Country: South Africa

Duty station: Midrand /South Africa

Description of the assignment: Enhancement of the electronic questionnaire tool

Period of assignment/services: Six Months (6)

1. BACKGROUND

The APRM is a self-monitoring mechanism that fosters the adoption of policies, standards and practices that lead to political stability, high economic growth, sustainable development and accelerated regional economic integration through the exchange of experiences and reinforcement of best practices including identifying deficiencies and assessing the needs for capacity building of the participating countries. To date thirty-five Member States of the African Union have voluntarily acceded to the APRM.

This unique mechanism reviews the performance of a country against four thematic areas of Governance, which are democracy and political governance, economic governance, corporate governance as well as socio-economic development. The APRM has promoted policy dialogue between leaders and citizens through the peer review process, highlighting critical overarching challenges inhibiting the development of Member States. It has revealed that it can identify best practices in individual countries and can serve as a prevention tool or a Continental Early Warning System for detecting possible faulty lines in governance and cause of conflict.

The APRM proceeds in five phases:

Phase 1 is a preparatory step at both the national and continental level. During this phase, the national Focal Point establishes the National Governance Commission (NGC) and the sensitization and awareness campaign begins. Once these prerequisites are in place, the country commences the national self-assessment stage. During this stage, the country is also required to develop a Preliminary National Program of Action (NPoA) to address existing capacity constraints. On its part, the continental APR Secretariat compiles basic information on the country called the Background Paper that is used to augment, compare and contract with the national self-assessment that the country prepares. These three (3) documents namely (i) the self-assessment report on governance, (ii) the preliminary NPoA
and (iii) the background paper constitute the basis key issues paper that will be prepared ahead of the country review mission.

The Country Review Mission Marks **Phase 2** of the process.

**Phase 3** is the preparation of the country review report by the review mission that visits the country.

**Phase 4** is the submission of the report of the country review mission to the continental APRM Secretariat and the APR Panel for deliberation and recommendations. The Panel submits the country review report and recommendations to the Forum of Heads of State for action. Phase 4 ends with Chairman of the Forum communicating the decisions of Heads of State and Government of the country under peer review.

**Phase 5**, which is the final stage of the APRM process, involves making public the country review report and actions relating thereto.

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2. **RATIONALE**

The APRM developed an electronic questionnaire tool to assist in automating some of the current processes. The electronic questionnaire tool developed is in its current form needs to be enhanced to adapt and keep in line with the latest trends and advances within APRM. These aspects include certain aspects such as ease of use, additional functionality and various output requirements such as workflow and reporting.

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3. **GENERAL OBJECTIVES**

The general objectives of the continued enhancements are as follows:

- Customisation and enhancement of the electronic tool based on interaction with various role players and specific expectations from countries;
- Expand on reporting requirements by scoping and developing additional functionality and reports through interaction and country specific requests;
- Support the ARPM during country visits to ensure the electronic tool fulfils the expectations of each country.

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4. **TARGET AUDIENCE**

This Electronic Questionnaire is targeted at key APRM stakeholders, more specifically, at the following target audience:

- Partners, African, Regional and International Institutions - including the UN, EU, ECOSOC, SADC, ECOWAS, ECAS and AUC.
- National Governing Council/ Civil Society Organizations.
- Government institutions.
- Education sector – Academia/ Students alumni.
- Research sector – Researchers/ Analysts.
- Media sector - both at the African and world level.
- Stakeholders - Africans, Panel Members, Focal Points (national officials), Strategic partners and other stakeholders within across the African continent.
- Country Review Mission Team.
- General public - A wider informed audience.
5. **SCOPE OF WORK, TECHNICAL AND FUNCTIONAL REQUIREMENTS**

**Scope of Work**

The APRM developed a custom software tool for the purposes of collecting responses from structured surveys and questionnaires. The tool was developed to operate using a standard mobile, laptop or desktop device. The application consists of three separate components. A database, a storage account and a web application. In order to optimise the process, the APRM is seeking a service provider that can enhance the solution to take advantage of modern web application tools and techniques. This is a maintenance and enhancement project, no re-write, re-development or third-party services suggestions will be considered.

**Technical Requirements**

All enhancements are expected to enhance or add additional value without compromising on the existing functionality of the system or its operations. The duration allocated for this enhancement phase is three months.

The following enhancements have been identified.

