Terms of Reference

**Web portal for citizen engagement in budgetary process and enhancing budgetary literacy**

for

Improving Public Financial Management for the Green Transition Project

# Background

Improving Public Finance Management for the Green Transition in the Republic of Serbia is a four-year Operation supported by the World Bank and the AFD, which aims to help the Government of the Republic of Serbia in strengthening its capacity to manage public finances and implement green investments. Key implementing institutions besides the Ministry of Finance are the Ministry of Environmental Protection, the Republic Property Directorate, the Public Policy Secretariat, the Public Procurement Office.

The operation consists of two components:

1) **Program for Results (PforR) component (Program)** comprising two results areas:

* Strengthen fiscal resilience, transparency, and spending effectiveness-focused on further strengthening fiscal resilience, using public expenditure management to enhance efficiency and a results focus, enhancing the ability to link plans and budgets through stronger costing at the planning stage, improving fiscal transparency, and improving the preparation of public investment projects.
* Greening Serbia’s expenditure cycle and developing selected other institutions for greater environmental resilience- focused on introducing and utilizing green criteria in PFM, PIM, and public procurement, and on strengthening systems for monitoring and reporting on GHG emissions from installations.

2) **Investment Project Financing (IPF)** **component (Project)** consisting of technical assistance to support the implementing entities in delivereing expected results. The IPF component will consist of TA -- including trainings, capacity building and peer learning, support for stakeholder engagement, and support for managing the Program.

The Operation development objective is to improve core PFM functions and institutional capabilities needed for Serbia’s fiscal resilience and green transition.The Operation will support the following core public financial management functions (i) budgeting and strengthening linkages between plans and budgets, (ii) public investment and asset management, and (iii) fiscal risk management.

The Ministry of Finance (“MF”) recognizes the importance of transparency, accountability, and citizen engagement in the budgetary process. In line with this commitment, the Ministry of Finance seeks to develop a web portal to facilitate public participation in the budget process. The portal also aims to enhance budget literacy among citizens. In line with this commitment, the Ministry of Finance is initiating the development of a comprehensive Web portal aimed at facilitating public participation in the budget process. This portal will serve as a centralized platform where citizens can access relevant budgetary information, provide feedback, and actively engage in discussions regarding budget allocation and priorities. The development of the Web Portal represents a significant step towards promoting greater citizen participation, transparency, and accountability in the budgetary process. Through this initiative, the Ministry of Finance aims to empower citizens with the knowledge and tools to actively contribute to the formulation and implementation of government budgets.

Beneficiaries: The primary beneficiaries are the citizens themselves, who gain increased access to information and opportunities for active participation in the budgetary process. Through the portal, citizens can better understand how public funds are allocated, voice their opinions on budget priorities, and contribute to decision-making processes that directly impact their communities. Enhanced budget literacy empowers citizens to make informed choices and hold government officials accountable for fiscal decisions. The Ministry of Finance gains several advantages from the implementation of the web portal. Increased citizen engagement and feedback mechanisms enable the MF to better understand public preferences and priorities, thereby informing more responsive and inclusive budgetary decisions. The portal also supports the MF's commitment to transparency and accountability. Also, Civil Society Organizationsfocused on budget transparency, good governance, and citizen empowerment benefit from the availability of comprehensive budgetary information and engagement opportunities provided by the web portal.

Project Description: The Project activities are structured into three Components. Component 1) will focus on improving budget literacy to empower citizens with the knowledge and skills necessary to navigate the complexities of the budgetary process, make informed decisions, and actively participate in shaping fiscal policies that impact their lives and communities. This involves creating a variety of educational materials such as articles, infographics, videos, and interactive tutorials that explain budgetary concepts, terminology, and processes in a clear and accessible manner. These materials will be designed to cater to diverse audiences with varying levels of prior knowledge. Component 2) will focus on public participation in the budgetary process aiming to create tool for citizens to engage meaningfully in decision-making and priority-setting regarding public expenditures. This involves building and launching a user-friendly web portal that serves as a centralized platform for citizens to access budget-related information, provide feedback, and participate in discussions. Component 3) will focus on visualization of budgetary information which will enable in each phase of the budget preparation process interactive dashboards for the public access to budget data. This involves designing and developing interactive dashboards that present budgetary information in a visually appealing and user-friendly format. These dashboards will allow users to explore budget data dynamically and filter information based on specific criteria.

