

CALL FOR PROPOSALS - DEVELOPMENT OF LIVESTOCK INSURANCE PRODUCT PRICING SYSTEM [Re-ADVERTISED] REFERENCE NO. KE-ZEP-RE-304048-GO-RFQ

Instructions to Bidders (ITB):

ITB	o Bidders (ITB): Data Sheet				
Reference					
1.	Assignment	Development of Livestock Insurance Product Pricing System			
2.	Issued by	Zep-Re (PTA Reinsurance Company) – The Client			
		Address: ZEP-Re Place			
		Longonot Road, Upper Hill			
		P.O Box 45277 - 00100			
		Nairobi, Kenya			
		Website: https://zep-re.com			
3.	RFQ Issue Date	January 9, 2025			
4.	Point of contact for	Procurement Desk			
	clarifications,	Email: procurement@zep-re.com			
	questions and				
	ammendments	Copy: azimba@zep-re.com			
		Andrew Zimba, Digital Solutions Manager.			
5.	Deadline for	January 20 2025, at 1400 hours, East African Time			
	Answering questions				
	and clarifications				
6.	Amendments to RFQ	At any time prior to the deadline for submission of proposals,			
	Documents	ZEP-RE may, for any reason, whether at its own initiative or in			
		response to a clarification requested by a prospective bidder,			
		modify the RFQ documents by amendment.			
		The amendments will be communicated to all interested firms			
		through email.			
7.	Language of Proposals	The proposals prepared by the bidder and all correspondence and documents relating to the proposal shall be written in English .			
8.	Conflict of Interest	The bidder must confirm that, based on their current best			
		knowledge, there are no real or potential conflicts of interest			
		involved in rendering Services for ZEP-RE.			
9.	Cost of Preparation of	The bidder shall bear all costs associated with the preparation and			
	Proposal	submission of its Proposal, and the Client shall not be responsible			
		or liable for those costs, regardless of the conduct or outcome of			
		the selection process. The Client is not bound to accept any			
		proposal and reserves the right to annul the selection process at			
		any time prior to Contract award, without thereby incurring any			
		liability to the bidder.			
10.	Pre-Bid Meeting	A pre-bid meeting will not be conducted.			
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	Τ					
11.	Documents	•				
	Comprising the	a) Eligibility documents in accordance with ITB No. 25.1.				
	Proposal	b) Company Profile and Information on a minimum of t				
		comparable assignments, including the project name, country of assignment, client contacts and contract amount. c) Proposal that outlines the methodology and work plan for the assignment's completion.				
		d) CVs of the required resource in accordance with section 7				
		of the terms of reference				
		e) Evidence of completed work. Certificate of project completion and recommendation letters from previous				
		clients.				
		2 nd Envolope: Financial Proposal:				
		a) Provide rate per re	•	week in Kenya	a shillings. Rate	
		should be inclusiv	e of tax.			
		Resource Type	Junior	Middle	Senior	
		Business Analyst				
		Software Developer				
		AI/ML Specialist				
		UI/UX Designer				
		Quality Assurance (QA)				
		Engineer				
		Integration Specialist				
		Data Scientist				
				•		
12.	Proposal Validity Period	Proposals must remain valid for 90 days from proposal submission deadline.				
12			act affart to	complete th	a nagatistions	
13.	Extension of Validity Period	The Client will make its best effort to complete the negotiations and award the contract within the proposal's validity period.				
	renou	However, should the need arise, the Client may request, in				
		writing, all Bidders who submitted Proposals prior to the				
		submission deadline to extend the Proposals' validity.				
14.	Email Address for	To: Procurement Desk Email: procurement@zep-re.com Please include the subject line "KE-ZEP-RE-304048-GO-RFQ" of the email.				
	submission of Proposals					
	Γιοροβαίδ				18-GO-RFO" of	
15.	Deadline for	January 30, 2025, at 1400	hours, East	African Time	2	
	Submission of					
1.0	Proposals Salastian Mathad	Dogwoot for Overtein /D	-0)			
16.	Selection Method	Request for Quotation (RI	-u)			

