**Annex** A

**Terms of Reference**

**APPLICATION SOLUTIONS ADMINISTRATOR**

1. **Background**

The Serbia Competitive Agriculture Project (SCAP), a US$50 million investment, was approved by the World Bank in December 2019 and ratified by the National Assembly of the Republic of Serbia in February 2020. The objective of the Project is to improve access to markets and information systems for agricultural producers in Serbia. This will be achieved through a) improving the productivity of small and medium-scale farmers by strengthening advisory and technical support; b) supporting market access of small and medium-scale farmers (including finance and business planning capacity); c) improving government systems to strengthen the enabling environment for all agricultural producers (including capacity building for the Ministry, information systems, and data platform).

The Project will provide financial and technical support to all productive investments in agriculture in Serbia through the national rural development program and will not finance direct payments (subsidies). This delimits the scope of Project interventions outside of all IPARD measures that the country has been accredited for or plans to be accredited for and puts it in the center of the national rural development program.

**Beneficiaries**: Small and medium-scale agricultural production units (including producers, producer groups, agribusinesses/agro-processors that can provide direct links to smallholder farmers) that have or can have commercial focus and are not covered by accredited IPARD measures. Although large producers will not be directly targeted, the project will also benefit them with the enabling environment it will create through the improvements in information systems and the financial services provided. Small and medium-sized producers are defined by the economic size of holding expressed in euros of standard output. For this project and the context of Serbia, small producers are those with an economic size of up to EUR 8,000; medium producers are those with an economic size between EUR 8,000 and 25,000.

**Project Description**: The Project activities are structured into three Components.
Component 1) will focus on improving the productive and entrepreneurial capacity of small and medium farmers by supporting business and financial planning for productive investments, as well as supporting market access and strengthening sector competitiveness.
Component 2) will focus on improving the capacity of the Ministry of Agriculture, Forestry and Water Management (MAFWM) to provide core public goods for improving sector performance. This includes establishing an information system aligned with EU CAP requirements to enable evidence-based policymaking and monitoring of results, enhance market information for stakeholders, and build capacity for regulatory roles aligned with EU CAP.

Component 3) will focus on project management.

By addressing sector needs at the level of producers (Component 1) and the MAFWM (Component 2), the Project will support a broader policy reform process in the agriculture sector through i) improved targeting of policy instruments to different typologies of producers, ii) strengthened enabling environment for investment for small and medium agricultural producers, by improving the delivery of services to these productive segments (advisory, financial, information, etc.), iii) improving the monitoring of public resources and their utilization, as well as sector performance. It is expected that this will bring about a significant shift in the utilization of public resources in agriculture from subsidies (direct payments) to rural development investments.

1. **Scope of Services**

Specific functions and responsibilities of the **Application Solutions Administrator** will be as follows:

