



## **TERMS OF REFERENCE FOR AI INTEGRATION AND DECISION SUPPORT ENABLEMENT PROJECT**

**Reference Number:** HIHEA/04-2026/ICT

**Location of project:** Nairobi

**Type of contract:** Consultancy

**Period of implementation:** 3 to 6 months.

**Type of Selection–** Firm Only

### **Introduction of the organization**

Hand in Hand Eastern Africa (HIH EA) is registered in Kenya as a Non-Governmental Organization (NGO). The organization started its operations in 2010 and it boasts 25 operative field offices in 33 counties out of 47 counties in Kenya. HIH EA is a member of the Hand in Hand Global Network that comprises affiliated organizations that mutually pursue the shared goal of poverty alleviation while supporting poorer communities to develop sustainable enterprises and jobs.

The organization strives to work with the marginalized communities in the areas of economic and social empowerment using a participatory approach aimed at supporting people to overcome poverty and vulnerability through development of sustainable enterprises.

### **Project Description**

Hand in Hand Eastern Africa (HIH EA) operates established digital and operational systems supporting programme delivery, including data collection, training, and Learning Management Systems, savings group tracking, and reporting.

The organization seeks to improve operational efficiency, use data for decision making, and program impact by exploring and implementing Artificial Intelligence (AI) solutions, including but not limited to advanced analytics.

The proposed solutions will be an enhancement to the existing systems and not a replacement, augmenting them with AI driven capabilities and automation layers

### **Objectives of the Assessment**

The primary objectives of this consultancy are as follows:

- Review the existing business processes, needs and opportunities for AI implementation
- Conduct a data audit to verify availability, quality and governance structures
- Assess existing systems, data structures, and workflows
- Design and implement an AI-enabled integration layer
- Embed decision-support capabilities into current operational tools
- Introduce AI agents and automation to enhance both staff and beneficiary interactions

### **Scope of the Work**

The selected vendor will deliver the assignment in a phased approach, aimed at enhancing existing systems through the integration of Artificial Intelligence (AI) capabilities. Each phase will focus on improving operational efficiency, enabling data-driven decision-making, and strengthening program impact through the application of advanced analytics and automation.



The implementation will build on current systems and processes without replacing them, introducing AI-driven functionalities as an augmentation layer.

Progression to subsequent phases will be informed by the outcomes, performance, and value demonstrated in the preceding phase, ensuring a scalable, low-risk, and results-oriented deployment.

### ***Phase 1: Systems and Data Audit***

#### **Activities:**

- Review existing systems and platforms currently in use
- Map system architecture, integrations, and data flows
- Identify key operational workflows and decision points
- Conduct a data audit (structure, quality, availability, gaps)
- Assess API availability and integration feasibility

#### **Outputs:**

- Systems architecture and integration map
- Data readiness and quality assessment
- Decision and workflow analysis
- Integration feasibility report

### ***Phase 2: AI Integration Architecture Design***

#### **Activities:**

- Design an AI integration layer compatible with existing systems
- Define API-based integration approaches
- Design data pipelines to support AI use cases
- Propose architecture for:
  - decision-support systems
  - AI agents (internal and external use)
  - analytics and reporting layers

#### **Outputs:**

- Recommended tools/Proposed AI solutions document
- AI integration architecture document
- API and data flow specifications
- Technical design for AI components

### ***Phase 3: Development and Integration***

#### **Activities:**

- Develop and integrate AI modules into existing systems via APIs
- Implement decision-support tools, including:
  - risk scoring and prioritization, models
  - intervention recommendation systems
- Develop AI agent capabilities, such as:
  - internal operational assistants (for staff)
  - beneficiary-facing advisory tools (where applicable)
- Ensure interoperability with existing platforms



### **Outputs:**

- Integrated AI-enabled system
- Functional decision-support modules
- AI agent interfaces and services

### ***Phase 4: Deployment, Testing, and Optimization***

#### **Activities:**

- Deploy solutions within existing infrastructure
- Conduct system testing (functional, performance, and reliability)
- Optimize models and integrations based on real-world usage
- Establish monitoring and evaluation mechanisms

#### **Outputs:**

- Production-ready AI-enabled system
- Performance and evaluation reports
- Monitoring framework

### ***Phase 5: Training and Knowledge Transfer***

#### **Activities:**

- Train technical and operational staff
- Provide documentation for system use and maintenance
- Support transition to internal ownership

#### **Outputs:**

- Training materials and sessions
- Technical and user documentation
- Handover package

### **Deliverables**

The selected vendor will deliver:

- Methodology & work-plan for the assignment
- AI integration feasibility report.
- Systems and data audit report
- AI integration architecture and technical design
- Integrated AI-enabled modules within existing systems
- Decision-support tools and AI agent capabilities
- Training, documentation, and handover materials

We expect the consultancy firm to demonstrate the skills and experience outlined below (or equivalent):

Bidders shortlisted to the next stage of the procurement process will be required to provide a **technical demonstration** of their capabilities.



