MERCY CORPS AGRIFIN | ale AGRIFIN LEARNING EVENT


**9TH ANNUAL LEARNING EVENT | OCTOBER 2025**

# Data Driven Trends and Innovations in Africa

Leveraging data and insights to explore investment opportunities, through technology for a future-proof agri-food ecosystems

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# EXECUTIVE SUMMARY

## Background and Context

Since its inception in 2012, Mercy Corps AgriFin (MCA) has worked with partners across Africa and Asia to design, deliver, and scale digital solutions that empower smallholder farmers and agricultural enterprises. Through a combination of technology, data, and finance, AgriFin has sought to close systemic gaps in agricultural productivity, access to finance, and resilience to climate shocks. A key pillar of this mission is the annual AgriFin Learning Event (ALE), a platform that brings together thought leaders, innovators, investors, policymakers, and development partners to share evidence, exchange lessons, and co-create solutions that advance digital transformation in agriculture.

The 9th AgriFin Learning Event (ALE 2025), themed *"Data-Driven Innovations and Investments:Harnessing intelligence to build sustainable, investable Agri-Food Systems,"* builds on AgriFin's commitment to fostering a data-driven, inclusive, and investable agricultural future. Anchored on insights from the *State of the AgTech Sector Report* powered by AgBase, the event reflects on the evolving role of technology in shaping agricultural markets and investment landscapes.

Against a backdrop of climate stress, shifting global funding priorities, and persistent infrastructure gaps, ALE 2025 provides a moment to assess progress, reimagine collaboration, and align strategies for scale. The event convenes over 300 stakeholders from government, private sector, research institutions, and farmer organizations to explore how digital innovation, data intelligence, and coordinated investment can drive Africa's agricultural transformation, turning insights into actionable impact for farmers and agri-SMEs across the continent.

**9th Mercy Corps AgriFin ALE Theme:**

**DATA-DRIVEN INNOVATIONS AND INVESTMENTS:HARNESSING INTELLIGENCE TO BUILD SUSTAINABLE, INVESTABLE AGRI-FOOD SYSTEMS**

**300** stakeholders from government, private sector, research institutions, and farmer organizations

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**The learning event aimed to answer the below questions**

- Where does the AgTech sector stand today in Africa and other emerging markets, and how has it evolved in response to climate shocks, funding shifts, and technological innovation?
- What is working, what isn't, and why? What lessons can be drawn from early implementers of AgTech, FinTech, and AI solutions?
- How can data and digital intelligence be better leveraged to unlock investment opportunities and improve decision-making for agri-SMEs and smallholder farmers?
- What will it take to build a future-proof, data-driven, and inclusive agri-food ecosystem across Africa?
- How can Africa shift from AI adoption to AI ownership, developing its own models, data systems, and digital infrastructure that reflect local contexts and languages?
- How can public and private partnerships be strengthened to create coordination mechanisms that avoid duplication and fragmentation across the agricultural ecosystem?
- What role should governments, investors, and development partners play in scaling sustainable, digitally enabled agricultural systems?
- How can African AgTechs become truly investable? What makes a venture ready for capital, and how can ecosystems support investor confidence?
- What are the enablers and barriers to scaling gender and youth inclusion within digital agriculture and designing innovative AI solutions?
- How can digital public infrastructure (DPI) and open data systems serve as shared foundations for interoperability, efficiency, and equitable growth?
- What leadership and systems capabilities are needed to sustain digital transformation beyond technology, ensuring collaboration, learning, and adaptive governance?

This report provides learning and insights from the discussions and presentations which came out during the learning event. The report format and structure follows the sessions flow while answering the learning agenda of the event.

**Opening Session**

## Outcome of the Opening Session

The opening session was designed to have key note speakers and a presentation. The session aimed at providing the global view of the sector while also addressing the learning agenda of the event. We present the key learning from the two sub sessions.

### a. Key Learnings from the Opening remarks

- Africa's agricultural transformation depends on mobilizing informal community savings and converting them into structured, investable community risk funds.
- Partnerships that blend traditional solidarity models with private-sector efficiency can unlock sustainable financing and local resilience.
- Agricultural data infrastructure remains the missing link; digitized, connected systems can de-risk lending and improve access to affordable credit.
- Locally led innovations, such as Lersha, show that context-specific, integrated platforms can connect farmers to finance, markets, and inputs.
- Reimagining investment flows and reducing dependency on external financing will empower communities to own their economic growth.

### b. Key Learnings from the Global State of Digital Agriculture Report

- Digital agriculture investment remains concentrated in fintech-style ventures, leaving a "missing middle" where most agri-SMEs and ones that are women-led struggle to scale.
- Ecosystem maturity, policy stability, financial infrastructure, and digital literacy, determines the success of AgTech innovation.
- Kenya's ecosystem thrives on collaboration, proving that strong networks can offset incomplete enabling conditions.
- Smallholder inclusion is both a moral and commercial imperative; solutions must reach those earning less than $5 a day.
- Investors are shifting focus from speed to context awareness, funding ventures that balance profitability with inclusion and climate impact.


## Outcomes of Session 1:Bridging the Investment Gap:Unlocking Capital and Innovation for Agri-SMEs, Keynote and Fireside Chat

This session explored how to bridge the gaps between investors, Agri-SMEs, and smallholder farmers; reimagine funding models for Africa's unique context; and strengthen the nexus between agriculture, climate resilience, and inclusive development. The session objectives included:a) Identify solutions, technical, social (including gender), and ecosystem-level—that can bridge the gap between investors, Agri-SMEs, and smallholder farmers, ensuring better alignment of needs, objectives, and outcomes. b) Explore financial strategies that address Agri-SMEs' dual challenge of driving innovation while building sustainable ecosystems, particularly in the face of a shifting global investment landscape. c) Examine lessons learned at the intersection of climate change, Agri-SME innovation, and ecosystem funding, with a focus on opportunities for climate-smart investment, and d) Assess regional funding gaps and identify pathways to close these gaps.

Key learning from the sessions included:

### a. Key Learnings on Keynote and Fireside Chat (Session 1)

- The agricultural financing gap stems from structural barriers, not capital scarcity.
- Building accurate, interoperable data systems is crucial for de-risking lending and expanding financial inclusion.
- Value-chain-specific financial instruments (input credit, trade finance, working capital) increase relevance and reduce default risk.
- Collaboration among banks, fintechs, and regulators can create credible farmer credit profiles.
- Financial sustainability depends on balancing innovation with strong governance, compliance, and financial literacy.

### b. Key Learnings on Enabling Environment and Infrastructure, Session 1 Round table 1

- Supportive, predictable regulation attracts investment and fosters innovation.
- Public investment in broadband, power, and data systems is the backbone of agricultural digitalization.
- Lowering compliance costs and harmonizing national and county policies will improve scalability.
- Incentives for youth and women's participation are critical to creating inclusive innovation ecosystems.

### c. Key Learnings on Supply Side – Structuring Inclusive Investment and Capital Models, Session 1 Round table 2

- Blended and patient capital is essential to bridge the early-stage "valley of death."
- SACCOs, cooperatives, and micro-finance institutions can serve as trusted intermediaries for smallholders.
- Data transparency and standardized reporting reduce investor risk and encourage long-term engagement.
- Financing structures must accommodate small ticket sizes and flexible repayment aligned to agricultural cycles.

### d. Key Learnings on Demand Side – Aligning AgTech Solutions to Farmers' and SMEs' Needs, Session 1 Round table 3

- Farmer-centric design, based on local realities, seasonal incomes, and digital literacy, is key to adoption.
- Bundling services (finance + advisory + markets + insurance) drives stronger user retention.
- Continuous user feedback loops and co-creation improve product relevance and trust.
- Inclusion requires designing affordable, multilingual, and gender-responsive digital interfaces.

### e. Key Learnings on Climate and Resilience – Scaling Climate-Smart AgTech Models, Session 1 Round table 4

- Climate-smart agriculture must move beyond pilots to commercially viable, scalable solutions.
- Localized climate data and predictive analytics improve decision-making and risk management.
- Partnerships with insurers, governments, and research institutions enhance the reach of climate-linked finance.
- Integrating gender and youth lenses strengthens the inclusivity and sustainability of contextually relevant climate-smart solutions.


## Outcomes of Session 2 :Harnessing Emerging Technologies to Unlock Investments for Agri-SMEs:Cross sectional convergence (AgriTech-Fintech-AI synergies)

With little doubt, AI holds the key to future innovations. Agriculture in sub-Saharan Africa is one of the sectors which scientific publications and industry conversations have identified and heavily weighed in on the critical role of data analytics, Machine learning and AI in solving the industry problem. Inadequate extension services, lack of credit score, poor supply chain, agri-SMEs, savings, agricultural insurance, borrowing and agricultural markets are just some of the agricultural subsectors in need of Data Analytics, machine learning and AI. Some of the deployment challenges in AI for AGRI-SMEs include:a) Infrastructure:Uneven development, unreliable power and connectivity, b) Talent:Gaps in AI, data science, and ML knowledge, particularly among women and youth, c) Data:Lack of clean, accessible data for training AI models, d) Investment:Insufficient funding for AI adoption and DPI development, and e) Contextualization:AI solutions need to be customized for African agricultural contexts. On the other hand, there are critical opportunities for AI and Agri-SME. These includes:a) The potential of AI revolutionizing Agri-food systems if investment, DPI, talent, and resources are aligned, b) Investments in power, connectivity, and talent in unlocking AI potential, c) The potential of Public-private partnerships (PPPs) in closing infrastructure gaps and d) Audience engagement emphasizing on both AI benefits and current deployment challenges. As such the session sort to address the following objectives:i. To explore strategies for bridging infrastructural gaps derailing AI innovation for Agri-SMEs in africa, ii. To explore strategies and investments for Scaling African AI for Agriculture through Investments in Talent, Infrastructure, and Innovation to Transform Agri-Food Systems and iii. To explore possible use cases for advisory and investment opportunities with a focus on AI and geospatial innovations at Agri-SME level.

Key learning from the sessions included:

### a. Key Learnings on The AI Rollercoaster and Africa's New Frontier

- AI offers transformative potential for prediction, advisory, and efficiency in agriculture.
- Localization—training AI models in African languages and data contexts, is critical for adoption.
- Affordable connectivity and cloud infrastructure remain prerequisites for scaling AI solutions.
- Collaborative frameworks between public, private, and research sectors can prevent duplication.
- Ethical use of AI and data privacy must be prioritized to protect farmers' trust and agency.

### b. Key Learnings from Framing the Investment Gap Session 2 presentation

- Agri-SMEs face persistent financing gaps despite the growth of AgriTech solutions.
- Digital tools can de-risk agricultural lending through data analytics and predictive modeling.
- Interoperable platforms improve transparency and attract investors.
- Connectivity and data quality remain key barriers to digital investment readiness.
- Financial innovation must align with farmers' cash flow realities and seasonal cycles.
- Governments and development partners should co-invest to crowd in private capital.

### c. Key Learnings from AI for Africa's Traditional Markets Session 2 presentation

- AI can formalize informal market systems and improve traceability.
- Data-driven insights enable fairer pricing and better risk management.
- Localized AI applications can enhance market efficiency and inclusivity.
- Bridging traditional markets with digital finance expands credit and insurance access.
- Building trust in digital systems is critical for adoption in informal value chains.
- Partnerships among traders, financiers, and tech innovators unlock new investment corridors.

