



## Valorizing Dairy By-products: Insights from a Kenya Circular Economy Journey with the VALORISE Project

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## Acronyms

Acronym	Full Meaning
ACTS	African Centre for Technology Studies
AU-BS	African Union Bioeconomy Strategy
CEFP	Circular Economy in Food Processing
WVW	Whey Valorization Workshop
KDB	Kenya Dairy Board
NEMA	National Environment Management Authority
KIRDI	Kenya Industrial Research and Development Institute
SMEs	Small and Medium Enterprises
B2B	Business-to-Business
B2C	Business-to-Consumer
R&D	Research and Development
M&E	Monitoring and Evaluation
PDMS	Product Development & Market Segmentation
BMCI	Business Models and Circular Innovation
TIR	Technology and Infrastructure Readiness
RTDF	Real-Time Digital Feedback (Mentimeter)
VBI	Values-Based Icebreaker
WCD	World Café Discussions
SNR	Sticky Note Reflections
FYAP	Forward-looking Yearly Action Plan
SDGs	Sustainable Development Goals

## VALORISE project participants

- African Centre for Technology Studies - ACTS
- Arla Foods Ingredients - AFI
- Egerton University
- Promaco East Africa
- Roskilde University - RUC
- Technical University of Denmark - DTU
- The Alliance of Bioversity International and CIAT



## 1. Introduction

Since 2023, a consortium of research and industry partners have been implementing the circular bioeconomy of the dairy sector (VALORISE) project that set out to study the integration of principles of circularity in the evolving food processing industry in Kenya. It specifically focused on the processes and drivers related to opportunities and challenges for valorisation of by-products (side streams) in the growing and modernizing dairy industry in Kenya.

The focus was on whey, a by-product of cheese and some yoghurt production that remains largely underutilized in Kenya despite its rich nutritional profile and commercial potential. As cheese production scales up across Kenya, particularly among formal and cottage cheese processors, the volume of whey being generated has increased significantly, now estimated at 9,000 metric tons daily in Kenya alone.

The final project stakeholder workshop held 19th of June in Nairobi, brought together stakeholders from research, government, private sector, development organizations, and farmer cooperatives to collaboratively explore whey valorization pathways. A total of 50 stakeholders attended the event. It took place against the backdrop of evolving national and regional frameworks, including Kenya's Dairy Sector Sustainability Roadmap and the East Africa Bioeconomy Strategy, that provide the impetus for integrating circularity principles for sustainable innovations in food sectors, including processing.

### 1.1 Objectives of the Workshop

1. Present the context of the circular economy in Kenya with a focus on food processing
2. Showcase whey-based product innovations and business opportunities as a prime example of the circular economy in food processing
3. Share research insights from the VALORISE project on trends, innovation pathways, consumer preferences, profitability, business models, and environmental factors in dairy processing
4. Facilitate industry dialogue and exploration of pathways for action for food processing valorization with a focus on whey.

## 1.2 Structures and processes used during the workshop



*Figure 1: Participants united by shared values—setting the tone for collaborative action in the dairy sector.*

Value-Based Icebreaker and Group Formation for the opening session aimed to create a trusting and inclusive environment for participants from varied backgrounds. Instead of conventional introductions, attendees were invited to share a personal value guided by the sustainability card deck of concepts such as transformation, inclusivity, creativity, or sustainability, which they believe is essential for driving change in Kenya's dairy sector.

Framing Presentations by Senior Representatives of Policy Stakeholders from the Kenya Dairy Board (KDB) and the National Environment Management Authority (NEMA) set the scene by presenting Kenya's strategic direction in the dairy and environmental sectors. These talks positioned whey valorization as a key element within the country's broader policy priorities, including doubling milk production, reducing food waste, improving environmental performance, and strengthening formal dairy markets. These presentations established a policy anchor for subsequent discussions.