* **Data Analysis and Reporting -** Generate analytical and cumulative reports by extracting data using SQL queries from diverse databases and various data sources, such as Excel files, TXT files, CSV files, Access files, and more.
* **User Administration** - Administer user accounts within applications, including user creation, privilege management, and related responsibilities.
* **User Request Management & End User Communication -** Classify and meticulously document user requests, maintaining a clear and organized record of all inquiries. Maintain effective communication with end users of applications, ensuring their needs and concerns are addressed promptly and professionally.
* **Scope Assessment & Feasibility Analysis -** Analyze and assess the scope and feasibility of user requests, considering available resources and constraints.
* **Functional Requirements Definition -** Define and document the requisite functionalities in applications and compile a comprehensive list of additional requirements that impact the information system.
* **Drafting and Implementing Rulebook on Management of ICT Projects –** Working with other team members to develop a comprehensive rulebook that outlines the methodologies, standards, and processes for the management of ICT projects, ensuring alignment with industry best practices and organizational goals. Implement the rulebook across all ICT projects, providing guidance and support to project teams to ensure adherence to established protocols.
* **Defining and Implementing Standards for the Development of Software Solutions -** Establish standards with other team members for the development of software solutions, covering coding practices, architectural design, testing procedures, and documentation requirements. Oversee the implementation of these standards within software development projects to enhance the efficiency, maintainability, and scalability of software solutions.
* **Drafting and Implementing Policies and Procedures for Change Management -** Formulate comprehensive policies and procedures for change management, addressing hardware, system, and software solutions to manage changes effectively without disrupting business operations.Implement with other team members change management processes, ensuring that all changes are documented, reviewed, and approved before implementation.
* **Drafting and Implementing Policies and Procedures for System Backup -** Design policies and procedures for system backups, outlining the frequency, methods, and storage of backups to ensure data integrity and availability. Supervise the implementation of backup strategies, conducting regular tests to verify the effectiveness and reliability of backup systems.
* **Drafting and Implementing Security Policies -** Develop security policies that define the framework for information system security, including access controls, data protection measures, and incident response strategies. Lead the implementation of these security policies, ensuring comprehensive protection of the organization’s information assets against unauthorized access, data breaches, and other cybersecurity threats.
* **Application Software Support -** Provide support in developing application software packages for various business processes within the organization's Administration.
* **Issue Reporting to Contractors -** Report any issues or problems in the operation of applications to the relevant contractors or service providers.
* **Testing and Training (Environment Preparation, Alpha Testing, End User Training, and Testing) -** Prepare the technical environment and accompanying documentation to test newly developed applications, new functionalities, and error corrections in existing applications. Conduct primary alpha testing for newly developed applications, new functionalities, and error corrections, ensuring their functionality and reliability.Organize and facilitate training and testing sessions for end users, ensuring their proficiency in utilizing newly developed applications and functionalities.
* **Production Environment Setup & Application Deployment -** Prepare the technical production environment to ensure the seamless operation of applications for end users. Deploy applications into the production environment, overseeing the transition from development to operational status.
* **Monitoring and Reporting -** Monitor the effects and outcomes of implementing program solutions and contribute to the preparation of comprehensive reports on their performance.
* **Additional Duties -** Perform any other tasks and responsibilities within the scope of work of the department as required.
1. **Institutional Arrangements**

The **Application Solutions Administrator** will work as part of Department for System and Software Solutions of DAP and under the authority of the MAFWM and will report to the ICT Coordinator of SCAP on a regular basis regarding the pace of project implementation, cooperate with all relevant departments of the MAFWM, the parties involved in the management, organization, and implementation of the Project. He/she shall be responsible for providing information (inputs) and advice as requested and overseeing the satisfactory implementation of ICT related project activities.

1. **Engagement**

The **Application Solutions Administrator** shall be engaged full-time and deliver all the needed support until 31st of December 2025. at the monthly rate that will be dependent on the qualifications, as well as the approved project budget.

The consultant shall not have any other full or part-time assignment during the engagement.

1. **Qualifications**
* University degree (Bachelor or equivalent) in computer science, engineering, organizational sciences, technical sciences, or information technology.
* Minimum 5 years of relevant ICT professional experience (more than 5 years will be considered an advantage).
* Experience in Transact SQL procedural programming for data manipulation and database operations.
* Experience in MS SQL database management, including administration, optimization, and maintenance.
* Proficiency in MS Office Excel, Access and MS Word.
* **Software Development Tools**: Experience with version control systems like **Git**, project management tools such as **Jira** or **Trello**, and CI/CD platforms like **Jenkins** or **GitLab CI will be considered an advantage**.
* **Programming Languages**: Proficiency in languages such as **Python**, **Java**, **C#**, **JavaScript**, or **Ruby will be considered an advantage.**
* **Frameworks**: Familiarity with frameworks like **ASP.Net**, **React**, **Angular**, **Django**, or **Spring** for web application development will be considered an advantage.
* **IT Infrastructure**: Knowledge of **cloud platforms** (e.g., **AWS**, **Microsoft Azure**, **Google Cloud**), experience with **virtualization** tools such as **VMware** or **Hyper-V**, and familiarity with **networking** concepts (e.g., **TCP/IP**, **DNS**, **firewalls**, **routers**, **switches**).
* **System Administration Tools**: Proficiency in using **Windows Server**, **Linux**, **PowerShell**, for IT infrastructure management.
* Working knowledge of English language.
1. **Selection**

Selection procedure will be conducted in accordance with the World Bank’s Procurement Regulations for IPF Borrowers – Procurement in Investment Project Financing Goods, Works, Non-Consulting and Consulting Services, July 2016, revised November 2017, August 2018, as given in articles 7.36-7.37 “Open Competitive Selection of Individual Consultants”.

The candidates will be evaluated applying the following evaluation criteria:

• Qualifications and General experience ( 40 Points)

• Specific Experience relevant to the Assignment ( 60 Points)