### d. Key Learnings from Session 2 Panel Session

- AI must serve real farmer needs, not just demonstrate technical sophistication.
- Decision intelligence is more valuable than raw data accumulation.
- National AI advisory platforms can serve as public goods for agriculture.
- Gender and language inclusion enhance usability and scale.
- Policy incentives, such as tax breaks and innovation sandboxes, catalyze local AI growth.
- Institutionalization of last-mile agents strengthens adoption and investor confidence.
- Collaboration across FinTech, AgriTech, and AI ecosystems drives sustainable impact.

Session 3

## Session 3 - Strengthening Ecosystems:Coordination and Partnerships for Scaling AgTech

This session sought to:(i.) To explore ecosystem solutions which facilitate collaboration and coordination for a uniform collective investments and growth of Agri-SME Ecosystems, (ii.) Present the vision, design, and value proposition of the Kenya PPP Facility, (iii.) To understand what investors and corporates require before committing long-term resources, and how the Facility can de-risk and crowd-in such investments, (iv.) Engage with initial Agtechs demonstrating innovation, investor readiness, and alignment with ecosystem priorities, (v.) Identify concrete opportunities for donor, government, and investor alignment within the Facility, (vi.) To identify the services and structures AgTechs most need to move from innovation to commercial viability, and explore how the Facility can fill gaps while avoiding oversupply of unnecessary support, (vii.) To explore modalities for Collaboration, partnership and coordination for Investment on Ecosystems for Agri-SME at Investors Level given the shifting policy change affecting donor funding flow, and (viii.) To explore the modalities and strategies for designing and operationalization of collaboration and partnerships for Innovations for Agri-SMEs.

*Key learnings from this session included:*

### a. Key Lessons Learnt from Keynote Presentation:The Kenya AgTech PPP Facility

- Public–Private Partnerships are essential for scaling AgTech innovations sustainably.
- The PPP Facility bridges the gap between innovators, financiers, and policy actors.
- Government participation de-risks private investment and improves investor confidence.
- Structured co-investment models drive commercialization of digital agriculture solutions.
- Policy frameworks must be flexible to accommodate innovation and emerging technologies.
- Gender-responsive PPPs ensure equitable access and inclusive growth.

### b. Key Lessons Learnt from Roundtable Discussions Prompts:Diagnosing the Gaps and Designing the Future

- Fragmented digital initiatives hinder systemic transformation in agriculture.
- Greater coordination is needed to align national roadmaps with regional and continental strategies.
- Financing gaps for early-stage AgTechs limit innovation and scalability.
- Local data governance frameworks are key to building trust and interoperability.
- Strengthening last-mile connectivity enables equitable participation in digital ecosystems.
- Collaborative innovation platforms can fast-track solution co-creation and policy uptake.

### c. Key Lessons Learnt from Fireside Chat:From Insight to Action

- Implementation of digital roadmaps requires clear accountability and sustained political will.
- Insights from pilots must inform national scaling strategies.
- Capacity development and institutional learning are critical for long-term success.
- Continuous stakeholder engagement ensures adaptability and shared ownership.
- Data-driven decision-making enhances policy responsiveness and resource targeting.
- Translating insights into action depends on committed partnerships and predictable financing.

Masterclasses

## Masterclass 1:Enhancing influence:Systems Leadership for Transformation in Digital Agriculture - Wasafiri Consulting

The session equipped participants with a clear understanding of Systemcraft as a practical leadership tool, enabling them to apply its five dimensions across diverse contexts to tackle complexity and drive change.

**Key Learnings on the Systems Leadership, Masterclass 1**

- Systems change requires leadership that can navigate complexity, not just manage technology.
- Collaboration, adaptability, and shared purpose are the cornerstones of transformation.
- Effective leaders create incentives for coordination and empower collective action across sectors.
- Systems thinking must be embedded in institutions to sustain digital transformation.

## Masterclass 2 - Strengthening Impact Measurement for Agtechs

An overview of the importance, approaches, and indicators to be measured during an impact assessment, indicating how to collect and report data from users cost effectively. In addition, the session will introduce the impact toolkit that seeks to ensure that institutions/Agtechs communicate and share the value of their work through the AgBase platform

**Key Learnings on Strengthening Impact Measurement for AgTechs, Masterclass 2**

- Clear impact measurement is essential for investor confidence and scaling.
- AgTechs must embed monitoring frameworks from inception, linking financial metrics to farmer outcomes.
- Standardized indicators enable comparability and reduce reporting fatigue.
- Building internal capacity in data analytics helps AgTechs articulate their value to funders.

## Masterclass 3:De-risking Last-Mile Distribution and Climate Investment through Agent Network Optimization

The session included a presentation from the Enabling Market Intelligence and Building Engagement (EMBE) project. The project implemented by Alliance of Bioversity International and CIAT, which is part of CGIAR worked to provide data, analysis, and insights into agricultural markets and systems. It involved an audience engagement/ interactive segment.

**Key Learnings on De-Risking Last-Mile Distribution and Climate Investment, Masterclass 3**

- Agent networks remain pivotal to last-mile data collection and service delivery.
- Optimized agent operations reduce transaction costs and improve climate finance reach.
- Incentivizing local agents builds ownership and trust in digital systems.
- Integration of digital tools with human intermediaries enhances adoption among low-literacy users.

**Pitching Session, Marketplace & Exhibitions**

## Reverse Pitching Session

As part of the multi-session program, the Reverse Pitching Session offered a fresh approach to connecting startups with the right capital and strategic partners. It built on ALE's mission to foster collaboration, transparency, and meaningful partnerships across the agricultural innovation ecosystem. The Reverse Pitching Session aimed at redefining the traditional investment pitch format. Rather than startups pitching their ideas to investors, funds, and support organizations present themselves to startups. They shared their funding priorities, investment criteria, portfolio highlights, and the unique non-financial value they bring, such as mentorship, networks, and technical assistance. The session's purpose was to create a transparent, engaging, and collaborative environment where founders can identify the right investor fit early and foster stronger, more strategic partnerships. Given the evolving funding landscape, with donor priorities often overlapping and overall investment levels impacted by shifts in donor-country policies, efficiency in investment allocation was more critical than ever. This format encourages clarity, alignment, and trust-building from the outset. The session objectives included:a) Demystify the investor landscape – Equip startups with insights into what investors look for and how they make funding decisions. b) Facilitate fit-based matchmaking – Help founders connect with investors aligned to their stage, sector, geography, and business model, c) Encourage two-way dialogue – Transform pitching into a collaborative conversation rather than a one-sided exchange, and d) Strengthen the entrepreneurial ecosystem – Build trust, transparency, and long-term investor-founder relationships.

### Key Lessons learnt from the reverse pitching session

- The funding gap in AgTech arises from a shortage of investable, data-driven enterprises, not capital.
- Investors value problem-solution clarity, proven traction, and transparent governance.
- Financial discipline and professional management signal maturity to funders.
- Communication must balance emotion and evidence, "a heart and a spreadsheet."
- Impact integrity is now a core investment criterion alongside profitability.

## Market place and Exhibitions

The event had an elaborate market place and exhibition which attracted over 20 partners. While the session went on throughout the day several learning emanated from the various exhibitions and innovation. The included:

- ➔ Project MOCHA showcased how crowdfunding can mobilize everyday consumers into agricultural investors.
- ➔ AgriGhalla demonstrated the value of commodity-backed finance and digital warehousing.
- ➔ Extension Africa highlighted the role of digitized advisory in bridging farmer knowledge gaps.
- ➔ RHEA and AgriScanAI proved that AI-powered advisory tools enhance precision and accessibility.
- ➔ Lersha and Ketha emphasized integrated service models that merge finance, markets, and mechanization.
- ➔ ISDA's Virtual Agronomist illustrated how AI and remote sensing can deliver hyper-localized advisory at scale.

## Side events:Digital Agriculture Roadmap (DAR)

*Key Learnings on Digital Agriculture Roadmap (DAR), Session 3 Round Robin*

- The DAR demonstrates how coordinated national planning can align actors toward shared outcomes.
- Agri-stacks integrating data, finance, supply chain, and advisory systems drive systemic efficiency.
- Open, interoperable data infrastructure ensures equitable participation of both public and private actors.
- Implementation success depends on clear governance, financing mechanisms, and capacity building.

## Recommendations

### Programming Focus

- Strengthen coordination and data governance across AgTech ecosystems to reduce fragmentation.
- Invest in AI, DPI, and ecosystem analytics as shared digital public goods.
- Expand and professionalize agent networks to anchor last-mile delivery.
- Embed gender and youth inclusion in all program design and funding models.
- Develop blended-finance instruments leveraging local capital from SACCOs, cooperatives, and pension funds.

### Policy and Institutional Focus

- Operationalize national Digital Agriculture Roadmaps with clear accountability frameworks.
- Create neutral PPP coordination platforms to align government, private, and development partners.
- Mainstream digital and AI literacy into agricultural education and extension curricula.
- Support local data hosting and infrastructure to ensure affordability and sovereignty.
- Strengthen ethical, privacy, and data protection frameworks for responsible digital transformation.

# OPENING SESSION

## Keynote speakers/Opening Remarks

### Key Takeaways from the Opening Remarks

**Sieka Gatabaki** emphasized the vast untapped financial potential within Kenya's informal savings and insurance groups, proposing a model to transform local savings into "community risk funds" that build resilience and attract large-scale investment.

He urged a reimagining of solidarity-based finance, blending communal trust with private-sector efficiency to make communities both insured and profit-sharing investors.

**Stewart Collis** of the Gates Foundation reflected on the evolution of the Annual Learning Event into a key convergence platform for digital agriculture innovators and policymakers.

He positioned the 9th ALE as a strategic inflection point focused on integrating AI, climate intelligence, and inclusive finance into smallholder systems.

Collis underscored the Foundation's enduring mission:ensuring that digital and financial innovation tangibly improves livelihoods and food security for smallholder farmers.

**Tamara Cook** of FSD Kenya highlighted data infrastructure as the cornerstone of agricultural financing, stressing that fragmented data systems hinder progress.

She called for stronger agricultural data ecosystems linking farmers, financiers, and policymakers to enable risk-based, affordable lending and inclusive financial policies.

Cook emphasized that information symmetry is not merely technical, it is an equity issue essential for evidence-driven, fair agricultural finance systems.

**Abrhame Endrias** of Lersha showcased how localized innovation and digital platforms can bridge smallholders to formal supply chains through integrated access to inputs, credit, and markets.

**Sieka Gatabaki – Program Director, Mercy Corps AgriFin** set the tone for the 9th Annual Learning Event with a powerful reflection on the untapped financial potential lying dormant within Kenya's informal safety and savings groups. He described how millions of Kenyans contribute small but consistent amounts to community-based funds, capital that collectively amounts to hundreds of millions of dollars, yet remains underleveraged. Sieka proposed an innovative model to transform this idle capital into a "community risk fund," aggregating local savings to build resilience and unlock large-scale investment in rural livelihoods. Drawing inspiration from Warren Buffett's insurance investment model, he challenged participants to imagine mutual insurance systems where contributors are not just insured but also profit-sharing investors.