A Series of Thematic Expert Presentations on the research insights and evidence generated by the project was presented. The presentations included:

- Consumer Preferences and Willingness to Pay - Celestine Mutio, Egerton University
- Animal feed challenge and the potential of whey for animal feed - Prof. Bockline Bebe, Egerton University
- Development of Lysine-Rich Biomass from whey for feed - Salma Omollo, Egerton University
- Business Models - Dr. Dickson Okello, Egerton University
- Cost-Benefit Analysis - Dr. Stanley Karanja, Alliance of Bioversity International and CIAT
- Local Processing Technology and Innovation - Jeppe Greve, Arla Foods Ingredients (AFI)
- Upcycling of whey into food products - Charlotte Sørensen, Arla Foods Ingredients (AFI)

The Product Demonstration and Tasting session offered participants an experiential understanding of whey's potential through various sample products developed by Arla Foods Ingredients and Promaco. Sample products, including fortified yoghurt, high-protein smoothies, and natural cream cheese, were presented and tasted.

These were developed through partnerships between researchers and Arla Foods using Nutrilac. Participants gave real-time feedback on taste, texture, and packaging appeal, connecting science with consumer realities.

A Real-Time Digital Feedback via Mentimeter was conducted to encourage inclusive and immediate feedback. Participants used the Mentimeter platform during the tasting and plenary sessions. This tool allowed anonymous submission of preferences, questions, and evaluations, and helped identify consensus themes as well as outlier perspectives.

The World Café Thematic Discussions were structured as rotating table discussions, encouraging deep interaction on three key themes: Business Models, Product Development, and Technology & Infrastructure. Each table was facilitated by a topic lead who guided the conversation and captured insights. Groups spent 20 minutes per station, promoting interdisciplinary exchange and building collective recommendations.

The Sticky Note Reflection Tool ensured that all participants, especially quieter voices, could contribute; each table used three types of color-coded sticky notes. These captured standout insights (Butterflies), inspirational phrases (Apples), and open questions or dilemmas (Squares). This approach generated rich qualitative data and surfaced patterns across diverse perspectives.

Plenary Sharing and Q&A Periodic plenary sessions gave participants an opportunity to hear key highlights from table discussions, ask clarifying questions, and propose cross-cutting recommendations. This helped consolidate learning and align on priority actions across themes and stakeholder groups.

## 2. Workshop Outcomes

### 2.1 Introduction

This section synthesizes the most critical findings and reflections that emerged from the workshop. These outcomes form the foundation for the recommendations and strategic actions presented in the sections that follow.

### 2.2. Whey-based products, technologies & business models

Presentations by KDB and NEMA on pathways and policies for sustainability through circularity in Kenya's food processing sector grounded the workshop in national strategies. These include doubling milk production, formalizing dairy markets, and integrating circular economy principles into policy. Participants emphasized the need for legal frameworks to reduce VAT on inputs, support solar-powered chilling, improve aggregation infrastructure, and facilitate product certification. The Kenya Dairy Sustainability Roadmap and AU Bioeconomy Strategy were highlighted as critical alignment points.

Upcycling of whey into food products was presented by Charlotte Sørensen, Arla Foods Ingredients. Charlotte's presentation demonstrated how the company transforms whey, a by-product of cheese production, into valuable nutritional products. She explained that Arla is among the largest global processors of whey, with operations in countries like Denmark, the UK, and Argentina, and partnerships in Norway and Kenya.

Each year, they process over 225 million kilograms of whey. She emphasized that Arla operates as a business-to-business company with a strong focus on quality, food safety, and innovation. Their process involves advanced filtration and fractionation techniques to extract key nutrients and proteins from whey. These ingredients are then used in infant formulas, sports nutrition, and medical products. The presentation highlighted Arla's commitment to circular economy principles, aiming to reduce waste and repurpose dairy by-products into high-value applications. Charlotte also noted the company's global research partnerships and collaborative approach with science institutions and industry stakeholders. She concluded by reinforcing the importance of sustainability in their operations and the potential for whey to contribute to improved nutrition through responsible innovation.

