the core functionalities must be developed with **legal compliance** in mind. The legal team plays an integral role in ensuring that all functionalities respect **legal standards** and **privacy requirements**. Progress reports on core functionalities will be provided to ensure that the system is being developed in accordance with these specifications.

5. Security and Data Privacy

Given the sensitive nature of the data managed by NEARMS, the implementation of **robust security measures** is critical. These measures will safeguard the integrity and confidentiality of the data, preventing unauthorized access or data breaches. In collaboration with legal experts, the technical team will design and implement security protocols that meet the highest standards of data privacy. This includes encryption, access controls, and auditing capabilities. Detailed **security implementation documentation** will be produced to outline the specific measures taken to secure NEARMS, and regular **security reports** will be generated to track progress and identify potential vulnerabilities.

6. Integration with External Systems

A critical feature of NEARMS is its ability to **integrate seamlessly with external systems**. This may involve connecting to other government databases, third-party services, or external platforms. The technical team will propose a protocol for **identifying and integrating** NEARMS with relevant systems, ensuring smooth data exchange and interoperability. Collaboration with legal experts is essential to ensure that **data sharing agreements** and **integration protocols** comply with relevant laws and regulations, particularly concerning **data protection** and **confidentiality**.

7. Quality Assurance and Reporting

To ensure the system is functioning as intended, the technical team will establish **quality assurance measures**. These measures include testing the system for performance, security, and functionality, as well as conducting **user acceptance testing** to ensure that the system meets the needs of its intended users. A **quality assurance report** will be produced to document testing results, identify any issues, and recommend necessary improvements.

8. Procurement and Documentation

Finally, the development of **technical specifications** for procurement is crucial to the project's success. These specifications will outline the technical requirements for NEARMS, ensuring that any external vendors or contractors align with the project's objectives.

The development of NEARMS is a multifaceted project that requires careful planning, close collaboration between technical and legal experts, and a strong commitment to ensuring

legal compliance, data privacy, and system security. By following a structured approach that includes thorough analysis, thoughtful technology selection, and ongoing collaboration between teams, NEARMS can be successfully developed and implemented. This will result in a system that not only meets technical and legal requirements but also serves as a valuable tool for public administration, ensuring greater transparency, efficiency, and accountability in government operations.

Based on the main elements described in the previous section, the Expert shall, indicatively, perform the following tasks:

1. Technical Landscape Analysis (2 Days)

- Conduct an initial review of project documentation.
- Perform a preliminary analysis of existing technical infrastructure and identify potential challenges that could impact the development of NEARMS.

2. System Architecture and Requirements Analysis (2 Days)

- Review and analyze system requirements for NEARMS to ensure clarity on functional, non-functional, and legal expectations.
- Develop a high-level system architecture design that aligns with the project requirements.
- Collaborate with legal experts to ensure the system design is in compliance with applicable legal frameworks.

3. Technology Stack Evaluation and Selection (3 Days)

- Evaluate available technologies suitable for NEARMS development, considering scalability, security, and regulatory requirements.
- Collaborate with the legal team to ensure that chosen technologies comply with relevant legal and data privacy frameworks.
- Select and justify the final technology stack for the NEARMS platform, including the rationale for each decision.

4. Database Design and Data Model Development (3 Days)

- Design the database structure for NEARMS, ensuring efficient data storage, retrieval, and management.
- Develop a comprehensive data model that aligns with both technical specifications and legal/regulatory requirements for data protection and privacy.

5. Development of Core Functionalities (5 Days)

- Define the core functionalities for NEARMS, including features such as data registration, user management, and document processing.
- Collaborate with the legal team to ensure legal compliance is integrated into the system's core functionalities.
- Provide progress reports on the development of core functionalities, ensuring alignment with project goals and legal guidelines.

