Sustainable Development of Mining in Rwanda

25 April 2018

SUSTAINABLE DEVELOPMENT OF MINING IN RWANDA (SDMR)

REQUEST FOR EXPRESSION OF INTEREST

Procurement of goods and services related to the delivery and installation of hard- and software and training for a Geo-data Information Management System for the Rwanda Mines, Petroleum and Gas Board in Kigali – Rwanda

Reference number: SDMR2018-GEOIMS-01

1. Introduction

The Sustainable Development of Mining in Rwanda (SDMR) is a three-year technical assistance programme funded by the UK Government through the Department for International Development (DFID). The overall objective of the programme is to economically and sustainably grow Rwanda’s mining sector by fostering an increase of private sector investment and improving the livelihoods of small-scale miners and their communities. Cardno Emerging Markets (UK) Ltd has been contracted by DFID to manage SDMR.

DFID, in partnership with the Government of Rwanda (GoR), is supporting the implementation of the SDMR programme, with the Rwanda Mines, Petroleum and Gas Board (RMB) as the key government partner. Currently the sector is characterised by lack of digital geological and mineral resource information, low investment and sub-optimal socio-economic returns for all stakeholders. The desire for a transformative minerals sector in Rwanda is in line with the continental aspirations of the Africa Mining Vision: "...Transparent, equitable and optimal exploitation of mineral resources to underpin broad-based sustainable growth and socio-economic development..." \(^1\)

The SDMR programme aims to contribute to the economically and environmentally sustainable growth of Rwanda’s mining sector that meets high environmental standards and investments worthiness, in line with the Government of Rwanda’s National Strategy for Transformation (NST 1). SDMR will do this by supporting an enabling environment that will increase private sector investment in mining in Rwanda, and by testing the effectiveness of targeted interventions for small-scale mining towards achieving a viable and sustainable mining sector. This will contribute to the broader positive impact of the mining sector to economic growth and improving livelihoods among mining communities.

Intended results to be delivered by the programme include:

1. A more professional, open and transparent mining sector;
2. A more efficient and economically viable mining sector, in line with environmental best-practice

\(^1\) African Mining Vision, 2009
3. Increased level of private investment in the sector;
4. Improved incomes of artisanal miners.

2. The assignment
SDMR is currently seeking qualified organisations to design, plan and deliver goods and services for the installation and customisation of a centralised digital geological information management system (Geo-IMS) for the RMB as the primary beneficiary, but also for other GoR institutions, public users and potential investors seeking access to Rwanda’s geological data.

The main objective is to create a Geo-IMS that is functional and affordable; it should have a modular, expandable structure offering basic functions of a geo-spatial database and should make use of open source software as much as feasible. The system should also be easy to operate and to service.

The required Geo-IMS must be conformant with EU INSPIRE² and OPEN GIS (Open Geospatial Consortium) policies and standards which are closely related to the ISO 19000³ series of international standards.

In accordance with government regulations, the planned system will be cloud-hosted at the Rwanda National Data Centre (NDC) operated by AOS LTD., a Tier III certified ICT Company, which will provide a Virtual Data Centre designed and structured as per RMB’s requirements. The NDC is offering cloud-hosting and other ICT services based on Korea Telecom know-how and technology applying high standards of data security, back-up and redundancy.

The scope of work will include:
- Assessment of the existing ICT infrastructure at the RMB and the NDC
- Design and planning of an ICT infrastructure for a modular geo-database meeting high standards of data security
- Upgrading of the RMB Intranet and NDC connection, as necessary, involving some hardware components such as, routers, hubs, switches, cables, etc.
- Delivery and installation of modular software components at the Rwanda Mines, Petroleum and Gas Board (RMB) offices and the National Data Centre, both located in Kigali, Rwanda
- Customisation of the geo-database, e.g. installation of a web portal and connectivity with other existing data systems, such as, FlexiCadastre (now Landfolio)⁴ and Rwanda Lands Management Information System⁵

² http://inspire-geoportal.ec.europa.eu/
³ ISO 19000 series is maintained by ISO/TC 211 and the work is closely related to the efforts of the Open Geospatial Consortium. It consists in more than 60 documents. ISO 19101-1:2014 defines the reference model for standardization in the field of geographic information
⁴ http://portals.flexicadastre.com/rwanda/
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- Geo-IMS commissioning and handover
- Training of system supervisors and IT staff

It is expected that the supply and installation of hardware components will be limited to upgrading the RMB intranet following an assessment of the intranet’s performance and reliability.