Consumer Preferences and Willingness to Pay for Whey-Based Products was presented by Celestine Mutio from Egerton University. The session explored consumer attitudes, preferences, and willingness to pay for whey-based products in Kenya. Findings indicated that awareness and consumption of whey products remain low, with a notable gap even among some processors, especially around product labeling. Despite this, the research revealed that consumers are receptive to whey-based products, showing a willingness to pay KES 67.24 for yoghurt and KES 85 for smoothies. Notably, even with a 10% price increase, most consumers expressed readiness to purchase, and many would recommend the products to others. Flavor preference leaned heavily toward strawberry and vanilla, though there was a growing interest in expanding flavor diversity to include chocolate and lemon biscuit variants. Health-conscious consumers showed a preference for low-fat products and the use of natural sweeteners. Packaging emerged as a major attraction point, with consumers emphasizing the importance of customizing designs based on age and visual appeal. The session emphasized the importance of narrative framing rather than portraying whey as waste; it should be marketed as a valuable by-product of cheese. Such repositioning can increase consumer confidence and unlock demand-driven value addition opportunities.

The discussion reiterated that consumers were overall positive and curious about whey-based products. A key takeaway was the need to tailor products and packaging to different consumer segments while positioning whey as a functional, nutritious ingredient. Stakeholders were urged to become "whey-obsessed," echoing the closing remark by Prof. Bebe.

Prof. Bockline Bebe from Egerton University had a good presentation on animal feed challenges and the role of whey valorization in addressing some of the challenges. This session addressed Kenya's persistent challenges in the animal feed sector and the potential role whey could play in bridging the protein deficit. Kenya requires an estimated 55 million metric tonnes of animal feed annually, yet only 40% of this demand is met. When post-harvest losses and farm-level data are factored in, the deficit may approach 80%, with similar trends noted in both smallholder and large-scale systems. The country's livestock sector, especially poultry and cattle, accounts for over 70% of the feed demand. Prof. Bebe highlighted several structural issues, including seasonal feed availability, high cost and limited diversity of feed ingredients, unreliable quality (notably due to aflatoxin contamination), and an oligopolistic market controlled by a handful of millers despite over 300 players.

Overreliance on maize, soya, and oil cakes limits innovation and resilience. Given these challenges, whey presents a viable and underutilized source of protein that could support feed sector diversification and reduce dependency on conventional ingredients.

Audience members expressed interest in the feasibility of integrating whey into existing feed systems. Prof. Bebe emphasized the need for policy and regulatory alignment to support whey's uptake as a feed additive and noted that resolving foundational supply chain inefficiencies was critical to realizing this opportunity.

Salma Omollo from Egerton University presented on the potential of whey valorization through fermentation to produce protein-rich, lysine-enhanced biomass for animal feed. The process involved fermenting whey to create microbial biomass, with promising results: lysine levels increased from 0.2% to over 10% using bioengineered strains, and protein content rose from 0.7% to 8.5%. The biomass also demonstrated an improved nutritional profile and good quality, further validating its potential as a nutrient-dense feed ingredient. The findings support the idea of reimagining whey not as waste, but as a "nutritional warehouse" that can support Kenya's transition toward circular economy models. Salma underscored the broader benefits of saving on disposal costs, supporting feed and food innovation, and contributing to local solutions for food security, especially for vulnerable populations such as school children.

Participants raised questions around the potential of the biomass for human consumption, with Salma clarifying that while the current research focuses on feed applications, future innovations could explore food options such as dairy beverages. Queries on the state (liquid vs solid) and bioavailability of lysine indicated a need for further research, particularly in formulation stability and efficacy. Suggestions included exploring partnerships to apply this innovation in school feeding programs and further study into BOVA as an enteric solution for ruminants.

Dr. Dickson Okello from Egerton University examined existing business models used by dairy processors in Kenya to create, capture, and deliver value through whey valorization. Despite high weekly whey output (estimated at over 857,000 litres), less than 1% is currently valorized. Most processors either discard whey, give it to pig farmers, or sell it cheaply, often at KES 1–50 per litre. Valorization, where it does occur, focuses on products such as ricotta cheese and smoothies. The study highlighted multiple models: product life extension models (e.g., converting whey to cheese or yoghurt for middle- and high-income markets), eco-canvas models (prioritizing environmental and social impact), and recovery business models (targeting protein concentrate production despite high capital needs). The presentation stressed the need to shift processors' mindset from viewing whey as an environmental liability to an economic resource. Policy incentives, such as packaging support, certification, and subsidies, were recommended to support business innovation.

