Tracking Every Step: Exploring the Importance of Traceability and Visibility in our supply chains

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June 12, 2023 / 3:20 – 4:00PM / Hall B

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The Kromco traceability process - a practical use case
QUESTION:

Why, after 23 years of traceability implementation, aren't we finished yet?
Who we are, and what we do

- Fruit Services Company, based in Grabouw, Western Cape.
- Private Company, with Producers (farmers) as shareholders
- Services: Technical, Cold Storage, Packing, Logistics and Marketing.
- Raw Materials = 230,000 Bins (88,000 tonnes) Apples & Pears.
- Processed Bins = 228,000 / 2,870 unique Sorted Product types
- Finished Goods = 85,000 Pallets / 5 Million Cartons / 17 Million Bags
- 1,600 unique Retail Products
- Export (80%) everywhere, except South America, Australasia & USA.
What follows is an abbreviated version of the Kromco process. There are many more processes and control points.
Barcode: Scanning unique, serialised IDs
Location: Tracking movements & positions
Coldchain: Ensuring temperatures are within protocol
QC/QA: Tests to validate the quality attributes
Monitoring: Temperatures, Humidity, Nitrogen, etc.
Laboratory: Chemical residues & phytosanitary tests
Audits: Certification, Retailer, Standards, Government
eCert & DALRRD: Orchards, Certifications, Pallets, etc.

Legend for iconography used in the following slides
Integrated Pallet tracking and certification systems
Pre-Harvest Audits & Tests
Harvesting (picking)
Fruit Intake
- Scanning and Tests
Cold storage
Pre-processing
PreSorting
Raw Materials
Post-PreSorting
RA & CA Cold storage
Dedicated Pack
Packing of fruit
PINK LADY® (CRIPPS PINK)
QA/QC Inspections
NSPack, Titan & eCert
Finished Goods
Cold storage racking
Forward & Backward Trace

Audits by various parties, and mock recalls for actionable traceability
**ANSWER:**

Traceability is about managing the flow of your product - at a very fine level of detail and visibility. Once this visibility becomes clear, it triggers further:

- Business-refinements,
- Business-controls,
- Business-processes,
- Business-intelligence
USAID/Uganda
Strengthening Supply Chain Systems Activity (SSCS)
The Pharmaceutical information portal (PIP) is Uganda’s online supply chain data warehouse providing advanced analytics for visibility, tracking and tracing health products both centrally and at Health facilities in Uganda.

### Source of supply chain data

<table>
<thead>
<tr>
<th></th>
<th>Central warehouses</th>
<th>Health Facilities (DHIS2 reporting)</th>
<th>Health Facilities (eLMIS use)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>2</td>
<td>4,000 +</td>
<td>1,231</td>
</tr>
<tr>
<td>Description</td>
<td>Govt &amp; PNFPs</td>
<td>Govt &amp; PNFPs</td>
<td>Govt &amp; PNFPs</td>
</tr>
</tbody>
</table>

### System integration

Data from the warehouse ERPs, DHIS 2 and HF eLMISs into the PIP has been achieved through system integrations and linkages by leveraging:

- National Product Catalogue/Registry for unique product identification
Status of digitalization and visibility of the supply chain

**Key Highlights**

- Collaboration with other development partners (UNHCR-100, UNFPA-66, GF-131) to augment HF Hardware availability
  - Deployed computer installed with eLMIS to improve SC functions
    - All 136 District Vaccine Stores in the country
  - Implemented SC innovations in HF with poor internet access and no power connection to enhance commodity tracking in 10 HF in Yumbe district (CDC-IDI)
The Pharmaceutical information Portal (PIP)

WAREHOUSE ONLINE STOCK STATUS REPORT [OSSR]

Central Level Commodity security and Availability tracking
Housed in the PIP, the OSSR is MOH’s one-stop center on central warehouse stock information for commodity security, and tracking. Providing accessibility to uniform stock information to all stakeholders.
Since its introduction and scale up of use in 2022, the OSSR has aided commodity tracking and timely replenishment.

Central-level commodity availability improved from an average 58% to now 75 – 80% through timely ordering, pipeline tracking.
The Pharmaceutical information Portal (PIP)

ONLINE FACILITY STOCK STATUS REPORT [OFSSR]

Facility Level commodity security, availability and accountability monitoring
Monthly Stock Reporting in the DHIS2

With over 4,000 health facilities (HF) in Uganda able to report stock data on 41 tracer items in the DHIS 2, focus has been on pushing for improved reporting, and use. The development of an interactive online data analytical dashboard on facility stock has driven data-use, and ownership HF level.
The Online Facility Stock Status Report [OFSSR]

Also housed in the PIP, the OFSSR provides analytical stock dashboards on facility level data reported in the DHIS2.

Supporting Informed HF commodity redistribution, and replenishment.

Scan QR Code to access dashboard.
USAID/Uganda Strengthening Supply Chain Systems Activity (SSCS)
Traceability Spectrum

Traceability Stakeholders

- National Regulatory Authorities
- Other National Ministries: Health, Trade/Customs, Finance
- Manufacturers
- Donors
- Supply Chain Partners
- Implementing Partners
- Healthcare Providers
- Law Enforcement

Short-term objective

Long-term objective

End-to-end Traceability

Verification

Regulatory oversight
Data Ownership/Sharing/Use by Role

**National Regulatory Authorities**
- National authorities are responsible for responding to verification failures and suspect activity, and implementing verification processes.

**Manufacturer / Suppliers**
- Manufacturers and/or suppliers that are providing serialization data into the system.

**System Administrators**
- System administrators, planners and operators whose primary role is to oversee the health of the system and review for events and assist with escalation of issues.

**Supply Chain Partners**
- Logistics providers along the supply chain that can check on the validity of the product as it moves through their portion of the supply chain.

**Customs/ Police/ Investigators/ Officials**
- Officials responsible for checking on the entrance of goods and following up on potential cases of non-standard products.

**Healthcare Professionals**
- Healthcare professionals responsible for the preparation and delivery of the goods to the end recipient.
Global Traceability Vision

- **Manufacturer Hub**
  - Serialised batch data or just batch data (if serialization is not available)
  - Product master data

- **Global Donor Hub**

- **3rd Party Hub**

- **Regional Hub**

- **National Traceability System**

- **Pack**
  - GTIN/SSCC
  - Serial Number
  - Batch/Lot
  - Expiry Date

- **Smart Device**
  - Geo-location
  - Time/Date

- **Persona**
  - Location
  - Role type

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