- Migrate the solution from bootstrap to material-ui.
- Migrate the solution from MVC Razor pages to ReactJS.
- Migrate the solution from MVC to SPA.
- Enhance the API endpoints to utilise JWT access tokens.
- Update the base framework from .net core 2.0 to .net core 2.2
- Provide any relevant data model updates.
- All application interface pages must be updated to utilise the best practices for modern UX/UI requirements.

The service provider must demonstrate adequate and sufficient experience in software development, cloud computing and reporting.

**Functional Requirements**

The full set of features, content and design layout will be finalized before the actual project plan is implemented. The electronic questionnaire tool will be enhanced with the aim to improve scalability, reliability, robustness, flexibility, security and interoperability with existing systems and devices. The application consists of four primary modules plus an administration module:

- Survey builder provides tools for constructing surveys and questionnaires.
- Survey submission provides tools to respond to surveys and questionnaires.
- Survey reviewer provides tools for reviewing the submitted values for surveys and questionnaires.
- Reporting provides tools for viewing survey results, data and analytics.
- The administration module provides tools for managing respondents, countries and other security related topics.

Surveys consist of several response types including:

- Text boxes,
- Text areas,
- Choices or Options,
- Yes/No (Adaptive)
- Date pickers
- Headings, instructions and video links.

Under the supervision of the Head of Knowledge Management, Monitoring & Evaluation and Review Support at the APR Secretariat, the service provider will be required to work closely with the team to develop and implement the enhancements of the electronic questionnaire. The enhancements should include the following features and
6. DELIVERABLES

Detailed specifications for the project will be defined jointly with the service provider when the contract is in place and following an assessment of the current position. The different steps and deliverables for this project are described below.

### Architecture and navigation

Based on our requirements, the service provider will propose new architecture with detailed navigation and wireframes that reflect best practices in the industry. The user interface should also be clear, user friendly and facilitate ease of access.

The service provider must also propose to the APRM on how to organize content in a way that will meet the APRM’s objective to build a clearer and more user-friendly electronic questionnaire. In this context, the service provider is expected to help the APRM organize the contents while respecting the guidelines provided by the APRM.

### Application design

The service provider will have to define the visual identity of the system in a very innovative fashion while respecting universal standards and the APRM brand identity.

The service provider will review and tweak the mock-ups until APRM is satisfied with the design. Where applicable a minimum of two design proposals will have to be created in order to allow the APRM to decide on the most suitable option from the two design proposals.

Once a decision on the design has been taken, the service provider will be responsible for ensuring that it the online portal is responsive, and that portal displays properly at the same level of high quality across all the devices.

### Electronic Questionnaire Enhancement Development

With the increasing demand for dynamic user interaction the new system features should be very much content oriented and more functionality based.

### Specific Features

The portal must have some of the key features and functionalities to meet the APRM needs. All the features proposed

- The ability to pre-populate questionnaire where applicable/possible;
- Further development of the review functionality of the electronic questionnaire tool;
- Functionality to allow APRM to exclude or add questions for a specific mission objective;
- Additional reporting features to assist with operational aspects of the APRM and eventually the tool need to accommodate a multitude of reporting features;
- Ability to select a series of questions, amend the list of questions and assign optional or compulsory status to questions;
- Develop and integrate a comprehensive workflow;
- Uploading questionnaires from various data sources;
- Ability to upload statistics or information from independent sources where arrangements are in place;
- Improve and expand predefined questions and answers;
- Develop key questions that would populate pre-captured text, i.e. country geo-graphical information, population size, GDP and other common data;
- Customised and “Quick” surveys; and
- Country specific customisation and surveys.
by the service provider must be user-friendly for both the stakeholders and the APRM Administrators that will manage them.

**Application developments (Multi-platform Support)**
The service provider will be responsible for development, implementation and testing of the electronic questionnaire. The service provider must ensure that the application development is functional with smartphones or tablets and other portable devices.

**Analytical Reports**
The service provider must provide tools the APRM can use to view detailed analytics configured to provide the APRM with a realistic and tangible indication of performance of the respondent. This analytic tool should be capable of conducting predictive, comparative and trend analysis.

**Complete Electronic Questionnaire Enhancements Development, Maintenance, Transition, Testing and Deployment**
Under phase 3 the service provider will provide additional advice, testing, training and assistance to the APRM for the period of 3 months. On delivery of the project, the service provider will also ensure that APRM has the backend admin credentials.

**Technical Support / Maintenance (upgrades)**
Following the launch of the platform, the service provider is expected to provide a proactive technical assistance and technical support for the period of 6 months from the completion of the project.