The discussion explored the scalability of these models and the potential for targeting health-conscious markets like hospitals and urban consumers. Participants echoed the need for policy support and consumer education to enhance market uptake.

Stanley Karanja from CIAT/Biodiversity Alliance presented a financial cost-benefit analysis (CBA) to assess the viability of whey valorization investments in Kenya. Using Monte Carlo simulations, the analysis examined 10,000 scenarios per processor, evaluating variables such as labor costs, yield rates, market prices, and capital depreciation. The results revealed that valorization could be highly profitable, with some processors demonstrating strong returns on investment and others showing efficient, low-cost models suitable for small-scale ventures. Key benefits included revenue generation, waste reduction, and broader economic spillovers. Operational costs (labor, transport, machinery) were identified as the most variable, while cheese prices and capital investment had less impact on net profitability. The presentation concluded that whey valorization is a sound financial opportunity, especially if supported by enabling policies such as tax breaks, low-interest financing, and improved market access.

Participants questioned why more processors are not valorizing whey, given the positive economic outcomes. Stanley pointed to capital constraints, operational inefficiencies, and the fact that some processors underreport profits to avoid scrutiny. The conversation also addressed the informal nature of the sector and the importance of transparency and financial literacy to build investor confidence

### **3. Avoiding waste and upcycling side-streams in food processing**

#### **3.1 Food upcycling: circular business models in food manufacturing**

Jackline Kittony from Tetra Pak introduced Tetra Pak as a trusted leading partner in the packaging industry for the dairy and food sectors. Innovation is at the heart of what they do, and they are offering sustainable solutions in the different value streams. She highlighted that her presence in the workshop meant that they support what the VALORISE project is doing and are open to collaboration. In the circular economy, she highlighted that Tetra Pak collaborates with recyclers to convert the disposed packaging into an alternative to wood, and an example of the work they have seen is the desks made from the packs. Capacity building on safe processing and packaging practices is another way they incorporate the circular economy principles, which is a win-win for the whole value chain.

Charles Maina from Olivado EPZ Limited highlighted their avocado export business. In line with the circular economy principles, he shared the activities they undertake; for example, the dirty dark water during processing is heated up, producing biogas, and the heat is used as a substitute for the boilers and heaters. The seed skin is used for soil conditioning, improving the health of the soil. Bad/Rotten avocados are used as plant fertilizers.

Jeppe Greve from Arla Foods Ingredients (AFI) gave a good presentation on how to avoid acid whey side-streams in dairy processing by upcycling and reusing, preventing further waste. At AFI, they creatively describe the capabilities of whey as the Wonders of Whey, which are texturizing, water-binding, and more. He further explained how they have achieved high yield by using the Nutrilac protein, which has significantly prevented food loss in the whole process. Application examples of the high-yield dairy products are cream cheese, Greek yoghurt, etc. Jeppe showcased a video of the high-yield cream cheese processing at their AFI Laboratories.

The processing steps begin with combining butter, cream, and the Nutrilac protein, then heating them together, followed by homogenization and pasteurization, after which it's cooled, culture is added, and lastly stored in a cool place for 3 days for maturity before consumption. He concluded by inviting us to visit the tasting bar and share our feedback on the displayed high-yield product samples: Greek-style yoghurt, high-protein drinking yoghurt, and natural cream cheese.

Throughout the workshop, collaboration was a recurring theme. Comments from various participants reinforced the importance of continued research, cross-sector partnerships, and avoiding fragmented efforts. The KIRDI-SME collaboration on fruit drying was offered as a model to replicate. Stakeholders also stressed the importance of building on existing efforts, highlighting school feeding programs as an immediate opportunity for market entry and impact.