By blending traditional solidarity mechanisms with private sector efficiency, he argued, communities can own the instruments of their protection and prosperity.

**Stewart Collis – Senior Program Officer, Gates Foundation** followed with remarks that placed the event within the broader mission of the Gates Foundation and the historical evolution of the AgriFin program. He reflected on how the Annual Learning Event had, over the years, become a convergence point for practitioners, innovators, and policymakers committed to harnessing digital solutions for smallholder transformation. Stewart spoke of the Foundation's continued commitment to catalyzing data-driven, scalable innovations that advance resilience and equity in African agriculture. He emphasized that the 9th ALE was not just a moment of reflection but a strategic inflection point, a space to measure progress against past commitments and to align on the next frontier of impact:integrating artificial intelligence, climate intelligence, and inclusive finance into everyday farming systems.

**Tamara Cook – CEO, FSD Kenya** centered her address on the power of information systems as the backbone of agricultural financing and policy reform. She argued that without a coherent data infrastructure, linking farmers, financial institutions, insurers, and policymakers, agriculture will remain an underfinanced and undervalued sector. Drawing on FSD Kenya's experience, Tamara discussed the organization's ongoing work in advancing financial health frameworks and the Agrifin policy agenda, both designed to make agricultural finance more inclusive, transparent, and evidence-driven. She highlighted how digital financial services, when integrated with real-time agricultural data, can enable lenders to understand farmers' true financial behavior and risk profiles, thereby unlocking more affordable credit. Tamara called for greater collaboration across sectors to strengthen agricultural data ecosystems, emphasizing that information symmetry is not just a technical challenge but a matter of equity. By building systems that "understand agriculture for agriculture," she said, Africa can shift from fragmented interventions to coherent financial inclusion strategies that support both smallholders and the institutions that serve them.

**Abrhame Endrias – Founder, Lersha** concluded the opening keynotes by sharing the inspiring journey of Lersha, his pioneering agri-tech platform designed to revolutionize how smallholder farmers in Ethiopia access inputs, financing, and markets. He described how the platform was conceived to bridge the chronic gap between farmers and formal supply chains, offering a one-stop digital service for ordering seeds, fertilizers, and equipment, while also connecting farmers to credit providers and buyers. Endrias highlighted how Lersha's success is rooted in local innovation and contextual understanding, blending technology with human-centered service delivery. By empowering farmers with access and information, the platform has improved productivity, transparency, and market efficiency. He framed Lersha's experience as emblematic of the 9th ALE's vision:transforming agriculture not through isolated tools but through integrated ecosystems of innovation. His remarks resonated with the event's overarching theme of cross-sectoral convergence, showing that when technology, finance, and trust intersect, African agribusinesses can redefine both their local economies and the global narrative on digital agriculture.

## Global State of Digital Agriculture

### Key Takeaways from the Presentation on the Global State of Digital Agriculture Report

**Dario Giuliani** framed the report as a decade-long reflection on digital agriculture's evolution and global interconnectedness beyond Africa.

The report challenges overconcentration of capital in fintech-like agri-techs and calls for more balanced, sustainable investment approaches. Briter and partners like ISF, FCDO, and the Gates Foundation aim to shift from static mapping to ecosystem-level analysis.

**Umang Prabhakar** highlighted that global finance is being reshaped by capital scarcity, climate urgency, and food security imperatives.

The study spans 17 emerging markets and 820 deals worth $3.5 billion, focusing on agri-SMEs and smallholder-centered innovation. Four dominant innovation domains emerged:bio-inputs, nutrition and food loss reduction, climate and nature solutions, and gender inclusion.

Smallholder inclusion was emphasized as both a moral and commercial imperative for scalable AgTech. Equity dominates agri-tech funding at 65%, but blended finance and debt are rising, especially in Africa and South Asia.

Investors now prioritize resilience metrics, solutions that stabilize income, mitigate climate risk, and enhance liquidity. ISF introduced six ecosystem maturity archetypes, positioning Kenya as an "Outperformer" driven by collaboration and social infrastructure. Comparative insights show Indonesia's recalibration post-boom, Kenya's scaling challenges, and Morocco's emerging innovation momentum.

The report urges investors to align capital with context rather than speed, promoting realism over rapid exits. Hyper-local models integrating gender, climate, and literacy outperform imported tech templates. Alternative exits through partnerships and cooperatives are reshaping AgTech sustainability. Data analytics and ecosystem intelligence now serve as strategic differentiators in funding and policymaking.

ISF's ongoing research across 25 countries will deepen global insight into inclusive digital agriculture models. Cross-sector collaboration between data, capital, and lived experience remains essential for equitable agricultural transformation.

A "missing middle" persists, with startups struggling to raise between $500,000 and $1 million for growth. Regional contrasts show Africa's entrepreneurial energy but limited exits, Asia's maturity but saturation, and Latin America's steady balance.

**Umang Prabhakar**

**Scene Setting the Context**

The session was held at Kilimanjaro hall, in a theatre setting. The presentation on the Global State of Digital Agriculture Report, was delivered by Umang Prabhakar of ISF Advisors and facilitated by Dario Giuliani of Briter.

**Global AgriTech Dynamics**

Dario opened the session by contextualizing the report within a decade-long evolution of digital agriculture. He traced Briter's journey from its early days producing ecosystem maps in Africa to becoming a global intelligence platform covering innovation ecosystems from Dhaka to Lima. He explained that the report's purpose is not only to describe investment patterns but also to question the assumptions driving them, particularly the overconcentration of private capital in fintech-like agri-tech ventures, the limited success of scaling startups in low-income markets, and the uneven readiness of ecosystems. Dario shared that Briter Intelligence and its partners, including the Gates Foundation, FCDO, and the ISF, aim to move beyond static mapping toward deeper ecosystem analysis that identifies enabling conditions for sustainable investment. He emphasized that agriculture's digital transformation must be understood not as an isolated tech wave but as an interconnected global phenomenon shaped by climate change, trade realignments, and the push for resilient food systems.

**The Analytical Core:Early Findings from the ISF Report**

Taking the stage, Umang Prabhakar introduced ISF Advisors as an independent think-and-do tank focused on unlocking smarter capital for inclusive agricultural growth. She began by situating the Global State of Digital Agriculture Report within the context of global finance's shifting priorities, where capital scarcity, climate imperatives, and food security have redefined what investors consider "value." The study, co-authored with the AgBase program under the Gates Foundation and FCDO, covers 17 major emerging markets and synthesizes data from 820 investment deals worth $3.5 billion between 2020 and 2023. The report excludes consumer and media tech to focus squarely on agri-SMEs and smallholder-oriented solutions.

## 4 Strategic Domains Driving Agri-Tech Innovation

**Agri-Pharma & Biotech**
Focus on bio-inputs that enhance soil and crop health.

**Nutrition & Food Loss Reduction**
Tech addressing 30–40% post-harvest food losses.

**Climate & Nature Solutions**
Targeting agriculture's 25–30% share of global GHG emissions.

**Gender Inclusion**
Empowering women as key agents of agri-transformation - yet still underfunded.

Umang highlighted four strategic domains that dominate current agri-tech innovation:first, pharmaceuticals for agriculture, biotech and bio-inputs improving soil and crop health; second, nutrition and food loss reduction, where technology minimizes post-harvest losses that account for 30–40% of all food produced; third, climate and nature solutions, addressing the sector's 25–30% share of global greenhouse gas emissions; and fourth, gender inclusion, recognizing women as pivotal agents in agricultural transformation but still underrepresented in investment design. He stressed that digital agriculture's future hinges on inclusive design and smarter capital deployment:"You cannot have scalable agri-tech if you do not reach those earning less than five dollars a day," she said, underscoring that smallholder inclusion is not a social add-on but a commercial necessity.

## Capital Flows and Investment Patterns

Umang's analysis of capital dynamics was particularly revealing. Between 2021 and 2023, agri-tech and farm management platforms, agri-marketplaces, and agri-fintechs absorbed nearly 70% of all global investment into digital agriculture. Equity remains the dominant financing instrument, representing 65% of deal volume, while debt and blended instruments are rising, particularly in Africa and South Asia. However, he noted a troubling "missing middle":startups can raise seed capital or large Series B rounds, but few survive the $500,000 to $1 million growth phase. This gap reflects both investor risk aversion and limited local capital infrastructure. The report found stark differences between regions. Africa, despite high entrepreneurial energy, suffers from limited exits and patient capital, while South and Southeast Asia show more mature ecosystems but face market saturation and overvaluation. Latin America exhibits a balanced profile, with strong export-oriented biotechs and farm digitization platforms scaling profitably.

### Case Examples:Indonesia, Kenya, and Morocco

*Drawing from the report's comparative lens, Umang spotlighted three illustrative markets.*

*In Indonesia, early government-backed mobile platforms and fintech integration drove rapid adoption between 2015 and 2020, but overexpansion and poor governance led to a wave of failures, now prompting a recalibration toward profitability and data-driven finance.*

*In Kenya, mobile penetration, fintech maturity, and a vibrant accelerator ecosystem have propelled digital agriculture forward, with marketplaces and agri-fintechs, such as those supported by FSD Kenya, AGRA, and the NABC, bridging smallholders and formal value chains. Yet challenges persist around scaling from grant-backed pilots to sustainable revenue models.*

*In Morocco, though investment remains modest, early indicators show an emerging innovation culture oriented around irrigation management, soil analytics, and post-harvest logistics, a space ripe for catalytic investment.*

## Ecosystem Maturity Clusters and Comparative Insights

One of the most significant analytical contributions of ISF's work, as Umang explained, was the creation of ecosystem maturity clusters based on five variables:market size, digitalization level, regulatory environment, financial infrastructure, and market education. From this analysis emerged six archetypes:

1. Established Hubs, such as Singapore, which have become regional innovation anchors.
2. Emerging Leaders, like Indonesia, Brazil, and Chile, markets on the cusp of maturity with growing venture depth.
3. Outperformers, typified by Kenya, which succeed despite structural weaknesses due to strong civil society leadership and entrepreneurial networks.
4. Question Marks, including Morocco and others still struggling to convert potential into sustained ecosystem growth.

Kenya's position, Umang noted, is unique:"Even where enabling conditions are incomplete, the ecosystem thrives because of collaboration, between government, civil society, academia, and investors. That social architecture is Kenya's hidden infrastructure." This insight resonated strongly with participants, situating Kenya not only as a national case study but as an exemplar of adaptive innovation under constraint.

## Emerging Themes:Lessons for Investors and Policymakers

As Umang transitioned from data to reflection, she emphasized that success in digital agriculture cannot be defined by speed or scale alone but by alignment. Investors must align capital with local realities and social infrastructures. "In the current cycle," she observed, "the smartest money is no longer the fastest, it's the most context-aware." She summarized four emerging lessons.

- First, investors are beginning to temper unrealistic growth expectations, recognizing that overpressure for rapid exits has undermined governance and product-market fit.
- Second, hyper-local business models, those that integrate climate resilience, gender inclusion, and digital literacy, outperform those importing generic templates.
- Third, alternative exits through partnerships with large agribusinesses and cooperatives are becoming viable, shifting focus from IPO dreams to practical absorption into established value chains.
- Lastly, ecosystem analytics, the capacity to map, measure, and interpret value chain data, is now a differentiator in itself. Funders and governments that invest in open data infrastructure and digital public goods will shape the next frontier of agricultural innovation.

