

Invitation to submit Proposal.

Tender Name: Laboratory Information Management System (LIMS)

Tender Number: RFI/LAB/LIMS/2024/02

Date of Issue	01 July 2024
Closing Date & Time	12 Julu 2024
RFI Enquiries	Portia Jonginyanga E-mail: PortiaJ@ppecb.com Tel: +27 21 930 1134
PPECB business hours	08:15 – 16:45
Category	Laboratory Services



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1 Invitation to Tender

Bidders are invited to submit Request for Information (FRI) for the provision of services for the Laboratory Information Management System (LIMS) for the PPECB Laboratory.

1.1 Background

The PPECB Laboratory is mandated by the DALRRD to analyse fresh produce like oilseeds, grains, dried fruit, dairy products and fresh fruit & vegetables for the export market. Analyses include mycotoxins, pesticide residues and compositional parameters in dairy products. The laboratory also analyses a variety of other product like spices, animal feed and beverages for commercial (local) producers.

2 Scope of Service

Access:

- I. LIMS should be able to allow 30 lab employees access.
- II. Concurrent users to be logged into the LIMS system simultaneously is 10 employees.
- III. Licensing:
 - a. One license - many users
 - b. Multiple licenses include a breakdown of the cost for each license.
- I. Sign-on:
 - a. Single username and password
 - b. Multiple - each user's own login name and password.

Data:

- I. Sample information that LIMS should be able to store in a month:

Sample Types	No. of Samples Tested per Month	No. of Tests Done per Month
Groundnuts, tree nuts, oilseeds, grains, pulses, animal feed, spices, dried fruit, beverages, oils	800	1000
Groundnuts, tree nuts, oils	600	600
Fresh fruit & vegetables, dried fruit, groundnuts, tree nuts, oilseeds, grains;	2000	550
Dairy products	200	800

- II. LIMS must be able to store five years' worth of data
- III. The previous years prices for the analyses should be retrievable.
- IV. There will be two or three receiving points for samples.

Interface:

1. Instruments and equipment that needs to interface to LIMS:

Instrument Name/Model	Instrument Type (e.g. Balance, ICP, AAS, Auto-titrator, etc)	Number of Instruments
Waters Alliance HPLC	HPLC (Empower Software)	1
Waters Breeze HPLC	HPLC (Empower Software)	1
Waters UPLC	UHPLC (Empower Software)	2

Thermo Trace 1310 GC-MS/MS	GC-MS/MS (Xcalibur & TraceFinder Software)	1
Shimadzu GC-MS/MS	GC-MS/MS (Lab Solutions & Insight software)	1
Shimadzu LC-MS/MS	LC-MS/MS (Lab Solutions & Insight software)	1
New Thermo GC-MS/MS	GC-MS/MS (Chromeleon)	1
New Thermo LC-MS/MS	LC-MS/MS (Chromeleon)	1
New Thermo IC-LC-MS/MS	IC-LC-MS/MS (Chromeleon)	1
New HPLC	Unknown	1
New GC-MSMS	Unknown	2
New LC-MSMS	Unknown	3
Buchi NIR Flex	NIR (NIRWare software)	1
Protein analyser (Unknown-tender in progress)	Protein analyser	2
Soxhlet (Unknown-tender in progress)	Automated fat analyser	1
Mettler Toledo Auto-titrator	Auto-titrator (LabX software)	1
VELP Scientifica SO ₂ distillation unit	SO ₂ distillation unit	1
Balances	Balances	10
Data loggers for temperature monitoring	Data loggers for temperature monitoring	20
Moisture analyser	Moisture analyser	2

2. The LIMS must be able to link/interface to ERP (Dynamics 365 - Managed by Altron Karabina) and Titan which must be bi-directional.
3. Data to be transferred from LIMS to ERP is information required for invoicing:
 - a. Purchase Order numbers,
 - b. Sample information,
 - c. the quote or service request number,
 - d. the analyses,
 - e. quantities of each analysis and the price.
4. Data to be transferred from ERP to LIMS:
 - a. All information on the work orders on the customer portal.
 - b. From Titan to LIMS – sample information
 - c. From LIMS to Titan – results should be available for customers and inspectors
5. Above costs to be included on the quote and the three-year contract.

Quality controls:

6. The lab tests a batch of samples together in a single run on the instruments that have auto samplers with quality control (QC) samples. LIMS should be able to plot the QC results and alert any deviations for the following:
 - a. 2 x QC with every 10 samples (MAP & MRL)
 - b. 1 x QC per matrix (3 matrices) Dairy
 - c. 1 x Solvent blank with every 10 samples
 - d. 1 x Matrix blank with every batch (MRL)

- e. Calibration standards i.e. 6 with every batch (MAP & MRL)
- f. Calibration standards i.e. 7 with every batch (MRL SRL methods)
- 7. LIMS should be able to plot the following chart types:
 - a. Shewart Control charts
 - b. Range charts

Reports:

- 8. The following reports are required to be generated by LIMS (examples can be provided on request):

Report	Type (Internal or External) (Internal – for use in the lab only) (External – sent out to customers)	Emailed to Recipient (Yes/No)	Only certain users in LIMS can run this report? (Yes/No)
Certificates of Analysis	External	Yes	Yes
Service Request	External	Yes	Yes
Income Report	Internal	No	No
Aflatoxin Report	Internal	Yes	No
MRL Report	Internal	Yes	No
Quote report	Internal	No	No
Sample Audit report	Internal	No	No
RFI (Request for Invoice)	Internal	No	Yes
Outstanding Results Report	Internal	No	No
Contacts List	Internal	No	Yes
Analysis by client report	External	Yes	Yes
Matrix report	Internal	No	No
SAM report	Internal	No	No
Stock report	Internal	Yes	Yes
Flexible scope register	Internal	Yes	Yes
Volume per matrix	Internal	No	Yes
Traceability reports	Internal	No	Yes
SMME samples for invoicing	Internal	No	Yes

Customer portal:

- 9. Customers should have access to the following on the customer portal:
 - a. Quotation or service request directly on the portal.
 - b. Quotation and service requests should be automatically emailed to the customer after a two-day waiting period on LIMS.

- c. The client should be able to upload a manually signed quotation or service request.
 - d. The client should be able to sign the quotation or service request electronically.
 - e. The client should be able to check on the statuses of their samples or to register samples onto LIMS that they are sending to the lab.
 - f. Single sign on option for clients is preferable.
10. ± 1000 customers should be able to access the customer portal at any time.
- a. How many licenses will be required
 - b. Indicate the licensing model
 - c. Indicate the cost implications should access be given to clients on a 24 hour basis.
11. Client should be able to log queries and complaints.

Inventory:

12. LIMS should be able to be used for inventory of stock – chemicals and consumables.
13. Monthly reports will need to be linked to ERP.

General:

14. The following must also be considered:
- a. Link ± 20 tablets to LIMS for electronic work sheets – work sheets created on LIMS.
 - b. Link LIMS to electronic signatures - assistance will be appreciated.
 - c. Dedicated UPS for LIMS – to ensure that electricity spikes do not interfere with the LIMS processes.
 - d. Preferably a cloud-based server – but an onsite option is fine.
15. Updates of system after hours.
16. Backups done daily.
17. Attention to problems should be done within 1 hour after the problem was reported.
18. 3 Year warranty on hardware for service and maintenance – include a maintenance plan.
19. Costs of updating software.
20. Monthly report on jobs logged.
21. Testing of backups done monthly.

On your proposal please do advise further on the specification.

For any enquiries please contact:

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