### 3.2 Insights from World Café Discussions

The World Café session allowed participants to engage in deep, rotating conversations focused on three critical themes: business models, product development, and technology and infrastructure. Each table was facilitated by a topic lead, and discussions were documented in flipcharts and group notes. Participants co-created solutions, identified gaps, and reflected on priority actions across timeframes

A. Business Models and Opportunities	B. Product Development and Market Segmentation	C. Technology and Infrastructure Readiness
<p><b>Opportunities:</b> Cottage-level whey product potential, cooperative enabled aggregation and shared marketing and whey valorization aligns with wellness trends.</p> <p><b>Challenges:</b> Fragmented dairy systems hinder investment; processors see whey as waste and small players lack business services and linkages.</p> <p><b>Proposed Action Points:</b> Form processor cooperatives for whey supply, host investor forums with profit case studies, shift from linear to circular whey use, focus on low-cost whey value-added products, B2B cooperatives favored for scalability, B2C for niche, health-conscious consumers and need for collaboration.</p>	<p><b>Opportunities:</b> Tailored whey products for schools, sports, and low-income groups; smart packaging &amp; branding.</p> <p><b>Challenges:</b> Misconceptions of whey as waste; limited local expertise in flavoring &amp; packaging.</p> <p><b>Actions:</b> Consumer education &amp; tasting campaigns; co-design with innovation hubs; partnerships with schools/nutrition programs.</p> <p><b>Market Strategies:</b> Prototypes for target groups; youth- and worker-focused packaging; co-branding &amp; storytelling to reposition whey as wellness.</p>	<p><b>Opportunities:</b> Existing milk systems can be adapted for whey with minimal investment and R&amp;D centers (e.g., KIRDI) offer shared labs and support.</p> <p><b>Challenges:</b> Advanced whey equipment is costly, weak cold chain limits shelf life, few technicians trained in circular processing.</p> <p><b>Proposed Actions:</b> Promote low-cost prototyping and retrofitting of equipment, strengthen SME–R&amp;D linkages (e.g., KIRDI), build processor skills via mentorship and demos and use shared facilities and mobile processing units.</p>

These World Café dialogues culminated in a shared action vision, categorized by implementation timeframe. This content directly informed the Immediate (6-month), Mid-Term (1-year), and Long-Term (2+ years) action areas listed in the Recommendations section of this report.

**3.3 Feedback via Mentimeter**

Throughout the day, participants were encouraged to provide anonymous feedback through Mentimeter. During product tasting, participants ranked whey products on taste, nutritional value, and packaging appeal. Live polling results showed strong interest in value-added whey products, especially high-protein smoothies. Mentimeter also helped capture divergent views and highlight shared priorities, making the discussion more dynamic and data-driven.

**4. Pathways and entry points to harnessing the circular economy in food processing**

**4.1 Plenary Sharing and Q&A**

Plenary sessions were held at several points during the workshop to allow cross-group feedback and surface cross-cutting issues. Participants shared lessons learned from thematic tables, asked clarifying questions, and challenged assumptions. Notable reflections included:

"Fishbowl" Panel Discussion on Research, Industry & Policy Pathways with industry experts and stakeholders.

**Operational & market aspects to be considered by dairy processors when embarking on utilizing whey in their dairy production**

Happy Cow Limited (Yogies & Yolanda) has long promoted the whey value chain.

They support ongoing whey valorisation discussions with stakeholders.

Urged processors to adopt clean energy and lead in strategic marketing to grow the industry

**Which opportunities are present for processors to access suitable and affordable processing equipment and expertise for adding value to whey?**

Promaco is committed to driving value addition in the food industry.

The whey industry is new but rapidly progressing in Kenya.

Current production remains small-scale; large-scale technologies are not yet viable.

Growth depends on supporting processors to maximize existing equipment and raw materials.

Promaco formulations are flexible and adaptable to locally available raw materials

### 4.1.1 Industry-focused Q&As

#### 4.1.2 Participants' Remarks and Comments after the Panel Discussion

**Salma:** "More room for research is needed, and she welcomes more Kenyan researchers to join her."

**Dr. Evelyne:** "A ready market is the school feeding program in Kenya, and we should start there as a low-hanging fruit."

