FRESH
## NETWORKS

Unlocking Markets For Dairies Globally

KOKO

Dairy companies in eastern Africa are unable to effectively serve customers in low-income markets and **lose out on billions of dollars every year**.

FRESH networks has developed the only solution that allows dairy companies to **succeed and grow** in this untapped market.

~80% of marketed milk in eastern Africa is consumed via informal, unsafe channels

This "informal milk" is unregulated and untraceable, making it susceptible to mishandling and tampering. Most informal milk fails regulatory standards and is deemed unfit for human consumption.

Despite this risk, **79%** of milk sold in eastern Africa is sold through these channels.
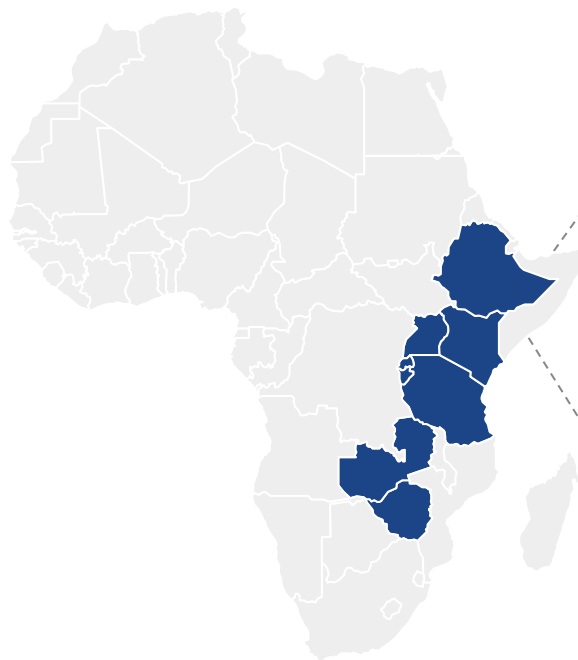
79% UNFIT FOR HUMAN CONSUMPTION

The FRESH solution helps dairies serve the untapped, low income markets by helping them deliver on all key factors.

HIGH PRICE $

'Informal milk' usually sells for **40–50% less** than formal packaged milk options

In pilots, we have reached a steady state of 112+ L/day at $0.6 /L within 4 weeks.

LOW FLEXIBILITY

Informal milk is sold through smaller purchases (as low as **0.12L per transaction**) that fit budget constraints vs 0.2L of packaged milk

FRESH's smart dispensers allow for volumes as low as 0.06L per transaction.

Over 90% of transactions were less than 1 L and over 50% were less than 0.5L.

LONG CASH CYCLES
(SUPPLY SIDE)

Cash–based informal value chain typically **pay farmers** upon delivery, making it the preferred option over dairies and cooperatives (14–28 day cash cycle)

Digital payments allow for cash realization to happen in real time.
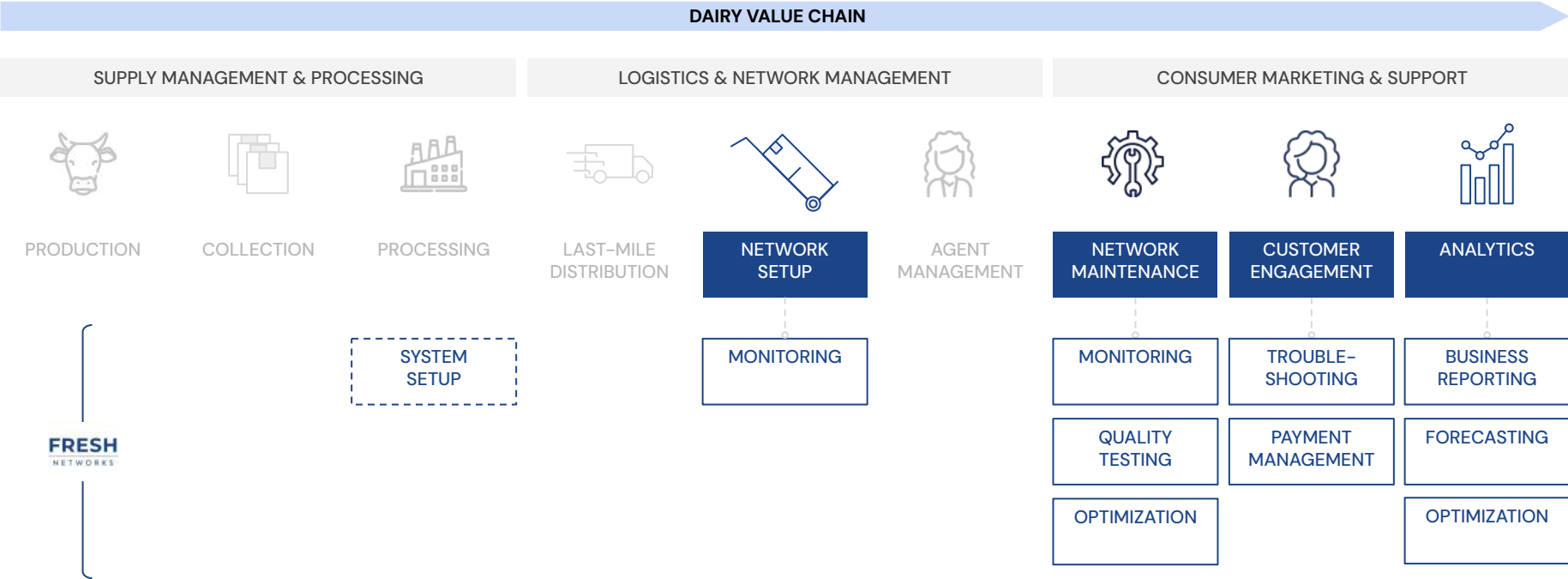
Agents are paid out using mobile money.