This basic technical assistance comprises:

- **Features Integration**: Integration of basic new plug-in, module or extensions and technical assistance relating to the electronic questionnaire.
- **Bug resolution**: In case of bugs caused due to poorly written program, priority must be given to the resolution of the problem and should be solved within a reasonable time frame.
- **Time-to-implement**: A request must be implemented or addressed within 24 hours from the time of submission.
- **Time-to-acknowledgement**: Any request or issues raised by APRM must be acknowledged or answered within 24 hours.

**Documentation**
The service provider will provide APRM Secretariat with comprehensive documentations for the electronic questionnaire. The documentations should cover soft copy of the design mock-ups and wireframes, a user manual with all functionalities of the backend in detail and step-by-step guidelines and appropriate images for each process.

**Training**
Following the completion of the portal the service provider will have to deliver a comprehensive training session(s) for the relevant staff members who will either use or manage system. Such training should be part of the package at no added cost after the system is completed.

**Personnel Requirements**
- **Contact** - The service provider will be expected to ensure that there is a lead project manager who is the central point of contact between the service provider and the APRM for tasks and deliverables. Continuity shall be ensured by the service provider in case of absence of a contact person (back-up).
- **Contact Details** - Answers to any technical questions from APRM staff by email or phone. The service provider shall provide contact details (email or distribution list + telephone number) for the contact person and back-up.
- **Subcontracting** - In the event of sub-contracting for some tasks, the service provider should inform the APRM of the companies or freelancers contracted and the sub-contractors must have all the skills and
7. QUALIFICATION AND EXPERIENCE

**Qualifications & Experience:**
- At least a master's degree in Information Technology.
- Must have three (3) years' working experience in similar projects.
- Strong technical understanding of systems and data bases.
- Knowledge on drafting of reports on data and data bases.
- Should be able to work under strict deadlines.
- **Language:** The applicant must be able to communicate and write in either English or French or any other AU languages may be an added advantage.

The service provider is expected to have experience in the following tools and technologies:

- Visual Studio and Visual Studio code
- .Net core version 2.2
- Asp.Net core MVC Web API
- SQL Server 2016 or higher
- JSON
- React 16 or higher
- Webpack
- NPM
- Microsoft DevOps

8. DELIVERABLES AND TIME FRAME

The project is expected to take 2 months for the development and enhancements and the period of the entire project including development and roll out should not exceed the stipulated period. The project commencement day will be from the day APRM signs the contract. The service provider will develop and submit a project plan, and timetable at the commencement of the project. The proposed time frames are depicted below:
<table>
<thead>
<tr>
<th>#</th>
<th>Project deliverables</th>
<th>Time frames</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Appointment of service provider</td>
<td>Week 1</td>
</tr>
<tr>
<td>2</td>
<td>Development of the Project charter, finalise deliverables and time frames</td>
<td>Week 2, Week 3, Week 4, Week 5, Week 6, Week 7, Week 8, 6 Month period</td>
</tr>
<tr>
<td>3</td>
<td>Architecture and navigation</td>
<td>Week 2</td>
</tr>
<tr>
<td>4</td>
<td>Application design</td>
<td>Week 4</td>
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<tr>
<td>5</td>
<td>Electronic Questionnaire Enhancement Development</td>
<td>Week 6</td>
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<td>6</td>
<td>Analytical Reports</td>
<td>Week 8</td>
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<tr>
<td>7</td>
<td>Complete Electronic Questionnaire Enhancements</td>
<td>Week 2, Week 3, Week 4, Week 5, Week 6, Week 7, Week 8, 6 Month period</td>
</tr>
<tr>
<td>8</td>
<td>Documentation</td>
<td>Week 2, Week 3, Week 4, Week 5, Week 6, Week 7, Week 8, 6 Month period</td>
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<tr>
<td>9</td>
<td>Training</td>
<td>Week 2, Week 3, Week 4, Week 5, Week 6, Week 7, Week 8, 6 Month period</td>
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<tr>
<td>10</td>
<td>Project close out</td>
<td>Week 2, Week 3, Week 4, Week 5, Week 6, Week 7, Week 8, 6 Month period</td>
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<tr>
<td>11</td>
<td>Continued support</td>
<td>Week 2, Week 3, Week 4, Week 5, Week 6, Week 7, Week 8, 6 Month period</td>
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</tbody>
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9. ADDITIONAL REQUIREMENTS

Logistics
Regarding the project management, one or more meeting(s) at each major step of the projects will be held with the APRM at the APRM premises. Alternatively, the service provider’s staff involved shall be reachable via telephone, e-mail and through videoconference during normal working hours (09.00-17.00). When required by the tasks to be performed, the usage of mobile phone should be considered during normal working hours.