**Cristabel:** "KIRDI had a collaboration with SMEs in drying fruits a while back. They are well-equipped with technological support in production. They are partners we can leverage."

**Ziad, Promaco:** "Let us come together and not work independently; that means we are creating extra competition, but if we collaborate, the industry grows."

### 4.2 Sticky Note Reflections and Plenary Feedback

The sticky note reflection activity was designed to ensure inclusive engagement across all workshop participants, including those who may not have spoken during group sessions. By using color-coded sticky notes, individuals were encouraged to contribute reflections, impressions, and concerns anonymously and visually. Each group table was supplied with the following note types:

- 🦋 Butterfly Notes – Captured standout ideas and key messages from sessions.
- 🍏 Apple Notes – Captured a word or phrase that reflected inspiration or provocation.
- 🟩 Square Notes – Captured questions, dilemmas, or uncertainties that remained unresolved.

The notes provided both qualitative and emotional insight into how participants were engaging with the themes of whey valorization. Below is a synthesis of the inputs:



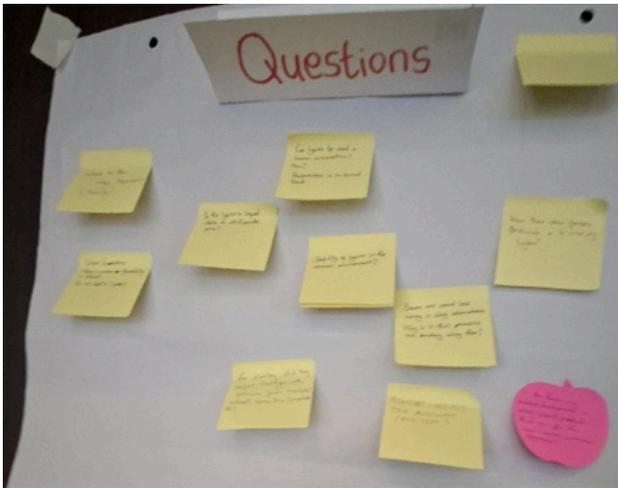
🦋 Butterfly Notes – What stood out:

- "Whey has untapped nutritional and economic value."
- "Repositioning whey is long overdue."
- "Local research should drive post-project innovation."
- "The market is not the problem, processor mindset is."



🍏 Apple Notes – Words or phrases that resonated:

- Waste into wealth
- From liability to opportunity
- Nutritional warehouse
- Valorize to realize



📄 Square Notes – Unanswered questions or issues raised:

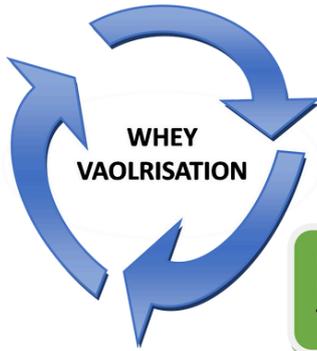
- How can whey valorization models be scaled in informal settings?
- Who will take ownership to sustain momentum after the project ends?
- What is the regulatory roadmap for formalizing whey products?
- Are there success metrics already in place to evaluate pilot initiatives?

**Emerging Themes:**

- The reframing of whey from ‘waste’ to a ‘valuable input’ must be mainstreamed in policy and communication.
- Greater trust and collaboration between research institutions, processors, and the government are necessary.
- Practical questions around policy enforcement, informal sector inclusion, and post-project continuity remain unresolved.
- Processors’ behavior and willingness to innovate are more significant barriers than consumer interest.

These insights served as both a mirror and a magnifier, reinforcing ideas that surfaced in other sessions while sharpening attention on critical, unresolved gaps. The sticky notes became a key participatory method that validated broader insights and deepened the collective ownership of the workshop’s outcomes.

### 4.3 Action points



Immediate (0–6 Months)
  Mid-Term (1 Year)
  Long-Term (2+ Years)

**BUSINESS:** Investor engagement, awareness campaigns, and processor training.  
**PRODUCT:** Consumer education, tasting campaigns, and co-design with innovation hubs.  
**TECHNOLOGY:** Use existing labs for R&D and support low-cost prototyping.

