REQUEST FOR PROPOSALS FOR THE DEVELOPMENT OF A LABORATORY MANAGEMENT INFORMATION SYSTEM (LMIS).

PART 1 BACKGROUND:

The Infectious Diseases Institute Limited (IDI) is a Ugandan not-for-profit organization whose mission is to strengthen health systems in Africa, with a strong emphasis on infectious diseases, through research and capacity development.

IDI has six operational areas through which it works to achieve its mission: Prevention, Care and Treatment, Training, Health Systems Strengthening, Research, Global Health Security and Laboratory services.

The institute intends to implement a Laboratory Management Information System (LMIS) at its Core Laboratory to enhance its ability to implement its mission and vision.

PURPOSE:

IDI seeks for a competent developer to design, develop and implement a Laboratory Management Information System (LMIS), integrate it with existing systems within IDI and train staff on the use and management of the new LMIS.

The IDI-Core laboratory is a College of American Pathologists (CAP)-accredited facility which provides high-quality diagnostic services that advance research and patient care, shaping a healthier future. The implementation of a robust LMIS is critical to achieving operational excellence in laboratory services and aligning with the Institute's broader mission to strengthen health systems. The LMIS will play a pivotal role in:

- **Improving data management and traceability**, ensuring accurate capture, storage, and retrieval of patient and laboratory information.
- **Enhancing workflow efficiency**, reducing manual processes, and streamlining sample tracking, test ordering, and results reporting.
- **Ensuring regulatory and accreditation compliance**, particularly with CAP, ISO, and other relevant standards.

- **Facilitating integration with existing health and related information systems**, including ICEA, EMR, Navision or research databases.
- **Improving decision-making** through real-time access to laboratory data, dashboards, and analytics.
- **Reducing turnaround time (TAT)** and minimizing errors in diagnostic testing and reporting.
- **Enhancing data security and confidentiality**, through access control, audit trails, and automated backups.
- **Supporting remote access and scalability**, enabling future expansion to other labs or mobile platforms if required.

The details of the system requirements, scope of work and expected outcomes are stipulated in the Terms of Reference (TOR) in part 4 of this RFP.

You are requested to submit your proposal/ bid in line with the procedures listed in Part 2 of this solicitation document.

Successful firm(s) may be called for a meeting with the Institute management prior to contract award to provide more information.

Any resulting contract shall be subject to the terms and conditions detailed in this Request for Proposal. The Institute reserves the right to add any terms and conditions in the resultant contract.

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PART 2: PROPOSAL PREPARATION PROCEDURES

Preparation of Proposals:

You are requested to prepare your proposal by completing and returning:

- The Bid Submission sheet;

- Documented evidence indicating your eligibility as a firm/ partnership (MOU & Articles of Association, Trading License, and Certificate of Incorporation, applicable certificates of membership or affiliation to professional bodies, accreditations/certifications as applicable. For example, ISO 27001 (Information security) or ISO 9001 (Quality management) for system reliability. Certified Scrum Developer (CSD) or PMP if agile/waterfall methodologies are proposed. HL7 Certification (e.g., HL7 FHIR Proficiency)
- Tax registration and compliance documents,
- Any other relevant information that you may deem important for submission to IDI in response to this RFP.

PART 3: PROPOSAL EVALUATION AND AWARD CRITERIA

Opening of Proposals:

The bids will be opened and evaluated by an IDI select committee and bidders shall be informed of the results within 4 weeks after the deadline of submission of bids. If no feedback is received within this period, please do not hesitate to contact us.

Evaluation Criteria:

The evaluation of Proposals shall follow the criteria listed below:

Technical Proposal (Total 75%)

1. Firm's characteristics (Legally trading entity, valid trading license, physical company premises, etc.)- **10 marks**
2. Company experience and technical competence (Relevant experience in LMIS or similar health systems; qualifications of proposed developers; prior successful implementations) - **15 marks**
3. Understanding of the requirement, TORs and scope (Clarity in approach, understanding of LMIS functionalities, lab workflow, integration needs, and compliance requirements) - **20 marks**
4. Proposed methodology for implementation of the project (Software development lifecycle, modular design, agile methodology, testing strategies, stakeholder involvement, etc.) - **20 marks**

5. Proposed project implementation timelines and completion period (Realistic and detailed schedule, clear milestones and deliverables) -**10 marks**

Financial proposal (Total 25%)

NOTE: Only firms that score at least **60 marks** in the technical proposal will qualify for the financial proposal evaluation.

Best evaluated bid:

Proposals will be evaluated by a select committee and where there is no outright best evaluated firm, the top qualifying firm(s) may be requested to make a presentation to the committee.

There is no express or implied obligation for IDI to reimburse responding firms for any expenses incurred in preparing proposals or presentations in response to this request for proposal or through the entire bidding process.

The best evaluated firm shall be one which is eligible and substantially responsive to the evaluation criteria stated above and shall be recommended for award of contract.

Right to Reject:

The institute reserves the right to accept or reject any Proposal or to cancel the bidding process and reject all Proposals at any time prior to contract award.