17.	Public opening of proposals	Not Applicable			
18.	minimum qualifying score for the technical Proposals	65 points			
19.	- Weigtage	- Technical proposal is 80%			
		- Financial proposal is 20%			
20.	Type of bidder	Only Firms Are Eligible			
21.	Contract Type	Time-Based Contract			
22.	Price Adjustment	Not applicable.			
23.	Joint venture/Sub- contracting	 Joint venture of a maximum of 2 firms is allowed, provided submission of a joint venture agreement and appointment of the lead firm. A Proposal submitted by a Joint Venture shall be signed by all members so as to be legally binding on all members, or by an authorized representative who has a written power of attorney signed by each member's authorized representative. 			
		 The Bidder shall not subcontract more than 25% of the Services. 			
24.	Submission and Marking of Proposals	The Bidder shall submit a signed and complete Proposal in accordance of ITB 10 (Documents Comprising Proposal).			
25.	Proposals Evaluation Criteria	The Client's evaluation committee shall evaluate the Technical Proposals on the basis of their responsiveness to the Terms of Reference and the RFQ, applying below evaluation criteria.			
		25.1. Eligibility Requirement 15 points			
		a) Operating license, certificate of incorporation as applicable.b) TAX compliance certificates			
		c) Confirmation that the firm is not sanctioned or blacklisted by any government or institution			
		25.2. Technical Proposal			
		a) Core business of the firm and relevant experience of not less than 5 years 20 points			
		b) Adequacy and Quality of the proposed Methodology and approach 15 points			
		c) Detailed work plan with deliverables and timelines considering scope of assignment10 points			
		d) Proof of previous similar assignments 10% points			
		e) Key Experts' qualifications, competences, as per section 7 of the ToR 30 points			

TERMS OF REFERENCE (TOR): DEVELOPMENT OF LIVESTOCK INSURANCE PRODUCT PRICING SYSTEM

PROJECT: SUPPORTING DE-RISKING, INCLUSION AND VALUE ENHANCEMENT OF PASTORAL ECONOMIES IN THE HORN OF AFRICA PROJECT (DRIVE)

1. INTRODUCTION

ZEP-RE (also called PTA Reinsurance Company) is a leading reinsurer in Africa and a specialized institution of the Common Market for Eastern and Southern Africa (COMESA). The company was established in 1990 under the then Preferential Trade Area, a precursor to COMESA, to develop the insurance and reinsurance industries and support capacity building. ZEP-RE, which opened in 1993, is headquartered in Nairobi, Kenya, and has regional hubs/ offices in Nairobi, Harare, and Abidjan. In addition to these regional hubs, the company has country offices in six other countries: Zambia, Ethiopia, Uganda, Rwanda, Democratic Republic of Congo, and Sudan.

Zep-Re (PTA Reinsurance Company) is contracted by Kenya, Ethiopia, and Somalia to implement component one of the Horn of Africa De-Risking, Inclusion, and Value Enhancement of Pastoral Economies (DRIVE) project and intends to apply part of the proceeds for this procurement.

2. BACKGROUND

To solicit proposals from qualified software development firms to provide software developers and business analysts to design, develop, and implement a comprehensive software solution tailored to our specific business needs and extend our internal software development team. The selected firm will demonstrate expertise in delivering innovative, scalable, and user-friendly software applications, ensuring high performance, security, and maintainability. This assignment aims to identify a partner who can provide skilled staff to work with the ZEP-RE software and business development team that can develop end-to-end digital solutions for the DRIVE project, including requirements analysis, system design, coding, testing, deployment, and ongoing support. The ultimate goal is to enhance our operational efficiency, improve user experience, and drive the growth of the DRIVE project through the deployment of a robust and reliable digital inclusivity platform.