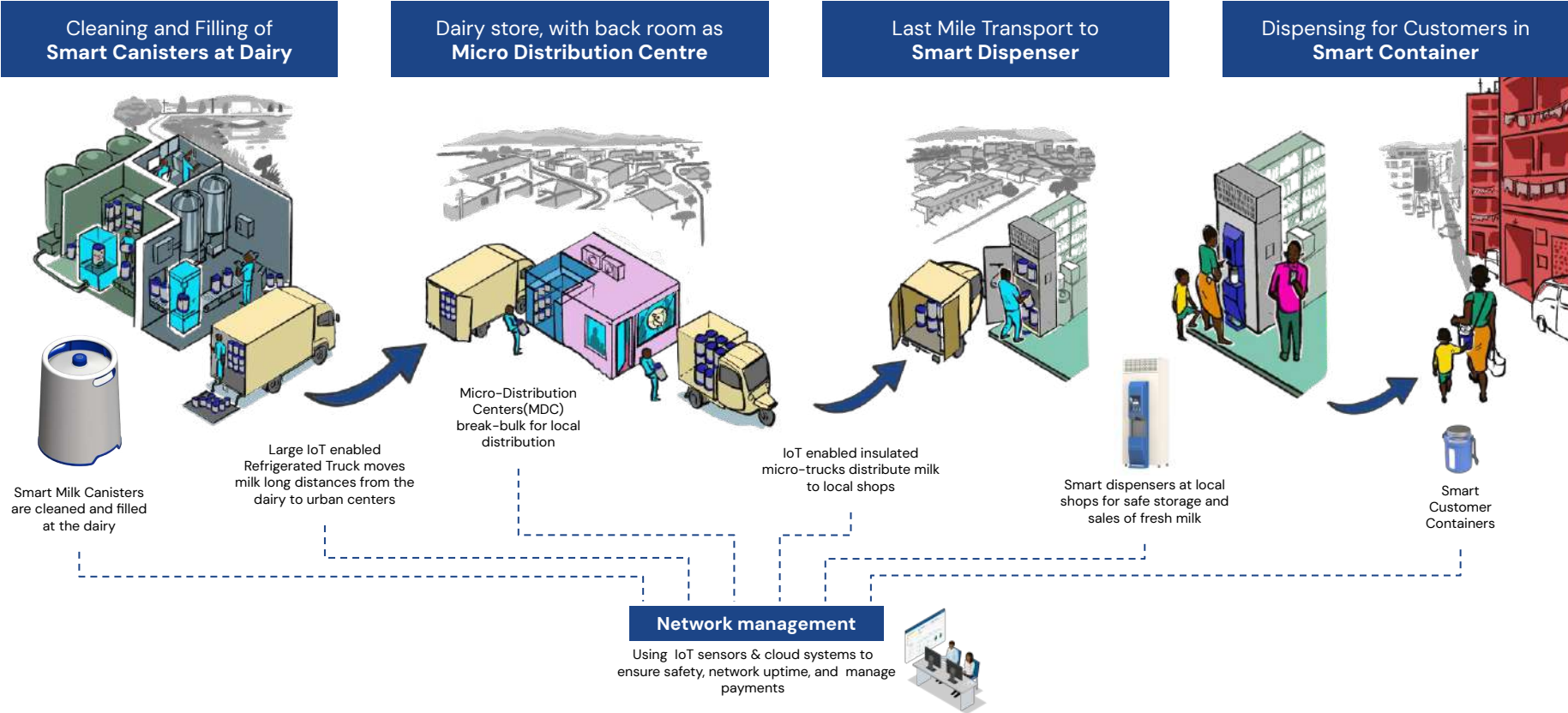**Dairy partners can set cash disbursements to as little as 24 hours.**

FRESH does this through a **technology leasing model,** giving dairies access to unrestricted growth into new markets.