PART 4: STATEMENT OF REQUIREMENT/SCOPE OF WORK

Terms of Reference:

- **System design and development:**

Develop the LMIS with the following modules: Sample reception and accessioning (Unique patient and sample ID generation, Barcode generation), test request & workflow, specimen processing (storage, shipment, testing), system configuration, Result entry & validation, quality control & Assurance, Reporting & printing, Billing & invoicing, User & role management, etc.

- **Integration with existing systems:**

The LMIS must integrate seamlessly with the following systems where applicable:

i. Electronic Medical Records (EMR)
ii. Finance and inventory systems
iii. Existing data repositories/databases
iv. Laboratory instruments via middleware (e.g., for automated data capture)

Integration should use standard APIs, HL7/FHIR where applicable, or flat-file exchanges where needed.

- **User Acceptance Testing:**
  i. Conduct UAT with designated laboratory staff and IT team before go-live.
  ii. Provide a test environment with dummy data.
  iii. Facilitate structured testing based on pre-agreed acceptance criteria.
  iv. Document all issues, feedback, and subsequent changes for sign-off.

- **User training and support:**
  i. Provide comprehensive end-user training for lab technicians, data clerks, and system administrators.
  ii. Develop and hand over training materials, including: User manuals, Quick-reference guides, Recorded sessions (optional)
  iii. Offer post-implementation support (minimum 6 months recommended) and knowledge transfer to internal IT staff.

- **Maintenance and updates:**
  i. Provide scheduled system updates (feature and security).
  ii. Define an SLA (Service Level Agreement) for: Bug resolution timeframes, System uptime/availability, Emergency support
  iii. Document and maintain system change logs.
- **Special requirements:**

i. Data Security: Encrypted data transmission (TLS/SSL), Secure user authentication (preferably with MFA support), Audit trail/logging for all critical actions, Compliance with Uganda Data Protection and Privacy Act and CAP standards
ii. User Roles & Permissions: Multi-level access control, Customizable permissions for test access, result entry, and report approval
iii. Reporting & Analytics: Real-time dashboards, Custom report builder, Scheduled automated report generation
iv. Scalability & Interoperability: System should support multi-site deployment, Modular architecture allowing future enhancements or expansion

Deliverables:

The consultant should be able to provide the following key deliverables;

1. **Detailed LMIS System Requirements and Design Document**
   - Functional and technical specifications
   - Proposed architecture, technology stack, and system design
2. **Fully Developed and Functional LMIS Software**
   - Including all modules as outlined in the Terms of Reference
   - Responsive, user-friendly interface
3. **Integration Framework and Interfaces**
   - APIs or connectors for existing systems (e.g., EMRs, lab equipment, finance systems)
   - Documented integration protocols and test cases
4. **User Manuals and Technical Documentation**
   - End-user manuals (for lab staff, administrators, etc.)
   - System administration and troubleshooting guides
   - Source code documentation (if applicable)
5. **Training Sessions and Materials**
   - On-site or remote training for end-users and administrators

- Training presentations, videos (if applicable), and printed/electronic guides

6. **User Acceptance Testing Report**
   - Results from UAT process with feedback addressed
   - Sign-off from IDI project team or designated stakeholders
7. **Go-Live and Deployment Plan**
   - Final implementation on production server(s)
   - Data migration (if required)
   - System handover and go-live checklist
8. **Maintenance and Support Plan**
   - Warranty period
   - SLAs for support, updates, and bug fixes
   - Contact information and escalation procedures
9. **Backup and Disaster Recovery Plan**
   - System recovery documentation
10. **Final Project Report**
    - Summary of activities, challenges, lessons learned
    - Confirmation of deliverables met

Deadline and Place of Submission of bids;

Bids shall be submitted via email on; snamaganda@idi.co.ug by 4.00pm EAT on 7th May 2025.

Your bid(s) should be addressed to the undersigned at the address below;

Shadia Namaganda
Procurement Manager
Infectious Diseases Institute — Knowledge Centre Building, Makerere University Main Campus
P.O. Box 22418 | Kampala | Uganda

PART 6: BID SUBMISSION SHEET

(Complete this form with all the requested details and submit it as the first page for your Proposal, with the documents requested above as attachments. Ensure that your Proposal is authorized in the signature block. A signature and authorization on this form will confirm that the terms and conditions of this RFP prevail over any attachment. If your Proposal is not authorized, it may be rejected).

Proposal addressed to:	
Date of Proposal:	
Subject of procurement:	

1. We offer to provide the said service in accordance with the terms and conditions stated in your Request for Proposal referenced above.
2. We confirm that we are eligible and meet the eligibility criteria specified in part 2 & 3
3. We undertake to abide by the code of ethical conduct for bidders and providers during the procurement process execution of any resulting contract.
4. The validity period of our Proposal is _____ months from the time and date of the submission deadline.
5. We confirm that the fees quoted in the activity schedule are fixed and shall not be varied during the period of execution of services.
6. We confirm that our firm is not under any form of conflict of interest in responding to this Request for Proposal. We pledge to disclose any form of Conflict of Interest, real or perceived should a situation arise presenting this state.

Authorized for and on behalf of:

Company: _____

Name and position _____

Address: _____

Date: _____