## Looking Ahead:The Next Phase of Research and Collaboration

Umang concluded by outlining ISF's roadmap. Between October and December 2025, ISF will complete in-depth research across 25 countries, including Nigeria, Indonesia, Kenya, Morocco, and Peru, followed by validation workshops and a full report launch at the Global Agri-Technology Summit. She invited the audience to contribute feedback and stories, reaffirming that "no single institution can capture the complexity of this sector alone." The future of agricultural innovation, she argued, depends on cross-sector partnerships that blend data, capital, and lived experience to drive equitable, climate-smart growth.

SESSION 1

# BRIDGING THE INVESTMENT GAP:

*Unlocking Capital and Innovation for Agri-SMEs*

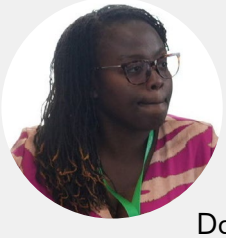
**Key Takeaways from Session 1:Bridging the Investment Gap — Unlocking Capital and Innovation for Agri-SMEs**



**Munyi Nthigah** opened the session by framing the paradox of Kenya's agriculture:it employs over half the population but receives less than 4% of formal credit.

Unlocking capital for agri-SMEs requires addressing structural and perception barriers that make the sector appear too risky to financiers.

**Jared Osoro** from the Central Bank of Kenya highlighted that lending to agriculture remains low due to smallholder informality, market concentration among large banks, and legacy loan defaults. Structural reform, data-driven risk modeling, and policy alignment, not quotas or subsidies, are needed to de-risk agricultural lending.



**Millicent Aoko** of Acumen East Africa stressed that abundant capital exists but remains locked in rigid financial systems unsuited to agricultural realities. She called for value-chain–specific, flexible financing and a shift from "product-market fit" to "problem-solution fit."

Data integration across regulators and financiers is essential to improve risk segmentation, credit pricing, and lending efficiency. Both speakers underscored that fintech partnerships and farmer data can enhance smallholder bankability and bridge the demand, supply mismatch.

## Introduction and Scene Setting

The first session of the 9th Annual Learning Event was introduced by Munyi Nthigah, Chief Executive Officer at Ketha, who set the stage by framing the paradox of Kenya's agricultural finance landscape, where agriculture sustains over half the population yet receives less than 4% of formal bank credit. He emphasized that unlocking capital for agri-SMEs requires confronting the structural, regulatory, and perception barriers that make the sector appear high-risk to investors. Setting the tone for the conversation, Munyi invited panelists to explore why available capital rarely reaches the "last mile" and how innovative financing models could bridge this divide.

The fireside discussion featured Jared Osoro, Financial Sector Economist at the Central Bank of Kenya, who provided a policy and regulatory perspective on systemic constraints, and Millicent Aoko, Investment Manager at Acumen East Africa, who offered insights from an investor's standpoint. Together, they unpacked the persistent "demand-supply mismatch" in agri-finance, the limitations of traditional lending models, and the need for value-chain, specific, data-driven solutions. The conversation established the critical link between policy, private investment, and innovation, setting a rich foundation for the subsequent roundtables that explored inclusive investment, digital infrastructure, and climate-resilient agri-finance models.

## Keynote Presentation/Fireside Chat

The session, moderated by Munyi Nthigah, explored Kenya's complex landscape of agricultural financing, focusing on the persistent under-lending to the agriculture sector despite its outsized contribution to GDP and employment. Munyi opened the discussion by questioning why, despite numerous financing initiatives and policy support, commercial banks still hesitate to lend to agriculture, particularly to agri-SMEs that form the backbone of rural economies. He underscored the paradox that while macro-level capital exists, its flow to the last mile remains limited, with examples such as the European Investment Bank's €100 million agri-financing allocation still lacking clear disbursement frameworks.

Jared Osoro, Financial Sector Economist at the Central Bank of Kenya, provided a regulatory and policy perspective, explaining that agriculture's low lending share, only about 3.5–4% of total bank portfolios, stems from three structural challenges. First, Kenya's agricultural base is heavily smallholder-driven, blurring the line between households and businesses and heightening credit risk. Second, the banking sector is highly concentrated, with five major banks controlling over half the market and favoring large, low-risk "big-ticket" agricultural ventures over smallholder financing. Third, legacy issues from past "mandated lending" policies led to high non-performing loans, currently at over 17%, creating long-term institutional risk aversion. He emphasized that agricultural finance challenges cannot be solved by simply lowering interest rates or mandating quotas; what is needed is structural reform, data-driven risk understanding, and alignment between policy, regulation, and market realities.

From an investor's standpoint, Millicent Aoko, Investment Manager at Acumen East Africa, provided an impact investing lens on the financing mismatch. She noted that while there is capital in the ecosystem, much of it remains locked within intermediaries and traditional banking systems that are yet to adapt to the sector's unique cycles and risks. According to her, most financial institutions continue to rely on rigid models that do not align with the realities of specific value chains, such as aquaculture, whose long production cycles and supply chain complexities rarely fit standard credit assessment frameworks. Millicent stressed that a "one-size-fits-all" approach cannot deliver results in agriculture; instead, flexible, value-chain-specific financing solutions must be adopted. She also pointed to institutional capacity gaps where those negotiating financing agreements often differ from those executing them, creating inefficiencies that slow down capital deployment to agri-SMEs.

Responding to a question from the moderator on how regulators can encourage greater collaboration between commercial banks and fintech innovators, Jared Osoro highlighted that the issue is not banks' unwillingness but a fundamental "demand-supply mismatch." He explained that many farmers do not present "effective demand" because they lack formal business structures or collateral, making them unsuitable for regulated lenders. He noted that fintechs could play a catalytic role in bridging this divide by using data to strengthen the credibility of smallholders and enhance their bankability. However, he added that both sides must build mutual understanding, banks need to design products that respond to actual farmer needs, while farmers must become more familiar with formal lending requirements. Without this mutual alignment, he warned, agricultural lending would remain stagnant at its current low levels.

Delving deeper into solution design, Millicent Aoko introduced the concept of "problem-solution fit" as a more meaningful lens than the conventional "product-market fit." She explained that successful financial models in agriculture are those built around the actual problems farmers face rather than forcing farmers into pre-existing products. Using case examples from Acumen's portfolio, she emphasized that financing needs vary across production stages, ranging from input credit and working capital to post-harvest trade finance. She underscored the importance of timing, tailored capital, and integration across value chains, suggesting that linking farmers to suppliers, aggregators, and off-takers ensures liquidity flow and resilience. She further pointed to the potential of "impact-linked financing," where loan costs reduce as farmers or agri-SMEs achieve set performance milestones, creating shared incentives for success.

On the question of how data can be better shared across government, regulators, and the private sector, Jared Osoro observed that Kenya has made significant progress in data collection through initiatives such as the Integrated Agriculture Management Information System (KIMIS), which profiles over 6.4 million farmers. However, he cautioned that the issue lies not in data availability but in data quality and usability. He called for improved data warehousing and integration to allow lenders to pinpoint risk concentrations across the value chain, whether in production, logistics, or market access. Osoro emphasized that actionable, risk-segmented data can enable banks to adopt risk-based pricing models, ultimately lowering the cost of agricultural credit. He also encouraged investments in digital and analytical capacities within both public institutions and financial players, alongside non-credit financial instruments such as leasing and insurance. He concluded that the adoption of Artificial Intelligence could further enhance agricultural profiling, predictive analytics, and credit decision-making, making finance more inclusive and efficient.

The discussion closed with reflections on the social and impact dimensions of agricultural financing. The moderator cited an example of women tea farmers in Murang'a County who save up to 40% of their income through informal table banking groups and are now seeking ways to digitize their savings for better returns. In response, Millicent Aoko reiterated that true impact should be measured "from the farmer upward." She explained that Acumen's impact evaluation focuses on the ripple effects financing has on productivity, income growth, and livelihoods, particularly among smallholder farmers and agri-SMEs. Her metrics include yield increases, market access, job creation, and revenue multipliers, where each dollar invested generates up to twice its value in farmer or SME revenue. Beyond numbers, she stressed that impact must translate into empowerment and capacity-building, ensuring farmers and enterprises develop sustainable independence rather than dependency on aid or short-term capital.

## Roundtable Discussions

### Introduction and Scene setting

After the fireside dialogue, participants transitioned into roundtable discussions that examined the core levers shaping agricultural financing and innovation across Africa. Four thematic discussions explored how to build an enabling environment and infrastructure for digital ecosystems; restructure investment and capital mechanisms for inclusivity; tailor AgTech solutions to better meet the needs of farmers and Agri-SMEs; and advance climate and resilience models that integrate gender and measurable impact. The objective was to move beyond analysis into actionable recommendations, drawing from real experiences of investors, policymakers, innovators, and ecosystem actors working to unlock capital, strengthen data systems, and drive long-term transformation of agri-finance.

### Roundtable 1:Enabling Environment and Infrastructure

This discussion centered on how to create a policy and regulatory landscape that supports digital and agricultural innovation while nurturing inclusive investment ecosystems. Participants underscored the urgency for policies that are not only timely but responsive to emerging market dynamics. They noted that frameworks such as Kenya's Green Financing Framework remain underutilized despite their potential to channel sustainable investment into agri-finance. There was strong consensus that regulation should be enabling rather than restrictive, particularly for microfinance institutions, fintechs, and new entrants whose compliance costs often trickle down to farmers. Participants proposed targeted incentives to attract private sector investment and foster a competitive, innovation-friendly market.

The conversation also highlighted human capital as a critical enabler of agricultural digital transformation. Despite Kenya's vibrant tech ecosystem, the agri-tech sector continues to suffer from a significant talent deficit. Participants called for decentralization of innovation, urging collaboration between local governments and innovation hubs to reach rural areas where agricultural activity is concentrated. They emphasized that agriculture, though the backbone of Kenya's economy, has not captured the imagination of the youth. To change this, the sector must be rebranded as modern, data-driven, and opportunity-rich. Making agriculture "aspirational" through technology, innovation, and entrepreneurship programs was identified as essential to building a future-ready workforce capable of sustaining the next wave of agri-financial innovation.

**Roundtable 2:Supply Side – Structuring Inclusive Investment and Capital Models**

The second roundtable addressed the persistent financing gap across the agricultural value chain, focusing on how to structure investments that reflect the diversity and scale of players involved. Participants agreed that capital must be designed along a continuum, from micro-entrepreneurs to large enterprises, to ensure inclusivity. Existing financing thresholds, such as the minimum USD 2 million investment ticket, automatically exclude the majority of MSMEs and smallholders who dominate Kenya's agricultural economy. The group proposed the unbundling of capital into smaller, flexible tranches disbursed through intermediaries such as SACCOs, MFIs, fintechs, and agri-tech platforms to increase accessibility and impact.