# Objective of the assignment

The objective of developing a web portal for public participation in the budget process and improvement of budget literacy is to democratize budgetary decision-making, empower citizens, and promote greater accountability and transparency in governance. By harnessing the potential of digital platforms, governments can foster a more informed, engaged, and inclusive society. The main aims are:

# Enhancing Transparency: The primary goal is to increase transparency in the budgetary process by providing citizens with access to relevant information regarding government budgets. Through the web portal, citizens can gain insights into how public funds are allocated and utilized.

# Promoting Civic Engagement: The web portal serves as a platform to encourage active participation from the public in the budgetary decision-making process. By facilitating discussions, feedback mechanisms, and avenues for suggestions, citizens can contribute their perspectives and priorities, thus fostering a more inclusive and democratic budgeting process.

# Improving Budget Literacy: Many citizens may lack a comprehensive understanding of budgetary concepts and terminology. The web portal can serve as an educational resource, offering explanations, guides, and interactive tools to improve budget literacy among the general populace. This includes explaining how budgets are formulated, how expenditures are categorized, and the implications of budgetary decisions on various sectors of society.

# Empowering Communities: Through the web portal, communities can advocate for their specific needs and interests within the budgetary framework. By providing a platform for grassroots initiatives and local projects, the portal empowers communities to articulate their priorities and mobilize support for funding allocation.

# Facilitating Accountability: By enabling public scrutiny and oversight of the budgeting process, the web portal helps hold government officials accountable for their decisions. Citizens can monitor budget allocations, track expenditure patterns, and assess the effectiveness of government programs, thereby fostering accountability and good governance.

# Driving Innovation: The web portal can serve as a catalyst for innovation in budgeting processes. By leveraging technology such as data visualization, interactive tools, and crowdsourcing features, the portal can facilitate novel approaches to budget planning and resource allocation, leading to more efficient and effective use of public funds.

The web portal will empower citizens by giving them the tools and information they need to actively participate in shaping government budgets. Through access to budgetary data, educational resources, and interactive features, citizens can develop a deeper understanding of budgetary matters and contribute meaningfully to discussions about spending priorities and resource allocation. This empowerment enhances citizens' sense of agency and ownership over public policies and expenditures.

# Scope of Services

* 1. **Implementation Plan**

The Consultant/firm shall develop an implementation plan as a document outlining how aweb portal will be developed with proposal of activities and methods of implementation. Create blueprint document with key features relevant for all web portal sections, user interface and design, educational resources, budget information and transparency and citizens contribution component.

Implementation plan should be discussed and accepted by the PMT/Ministry of Finance – Budget department.

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* 1. **Core Portal**

The Consultant/firm shall develop Core Portal with the following key features for all Web portal sections:

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| Domain | Requirement |
| UI | The web portal shall be designed with a modern graphic interface, easy to navigate and with logical content connections. The portal's interface and general design template shall be based on informative functionality, clear presentation, and quick navigation. The portal should be based on the responsive design in order to be used from different devices like PCs with large screens, tablets and mobile phones with smaller screens. |
| Language | User can choose between Serbian Cyrillic and Serbian Latin. |
| Authentication | Portal will have public section open to access from the internet (Public users) and private section dedicated to authorized users from MF (Internal users). Internal users will be authorized based on unique username and password. |
| Public user registration | In order to submit posts, remarks and comments public users have to register. User will provide name and email address that will be verified by sending mail to the user with the link for the activation. |
| Security | Portal should ensure the security and integrity of data transmitted through the portal and measures to protect against unauthorized access or breaches. Portal should comply with data protection regulations and standards to safeguard users' privacy and confidentiality.  |
| Search engines | The portal shall be accessible for search engine spiders and should be well optimized and coded for search engines. |
| Portal menu | A menu structure should be designed to cater to the specific role of each user.  |
| Tables | All tables within the system should offer advanced features such as sorting and filtering capabilities, enhancing the user experience, and facilitating data exploration. Additionally, client-side pagination should be implemented to enhance the efficiency of data handling, allowing users to manage and navigate large datasets with ease. |
| Media Library | The system should incorporate a sophisticated Media library feature that allows users to upload files in various formats, including images, documents, and video. Files will be published to specific Portal sections only from Portal media library. Administrators should be provided with the capability to review all files uploaded and remove them from Media library. |

The Portal shall have an appropriate authorization and authentication mechanism implemented to prevent unauthorized access to the admin, content management module and public contact module. The system should include a robust user authentication mechanism that grants access to the portal through access parameters provided by the MF. The system should also implement a process to validate the authenticity of email addresses used by users. This process should include the sending of confirmation requests to users, followed by a guide detailing how to access and effectively utilize the system after successful registration confirmation. This comprehensive user authentication process will enhance security and ensure that users can make the most of the portal.

* 1. **Budget Literacy Component**

The Consultant/firm shall develop the Budget Literacy Component of the web portal which will serve as a comprehensive educational resource designed to enhance citizens' understanding of the budget process, terminology, and key concepts.

Budget Literacy Component should provide educational resources, including articles, infographics, videos to enhance citizens' understanding of the budget process, terminology, and key concepts. In addition, it will provide quizzes or interactive tools to evaluate and reinforce users' understanding of budget-related topics.

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| Domain | Requirement |
| Publish content | Ability to create domain sections with the specific content e.g. sector related (Education, Capital investments, Security…) or related to the phases of the budget process. Content can be text, document, or video. |
| Quizzes | * Ability to define questions, designing answer options, identifying correct responses, and organize it into quizzes.
* Ability to publish quizzes.
* Ability to evaluate results of quizzes.
* Ability to communicate quizzes results to participants.
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| News | Ability to publish news in the specific section of the portal by authorized users. |

* 1. **Citizens Contribution Component**

The Consultant/firm shall develop the Citizens Contribution Component of the web portal which will serve as a crucial avenue for gathering input from citizens on budget priorities and concerns. Implement input gathering mechanisms, real-time updates, and notifications.

Citizens Contribution Component should gather input from citizens on budget priorities and concerns. It should enable real-time updates and notifications to keep users informed about budget developments, public hearings, and opportunities for engagement.

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| Domain | Requirement |
| Insight | * Public users will have access to all citizens inputs
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| Participation | * The portal will facilitate the submission of ideas and proposals for projects, investments, and other budget-funded activities through user-friendly forms.
* It will offer forms for the submission of concerns referred to specific budget positions at each stage of the budget preparation process.
* Public users will be empowered to engage actively in the discussion by providing comments and ratings on the proposals or concerns submitted by their fellow citizens. This inclusive and participatory approach aims to foster transparency and collaboration in the budgetary decision-making process.
* Public Users will be able to report inappropriate posts by other Public users.
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* 1. **Portal Administration and Monitoring Component**

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| Domain | Requirement |
| Administration | * Ability to maintain Internal Users roles and authorizations.
* Ability to maintain Portal specific master data
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| Curation | * Ability for the authorized internal users to remove inappropriate content submitted by Public Users.
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| Master data synchronization | * Portal should on daily bases synchronize relevant master data with Data source.
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* 1. **Internal Reporting Component**

Reports should provide insights into Portal usage like number of registered users, number of posts, usage statistics and trends.