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3. SCOPE OF THE WORK

The Information System MUST support the following business functions, incorporating AI and machine learning capabilities:

- Product design data acquisition
- Data reprocess
- Livestock product design data repository
- Product design Actuarial models and processing
- Documentation
- Supply side engagements
- Contract monitoring and Claims scheduling
- Customer data input
- Reporting

Product Design Data Acquisition:

- Ability to pull various datasets that can support livestock product designs in the required format directly from various data providers to the platform. The various datasets include:
 - Remote sensing
 - o Yield data
 - o Weather station data
 - o Picture data
 - o Farmer historical data
- Al Integration: Use Al algorithms to validate and clean the data as it is acquired.

Data Reprocess:

- Conversion of long file data formats into the consumable form of data required in product design and monitoring of livestock insurance.
- Reformat the data to generate time series. This data should be added to the progressive data build-up.
- Machine Learning Integration: Implement machine learning models to automate the reprocessing and reformatting of data, ensuring accuracy and consistency.

Livestock Product Design Data Repository:

• Ability to store historical livestock data from the data sources and access it during

processing instead of pulling from the provider APIs afresh. This requires progressive

growth with time.

Al Integration: Use Al for efficient data indexing and retrieval, improving the speed and

accuracy of data access.

Product Design:

Ability to set in the system actuarial models that support data processing and pricing of

livestock insurance (simulate and generate outputs; e.g., burn cost).

Future forecast: Ability to simulate possible risk scenarios in the future based on the

available data.

Historical simulation: Ability to simulate risk scenarios that occurred in the past based on

the available data.

Commercial loadings: Ability to include the commercial elements on the outputs, such as

taxes and levies based on the country.

Machine Learning Integration: Employ machine learning models to enhance the accuracy

of simulations and forecasts by learning from historical data patterns and trends.

Documentation:

Ability to generate standard documentation based on livestock insurance. These can be

generated from the design outputs, season triggers, and customer data. They include

documents such as:

o Term sheets

o Product design documents

Al Integration: Use natural language processing (NLP) to automatically generate and

format documentation based on the inputs and outputs of the system.

Supply Side Engagements:

Insurer and reinsurer ability to see the simulation output, product structure, triggers,

region of interest, and value chains.

• The review and feedback process, followed by approval by relevant stakeholders.

• Relevant business booking upon premium payment.

• Relevant claims payouts upon claim schedule generation.

Al Integration: Implement Al-driven dashboards and visualizations to enhance the clarity

and accessibility of simulation outputs and product structures.

Contract Monitoring and Claims Scheduling:

- Ability to combine processing outputs, weather data inputs, and customer datasets to generate reports.
- The reports include percentage triggered, estimated payout versus the deductibles for specific groups of policies.
- Machine Learning Integration: Use machine learning models to predict claims and optimize scheduling based on historical data and real-time inputs.

Customer Data Input:

- Ability to pull customer data in the required format from the distribution platforms or providers.
- Match the data to specific products and windows that will be monitored during the season.
- Al Integration: Use Al to automate data matching and validation, ensuring high data quality and reducing manual errors.

Reporting:

- Ability to pull contract monitoring reports.
- Ability to pull claims data and avail it to the clients, including:
 - Notifying the client
 - Tracking the settlement
- Ability to generate reports on:
 - o Written policy reports per party involved (number and value)
 - o Clients onboard per party (attrition rate, number of new clients)
 - Claims report
- Al Integration: Implement Al-driven analytics and reporting tools to generate insights and automate report creation.

4. CONSULTANT'S DELIVERABLES AND TIMELINE (EXPECTED OUTPUTS)

Project Kick-off and Requirement Analysis (Weeks 1-2):

- a. **Deliverables:** Detailed project plan, timeline, and comprehensive requirement analysis report.
- b. Timeline: 2 weeks.

Design and Prototyping (Weeks 3-6):

- c. **Deliverables:** System design documents, wireframes, and prototypes for the new components and integrations.
- d. Timeline: 4 weeks.