Equipment
The service provider shall ensure that experts possess the adequate experience and are equipped to perform all the tasks described above, and to be able to work through video conferencing with screen-sharing possibilities.

Service Level Agreement
In the Service Level Agreement, the service provider must commit to deliverables bug free with very low defect rates.

Intellectual property rights (Source Code)
All intellectual property rights, source codes and the complete content, as well as all the work performed under the contract are the exclusive property of the APRM. The service provider must provide APRM with all the code required for the electronic questionnaire and backend to operate. All documentation that describes system installation and configuration in detail must also be provided.

Security
The application and backend must be programmed with appropriate security in consideration. Possible damage from exploiting vulnerabilities stemming from poor programming will be repaired and corrected at the service provider’s expense.

Warranty
The service provider must also provide a minimum of 3-year warranty and during this warranty the service provider will be responsible for any bug fixes and errors. Any errors in design and development that originate from
programming and are in general results of the service provider’s activities shall be corrected by the service provider free of charge in period of 24 months from the template design.

10. EVALUATION CRITERIA

SELECTION PROCESS

All bids will be subjected to pre-qualification criteria as stipulated in Section III of the bid document before proceeding to technical evaluation.

This will be followed by a selection process where functionality will be 20% and price 80%. Based on the following evaluation criteria, the shortlisted firms with highest points (75% and above for part I) will qualify for step 2.

<table>
<thead>
<tr>
<th>Evaluation criteria</th>
<th>Max. Point</th>
<th>Score</th>
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<tbody>
<tr>
<td>Experience: (Experience of the firm)</td>
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<tr>
<td>Company Profile and Expertise of the company:</td>
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<tr>
<td>• List of previous works of similar nature</td>
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<tr>
<td>• At least 5 years’ experience in developing and/ or customizing software programs, trouble shooting, networking, hardware and software maintenance</td>
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<td>• Hands on experience in trouble shooting, networking, basic programming and relevant software applications</td>
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<td>• Legally registered organization with requisite professional experience and knowledge of Network technologies including Microsoft Windows.</td>
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<tr>
<td>Technical Qualification (Experts)</td>
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<tr>
<td>• Lead software developer should have at an advanced degree in Information Technology or Computer Sciences, Engineering or any other related fields with at least 10 years of experience and should have an academic background in IT development. A Master’s degree and/or PhD Will be an added advantage</td>
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<tr>
<td>Transfer of Knowledge (training) program</td>
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<tr>
<td>• Qualification of the experts and trainers- an advanced degree in Information Technology or Computer Sciences, Engineering and experience in training.</td>
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<tr>
<td>• Training approach and methodology</td>
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<tr>
<td>• Relevance of the training</td>
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<tr>
<td>Project Management</td>
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<tr>
<td>• Ability to manage work of a confidential nature and handle large volumes of work (value of similar assignment- attach two contracts on similar works)</td>
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<tr>
<td>System capabilities</td>
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<tr>
<td>• Visual Studio and Visual Studio code</td>
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<tr>
<td>• .Net core version 2.2</td>
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<td>• SQL Server 2016 or higher</td>
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<tr>
<td>• JSON</td>
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<td>15</td>
</tr>
</tbody>
</table>
- React 16 or higher
- Webpack
- NPM
- Microsoft DevOps
- The service provider must demonstrate adequate and sufficient experience in software development, cloud computing and reporting.

- System Administration and Security:
  - The system must have at least the following administration and security capabilities:
    - Administrator Backend
    - Physical access control
    - User access control
    - Restriction of groups of users/workstations to specific functions
    - Full encryption of all electronic resources and secure communication
    - Monitor all network traffic/resources in real-time

- Methodology and concept proposal
  - Proposed methodology, approach for implementation and training (creative and innovative ideas) and
  - brief implementation plan(workplan) with proposed timeframe for pre-production and postproduction
  - organization and staffing (assigning task)

<table>
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<tr>
<th>Total Score</th>
<th>100%</th>
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The minimum technical score shall be 75%

Applicants should submit the following;

1. Proposal
2. Expression of Interest;

All applications should be submitted to: tender@aprm-au.org

Closing date: **20 November 2019 at 1700 hrs RSA time.**