The organisation will not be required to offer services at this stage for the ongoing RMB/SDMR efforts in the digitization/scanning of Rwanda’s geological data, however, for the purposes of this Request for Expression of interest the organisation is encouraged to elaborate on any specific experience in field of high-speed smart (or intelligent) data scanning.

The Contractor is expected to achieve the following results:

R1 - Functional ICT (LAN, Wi-Fi) intranet system within RMB connected to the NDC via VPN high-speed link, with high performance and data security standards

R2 - Functional Geo-IMS in terms of data input and output conformant with international geo-spatial standards, connected to other relevant GoR institution databases as required through safe access and data sharing procedures/protocols

R3 - Affordable, modular system fulfilling the basic functions of a geo-database, easy to maintain and expandable subject to future requirements and funding

R4 - Functional web-based Internet platform showcasing the Rwandan geology and mineral resources and permitting the user to download data, free of charge or at cost, including geo-spatial data (shape files, etc.) for manipulation and planning purposes on his/her own computer

R5 - Trained system administrators and IT specialists capable of maintaining the geo-data systems, performing regular updates/upgrades and keeping in touch with the Contractor’s service team

3. Selection process

3.1. The successful contractor will be selected through the following procedure:

I. **Stage 1:** Expression of interest to establish a short list of qualified bidders. Organisations will be shortlisted in accordance with the criteria in section 3.2 below.

II. **Stage 2:** Invite shortlisted organisations to submit full proposals against terms of reference to be published. Invitation to submit full proposals will be restricted to organisations shortlisted in

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Stage 1. Full proposals will be assessed and SDMR will select the preferred candidate to implement the Geo-IMS.

3.2. Selection criteria for Stage 1

The following selection criteria will be applied to bidders. In the case of applications submitted by a consortium, these selection criteria will be applied to the consortium as a whole:

1. At least three (3) project references that demonstrate experience in the design, planning, installation and customisation of a centralised digital geological information management system (Geo-IMS);
2. At least one (1) project reference that demonstrates experience with services related to Geo-data input and output including meta-data conformant with INSPIRE standards and protocols as regards interoperability of spatial data sets and services;
3. At least one (1) project reference that demonstrates experience with Geo-IMS software and infrastructure compliant with Open Geospatial Consortium (OGC) standards;
4. Demonstrated experience in the field of high-speed scanning for the purpose of producing “smart” (or “intelligent”) data would be considered a bonus;
5. Certification under the ISO 19000 series standard.

4. How to apply

4.1. Content of proposals for Stage 1

Bidders must submit responses that comprise of the following information:

I. Full name of the organisation (or lead contractor if a consortium) making the submission including company address, website, as well as contact details for the main point of contact for this submission.

II. Describe no more than seven (7) projects (maximum 2 pages per project) executed in the last 10 years which best demonstrate your company’s capability to manage this project and successfully achieve our objectives.

III. Brief CV (no more than 3 pages each) of key personnel/ specialists/ experts that may be available for the assignment.

IV. Documentation of certification under the ISO19000 series standard

V. Signed declaration. The following declaration, signed by a duly authorised representative, should be included in your submission: “I certify to the best of my knowledge, information and

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6 http://inspire-geoportal.ec.europa.eu/
7 Cardno will not be liable for any costs you may incur in connection with your preparation of, and response to, this request for expression of interest.
belief, after having made due and careful enquiries, the information that I have supplied in this submission is correct, complete and not misleading”.

4.2. Submissions
All proposals must be submitted in English and in pdf format.

Proposals must be received by no later than 28th May 2018 at 5PM, UK time. Proposals and all queries should be submitted directly to edson.madeira@cardno.com with copy to regis.habimana@sdmr.co.rw.