We work with dairy companies as a technology partner, embedding our systems and services to extend their downstream value chain

FRESH sets up & maintains the distribution network, and provides actionable analytics & insights.
This allows Dairies to manage operations and directly engage with stakeholders.

DAIRY VALUE CHAIN

SUPPLY MANAGEMENT & PROCESSING	LOGISTICS & NETWORK MANAGEMENT	CONSUMER MARKETING & SUPPORT

PRODUCTION	COLLECTION	PROCESSING	LAST-MILE DISTRIBUTION	NETWORK SETUP	AGENT MANAGEMENT	NETWORK MAINTENANCE	CUSTOMER ENGAGEMENT	ANALYTICS

FRESH NETWORKS

PROCESSING: SYSTEM SETUP

NETWORK SETUP: MONITORING

NETWORK MAINTENANCE: MONITORING, QUALITY TESTING, OPTIMIZATION

CUSTOMER ENGAGEMENT: TROUBLE-SHOOTING, PAYMENT MANAGEMENT

ANALYTICS: BUSINESS REPORTING, FORECASTING, OPTIMIZATION

FRESH embeds technology in every step of the value chain, ensuring traceability, accountability, and safety at scale.

Cleaning and Filling of **Smart Canisters at Dairy**	Dairy store, with back room as **Micro Distribution Centre**	Last Mile Transport to **Smart Dispenser**	Dispensing for Customers in **Smart Container**

Smart Milk Canisters are cleaned and filled at the dairy

Large IoT enabled Refrigerated Truck moves milk long distances from the dairy to urban centers

Micro-Distribution Centers(MDC) break-bulk for local distribution

IoT enabled insulated micro-trucks distribute milk to local shops

Smart dispensers at local shops for safe storage and sales of fresh milk

Smart Customer Containers

Network management

Using IoT sensors & cloud systems to ensure safety, network uptime, and manage payments

Our custom technology protects milk quality, streamlines operations and maximises efficiency and safety at scale.

23L

FRESH's reusable 23L milk containers are sealed and tamper-proof, preventing any mishandling in the journey from dairy to dispenser.

Stackability increases logistics efficiency.

NFC & QR tags track movement of containers throughout entire value chain.
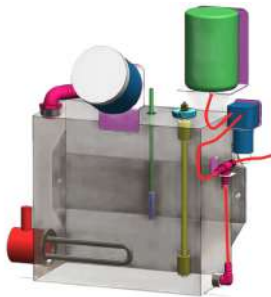
Automated cleaning and quality assurance has been built into the design to remove human error and remotely monitor activities.

Automation reduces the cost of these process, removes technical operations from the field, and ensures complete transparency.

Mobile apps & IoT sensors ensure that we have complete visibility of milk levels & quality, ensuring traceability of each batch leaving the dairy.

Allows for accountability controls and remote monitoring to conduct preventative technical interventions.

Smart Milk Dispensers (SMD) with real time temperature & stock monitoring, backup power and data connectivity.

Friendly consumer interface.

Dispenses as little as 60ml.

Robotic arm draws milk from each container in turn, eliminating handling & contamination risk.

Automatic cleaning-in-place system built into each dispenser.

Cloud-based systems for central visibility and control of stock levels & consumer pricing.

Digital payments ensure rapid cash cycles and rule-based revenue sharing.

Custom-built applications ensure real-time monitoring and business intelligence dashboards.

AI integrations for inventory management and route optimization.

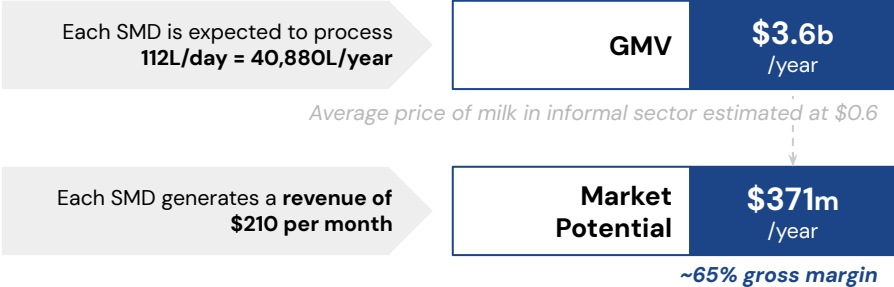# We have undergone 4 iterations of our solution to optimize for milk quality at the lowest possible costs