6. Security Infrastructure Implementation (4 Days)

- Implement robust security measures for NEARMS, including encryption, access controls, and audit capabilities.
- Work with legal experts to ensure that data privacy and security measures are fully compliant with legal requirements.
- Produce security implementation documentation reports outlining the security measures taken and compliance checks.

7. Integration with External Systems (3 Days)

- Propose a protocol for identifying and integrating NEARMS with external systems or platforms as required.
- Ensure seamless data flow between NEARMS and any related systems, considering data exchange formats and interoperability.
- Collaborate with the legal team to address legal considerations, including data-sharing agreements and compliance with regulations on data access.

8. Testing and Quality Assurance (4 Days)

- Implement quality assurance measures to test the system for performance, functionality, and security.
- Conduct user acceptance testing (UAT) to validate that the system meets user needs and legal standards.
- Provide a comprehensive QA report documenting testing results and any issues discovered during testing.

9. Documentation, Training, and Handover (4 Days)

- Prepare technical specifications and other procurement-related documents to ensure a smooth transition to implementation.
- Develop comprehensive documentation covering system design, functionalities, security, and integration protocols.
- Create user training materials and provide training for relevant stakeholders to ensure proper system operation.
- Handover the final product, documentation, and training materials to the appropriate teams or authorities.

4. Necessary qualifications of the required expert

The expert needs to have **diverse but compatible experience in working for or with the public sector**, preferably on positions/assignments and tasks related to capacity development, knowledge management, e-learning, organizational aspects, management, development communication, etc. The expert needs additionally to have extensive experience in the former Yugoslav administrations and an understanding of local legal regulations related to electronic data processing and digitalization, particularly in the design and implementation of electronic systems, eLearning, and digitalization of processes.

More specifically, the expert shall possess the following profile:

Qualifications and skills:

- At least Master degree in Public Administration, Management, Computer Science, Information Technology, Development Communication, Economics, or related fields;
- PhD will be considered an asset.

General professional experience:

- At least 10 (ten) years of experience working in or with the public sector and related assignments/positions.
- Strong background in leading educational and technological initiatives.

Specific professional experience:

- At least 5 (five) years of relevant professional experience in database development, knowledge management and/or e-learning projects/assignments with public or private organizations, capacity development, organizational aspects, management, development communication or similar;
- Experience in conceptualizing or developing similar databases or platforms will be considered a substantial advantage;
- Actively involved in EU funded projects, including initiatives for improving management information systems, eLearning systems, judicial systems.

Skills:

- Excellent written and oral communication skills in English;
- Fluent in local languages (south-Slavic);
- Ability to write clear and coherent guidance documents;
- Ability to prepare and deliver well-structured presentations;
- Ability to work with people of different nationalities, religions and cultural backgrounds.

5. Timing and Location

The assignment foresees work from home and office, as well as online meetings and meetings at the premises proposed by the Ministry for Digitalisation in Skopje, North Macedonia. The assignment is expected to be performed tentatively from **January 2025 – May 2025**.

6. Remunerations

The assignment foresees engagement of up to **30 (thirty) expert days in the amount of up to 7.500 EUR**.

The payment will be done in one instalment upon completion of the assignment. The final outputs will be subject to approval from the Ministry for Digitalization and ReSPA before the execution of the payment.

Note: No other costs will be covered apart from the expert cost per day. The expert cost per day comprises of expert's fee per day and (if needed) a lump sum for covering related costs which include, travel, accommodation, local transport, meals and other incidentals. ReSPA and the expert shall agree before the signature of the Service Contract on the rate of the daily fee.

7. Reporting and Final Documentation

The Expert will be requested to deliver the following documents before the payment is conducted:

Outputs

- Technical specification and other documents for procurement;
- Comprehensive documentation and training materials.
- Meeting notes and summaries from discussions with relevant parties, highlighting any additional insights, clarifications, and resolutions to ambiguities.

Documents required for payment

- Invoice (signed original);
- Timesheets (signed original);
- Final brief report on the conducted assignment, milestones and challenges.