A major theme was the need for clarity in risk assessment. Participants urged the sector to differentiate between perceived and actual risks in agri-finance and to rely on data-driven evidence rather than assumptions. They emphasized that access to and use of quality data must be improved to inform risk pricing and investment design. Participants also called for experimentation with blended finance models that integrate grants, equity, debt, and catalytic funds—each matched to different business stages and risk levels.

Discussions further explored the potential of emerging technologies such as AI and blockchain to enhance transparency and traceability in agricultural finance. Technology, participants argued, can reduce transaction costs and improve accountability, creating confidence among investors. However, technology must be complemented by strong partnerships, policy support, and data governance frameworks that ensure data protection while promoting accessibility. The roundtable concluded that financing must go hand in hand with technical assistance and capacity building. Strengthening the financial literacy and innovation capacity of Agri-SMEs would ensure that investments drive transformation rather than dependency, paving the way for a creative, partnership-driven, and evidence-led agricultural finance ecosystem.

**Roundtable 3:Demand Side – Aligning AgTech Solutions to Farmers' and SMEs' Needs**

The third discussion explored the persistent misalignment between investors, Agri-SMEs, and smallholder farmers. Participants observed that the agriculture ecosystem often treats farmers as a uniform category, ignoring the spectrum that ranges from commercial producers to subsistence growers. This generalization has resulted in products and financial tools that fail to match the needs of different farmer segments. Participants recommended deliberate farmer segmentation and data-driven profiling to guide the design of relevant and inclusive solutions. They also noted that data collection and presentation remain major barriers, with many SMEs unable to generate or format data in ways that meet investor or lender requirements. This opacity extends to SME operations, leaving investors uncertain about the viability of their business models.

Cultural and structural barriers were also discussed as key impediments to inclusion. Women farmers,

that limit participation in decision-making,access to financial services and fully participating in economic activities. Trust deficits further complicate relationships with government agencies, as farmers fear that data sharing could lead to taxation or misuse. Participants recommended a co-creation approach, engaging farmers as active partners in the design of financial and digital tools to ensure ownership and adoption.

The discussion revealed that farmers value reliability and transparency above all else. They prioritize timely access to markets, finance, and information, and increasingly prefer bundled solutions that integrate multiple services. Understanding value flows across the chain, who earns what, when, and how, was cited as vital for building trust and transparency. On the other side, Agri-SMEs struggle to communicate their value propositions to investors who may lack agricultural context. Tools such as IDH's HMO Business Analytics were mentioned as valuable aids for assessing inclusivity and scalability. However, participants stressed that SMEs must first build internal capacity in data literacy, digital systems, and storytelling to effectively attract investors.

Finally, the roundtable highlighted the need for shared digital infrastructure that connects government databases, AgTechs, and financial institutions. Kenya's existing registries, such as the CALRO farmer database, were recognized as valuable foundations but criticized for being static and underutilized. Participants called for greater interoperability and incentives for data sharing, such as tax reductions for transparent actors, to build an ecosystem of trust and informed decision-making.

**Roundtable 4:Climate and Resilience – Scaling Climate-Smart and Inclusive AgTech Models**

The final roundtable explored how climate-smart agricultural models can be designed for both impact and profitability. Participants agreed that sustainability hinges on whether climate-smart solutions can generate tangible value for both farmers and investors. Rather than being treated as cost centers, such innovations should be positioned as revenue-generating assets that strengthen resilience and competitiveness. They highlighted that when farmers and market players are willing to pay for these solutions, continuity is assured even after donor funding ends.

However, participants acknowledged a misalignment between policy-level climate finance discussions and the realities faced by Agri-SMEs. While numerous global commitments exist, few mechanisms reach small enterprises on the ground. Emerging intermediaries like the GBF Fund were cited as positive examples of how catalytic funding can bridge early-stage financing gaps. Yet, broader reforms are needed to make patient and blended capital accessible to small, impact-driven businesses.

On measurement, participants noted that climate impact metrics are fragmented, varying across donors and sectors. While indicators such as soil health, productivity, and adaptive capacity are common, there is no universal standard. They advocated for context-specific metrics tailored to African agricultural realities rather than one-size-fits-all global templates. Rather than pursuing scale prematurely, a "depth-first" approach, demonstrating

transformative results for smaller groups of farmers, was deemed more credible to investors and more sustainable in the long term.
Data sharing emerged again as a critical enabler for scaling climate-smart solutions. Open, interoperable data ecosystems can reduce duplication, align service delivery, and facilitate integrated programming across donors, governments, and private sector actors. Finally, the roundtable emphasized gender and youth inclusion as indispensable for resilience. Participants cited community-based mechanisms like table banking as powerful, locally-rooted financing models that, if digitized, could scale access and inclusion. They also discussed how political and regulatory decisions, such as Kenya's temporary avocado export ban, though controversial, can play a protective role for local producers when properly designed.

**Closing Reflections – Mike McCaffrey, Regional Digital Manager (East and Southern Africa), UNCDF**

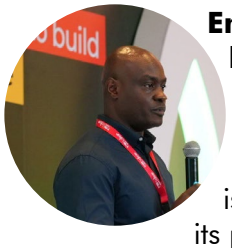
In his closing reflections, Mike McCaffrey commended the vibrancy of the discussions, noting that the optimism and solution orientation stood in sharp contrast to the stark investment data shared earlier in the day. Representing the United Nations Capital Development Fund (UNCDF), he reiterated the organization's commitment to de-risking agricultural investment in least developed countries and supporting inclusive financial ecosystems. McCaffrey highlighted that although access to formal accounts in Sub-Saharan Africa has risen to 70%, only 7% of adults access credit through formal channels, underscoring the gap between financial inclusion and financial depth. He warned that the challenges facing agricultural finance are not imagined; they are structural and deeply rooted in risk, weak infrastructure, and limited credit-scoring capabilities. Despite billions channeled through credit guarantees and development finance lines, real access to credit remains stagnant.
He outlined three priorities for the future of agricultural finance in Africa. First, data-driven innovation and investment, emphasizing that without interoperable, high-quality data, neither digital nor AI-driven solutions can scale effectively. Africa, he noted, still lacks the centralized data infrastructure that powers financial innovation in other regions. Second, the creation of fit-for-purpose financial entities capable of bridging the "missing middle" between small grants and large institutional funding. New models such as Small Growth Business funds, designed to finance SMEs growing steadily but constrained by capital structure, were cited as promising. Third, smarter ecosystem architecture, where shared data, targeted financing, and differentiated product design can address the real diversity of agricultural sub-sectors.
McCaffrey concluded by urging African stakeholders to define their own pathway rather than replicate external models. By linking data, digital tools, and innovative funding mechanisms, he argued, the continent can finally align risk, capital, and impact to build resilient, scalable, and sustainable agricultural finance systems.

SESSION 2

# HARNESSING EMERGING TECHNOLOGIES TO UNLOCK INVESTMENTS FOR AGRI-SMES:

*Cross-sectional Convergence (AgriTech–FinTech–AI Synergies)*

## Key Takeaways from Session 2:Harnessing Emerging Technologies to Unlock Investments for Agri-SMEs



**Emmanuel Makau** traced AI's historical "winters and summers," showing that ecosystem readiness, not just technology, drives transformation. Africa's agriculture is the next AI frontier, with 60% of its population positioned to benefit if digital infrastructure and talent are prioritized.

**Jessica Colaco** emphasized that inclusive investment in women and youth is vital, as equality in access could raise Africa's food output by 30%. Limited digital connectivity and fragmented data remain major barriers to scaling AI across rural Africa.

**Nathanial Peterson** highlighted that agriculture's real challenge is not technology but poor decision intelligence and risk management. Dr. Denis Mujibi called for a national AI-driven advisory service, positioning Strathmore University as a neutral convener for data governance.

**Hafsa Jumare and Jafar Abubakar** showcased AI's power to formalize traditional markets through data-driven coordination and smarter risk assessment. Panelists stressed that human-centered design, particularly addressing gender data gaps, is key to building ethical and effective AI solutions.

**Stewart Collis** reminded innovators to build real solutions for real problems, not just technology for its own sake.

**Alfred Ongere** advocated for enabling AI policies, reduced taxes, and infrastructure support to position Kenya as a continental AI hub.

**Charlene Migwe** underscored that trust and local adoption determine scalability more than technological sophistication.

The masterclass on agent network optimization proved that professionalizing last-mile agents de-risks climate finance and strengthens investor confidence.Behavioral design and gamification improve agent engagement, data reliability, and adoption of climate-smart practices.


## Introduction and Scene setting

Session 2, held at the Kilimanjaro Theatre and led by Emmanuel Makau, explored how Artificial Intelligence (AI), digital finance, and agricultural technology can converge to unlock investment and resilience for Africa's Agri-SMEs. Emmanuel opened the session with a historical framing of AI's evolution, its "summers and winters", to illustrate that technology alone does not drive revolutions; readiness and ecosystems do. He positioned Africa's agriculture as the world's next frontier for AI-driven innovation, where digital infrastructure, data systems, and local talent can transform structural risk into opportunity.

The session brought together a dynamic lineup of experts, each highlighting a crucial pillar of the convergence agenda. Jessica Colaco, CEO of Lintons Foundation, emphasized inclusive investment, calling for intentional funding of women, youth, and underrepresented innovators in Agri-AI. Nathanial Peterson from the Alliance of Bioversity International & CIAT argued that the real challenge is not a shortage of technology but a shortage of decision intelligence, urging the creation of behavioral data systems that enable smarter agricultural choices. Dr. Denis Mujibi of Strathmore's AgriFood Innovation Centre outlined a blueprint for a national AI-driven advisory system grounded in public-good governance. Finally, Hafsa Jumare of CoAmana and Jafar Abubakar of the Nigeria Agribusiness Group demonstrated how AI can transform Africa's traditional markets into data-driven ecosystems. Together, their insights framed Africa's path from AI adoption to AI ownership, anchored in convergence, inclusion, and locally driven innovation.

## The AI Rollercoaster and Africa's New Frontier

Opening the session, Emmanuel Makau captured the audience with a compelling reflection on AI's turbulent history. He recounted the "rollercoaster" decades from the 1980s to the 1990s, during which over USD 400 million in AI investments were made and lost. The second AI summer saw the rise of expert systems, but by 1993, many of these systems proved brittle and unreliable, ushering in a second "AI winter." His message was clear:technological revolutions fail not because of lack of innovation but lack of ecosystem readiness.

Makau argued that Africa now stands at its "last frontier", the opportunity to embed AI in agriculture not as an imported concept but as a homegrown capability. He highlighted that while global AI funding has reached USD 345 billion, Africa's agricultural share remains below 5%, a gap both sobering and motivating. With 60% of the continent's population dependent on farming, he emphasized that AI could be the lever for inclusive economic transformation if supported by the right enablers, smartphone penetration, satellite data, and affordable cloud infrastructure. His framing set the tone for the session's deeper exploration of what it will take to translate digital potential into measurable agricultural impact.

## Framing the Investment Gap

**Jessica Colaco** began by centering her presentation on agriculture's pivotal role in Africa's socioeconomic landscape, asserting that "agriculture is not just an economic sector, it is the backbone of our livelihoods and our future." She emphasized that the true promise of AI lies not only in precision farming or automation but in unlocking new pathways for investment, productivity, and inclusion, especially for women and youth.

