
TERMS OF REFERENCE OPEN ELECTION DATA PORTAL

INTRODUCTION

The Elections Observation Group - ELOG is a long-term, permanent and national forum or network which comprises of civil societies (CSOs), including faith-based organizations (FBOs), with the mandate of strengthening democracy in Kenya and the African Region through promoting transparent and accountable electoral processes that include public participation.

OBJECTIVE

The overall purpose is to seek to provide a platform to exchange knowledge and share experiences that would contribute to improving the credibility, transparency and accountability in the electoral processes in Kenya.

1. SCOPE OF WORK

Key Tasks and Responsibilities

The selected consultant shall:

- Provide Open Election Data portal - to enable the easy publication and consumption of election data in Kenya and Africa Region. Key functionality should include ability to;
 - ✓ upload, manage and access data;
 - ✓ visualize data using charts and maps;
 - ✓ deliver data to other applications via APIs or other endpoints;
 - ✓ support bulk downloads and uploads.

Data portals should also include / support easy inclusion of applications gallery; links to social media; community functions; news and announcements; blogs; embedded visualizations; requests for data.

- Arrange for hosting of the portals and the data. The hosting arrangements must be transferable to the ELOG or its agent. Portals and hosting should meet international best practice cybersecurity standards.
- Provide technical assistance for the portal. As part of initial award, provide technical assistance and support for 6 months with the option of the ELOG choosing to continue support for another 2 years.
- Provide training on management and tools for the new open data portals, including curation, versioning and quality control for data, and other matters. This may be achieved through providing documentation and training manuals and guidance manuals, preferably including online versions, with specific view towards new portal administrators and managers being able to self-train.
- The selected consultant's team should include a project manager who will serve as a point of contact and provide regular weekly updates.

Overall Requirements

- The data should be available in at least 3-star open format (Berners-Lee open data deployment scheme), available as bulk downloads and through APIs.
- The services should need little (or no) technical intervention for its use by the data publisher teams in ELOG. The portal should run automatically in its role as a harvester and aggregator of data from other portals, including the two national portals developed as part of this project.
- The portals and their hosting should be easy to maintain by the technical staff concerned and with the skills that they have or could easily acquire locally.
- Support all major web browsers, including support of full functionality on mobile devices.
- The solution should be scalable to bring on as much data as might eventually to be published

2. DETAILED DESCRIPTION

Open Data Portal

Minimum Requirements

- Types of data to be supported by a data portal should include:
 - ✓ Geospatial data in a range of formats. Ability to interoperate with GeoNode, QGIS, or similar GIS/spatial Open Data portals/software is required.
 - ✓ Tabular (numerical and text) data in Excel and CSV formats
- Data portals should
 - ✓ support different user roles. Definition of roles for uploaders from various ministries, departments, and agencies owning and uploading data would be required.
 - ✓ allow 'power users' to upload and manage data with ability to stage data before publishing.
 - ✓ allow accessing and downloading data in multiple formats, including bulk downloads
 - ✓ allow users to visualize data using charts and maps
 - ✓ have built-in APIs that provide access and a query language for every dataset
 - ✓ have built-in APIs that provide 'power users' with the ability to publish data
 - ✓ implement DCAT Open Data metadata profiles
 - ✓ provide an ability to search across data and metadata, including an advance search to further filter and customize search options
 - ✓ provide data analytics around website, content, embeds, users, and API

- ✓ provide an ability to upload documents to provide additional context (e.g., data dictionaries, methodology notes, etc.)
- Portals should provide functionality similar to best practice of open data portals, including:
 - ✓ Custom branding and style
 - ✓ Applications gallery
 - ✓ Links to social media
 - ✓ News and announcements
 - ✓ Blogs
 - ✓ Requests for data
 - ✓ Visualizations of data
 - ✓ Management and user administration functionality
 - ✓ Management information on usage including visits and downloads
 - ✓ Backup, migration, upgrading, and disaster recovery procedures
 - ✓ Ability to manage the above functionality and create content by local teams
- Solutions based on widely used and sustainably supported packages are preferred rather than customized programming.

Hosting

Preference for cloud hosting, which can be transferred at a later stage to the management of countries.

- The selected consultant should be capable of arranging hosting capacity for at least to 1,000 datasets
- The hosting capacity should be scalable to accommodate future expansion / upgrade of the portal to accommodate more datasets, and any additional costs of doing so should be detailed in the proposal.
- The capacity in terms of number of simultaneous users, bandwidth, and data downloads should also be scalable, both up and down, in the light of experience, and the costs (and savings) from doing so should be detailed in the proposal.
- The portals should be available with at least 99.5% uptime, and the architecture should allow upgrading to a fully resilient configuration, with the costs of doing so detailed in the proposal.
- The hosting should include backup and disaster recovery procedures and capacity and specifications for the hosting environment including operating system, database, web server, and Common Gateway Interface (CGI) scripting.
- Final hosting arrangements will be agreed on between the ELOG and the selected consultant

Training and Capacity Building

The selected consultant is expected to offer intensive training sessions on management and tools for an Open Data portal, licensing, curation, versioning and quality control for data, and other matters. A package of training should include:

- Technical training: This will be targeted at technical personnel. The training will cover:
 - First module. System administration:
 - Maintenance and system administration of the Open Data portal
 - Open source code customization
 - User administration
 - Management and usage information
 - Security
 - Second module: Publication of data
 - Publishing of datasets
 - Data wrangling, data cleaning, and troubleshooting techniques
 - Using metadata functions available
 - Handling data requests
 - Provision of documentation, online help pages, and other content
 - Third module: Use of the portal
 - Discovery/search for datasets
 - Use of various geospatial features
 - Creation of visualizations using available tools
 - Use of APIs
 - Downloading of data
- Any other relevant training the prospective consultant may wish to specify.
- Due to possible turnover among technical support staff and among dataset owners and due to the need to determine in due course ongoing management responsibilities for the regional portal, prospective consultants should also specify how they would offer training in an ongoing fashion through training manuals, guidance manuals, “how-to” guides, online training videos, help pages, electronic slide presentations, or other similar documentation with the data standards for current and future portals needed to ensure compatibility of regional and country data portals, and/or other similar methods.
- The selected consultant will be expected to develop all relevant training materials adopted to the local context that can subsequently be reused by the governments and the region. In order to minimize travel costs of both trainers and trainees, prospective consultants should also specify how training might be

delivered electronically through videoconference, prerecorded video, computer-based training, or other similar methods where appropriate.

3. SUPPORT

Once the portals are launched, the provider's support services will include:

- System support and administration for a minimum of six months
- Options for technical assistance and support to be provided with corresponding service-level agreement (SLAs), including a contact point for telephone calls and emails during the working day
- Proactive monitoring of correct portal and hosting function and security, and taking any necessary corrective action
- Rectification of faults in the portal or associated support materials for a minimum of six months

4. OPTION FOR ORAL PRESENTATIONS

The ELOG reserves the right to conduct oral presentations with consultants who submit a proposal. Should the ELOG wish to proceed with oral presentations, consultants will be contacted to schedule a mutually agreed upon date and time.

5. SPECIAL TERMS AND CONDITIONS / SPECIFIC CRITERIA

Duration of Assignment

The contract is expected to begin on or about January, 2018 and end on February 30, 2018.

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Reporting

The consultant will report to the task team leader(s) at ELOG.

Deliverables

- Open Data portals set up and live, and initial data preparation and upload completed.
- Three technical training modules each administrator in system administration, publication of data, use of the portal, and all related/relevant functionality for Open Data portals delivered.
- Remaining training, related documentation and materials, and source code as applicable delivered.

Project management and plans

- Project manager appointed by contract start date
- Show to ELOG plan for achieving deliverables by contract start date

- Show to ELOG design specifications and build by 2 weeks from contract start date
- Regular teleconferences with project manager

Testing and acceptance

The selected consultant should perform full testing of all three data portals and verify that the systems are fully operational.

A business team will conduct user testing of certain aspects of the systems. It is understood that this user testing is neither designed to be comprehensive nor implies the acceptance of the systems 'as-is'.

Warranty

Any faults in products provided will be rectified free of charge for the first six months.

Payment Schedule

The assignment will be remunerated on a lump sum basis as per the norms and procedures of ELOG. Payment will be linked to the following deliverables, detailed in the Scope of Work, after being accepted by the ELOG to its satisfaction:

Consultant Qualifications and Experiences

- At least 2 years' experience required in establishing Open Data portals or similar systems and associated training programs for both members of government and civil society.
- Should have at least 5 years' experience of relevant IT development and implementation.
- At least 5 years of progressive responsibilities managing or implementing development activities related to Open Data, innovation and IT for transparency and accountability of public service
- Project management, trainers, telephone/email contact, and other client-facing staff required to have fluent English.
- Knowledge of local Open Data community and ecosystem, including policies, political economies and context, etc.

Basic Qualifications:

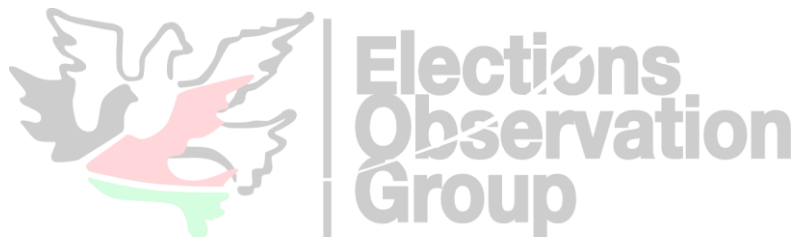
- A Degree preferably a Master Degree in Computer Science, Engineering, Technical Science or similar from a recognized university.
- Experience and/or interest in working with open source eco-system components
- Hands-on coding experience in one or more of: Scala, Java or Python
- Experience and/or interest in working with version control, continuous integration and automated tests



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6. APPLICATION

Interested consultant or consultancy firm should email their bid(s) clearly marked “**ELOG Open Data Portal**” with both technical and financial proposal to email address: info@elog.or.ke not later than 12th January 2018



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