Development of Product Design Data Acquisition and Data Reprocess (Weeks 7-10):

- e. **Deliverables:** Functional module for product design data acquisition, including integration with data providers. Functional module for data reprocess with AI and machine learning models.
- f. Timeline: 4 weeks.

Development of Livestock Product Design Data Repository (Weeks 11-14):

- g. **Deliverables:** Data repository with the ability to store and access historical livestock data with AI indexing and retrieval capabilities.
- h. Timeline: 4 weeks.

Development of Product Design (Weeks 15-18):

- Deliverables: Actuarial models implementation, future forecast simulation, historical simulation, and commercial loadings integration with machine learning enhancements.
- j. Timeline: 4 weeks.

Development of Documentation Module (Weeks 19-22):

- k. **Deliverables:** Documentation generation module for term sheets and product design documents with NLP capabilities.
- I. Timeline: 4 weeks.

Development of Supply Side Engagements (Weeks 23-26):

- m. **Deliverables:** Module for insurer and reinsurer interactions, review, feedback, approval, business booking, and claims payouts with Al-driven dashboards.
- n. Timeline: 4 weeks.

Development of Contract Monitoring and Claims Scheduling (Weeks 27-30):

- o. **Deliverables:** Contract monitoring and claims scheduling functionalities, including machine learning-enhanced reporting.
- p. **Timeline:** 4 weeks.

Development of Customer Data Input (Weeks 31-34):

- q. **Deliverables:** Module for pulling customer data and matching it to specific products and monitoring windows with Al-driven automation.
- r. Timeline: 4 weeks.

Development of Reporting Module (Weeks 35-38):

- s. **Deliverables:** Reporting functionalities for contract monitoring, claims data, and various performance metrics with Al-driven analytics.
- t. Timeline: 4 weeks.

Testing and Quality Assurance (Weeks 39-42):

- u. **Deliverables:** Comprehensive testing and quality assurance reports.
- v. Timeline: 4 weeks.

Deployment and Training (Weeks 43-46):

- w. **Deliverables:** Deployment of the system, training sessions for end-users, and user manuals.
- x. **Timeline:** 4 weeks.

Post-Deployment Support (Weeks 47-50):

- y. **Deliverables:** Ongoing support and issue resolution, final project report, and documentation.
- z. Timeline: 4 weeks.

5. DURATION OF THE ASSIGNMENT

Based on the outlined scope of work and the deliverables, the assignment is estimated to take approximately 50 weeks (approximately 12 months). This timeline includes time for requirement analysis, design, development, testing, deployment, training, and post-deployment support.

6. CONTRACT FORM AND PAYMENT SCHEDULE

Time and Material Contract:

 A time and material contract is required for this project, given its fluid scope and deliverables. This contract type allows for variability in scope as the requirements gathering progress.

7. KEY PERSONNEL (QUALIFICATIONS AND EXPERIENCE)

Business Analyst:

• Qualifications:

- Bachelor's degree in business administration, Information Technology,
 Computer Science, or a related field.
- Certification in Business Analysis (e.g., CBAP, CCBA) is a plus.

Experience:

- Strong experience in requirements gathering, documentation, and stakeholder management.
- Proficiency in business analysis tools and methodologies (e.g., SWOT analysis,
 PEST analysis, BPMN).
- Experience with project management software (e.g., JIRA, Confluence, MS Project).
- o Excellent analytical and problem-solving skills.
- Strong communication and interpersonal skills to effectively collaborate with stakeholders and the project team.

AI/ML Specialist:

Qualifications:

- Bachelor's degree in computer science, Data Science, Statistics, or a related field.
- Advanced degree (Master's or PhD) in AI, Machine Learning, or Data Science preferred.

Experience:

- Proficiency in machine learning frameworks (TensorFlow, PyTorch, Scikit-learn, etc.).
- o Experience with data preprocessing, model training, and deployment.
- Strong understanding of AI algorithms and their application in business contexts.
- Experience in developing AI solutions for data acquisition, reprocessing, and analysis.