Drawing on evidence, she noted that women make up nearly half of Africa's agricultural labor force yet face persistent barriers to credit, land ownership, and digital access. "If women farmers had the same access to resources as men," she stated, "Africa's food production could rise by 30%." Her remarks underlined a critical equity dimension, AI-enabled agriculture will only succeed if it is inclusive by design.

Jessica went on to highlight the missing links preventing AI from moving from promise to product. Only 6% of rural Africa enjoys reliable digital connectivity, while over 600 million people still lack electricity access, according to OECD estimates. Data, the lifeblood of AI, remains fragmented, poorly curated, and inaccessible. Moreover, very few data science programs on the continent focus on agriculture, and even fewer actively engage women and youth.

She warned that without deliberate investment in digital public infrastructure, Africa's AI momentum could easily stall. Comparing investment flows, she pointed out that Agri-AI attracts less than 1% of Africa's total venture capital, while FinTech continues to dominate investor attention. To reverse this, she proposed a strategic investment framework anchored on three pillars, digital infrastructure, data ecosystems, and talent development. Her closing assertion captured the vision of the session:

"If we get the investment right, digital infrastructure plus data plus human talent, Africa will not just adopt AI in agriculture; we will own it, export it, and transform livelihoods at scale."

## Making Better Decisions

**Nathanial Peterson** approached the discussion from a scientific and systems lens, arguing that the continent's challenge is not a shortage of technology but a shortage of decision intelligence. "We have seen decades of agricultural investments," he remarked, "but we keep finding ourselves at the same point." He noted that Kenya alone accounts for 58% of Africa's AgriFoodTech investment flows, yet actual adoption across the continent remains low, uneven, and fragile.

Peterson described agriculture as an inherently risky enterprise, subject to drought, price volatility, liquidity shortages, and behavioral barriers like risk aversion and adoption fatigue. "For individual farmers, these trade-offs are daily," he said. "For agribusinesses and NGOs, they multiply into hundreds of interconnected risks." His message was clear:technology, on its own, does not de-risk agriculture.

He advocated for behavioral decision infrastructure, systems that combine data, analytics, and human psychology to make agricultural technologies more investable. This includes predictive modeling for climate resilience, insurance design based on behavioral insights, and dynamic data systems that track impact in real time. Peterson called for a shift from project-based interventions to adaptive ecosystems, where data is shared and interpreted collectively to prevent the cyclical "fragility" that undermines agricultural progress.

In his closing, Peterson summarized the core argument of his presentation:"Technology is not enough. We need to understand adoption. We need to make better decisions, faster, smarter, and grounded in real behavioral insight, if we are to make agriculture truly investable."

## From Extension to Intelligence

**Dr. Denis Mujibi** grounded his presentation in the lived experience of Kenyan smallholder farmers. Through the story of "Wekesa," a composite smallholder farmer balancing household needs, multiple crops, and uncertain markets, he illustrated the fragility and complexity of rural decision-making. "Wekesa is not short of information," Dr. Mujibi observed, "he is overwhelmed by it, and often, it arrives too late to act on."

He proposed a radical rethink of agricultural advisory services, from fragmented, manual extension systems to AI-driven intelligence networks that anticipate needs, contextualize advice, and learn continuously. Under the banner "Laying the foundation for a national AI-driven agriculture service," he outlined a framework built on four pillars:
platform blueprint and governance, ensuring transparency and interoperability; digital public infrastructure, providing the backbone for scalable solutions; AI advisory pilots and delivery channels, testing and refining real-world models; and sustainable business model prototyping to ensure long-term viability.

Dr. Mujibi positioned Strathmore University as a neutral orchestrator, emphasizing the importance of having an impartial convener that aligns public, private, and research stakeholders around shared goals. He stressed that neutrality is critical to ensure that AI advisory systems serve farmers first, not institutional agendas. His presentation ended with a rallying call:"Kenya's AI advisory system can only thrive if it is built as a public good, designed for farmers, powered by data, and governed with integrity."

## AI for Africa's Traditional Markets

In a joint presentation, **Hafsa Jumare** and Jafar Abubakar brought the conversation from research and infrastructure to the realities of Africa's traditional markets, where most food trade still occurs. Hafsa began by illustrating the enormous AI opportunity embedded in Africa's informal market systems, which generate millions of data points daily, market transactions, produce deliveries, call center logs, weather updates, community relations, and logistics records.

She described an ecosystem where this raw data flows through cloud-based processing engines, connecting to AI-powered analysis platforms that deliver actionable insights on pricing, risk, and market options directly to informal traders and farmers. Her flow of logic mirrored a data flowchart, from data generation to cloud processing to actionable intelligence, demonstrating how even traditional markets could become data-rich ecosystems if supported by smart infrastructure.

**Jafar Abubakar** extended the discussion to AI use cases such as market clearance (reducing food loss), risk-adjusted pricing, fit-for-purpose credit, and equitable insurance. He explained that AI could transform how markets coordinate, turning fragmented data into a coordination power that links producers, traders, and financiers through real-time intelligence.

He framed the NABG's role as central to this transformation, describing how structured data can enable smarter decisions across the ecosystem:

| NABG Role | Insight Adds | What This Means |
|---|---|---|
| Business Development | Spots market entry gaps and links right partners | Faster expansion, reduced friction |
| Investment Guidance | Shows strong corridors, prices, and volumes | Lower risk for capital and credit flows |
| Policy Advice | Provides live data on trade and logistics | Evidence-based regulations and incentives |
| Member Services | Offers easy dashboards, briefs, and training | Better decisions, smoother markets |

Together, Hafsa and Jafar's presentation offered a vision of AI democratizing access to intelligence, bridging the gap between the formal and informal sectors. Their narrative was not just about technology, it was about coordination, equity, and transforming traditional markets into engines of transparent, data-driven growth.


## Panel session

**Panelists:**

- Alfred Ongere – Founder and CEO, AI Kenya
- Charlene Migwe – Program Director, Caribou Digital
- Dr. Shiko Gitau – Founder and Managing Director, Qhala
- Stewart Collis – Senior Program Officer, Digital Solutions, Agricultural Development, Bill & Melinda Gates Foundation

**Session Overview**

The panel discussion served as a powerful synthesis of the day's themes, anchoring abstract conversations on AI, data, and innovation into the grounded realities of African contexts. Moderated in an open Q&A format, the dialogue explored three critical dimensions:trust and human-centered design, market readiness and talent development, and policy and investment coherence. Panelists drew deeply from their professional experience, ranging from policy advocacy and venture investment to technical innovation, to confront the fundamental question:What will it take for AI to become both ethical and impactful for Africa's agricultural transformation?

**Human-Centered Design and the Gender Data Gap**

Dr. Shiko Gitau opened with a powerful reflection on the human dimensions of AI, emphasizing that innovation cannot thrive without understanding who it serves. Drawing from her work at Qhala, she questioned the prevailing "gender-blindness" in technology design. "We keep building AI for women farmers," she observed, "but the question is, are we building it with them, or for them?" She cited studies showing that over 80% of Africa's smallholder farmers are women, yet most agricultural applications fail to reflect their realities, from interface usability to language, mobility, and time constraints.

Dr. Gitau shared insights from a morning session with over 100 women, highlighting how AI applications and datasets routinely exclude data that could serve women's health, productivity, and economic participation. "The challenge isn't just data gaps," she argued, "it's design bias." She shared an anecdote from her graduate days, recalling the creation of a mobile app that technically "worked perfectly" but failed in the market because women found it impractical to use. The lesson, she said, was clear:human-centered design must extend beyond function to lived experience.

She also announced Qhala's new initiative IDIA (Inclusive Digital Innovation for Africa), a fellowship focused on training women in AI research to develop solutions by women, for women. Her closing reflection underscored a central truth:technology succeeds not when it is advanced, but when it is empathetic. "Before we talk about algorithms," she said, "let's talk about understanding the people we want to serve."

### Bridging the Trust and Awareness Gap

**Dr. Gitau**'s reflections segued into a broader conversation on trust and public understanding of AI, highlighting the gap between developers' intentions and end-user perceptions. She humorously shared how her father, a pastor, initially dismissed AI as "the devil's work" (the infamous "666") because he could not comprehend its logic. "If he thinks that," she asked, "how many in his congregation think the same?" The audience laughed, but the message landed deeply:without awareness-building and cultural translation, AI will remain misunderstood, feared, or misused.

She argued that while Africa's developers are pushing technical boundaries, the social adoption curve remains slow because communities have not been adequately trained or included in the journey. "We keep writing code and prompts," she said, "but we forget to train the markets that will use them." The misunderstanding of AI as "a brain without a body" exemplifies a broader literacy gap that must be addressed through deliberate public engagement, digital education, and localized storytelling.

### Investor Lens:Real Problems, Real Adoption

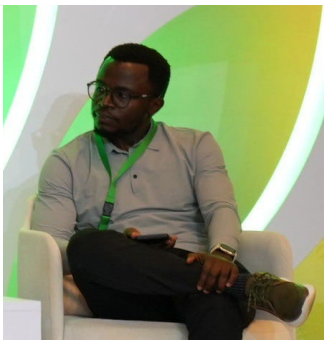
**Stewart Collis** brought in the investor and development partner perspective from the Bill & Melinda Gates Foundation, grounding the conversation in pragmatic realities. He cautioned that many AI ventures today risk falling into the same hype cycle as blockchain did years ago, where technology leads the narrative rather than genuine problem-solving. "Every proposal we get now mentions AI somewhere," he noted, "but the first question I ask is, does this problem actually require AI? Could it just be solved with a database?"

Stewart emphasized that investors look beyond technical novelty to authenticity and necessity. What matters most, he said, is whether an innovation addresses a real, hard problem that improves livelihoods at scale. "We've seen USD 1.5 billion invested in African AgTech over the last decade," he reminded the audience, "yet adoption rates rarely exceed 10%. That tells us the problem isn't technology, it's adoption."

He encouraged innovators to focus on scalability, contextual relevance, and economic logic, not just technology architecture. He also pointed to the potential of language AI, large language models that can process and translate multiple African languages, as one of the most promising areas for agricultural inclusion. "If we can make AI speak the languages farmers use every day," he said, "we can reach a billion people."

Stewart concluded by underscoring that the future of AI innovation will depend on Africa's ability to localize global technologies, to integrate tools like machine learning and natural language processing into homegrown solutions that make sense at the farm level. "The technology is global," he said, "but the use case must be local."

## Policy and the Power of Enabling Ecosystems



**Alfred Ongere**, Founder and CEO of AI Kenya, shifted the discussion to the policy and infrastructure prerequisites for sustainable AI ecosystems. He stressed that while innovation is thriving, the regulatory environment remains fragmented and, at times, counterproductive. "We need governments that understand AI, not to over-regulate it, but to enable it."

Alfred advocated for strategic incentives to make AI innovation more viable, reduced startup taxes, lower data hosting costs, and infrastructure subsidies. He cited Kenya's example of reducing taxes for IT companies, which catalyzed its rise as a global outsourcing hub. "Imagine if we did the same for AI startups," he said. "We could turn Kenya into the continent's AI capital."