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| Domain | Requirement |
| Predefined internal reports | * System should provide set of predefined dashboards and reports that will be available within existing MF Analytics Platform[[1]](#footnote-1) that will use Portal database as the data source.
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| Ad hock reporting | * Internal users should be able to change predefined reports and to define it’s own reports and dashboards based on predefined data models.
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* 1. **Budget Insight Component**

The Consultant/firm shall develop Budget Insight Component with interactive dashboards for the public access to budget data by creating user-friendly visualizations that allow citizens to explore and understand government budget information easily.

In each phase of the budget preparation process Portal should provide interactive dashboards for the public access to budget data.

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| Domain | Requirement |
| Dashboards | * Dashboards should be designed to provide Citizens with a clear and insightful overview of income and resource allocation across different sectors, enhancing their ability to have insights in fiscal activities.
* Ability to visualize trends in budget plans and execution per years.
* Ability to visualize budget data by using standard charts like bar chart, numeric pint, pie and donuts chart.
* Dashboard filtering mechanisms across all budget dimensions, facilitating a targeted approach to budget analysis.
* Ability to navigate through different budget phases
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| Overview Dashboard | * Should provide overview of budget:
	+ Revenue and expenses summary
	+ Bar charts with most important revenue and expenses budget positions
	+ Comparison of midterm plans for next year and flowing 2 years
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| Budget Expenses per sectors, Budget position and economic classification | * Dashboards will feature a bar chart (or similar chart) displaying budgetary spending per sector or economic classification, presented both in absolute values and percentage distributions.
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| Dedicated dashboards | * Social contribution per Program/Program activity/Project
* Capital spendings.
* Subventions
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All relevant budget data and master data should be collected from SAP BW/4HANA (“Data source”).

* 1. **Support Services**

The Consultant/firm shall provide support services 12 months after go live date.

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| Domain | Scope |
| Bug fixing | * Provider should correct all malfunctions in Portal
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| Monitoring | The Service provider shall continuously monitor the operation and behavior of the portal and present the results in the monthly reports. On a monthly basis, the Service provider shall perform testing and scanning of the portal as follows:* Periodical testing for dead links on the portal;
* Periodical testing of the portal performances;
* Periodical scanning of the portal vulnerability.
* Periodical analysis of system and application logs;
* Periodical analysis of the DBMS performance and fixing bottlenecks;

The results of testing and scanning shall be presented in the monthly report. |
| Backup | The Service provider shall provide daily back-up of the portal. The details will be defined with close cooperation between the Service provider and the MF.Upon a request for backup data recovery submitted by the MF, the Service provider shall act and execute the recovery as soon as possible, but not more than 8 hours. |

* 1. **Source code**

The Service provider is obliged 15 (fifteen) days before the expiration of the contract, to submit to the MF the last backups of the data and the complete Portal source code and database, together with an instruction explaining how to set up the portal to work in a new environment, in electronic format on portable medium.

In case that Service provider have embedded its own or 3rd party standard components such components should be delivered in object code free of charge and with no time limitation related to its functioning as an embedded part of the Portal. For 3rd party libraries, to comply with previous statement, Provider should ensure that no additional usage costs for such components will be charged to MF during the entire lifetime od Portal usage.

* 1. **Infrastructure**

Proposed solution should be based on technology stack components recognized as industry standards for web application development. The choice should prioritize technologies that require a one-time payment with a lifetime license. This careful selection is crucial to avoid incurring any additional licensing expenses during the operational phase of the software.

Portal should be installed in the Serbian Government Data Center (“DC”). DC will provide all needed infrastructure components: housing, rack, networking equipment, virtual machines, operation system (Linux or Windows).

In case that there is framework agreement between Serbian Government and provider of DBMS licenses, DBMS shall be provided by DC. Otherwise, Service provider should propose price for licensed DBMS products.

