Occupational Health and Safety Institute

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Terms of Reference for the Procurement or Development of Document Management System for the Occupational Health and Safety Institute	**OHSI/DMS/9/2018**
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These terms of reference describe the requirements, provisions, expectations and scope-of-works with respect to the development of a Document Management System for the Occupational Health and Safety Institute in Kitwe. These terms of reference were drawn based on results and recommendations of various internal and external studies undertaken at the institute in line with government standards and guidelines. Therefore, the terms of reference are valid only for their intended purposes; that is, to provide general and specific information, describe the high-level system requirements, provide standards proposal templates, and act as guide to qualified prospective consultancy firms to submit responsive proposals for evaluation.

1. **Background and Rationale**

The Occupational Health and Safety Institute (OHSI) is a statutory body established under the Occupational Health and Safety Act No. 36 of 2010, to provide for the protection of persons at workplaces, and other than at workplaces against risks to health or safety arising from, or in connection with the activities of workplaces. The Act covers all workplaces from various sectors including mining, agriculture, construction and others.

In fulfilling its mandate, OHSI conducts Pre-employment (Initial) medical examinations aimed at determining the fitness of the prospective employees to work in scheduled areas, In-employment (Periodical) medical examinations aimed at monitoring the health of employees with regards to compensable occupational diseases, and Village benefit (retirees) medical examinations that are aimed at ascertaining whether or not former miners contracted any compensable disease during the course of their employment.

In the process of conducting medical examinations, manual medical files are created for clients with health problems and ex-miners. These files have increased in number over the years and are currently totalling 60,000. The huge volume of manual files is a cause for worry to the institution in terms of the ever increasing storage space requirements, loss of vital health data due to wear and tear of files that date as far back as 1954, deliberate destruction of client files by human agents and the possibility of losing the entire volume due to natural disasters.

In its quest to transform into a Center of Excellency in the provision of occupational health, safety and research services, OHSI, with the help of World Bank through the Southern Africa Tuberculosis and Health Systems Support Project, plans to digitise the client medical files. A key component of the digitisation process will be the acquisition of a Documents Management System that will help with the management of the digitised files in terms of security and ease of access of client records. The Document Management System is expected to help free up the necessary office space currently occupied by the files, enhance security and quicken the search and retrieval process of the client files.

OHSI will hire a consultancy firm that will develop/supply and install the Document Management System and offer technical support during the digitisation of the current client files. The firm will work closely with the ICT sections of OHSI and Ministry of Health.

This document states general Terms of Reference (ToR) for the services to be provided by the consultant in relation to the scope of work for the development of the Document Management System.

2. Objectives

The specific objectives of the proposed consultancy are:

1.1 To develop or supply the Document Management System with functionalities for uploading, indexing, searching and retrieving digital client files

1.2 To recommend minimum hardware requirements for scanners, servers and other equipment required to implement the Document Management System

1.3 To install the system together with all the necessary core an peripheral equipment such as scanners and make the system accessible on the existing local area network.

1.4 To run a trial data capture of the first 1000 existing manual client records

1.5 To transfer the required technical knowledge to OHSI and Ministry of Health ICT staff in the source-code programming language and other technical aspects of systems management. This will allow them to operate, maintain and make further improvements or changes to the system.

3. Detailed Scope-of-Works

The consultant's work will include but will not necessarily be restricted to the following:

1.6 Low-level system requirements specification
1.7 Develop design specifications
1.8 Develop test plans and user acceptance test package
1.9 Develop and test the system
1.10 Deploy the system at OHSI
1.11 Conduct trial data capture of 1000 existing manual client records
1.12 Conduct training, knowledge transfer and capacity building among technical and non-technical users
1.13 Perform user acceptance testing
1.14 Provide warranty support

4. Schedule and Task Completion

The complete scope-of-works detailed in Section III shall be completed thereby delivering a fully functional Documents Management System within a period of 6 months. The Table below shows the milestones and expected timelines.

Milestones	Deliverable(s)	Expected Timelines

Inception report	System requirements specifications, methodology work plan with timelines and tools	2 Weeks after contract signing
Desk review	Approved inception report	Within 5 days after approval of inception report
Interim report 1	Design document	2 Weeks
Interim report 2	System technical documentation	3 months
Interim report 3	Test plan, deployment plan, data capture plan, training plan and knowledge transfer	2 Weeks
Draft report		1 month
Final report		3 weeks

5. Final Outputs Required of the Consultant

The key outputs of the consultant are listed below:

5.1 A fully functional Document Management System.

5.2 Soft and print copies of Users Manuals, Analysis Document, Design Document, and properly documented source code contained in a Systems Technical Document.