**BUSINESS:** Policy integration and tax/regulatory incentives.  
**PRODUCT:** Diversify and innovate with smart packaging for schools, sports, and institutions.  
**TECHNOLOGY:** Adapt milk-processing equipment for whey applications.

**BUSINESS:** Cooperatives, targeted funding, and continued capacity building  
**PRODUCT:** Pilot whey products in schools, hospitals, and wellness markets.  
**TECHNOLOGY:** Build technical skills and strengthen SME linkages with R&D/innovation hubs (e.g., KIRDI).

### Untapped Opportunities:

- Consumer and Market Opportunities: Positive consumer feedback and diverse/segmented product development - product Innovation.
- Animal Feed: Feed Ingredients- proof of concept.
- Business model/Economic: Value Addition and Product Diversification: Business viability and Growth in the processing sector- job creation & Import substitution.
- Technology Opportunities: Utilization of the same equipment- less capital investment- making it easy for SMEs. Technology Transfer. Learning from countries with mature whey valorisation
- Policy and Regulatory Opportunities: Supportive Incentives: Tax breaks, certification, and affordable financing can further encourage investment.

## 5. Recommendations

Based on the workshop discussions, demonstrations, and feedback mechanisms, the following recommendations emerged as priority actions to support whey valorization in Kenya:

Sector	Recommendation	Person responsible
Policy and Regulation	<p>Finalize and mainstream whey valorization within national circular economy and Kenya dairy sector strategic plan 2023-2027.</p> <p>Introduce tax incentives and supportive regulations to ease market entry for whey-based products</p>	<p>Kenya dairy Board KIPPRA</p> <p>NEMA</p>
Innovation And Technology Transfer	<p>Encourage adaptation of existing milk-processing equipment for whey applications.</p> <p>Strengthen linkages between SMEs and innovation hubs such as KIRDI.</p>	<p>Milk Processors Private sector Investors KIRDI SME's</p>
Market Development and Demand Creation	<p>Launch nationwide awareness campaigns to reposition whey as a nutritious product.</p> <p>Develop market entry points through school feeding programs, hospitals, and wellness markets.</p>	<p>Dairy Cooperatives MOE</p>
Strengthen Business Ecosystems and Investment Access	<p>Facilitate capacity building on business models for circular dairy processing.</p> <p>Develop funding schemes and investor engagement platforms targeting youth and women-led processors.</p>	<p>Private Sector Banks -e.g. KWFT Cooperative bank Ministry of agriculture and livestock development</p>
Enhance Research, Data, and Evaluation	<p>Invest in continued R&amp;D on product development, consumer behavior, and value chain economics.</p> <p>Establish monitoring and evaluation frameworks to track impact and guide scale-up.</p>	<p>KIRDI Egerton University</p>

## 6. Conclusion

The workshop reinforced that whey valorization is not just a possibility, it is a necessity for sustainable dairy development in Kenya. With increasing volumes of whey produced daily and significant interest across sectors, stakeholders are well-positioned to act. By embracing circular economy principles, aligning with national strategies, and fostering multi-stakeholder collaboration, Kenya can turn whey into a driver of improved nutrition, sustainability, and inclusive growth.