Service Provider should provide sizing for:

1. Servers for Test and Production Environment

Proposal should include at least:

* One server for the production Web Server
* One Server for the production Database Server
* One server for Test environment

Servers should be deployed on virtual environments. Service Provider should propose minimal virtual machine configuration for above mentioned environments and detailed version for all standard products that are planned to be used.

1. **Deliverables**

The selected Consultant/Firm shall prepare and deliver the following documents and components in the corresponding stages of the assignment.

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| --- | --- |
| **Deliverables** | **Due dates** |
| Deliverable 1:Implementation plan with the blueprint with key features relevant for all web portal sections | **30** days after signing the contract |
| Deliverable 2: Develop the Budget Literacy Component | **120** working days after signing the contract  |
| Deliverable 3: Develop the Citizens Contribution Component  | **210** working days after signing the contract |
| Deliverable 3: Develop the Budget Insight Component | **300** working days after signing the contract |

The selected Consultant/Firm shall be paid the lump sum contract amount linked to the defined deliverables.

1. **Reporting**

The Consultant/Firm will work under the authority of the Ministry of Finance/Budget department and will report to the Assistant minister on a regular basis regarding the pace of the Project implementation. Reports should be submitted on time with all necessary information. Report and deliverables will be submitted: Reports in Serbian and English, deliverables in Serbian and English language, sent via email as well as 2 hard copies for approval to the Ministry of Finance/Budget department. All reports shall be approved by the Ministry of Finance/Budget department (Assistant minister).

1. **Qualification requirements**

The Consultant/Firm is to meet the following requirements:

* Shall be registered as a legal entity.
* Appropriate professional, organizational and logistical capacities necessary for carrying out the assignment on the territory of the Republic of Serbia.
* Experience of participating/provision of consultations in project management, custom web portals development, data analytics solutions and systems integration.
* Experience of participating/provision of consultations in at least three projects related to development of Web portals that are available on the public internet that are still actively used.

The Consultant/Firm shall provide a team of experts covering the following requirements:

Key Expert 1 - Team Leader

* Must have at least 10 years of professional experience in leading teams dedicated to custom software development projects.
* Must be engaged as team leader of at least one successfully implemented public finance-related portal in the last three years (from the tender submission deadline), with at least 500 active users.

Key Expert 2 – Solution Architect

* With at least ten (10) years of work experience in setting up software architecture and software solutions design.
* Solution architect engaged in development or support of at least one interactive, public Web Portal, with at least 1 million visits in 2023.
* Proven experience with integration of custom developed Web portals with SAP Business Warehouse.

Key Expert 3 – Expert for data analytics

* With at least ten (5) years of work experience in enterprise level data analytics solutions where at least one is used by 500 active users.
* With extensive knowledge of public budgeting process who have successfully participate in the role of data analyst, in least one project in the last three years in the public financing domain.
* Proven experience with data analytics solution where reports and dashboards are embedded in the custom developed web portal.
* Proven experience with SAP BW/4HANA.

Key experts must provide adequate proof for all of the requirements presented and a statement of availability for the tasks. Key resources must hold a certificate issued by Serbian Authorities for access to classified information of at least a confidential level.

1. **Logistic and timing**
	* **Location**

The Republic of Serbia

* + **Period of implementation of tasks**

The period of contract implementation will be 300 days from the contract signature.

1. **Selection**

The Consultant will be selected in accordance with CQS method set out in the World Bank’s Procurement Regulations for IPF Borrowers (July 2016, revised November 2017, August 2018. and November 2020).

Expressions of interest will be evaluated based on the following criteria:

|  |  |
| --- | --- |
| Specific experience of the firm | 40 points |
| Qualifications of Key Experts | 60 points |
| **TOTAL:** | **100 POINTS** |

1. MF Analytics platform is based on SAP BW/4HANA and SAP Analytics Cloud [↑](#footnote-ref-1)