5.3 User Training Report, Knowledge Transfer and capacity Building Plan.

6. Technology Architecture

The consultant shall design and develop the system based on contemporary architecture and modern web and related technologies such as service-oriented architecture and RESTful services to enhance efficiency, flexibility, security and other technical parameters. The consultant shall observe the principle of consistency with regards to technology standards chosen for the design and development of the Document Management System to ensure reliability and compatibility in the production environment. The architecture employed shall promote interoperability allowing the system to integrate with the electronic medical information system.

7. Business Continuity Considerations

The system shall incorporate back-up and restore, and archiving features to assure business continuity.

8. Data Domicile and Ownership

The system shall be designed in such a way that the data tier shall be domiciled in-country regardless of architecture employed (cloud app or other).

The data shall remain the property of the Government of the Republic of Zambia.

9. Data and System Security

Health data has high requirements for security. Therefore, ALL data at rest – including data stored on smartcard – and in motion shall be secured using appropriate techniques. These shall include but will not be limited to biometric identification and authentication, username/ password pair, encryption, etc.

10. Standards and Interoperability

The system must be capable of integrating with existing third-party and electronic medical information system. Therefore, open standards for data and interoperability shall be used.

11. Software Licensing

The software developed and deployed by the consultant shall be owned by the Ministry of Health. Therefore, the licensing model shall not include annual or other subscription fees.

12. Maintenance and Support

The consultant will maintain/update the software developed for a period of one year under warranty after final acceptance by OHSI and is also expected to maintain the system for one post-warranty.

Specific Service Level Agreement (SLA) covering maintenance and support activities including query resolution time, and proposed penalties for non-compliance will be designed by the consultant and submitted along with the proposal.

13. Payment

Payments will be linked to deliverables. All deliverables will be quality assured by MoH through OHSI. Should deliverables not be satisfactory due to the consultants fault, the remaining deliverables will be completed without any extra payment.

14. Profile of the Consultant

Suitably qualified and experienced consultants shall be selected using procedures agreed between the Government of the Republic of Zambia and the World Bank.

To be evaluated successfully, the consultant should have the following qualifications, competences and abilities:

- Track record of developing and deploying document management systems in developing countries during the past 5 years. The consultant shall be required to provide proof of concept.
- Key staff should possess a minimum of a degree in Computer Science or similar field, or equivalent professional qualifications
- A detailed list of past projects will be required in this respect. As part of the technical proposal, a detailed list of project team members, together with their roles, qualifications and experience, shall be submitted.

15. Supervision and Reporting

The consultant will work under the supervision of the Ministry of Health (OHSI and Project Implementation Unit (PIU)). The consultant will have regular meetings with OHSI and PIU to plan work and review progress reports.

16. Financial Proposal

The consultant shall submit financial proposals including fixed and variable costs related to their assignment.

17. CONSULTANT SELECTION CRITERIA

Project: Procurement/ Development of a Document Management System for the Occupational Health and Safety Institute

No	Selection Criterion	Ref Note	Thematic Area	Percentage Mark to be allocated	Remark
1	Appreciation of key functional and non-functional requirements including integration	i	User Requirements		
2	Approach and strategy to deliver a system that meets requirements	i	User Requirements		
3	Appreciation of constraints, and major risks and how to mitigate them	ii	Project Management		
4	Previous relevant work experience i.e. successfully delivered a project of similar nature (medical) and size in the past 5 years	iii	Work Experience		
5	Previous relevant work experience in Zambia or other developing country in the past 5 years	iv	Work Experience		
6	Knowledge, experience and capability of key staff	vii			

	Technical proposal rating in its entirety	v	Proposal		
7	Financial proposal rating in its entirety including fixed and variable costs, contract sum		Proposal		
Total					

Reference Notes

i.   The consultant must demonstrate an understanding of both functional and non-functional requirements (including integration requirements with PACS) for a document management system such as the proposed DMS, and propose an approach and strategy that shall take into consideration sensitivity of medical data, limited project execution time and innovation.

ii. The consultant shall appreciate the major constraints and risks that are associated with projects of this nature and size and shall show understanding of risk management planning and management. The consultant shall be assessed particularly for productivity enhancement, cost saving and innovation.

iii. A project shall be considered similar if it is from the medical field. The size of a previously undertaken project shall be determined by a proxy indicator, "contract sum".

iv. Experience in Zambia shall be preferred. Scoring shall be done as follows:

Experience	**Score**
Experience in Zambia	5
Experience in Sub-Sahara Africa	4
Experience in other developing country in Africa	3
Experience in developing country outside Africa	2
Experience in developed country	1

v.   Technical proposal shall be evaluated in terms of development approach, security, architecture, contemporary technologies in use, technical standards and guidelines.

vi. Key staff should possess a minimum of a degree in Computer Science or similar field, or equivalent professional qualifications