Data Scientist:

• Qualifications:

 Bachelor's degree in data science, Statistics, Computer Science, or a related field.

• Experience:

- Strong skills in statistical analysis and data visualization.
- o Proficiency in data processing tools and languages (Python, R, SQL).
- o Experience with big data technologies (Hadoop, Spark) is a plus.
- Ability to work with large datasets and derive actionable insights.
- Experience in applying machine learning models to real-world data problems.

Software Developer:

Qualifications:

o Bachelor's degree in computer science, Software Engineering, or a related field.

Experience:

- Expertise in relevant programming languages and technologies (e.g., Java, Python, .NET, etc.).
- o Experience with system integration and API development.
- Strong problem-solving and debugging skills.

UI/UX Designer:

• Qualifications:

Bachelor's degree in graphic design, Computer Science, Human-Computer
 Interaction, or a related field.

• Experience:

- o Experience in UI/UX design.
- o Proficiency in design tools (e.g., Adobe XD, Sketch, Figma).
- o Experience with user research, wireframing, prototyping, and usability testing.
- Strong portfolio showcasing previous design work.

Quality Assurance (QA) Engineer:

Qualifications:

 Bachelor's degree in computer science, Information Technology, or a related field.

Experience:

- o Experience in software quality assurance.
- o Experience with manual and automated testing methods.
- Familiarity with testing tools (e.g., Selenium, JIRA, TestRail).
- Strong attention to detail and analytical skills.

Integration Specialist:

• Qualifications:

 Bachelor's degree in computer science, Information Technology, or a related field.

• Experience:

- Experience in system integration.
- o Expertise in integrating different software systems and data sources.
- o Experience with middleware and API development.
- Strong understanding of data mapping and transformation.

8. CLIENT OBLIGATIONS (SERVICES TO BE PROVIDED BY THE CLIENT)

- There are 6 roles required for the project. However, this will not be required throughout the project. Therefore, they will be called upon as the project progresses.
- Contractor will provide resources as requested for the project, and bill based on actual weeks spent on the project.
- The contractor should quote the rate per week, as well as the total cost based on the week's estimates below.

Here is the alignment of resource levels (Junior, Middle, and Senior) with the 50-week project timeline for each key personnel role:

Resource Allocation by Number of Weeks:

Resource Type	Junior (Weeks)	Middle (Weeks)	Senior (Weeks)
Business Analyst	10	15	25
Software Developer	15	20	15
AI/ML Specialist	10	15	25
UI/UX Designer	20	20	10
Quality Assurance (QA) Engineer	20	20	10
Integration Specialist	10	20	20
Data Scientist	15	20	15

Business Analyst:

- Junior: 10 weeks focused on initial requirement gathering, documentation, and basic analysis tasks.
- Middle: 15 weeks involved in intermediate analysis, stakeholder communication, and requirement refinements.
- Senior: 25 weeks overseeing the overall business analysis, ensuring alignment with strategic objectives, and handling complex requirements.

Software Developer:

 Junior: 15 weeks handling basic coding, unit testing, and simple module development.

- Middle: 20 weeks working on more complex development tasks, integration, and debugging.
- Senior: 15 weeks leading the development effort, ensuring code quality, architecture decisions, and mentoring junior and middle developers.

AI/ML Specialist:

- Junior: 10 weeks on data preprocessing, model training, and validation under guidance.
- o **Middle**: 15 weeks on developing, tuning, and testing machine learning models.
- Senior: 25 weeks leading AI/ML strategy, advanced model development, and integration with the system.

UI/UX Designer:

- Junior: 20 weeks working on wireframes, initial design concepts, and basic user interface elements.
- o **Middle**: 20 weeks developing detailed designs, user flows, and prototypes.
- Senior: 10 weeks overseeing the overall UI/UX design strategy, user testing, and ensuring design consistency.