VERSION 1	VERSION 2	VERSION 3	VERSION 4		
Milk dispenser – Proof of Concept	Market and consumer behaviour	Milk handling and cooling efficiencies	**62%** Reduction in machine cost	**90%** Reduction in operating cost	**75%** Reduction in cleaning needs
• 1 unit • 6 months • 12,000 L	• 10 units • 20 months • 150,000 L	• 1 unit (demo) • 6 months • 500 L			

Over 145,000+ milk dispensers can be deployed in eastern Africa, distributing over $3.5b in GMV, and generating over $370m per year for FRESH
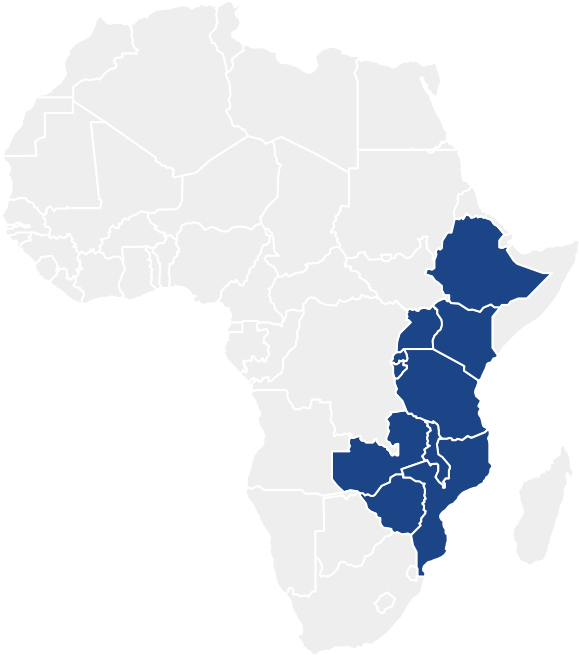
Country	Annual Milk Consumption (Billion Liters)	Unmarketed Milk	Formally Marketed Milk (%)	Informally Marketed Milk (%)	Informal Milk Market Size (Billion Liters)	*Market Potential (# of SMDs)
Kenya [1,2]	5.2 [4,5]	40%	20%	43% [3]	1.98	50,881
Ethiopia [1,3]	4.7 [1]	68%	7%	25%	1.18	28,743
Tanzania [2]	2.4 [1,6]	50%	5%	45%	1.76	26,419
Uganda [1,2]	2.5 [1,5]	55%	10%	35%	0.88	21,404
Rwanda [4]	0.98	8%	17%	75%	0.74	17,927
Total	15.8 Billion			34.6%	**6.54**	**145,374**

Each SMD is expected to process **112L/day = 40,880L/year**

GMV	$3.6b /year

Average price of milk in informal sector estimated at $0.6

Each SMD generates a **revenue of $210 per month**

Market Potential	$371m /year

~65% gross margin

On average, each SMD is assumed to process 112L/day = 40,880L/year

3 years of pilots in Kenya, Rwanda, and India have given us the confidence in our solution.

Our team has spent the past 3 years developing our smart milk distribution solution for East Africa

GRAHAM BENTON
CEO / FOUNDER

Graham Benton is the CEO of FRESH Networks, leading smart, affordable, and zero–waste food distribution across Africa. With 12+ years in East African agriculture, he integrates digital and IoT solutions to improve dairy distribution and farmer inclusion. Previously, he was a Senior Program Manager at KOKO Networks. His expertise spans strategy, operations, and tech–driven food systems.

ANGELLO OBEL
CTO

12+ years of experience developing technology solutions for impact driven companies in Africa. Founding engineer at KOKO Networks and part of the engineering pandemic response team at One Acre fund. Broad engineering leadership experience covering electronics Hardware, Software, IoT, Machine Learning & AI and more.

KOKO LEADERSHIP & ADVISORS

Sagun Saxena, KOKO CIO
Greg Murray, KOKO CEO
Nicholas Stokes, KOKO CFO
Micael da Costa, KOKO CSO
Ahmed Abu Bakr, Commercial
Navin Mangalat, Communications
Amit Gajjar, Engineering
Doreen Gichuru, Finance

Customer Success & Business Development
Works with customers, consumers, agents, partners, and stakeholders to understand their needs, and deliver beyond expectations

Quality Assurance & Food Science
Ensures food safety through regular maintenance and enhancement of cleaning & filling processes, materials used, lab testing, third party verification, and more.

Technical & Engineering
Develops hardware & software in house, including custom refrigeration modules, injection–molded containers, IOT sensors, PCBs, firmware, and more.

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N E T W O R K S

FOR MORE INFORMATION, PLEASE CONTACT

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