He highlighted energy and connectivity as fundamental enablers. With Kenya's renewable energy potential, Alfred envisioned the country becoming a cloud infrastructure hub for Africa, hosting data centers that power not just local applications but regional AI models. However, he warned that this vision requires careful balancing of policy, energy pricing, and local participation to prevent dominance by large tech firms at the expense of local innovators.

On the regulatory front, Alfred cautioned against prematurely "licensing" AI operations, a move that could stifle young developers. "We must avoid creating barriers for the small players," he insisted. Instead, policies should open access to computing power, reduce electricity and internet costs, and establish AI innovation zones that provide shared access to GPUs and data. "Africa has the smartest youth," he said, "but we're losing momentum because we haven't built the labs, data hubs, and research centers to harness that brilliance."

## Building Market Confidence and Future Trends

**Charlene Migwe** of Caribou Digital built upon these points by focusing on the market and behavioral dimension of AI investment. She emphasized that innovation will only scale when markets trust it.

"We can't build for adoption, we must build with adoption in mind from day one."

For her, training and inclusion are as important as technical innovation. The next wave of progress, she argued, will come not from adding more pilots but from building demand-driven ecosystems that connect AI research, private investment, and local entrepreneurship.

She also highlighted the need for African governments to become early adopters of homegrown technologies. "Our innovators are producing world-class solutions," she said, "but too often, they have to go to Asia or Europe for validation." By consuming local innovation, procurement, data partnerships, and regulatory sandboxes, governments can catalyze confidence in African-made AI systems.

Looking ahead, she projected three dominant trends:the rise of local compute infrastructure, the formalization of Africa's AI training pipelines, and the growth of regional innovation alliances to share resources across markets. These, she suggested, would be essential for converting Africa's abundant talent into tangible economic and social outcomes.

## Convergence and Closing Reflections

In the closing moments, the panelists converged on a shared vision:Africa must shift from AI usership to AI authorship. The region already has the raw ingredients, youthful talent, diverse data, and strong networks, but needs deliberate investment in market readiness, computational access, and localized governance frameworks.

Stewart Collis summarized it succinctly:

"It's simple. Be clear about the problem you're solving. Technology is only as valuable as the impact it delivers."

Dr. Gitau reinforced this, reminding innovators that empathy is innovation's foundation. "Africa doesn't need more apps," she said. "It needs more understanding."

Alfred Ongere closed with optimism, predicting that within the next five years, Africa could host globally recognized AI hubs, if policymakers, developers, and investors collaborate with intentionality. "Talent is our most abundant natural resource," he said. "Let's stop exporting it, let's build around it."

The panel ended with resounding applause, encapsulating a consensus that the future of AI in African agriculture will depend not just on algorithms, but on alignment, alignment between technology and people, innovation and policy, vision and action.

SESSION 3

# STRENGTHENING ECOSYSTEMS:

*Coordination and Partnerships for Scaling AgTech*

## Key Takeaways from Session 3:Strengthening Ecosystems – Coordination and Partnerships for Scaling AgTech

Kenya's Digital Agriculture Roadmap (DAR) was unveiled as a unified framework to harmonize digital investments and coordination in agriculture. The AGRI Stack pillars, Digital Infrastructure, Advisory, Supply Chain, and Finance, anchor Kenya's shift toward integrated, data-driven agriculture.

Strong government stewardship and partner alignment are essential to reduce duplication and fragmentation in AgTech initiatives. Over USD 150 million in catalytic investment was pledged toward scaling digital agriculture and farmer adoption.

The Agricultural Information Research Center (AIRC) was established as the national coordination and monitoring hub for DAR implementation. The proposed Kenya AgTech PPP Facility aims to bridge ecosystem gaps by aligning data, partnerships, and financing under one neutral secretariat. Kenya's AgTech landscape "scales wide but not deep," highlighting the need for sustainable growth beyond donor-funded pilots.

Shared data platforms and standardized reporting can reduce due diligence costs and improve investor confidence. Blended finance and working capital are critical for AgTechs to survive the "valley of death" between grants and commercial funding.Peer-to-peer networks and certification systems are needed to foster credibility, collaboration, and market access.

Inclusion efforts must go beyond participation to ensure women and youth gain equitable access to markets and benefits. The Systemcraft Masterclass emphasized that technology alone cannot transform systems, adaptive, collaborative leadership is equally vital.

Delegates recognized that solving complex agricultural challenges requires systems thinking, not isolated technical fixes. Real-world case studies showed that aligning incentives, narratives, and collaboration can shift entrenched systems toward transformation.

## Introduction and scene setting

The third session of the Learning Event, led by the Ministry of Agriculture, Kenya, brought together a powerful coalition of public and private actors to unveil the Digital Agriculture Roadmap (DAR), a government-led framework designed to drive Kenya's agricultural transformation through digital coordination and investment alignment. With support from the World Bank, Bill & Melinda Gates Foundation, and Boston Consulting Group (BCG), the DAR was presented as a unifying architecture to overcome fragmentation, duplication, and inefficiencies that have long hindered agricultural digitalization. Structured around a four-pillar "AGRI Stack", Digital Public Infrastructure, Advisory & Extension, Supply Chain & Traceability, and Finance & Markets, the roadmap envisions an integrated ecosystem that connects farmers, financiers, and markets through shared data, interoperability, and innovation.

The session, moderated through a Partner Round Robin, featured insights from key collaborators such as MasterCard, FAO, Google, and FCDO, each demonstrating how their initiatives align with and advance DAR's strategic pillars. Together, these partnerships pledged over USD 150 million in catalytic investment and committed to enabling 40% of farming households to adopt digital tools. Opening remarks from senior Ministry officials emphasized that Kenya's agricultural future hinges not on more pilots but on stronger partnerships, data-driven coordination, and government stewardship. By positioning the DAR as both a coordination framework and an investment magnet, the session set the tone for a new era of ecosystem-driven, technology-enabled agricultural transformation, anchored in inclusivity, accountability, and shared national purpose.

## Presentation and Partner Round Robin:Digital Agriculture Roadmap (DAR)

### Detailed Session Insights

The session opened with remarks from senior officials at the Ministry of Agriculture, who reiterated agriculture's centrality to Kenya's economy and rural employment while acknowledging persistent inefficiencies and siloed initiatives. The Digital Agriculture Roadmap was presented as the government's primary coordination instrument to harmonize investments, avoid duplication, and ensure accountability in the transition toward a digitally integrated agricultural sector.

### The Vision and the "AGRI Stack"

At the heart of the DAR lies a farmer-centric vision, to enhance productivity, income, and resilience through digital integration across value chains. This vision is operationalized through four strategic pillars:

**Pillar 1:Digital Public Infrastructure (DPI) –** Establishing interoperable digital systems that serve as the foundation for the entire ecosystem. Key use cases include an enhanced Farmer Registry that integrates crop, livestock, and fisheries data, and Integrated Soil Maps to guide precision agriculture. The DPI work is aligned with the National Digital Public Infrastructure Roadmap under the Ministry of ICT to promote coherence.

**Pillar 2:Advisory & Extension –** Delivering hyper-personalized, actionable agricultural information. Innovations include AI-enabled advisory systems, localized weather forecasting (leveraging projects like WISA supported by FCDO), and data-driven insights that translate raw datasets into practical, farm-level decision tools.

**Pillar 3:Supply Chain & Traceability –** Ensuring efficiency and integrity in agricultural exports through EUDR compliance systems for global trade and a Livestock Identification and Traceability System (LITS) to improve disease control and product traceability.

**Pillar 4:Finance & Markets –** Expanding access to finance and market opportunities by digitizing SACCOs and Farmer Business Organizations (FBOs), strengthening governance and data quality, and linking farmers directly to credit, insurance, and market access through digital platforms.

### Targeted Outcomes and Enablers

The Ministry outlined ambitious yet measurable targets:

- **Coordination:**Establish a single national framework to align ecosystem actors and reduce duplication.
- **Investment Mobilization:**Channel approximately USD 150 million in coordinated investment toward digital agriculture.
- **Adoption and Employment:**Enable 40% of farming households to actively use validated digital tools, creating both farm and off-farm digital jobs.
- **Cross-Cutting Enablers:**Policy alignment, strong governance structures, and enhanced digital literacy for farmers and extension agents were identified as key accelerators of success.

### Aligning Initiatives for Collective Impact

The round robin segment highlighted how development partners and private sector players are aligning their initiatives to the DAR framework. The Agricultural Information Research Center (AIRC) was announced as the Project Monitoring Unit and coordination hub, tasked with ensuring harmonization, progress tracking, and accountability across all DAR-related efforts.

| Partner/ Organization | Representative & Initiative | Alignment with DAR Pillars |
|---|---|---|
| World Bank Group (IFC / CGAP) | Leading policy reforms and digitization of SACCOs and FBOs to enhance data quality and unlock financing for smallholders. | Finance & Markets, DPI |
| MasterCard (MADE Alliance) | Spearheading the *Mobilizing Access to the Digital Economy (MADE) Alliance* to digitize 100M micro-entrepreneurs. Providing the *FarmPass* platform for digital farmer profiling. | DPI, Advisory & Extension |
| FAO (EOSTAT Initiative) | Offering geospatial and Earth Observation technical support, generating high-resolution crop maps for credit scoring and index insurance. | DPI, Advisory & Extension |
| Google (AI Research Nairobi Lab) | Advancing AI research for agriculture, including natural language processing for local languages and improved weather forecasting. | Advisory & Extension |
| FCDO (British High Commission) | Supporting technical projects such as *WISA* to enhance localized weather and climate data accuracy. | Advisory & Extension |
| Aim for Scale | Embedding research in innovation packages for scaling digital advisory and climate adaptation services. | Advisory & Extension |
| International Chamber of Commerce (ICC) | Exploring large-scale investment vehicles like a *Green Infrastructure Bond* to fund DAR-aligned projects. | Investment & Coordination |
| JICA / Equity Bank / Microsoft | Jointly supporting smallholders through digital platforms for extension, financing, digital skills, and market access. | Finance & Markets, Advisory & Extension |

### Conclusion and Path Forward

The session closed with a collective reaffirmation of Kenya's Digital Agriculture Roadmap as the central coordination mechanism for agricultural digital transformation. The strong alignment among partners demonstrated a decisive shift from fragmented, project-based interventions toward a unified, ecosystem-driven approach.

By designating the AIRC as the coordination and monitoring hub, the Ministry of Agriculture established a clear structure for accountability and impact measurement. The DAR's emphasis on interoperability, data sharing, and farmer inclusion ensures that digital transformation remains both scalable and equitable. With an estimated USD 150 million investment pipeline, strong government stewardship, and a robust coalition of partners, Kenya's digital agriculture agenda stands poised to move from vision to actionable, measurable transformation—anchored in resilience, inclusivity, and innovation.


## Roundtable

### Introduction and Scene Setting

Session 3 functioned as a critical design lab and reflection point for Kenya's rapidly evolving AgTech ecosystem. Themed "From Fragmentation to Coordination", it examined how Kenya, while recognized as a continental leader in agricultural innovation, continues to "scale wide but not deep." Despite abundant innovation, multiple accelerators, and substantial donor funding, the system remains disjointed, with AgTechs struggling to sustain growth beyond the pilot or grant phase.