## **Requirements:**

Shortlisted bidders must present:

- A demonstration of a previously developed AI-enabled platform or system
- Relevant system architecture, including:
  - data pipelines
  - model integration
  - API-based system integration
- Explanation of:
  - how AI components interact with existing systems
  - scalability and deployment approach
  - evaluation and monitoring methods

The demonstration should clearly show the bidder's ability to deliver **production-grade AI systems integrated into real-world environments.**

## **Vendor Qualification Requirements**

### **Team Composition**

The proposed team must include:

#### **Technical Lead / AI Lead**

- Minimum MSc degree in a relevant field, such as:
  - Artificial Intelligence
  - Machine Learning
  - Data Science
  - Computer Science (AI/ML focus)
- Proven experience delivering AI-enabled systems in production

#### **Data Engineering Specialist**

- Experience in data pipelines, database design, and system integration

#### **Software Engineering Team**

- Experience building and integrating production systems (APIs, web/mobile platforms)

## **Required Technical Expertise**

The team must demonstrate expertise in:

- Machine learning system development and deployment
- Deep learning techniques (e.g. neural networks, representation learning)
- Reinforcement learning concepts and practical applications
- LLM-based systems and AI agents
- API design and system integration
- Data engineering:
  - ETL pipelines
  - data modelling and governance
- Cloud-based infrastructure and scalable system design



## **Relevant Experience**

Bidders must provide evidence of:

- At least two projects involving:
  - AI/ML systems integrated into existing platforms
  - decision-support or analytics systems
- Experience working in development, NGO, or resource-constrained environments is desirable

## **Evaluation Criteria**

Proposals will be evaluated based on:

- Technical approach and integration strategy
- Demonstrated experience with AI system implementation
- Team qualifications and expertise
- Understanding of operating environment and constraints
- Feasibility, scalability, and maintainability of the solution
- Cost-effectiveness and value for money

## **Ethical Considerations**

The vendor shall ensure that all Artificial Intelligence (AI) solutions developed under this assignment adhere to principles of fairness, accountability, transparency, and data privacy. The vendor shall also promptly disclose any identified ethical risks or limitations and propose appropriate mitigation measures.

## **Anti-Corruption and Safeguarding**

Hand in Hand Eastern Africa strives to fight corrupt practices within its operations and the same is expected of its vendors, contractors and service providers.

HIH EA staff are therefore prohibited from accepting any gift/s, consideration or benefit/s of any kind which may constitute illegal or corrupt practices, either directly or indirectly, as an inducement or reward for the award of a contract.

HIH EA and all its employees undertake to create a safe environment for our members and to prevent any form of exploitation or abuse.

HIH EA is committed to act in the best interest of its members and any willing vendor, contractor or service provider is required to commit and comply with our position on safeguarding.

## **Proposal Submission**

Interested consultants are required to submit a detailed proposal for Phase One of the assignment, including a clear methodology, work plan, deliverables, and budget. In addition, consultants shall provide a high-level approach and indicative cost estimates for the subsequent phases.

The successful consultant for Phase One shall be eligible for consideration for the subsequent phases and will be required to submit a detailed financial proposal for the remaining three (3) phases for the Client's review and approval prior to commencement.

The proposal shall be submitted in Kenyan Shillings and must include clear cost breakdowns, methodology, work plan, evidence of previous relevant experience, and CVs of the proposed team.

The deadline for submission of proposals is close of business on 4th May 2026. Proposals should be submitted via email to [procurement@handinhand-ea.org](mailto:procurement@handinhand-ea.org) using the reference number (HIHEA/04-2026/ICT) as the email subject line.

For more information about Hand in Hand Eastern Africa, please visit: <https://handinhand-ea.org/>



***HH EA does NOT condone any form of corrupt practices. Please report complaints  
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