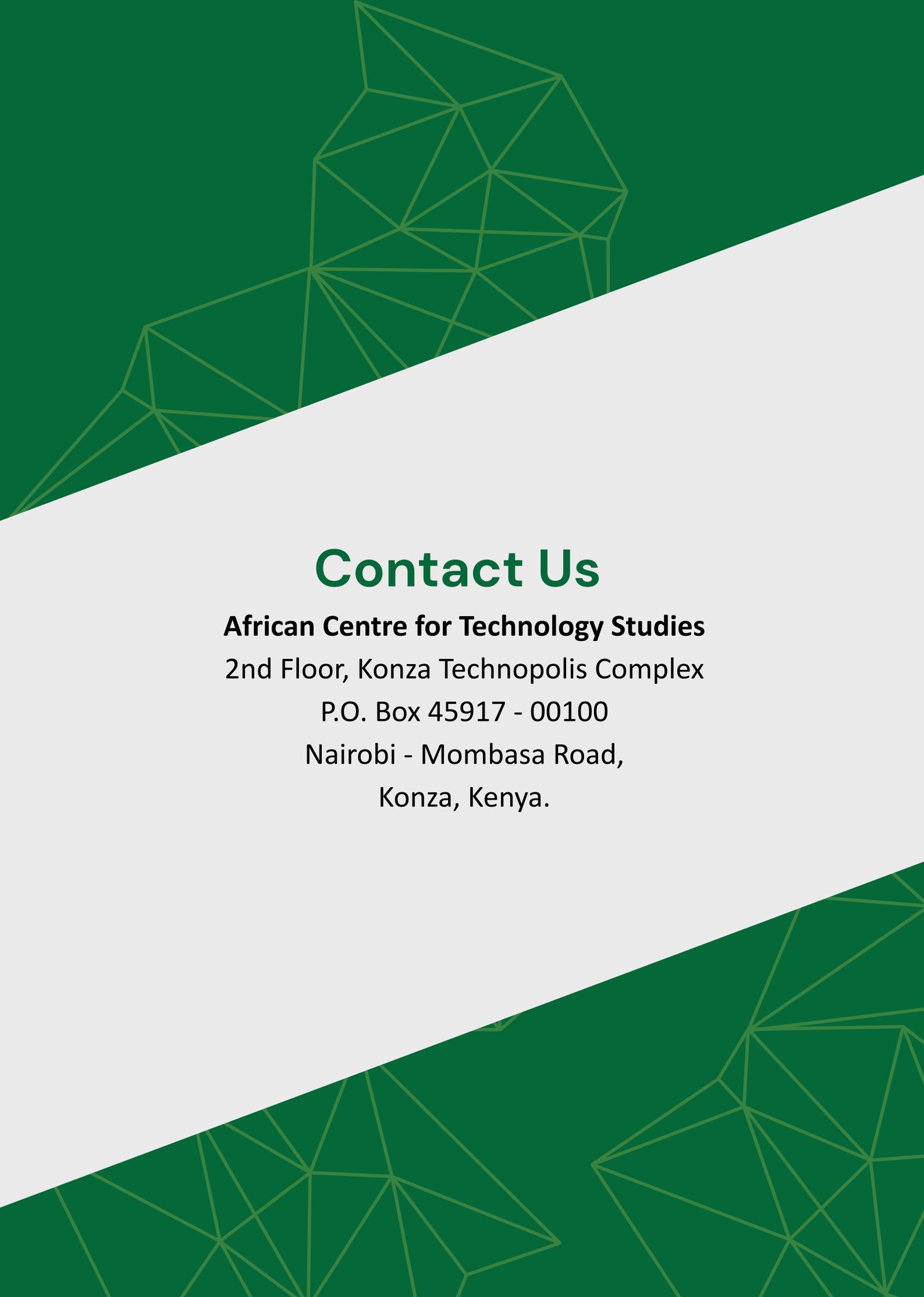
Participants left the workshop with a shared sense of urgency and possibility. The next steps involve implementing the workshop recommendations, strengthening inter-sectoral coordination, and ensuring continued investment in local innovation and capacity building. If successfully executed, whey valorization will contribute to a more resilient, efficient, and equitable dairy value chain.

### **Closing Remarks by Lau Larsen, Executive Director of Promaco**

Lau Larsen began by expressing his excitement about the workshop, particularly the different stakeholders present and the sharing. He recalled their initial years of Promaco, some 25 years ago, when yoghurt was not being produced in Kenya, and the company introduced it to processors to taste and experience.

“We are very lucky to be in this industry; there's so much development opportunity in it”, he said as he explained the social and economic opportunities that the industry can offer in building a better future through valorization, particularly to the grassroots communities in Kenya.

He ended by highlighting that the workshop discussions and innovative actions are pushing the present closer to the future.



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