Quality Assurance (QA) Engineer:

- Junior: 20 weeks on writing and executing test cases, reporting bugs, and regression testing.
- Middle: 20 weeks on automated testing, performance testing, and more complex test scenarios.
- Senior: 10 weeks overseeing the QA process, setting QA standards, and handling critical testing phases.

Integration Specialist:

- Junior: 10 weeks on basic integration tasks, API connections, and data mapping.
- Middle: 20 weeks handling more complex integration workflows, middleware setup, and troubleshooting.
- Senior: 20 weeks leading the integration strategy, ensuring seamless system interoperability, and solving critical integration challenges.

Data Scientist:

- Junior: 15 weeks on data cleaning, basic analysis, and supporting senior data scientists.
- Middle: 20 weeks on complex data analysis, feature engineering, and model development.
- Senior: 15 weeks leading data strategy, advanced analytics, and providing insights to support decision-making.

9. REPORTING REQUIREMENTS

Weekly Status Reports:

Frequency: Weekly

Content:

- Summary of activities completed during the week.
- Progress against the project plan and milestones.
- Key accomplishments and any deviations from the plan.
- Issues encountered and mitigation strategies.
- Planned activities for the next week.

Audience: Digital Manager, Internal Development Team, Internal Stakeholders.

Bi-Weekly Sprint Reports:

Frequency: Bi-weekly (every two weeks)

Content:

- Sprint goals and whether they were achieved.
- Detailed progress of development tasks.
- Completed user stories and features.
- Sprint retrospective including lessons learned and improvements for next sprint.
- Upcoming sprint plan.

Audience: Digital Manager, Scrum Team, Internal Stakeholders.

Monthly Progress Reports:

Frequency: Monthly

Content:

- Summary of the month's activities.
- Detailed progress against the overall project timeline.
- Key milestones achieved.
- Resource utilization and any changes.
- Budget status and any financial updates.
- Risks and issues with their mitigation strategies.
- Plan for the upcoming month.

Audience: CTO, Digital Manager, Internal Development Team, Steering Committee.

Quarterly Review Reports:

Frequency: Quarterly

Content:

- Comprehensive review of the project's progress over the quarter.
- Detailed milestone achievements.
- Analysis of performance metrics and KPIs.
- Budget review and financial health of the project.
- Strategic alignment and any necessary course corrections.
- Key risks, issues, and their management.
- Plans for the next quarter.

Audience: CTO, Digital Manager, Internal Development Team, Steering Committee, Executive Sponsors.

Ad-hoc Reports:

Frequency: As needed

Content:

- Specific information or data requested by the client or project stakeholders.
- Detailed analysis on specific areas of interest.
- Immediate reporting on any critical issues or incidents.

Audience: Requesting Stakeholders, Project Manager, Internal Development Team.

Final Project Report:

Frequency: At project completion

Content:

- Comprehensive overview of the entire project.
- Summary of all deliverables and whether project objectives were met.
- Detailed account of project milestones and achievements.
- Final budget report and financial reconciliation.
- Analysis of project performance and outcomes.
- Lessons learned and recommendations for future projects.
- Post-deployment support and maintenance plans.

Audience: CTO, Digital Manager, Internal Development Team, internal Stakeholders, Executive Sponsors.

Reporting Format:

- Reports should be delivered in a clear, concise format.
- Utilize visual aids such as charts, graphs, and dashboards to enhance understanding.
- Include an executive summary for quick reference.
- Detailed sections should provide in-depth analysis and supporting data.
- Reports should be provided in both PDF and editable formats (e.g., Word, Excel).

Submission Method:

- Reports should be submitted via email to designated stakeholders.
- Copies should be stored in a shared project repository accessible to all relevant parties.
- Important reports should be presented in review meetings for discussion and feedback.

Review and Feedback:

- Stakeholders should review the reports promptly and provide feedback.
- Any necessary revisions should be addressed promptly.
- Continuous feedback should be incorporated to improve the quality and relevance of future reports.