



THE FRUITS AND VEGETABLES INDUSTRY SERIES

12 May 2026

The role of AI in the fruit and vegetable sector



Funded by
the European Union



Who We Are & What We Do

Enimiro collaborates with smallholder farmers in Uganda to expand their income sources and enhance farm diversity, while also promoting food security and establishing markets for their agricultural products

2019

Founded

4,000+

Farmers

ISO 22000

Certified

EU & US

Markets





HOW WE DO TRACEABILITY — AND WHY IT MATTERS FOR ENIMIRO

HOW IT WORKS

Register

Each farmer GPS-registered with farm size & contact details via SurveyCTO.

Farm Visits

Agronomists log crop health, GAP compliance & input usage directly in the field.

Harvest Intake

Weight, quality grade & batch ID recorded at collection. Linked to farmer profile.

Export Link

Every packed batch traceable back to individual farms, harvest dates & field officers.

BUSINESS VALUE FOR ENIMIRO

Export Compliance

Full traceability satisfies EU & US market requirements and supports ISO 22000 audits.

Smarter Operations

Accurate harvest forecasts reduce waste, improve scheduling and lower operational costs.

Farmer Accountability

Data-linked payments reduce disputes, build farmer trust and improve supply reliability.

AI-Ready Pipeline

Structured field data from SurveyCTO feeds directly into AI models for rapid analysis.



CHALLENGES WE FACE

Building AI-powered traceability in the Global South — honestly

01 Data Quality in the Field

Inconsistent SurveyCTO entries undermine AI models. Field officer training is as critical as the model itself.

02 Rural Connectivity

No internet during farm visits. Offline-capable tools are non-negotiable for rural Uganda operations.

03 Farmer Trust & Buy-In

Farmers need to see data collection benefit them — not just Enimiro management — or adoption stalls.

04 AI Adoption Constraints

Limited digital literacy and infrastructure in the Global South slow integration of AI tools across the chain.

05 Human vs. Model Judgement

AI gives faster answers but agronomist field judgement must override the model when reality contradicts data.





EXISTING SOLUTIONS & PRACTICAL EXPERIENCE

What Enimiro already uses — and what early adopters across the Global South are learning

SurveyCTO

MOBILE DATA COLLECTION

Structured field forms completed offline by agronomists. GPS-stamped. Syncs to database on reconnect. The backbone of all farm-level data at Enimiro.

→ *Offline-first is non-negotiable in rural Uganda.*

Power BI

DATA VISUALISATION & REPORTING

Farm visit scores, yield trends, and payment data visualised for management decisions. Connects to SurveyCTO database for near-real-time dashboards.

→ *Visual dashboards increase decision-maker buy-in across the chain.*

Geo-Mapping

FARM LOCATION & SPATIAL ANALYSIS

GPS coordinates from farmer registration mapped to identify clustering, logistics routes, and farm density. Supports extension officer planning and routing.

→ *Spatial context turns farmer data into logistics intelligence.*

Geo-Location (Live)

REAL-TIME FIELD VERIFICATION

Live GPS capture at point of SurveyCTO form submission verifies agronomist presence on-farm. Reduces false visits and ensures data integrity at source.

→ *Location verification is the first line of data quality defence.*



WHERE AI TAKES US NEXT

Conditions for effective, inclusive & scalable AI deployment across Enimiro's F&V value chain

PREDICT

Predictive Harvest Models

AI analyses visit scores & maturity data across 4,000+ farms to forecast volumes by week — enabling proactive production scheduling.

SUPPORT

Proactive Farmer Support

AI flags at-risk farms early. Agronomists dispatched before quality failures occur. Data flows back to benefit farmers, not just management.

SCALE

Inclusive Scalability

Offline-first tools and simple farmer-facing summaries ensure AI works for smallholders — not just agribusiness.

CONNECT

F&V Value Chain Integration

AI-ready data pipelines connect farm assessments to processing, logistics & export — coordinating the full fruits & vegetables chain.





THE FRUITS AND VEGETABLES INDUSTRY SERIES

Thank you



FRUIT AND VEGETABLES SCHEME



Funded by
the European Union