Anchored by a keynote presentation from the World Bank as a case study, the session introduced the proposed Kenya AgTech Public-Private Partnership (PPP) Facility, a catalytic platform envisioned as an independent secretariat to coordinate data, partnerships, and capital flows. Through a series of guided roundtable discussions, participants diagnosed systemic pain points and proposed actionable solutions to create a more investment-ready, transparent, and inclusive ecosystem.

The subsequent fireside chat, moderated by Dario Giuliani (Briter Bridges), brought together thought leaders from FAO, World Bank, Delta40, and CGAP to unpack insights from the roundtables, reinforcing the urgency of establishing a neutral coordination mechanism to de-risk investment and rebuild ecosystem trust.

Opening the session, Samuel Karanja (Mercy Corps AgriFin) described Kenya's AgTech landscape as paradoxical, a market rich in innovation and resources yet hindered by fragmentation and duplication. He framed the challenge succinctly:"We have a head start, but how can we do coordination better?" His remarks called attention to the proliferation of actors, pilots, and accelerators that, while well-intentioned, have resulted in shallow impact and misaligned incentives.

Karanja positioned the day's discussions as a deliberate effort to "explore ecosystem solutions that facilitate collaboration and collective investment," tying this mission directly to the forthcoming World Bank PPP Facility. He urged participants to deliberately "sit with someone you don't know" to model the collaboration and cross-pollination that Kenya's digital agriculture space so urgently needs.

## Keynote Presentation:The Kenya AgTech PPP Facility

*Presenter:Marie-Agnes Jouanjean, Senior Agricultural Economist, World Bank*

Marie-Agnes began by presenting a candid assessment of Kenya's AgTech ecosystem, borrowing a quote from stakeholder consultations:"Kenya is scaling wide, but it is not scaling deep yet." While the surface indicators appear impressive, Kenya hosts over a third of Africa's AgTech deals, 50+ accelerators, and 250+ funders, the underlying system suffers from stagnation. Startups often rely on short-term donor funding, experience "accelerator hopping," and face a lack of follow-on investment needed to scale commercially. She described this situation as producing "a market graveyard," where innovation thrives in quantity but falters in sustainability. The problem, she noted, is not a lack of ideas or talent but a systemic misalignment:"Are we working for the donors, or are we working for the market?"

To address these structural issues, Jouanjean outlined five major ecosystem challenges:

- ➔ Fragmented and inaccessible market intelligence;
- ➔ Misalignment between support programs and investor expectations;
- ➔ Limited local investment capacity and ill-suited financing instruments;
- ➔ Siloed research, innovation, and commercialization pathways; and
- ➔ Weak coordination and policy coherence across actors.

Her proposed solution, the Kenya AgTech PPP Facility, would function as a neutral, ecosystem-led secretariat, governed by three principles:

- Be additive, not duplicative;
- Be for and by the ecosystem, ensuring inclusivity; and
- Work with existing momentum, leveraging comparative advantages.

The Facility's three core pillars were then presented:

- **Data, Intelligence & Partnership –** a centralized hub for market data, startup performance analytics, and investor matching. This would create visibility, reduce due diligence costs, and enable evidence-based decision-making.
- **Ecosystem Alignment & Facilitation –** convening stakeholders into thematic cohorts (e.g., soil health, logistics, or financing) to tackle shared bottlenecks through coordinated initiatives.
- **Capacity Building & Peer Learning –** moving away from generic training to structured peer-to-peer exchanges and entrepreneur masterclasses that solve practical challenges. She illustrated this with a story of two AgTech founders who, through informal networking, solved a hardware battery problem together:"It's fantastic when entrepreneurs talk to each other. The question is, how do we help that happen more often?"

## Roundtable Discussions:Diagnosing the Gaps and Designing the Future

Following the keynote, participants broke into eight guided roundtables to deliberate on ecosystem gaps, partnership models, service needs, and inclusion dynamics. These discussions provided a bottom-up validation of the PPP Facility's structure and priorities.

### Prompt 1:Bridging Gaps and "Ripe Opportunities" for the PPP Facility

Delegates acknowledged the Facility's potential to create unprecedented collaboration across government, donors, and investors. Andrew, Senior Associate at ISEP, noted that "initiatives like the PGP AgTech Facility can foster collaboration by making data more accessible and actionable." Participants repeatedly emphasized the need for a shared, interoperable data platform, linking government-held datasets on farmers, markets, and soil to reduce duplication and improve investment risk assessments.

The discussions also underscored the "missing middle" problem:many AgTech startups thrive during donor-funded pilots but falter once funding ends. The Facility, participants agreed, could serve as a steward of continuity, ensuring that promising innovations transition from grant dependency to commercial sustainability.

### Prompt 2:Aligning Donors, Corporates, Funders, and Governments

This roundtable highlighted deep misalignments between donor agendas and local government priorities. Notes from one group captured the tension clearly:"Low appetite for agricultural investments at the county level, donor priorities do not match county realities." Participants urged the World Bank to leverage its convening power to forge a shared vision for Kenya's AgTech ecosystem, supported by a transparent planning and coordination framework.

An actionable takeaway emerged:establish transparency in the investment landscape by mapping where funds are flowing, who the key actors are, and what thematic areas remain underfunded. This visibility, they argued, is essential to rebuild investor confidence and attract blended finance into agriculture.

### Prompt 3:Services and Structures Needed by AgTechs and Investors

Participants then examined which support services were most in demand, and which were oversupplied. There was consensus on three high-demand service categories:

- Blended Finance and Working Capital Solutions:Flexible instruments that accommodate agriculture's seasonality and high-risk nature.
- Peer-to-Peer Networks:Structured spaces for entrepreneurs to share lessons, collaborate, and jointly troubleshoot common operational issues, such as hardware durability and logistics.
- Standardization and Certification Mechanisms:Independent validation of AgTech efficacy to improve credibility with investors and buyers.
- Conversely, several groups warned of duplication fatigue. As one chart humorously noted, "ten apps are fingerprinting for the same purpose." Participants critiqued the abundance of pilots with limited differentiation and lamented the persistence of solutions "misaligned with the capital realities of end users." The Facility, they agreed, should help rationalize and certify viable models while discouraging redundant programming.

### Prompt 4:Gender Inclusion and Market Dynamics

Gender and inclusion emerged as both cross-cutting and context-specific concerns. Delegates agreed that existing approaches are often superficial, focused on participation numbers rather than market access. One participant summarized it aptly:"The question is not about inclusion for its own sake; it's about enabling equitable access to markets."

Cultural norms were also cited as significant constraints, particularly for women and youth. Notes from one table captured this tension as "perfect inclusion, harder for youth, and the challenge of integrating youth and women meaningfully." Participants called for more nuanced approaches that combine cultural understanding with economic empowerment, suggesting that inclusion metrics be reframed around agency, access, and benefit-sharing rather than representation alone.

## Fireside Chat:From Insight to Action

The session transitioned into a fireside chat moderated by Dario Giuliani, who facilitated an interactive reflection among panelists drawn from across the ecosystem.

**Mike Kigathi (FAO)** highlighted how geospatial and earth observation data could strengthen the Facility's first pillar, Data and Intelligence, by providing real-time, spatially accurate insights into production trends, soil health, and risk mapping. This, he argued, would ground investment decisions in evidence rather than assumption.

**Elana Laichena (Delta40)** and **Salome Wanjiku (CGAP)** offered the investor perspective, underscoring how the Facility could de-risk investment by bridging the "valley of death" between grant funding and commercial viability. They stressed that transparent data pipelines and standardized reporting frameworks would help investors assess performance and manage risk more confidently.

**Marie-Agnes Jouanjean (World Bank)** concluded by reiterating the importance of a neutral coordination platform capable of "changing the incentives" that currently reward short-term projects over long-term, commercially scalable solutions. She emphasized that the Facility would not compete with existing initiatives but rather align them through structured collaboration and shared intelligence.

## 5.5 Conclusion and Next Steps

The roundtable and fireside dialogues converged around a shared recognition:Kenya's AgTech ecosystem has extraordinary energy, innovation, and talent—but lacks the coordination, continuity, and investment structures to unlock its full potential. The Kenya AgTech PPP Facility was widely endorsed as a credible vehicle to address these systemic issues by providing a neutral home for data, dialogue, and coordinated investment.

Declared Next Steps included:

1. Pilot Implementation:The World Bank will recruit a dedicated secretariat to operationalize the Facility and oversee its first cohort.
2. Partner Engagement:Continued collaboration with aligned partners, such as GIZ, FCDO, and AgriFin, to refine convening models and thematic working groups.
3. Policy Integration:Embedding the Facility within Kenya's Digital Agriculture Roadmap (DAR) to ensure coherence with national digital transformation goals.
4. Knowledge Sharing:Disseminating a detailed outcomes report (this document) to maintain transparency and sustain momentum.

In closing, participants reaffirmed that Kenya's AgTech future will depend not on isolated innovation, but on intentional coordination, shared intelligence, and blended investment. The PPP Facility represents the architecture to make that future both structured and scalable—a bridge between innovation and impact.

# MASTERCLASS SESSIONS

## Session One Masterclass:Strengthening Impact Measurement for Agtechs

The Impact Measurement Masterclass, facilitated by Mercy Corps AgriFin in partnership with Briter, sought to equip participants with a shared understanding of how social and operational impact can be measured credibly and cost-effectively in Africa's fast-growing AgriTech sector. The session addressed one of the ecosystem's persistent challenges, the lack of standardized, comparable data on impact performance that can inform funding, partnerships, and strategic growth. It introduced a streamlined, low-cost methodology for impact measurement, showcased how AgTechs can self-report their results to AgBase, and provided hands-on insights into linking quantitative metrics with customer voice to create compelling impact narratives that resonate with investors and ecosystem partners.

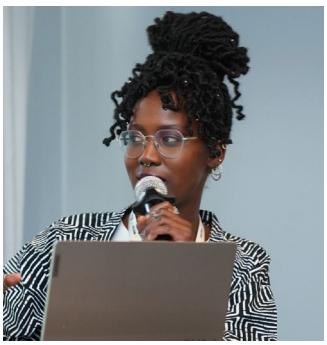
**Ritah Setey,** from Mercy Corps AgriFin, opened the session by grounding participants in a clear and actionable definition of social impact, "the measurable change in community well-being resulting from an organization's actions." She explained that, within the African AgriTech ecosystem, many funding decisions, particularly at the seed and early-growth stages, are still driven by narratives rather than standardized data. Investors increasingly seek verifiable, outcome-based evidence but often find the data landscape fragmented, inconsistent, or prohibitively expensive to measure. Ritah outlined the dual challenge:high measurement costs and the lack of a unified framework linking activities to tangible results. In response, she introduced the AgriFin Impact Framework, developed collaboratively with Briter and 60 Decibels, as an effort to harmonize language, taxonomy, and indicators across the ecosystem. She stressed that funders are receptive to credible self-reported data if it is collected systematically and transparently, and that impact measurement should not be viewed as an administrative burden but as a strategic tool for continuous learning, performance improvement, and investor credibility.

Expanding on this foundation, **Lydia Wafula,** also of Mercy Corps AgriFin, introduced the AgriFin Standardized Impact Tool, co-developed with Briter and 60 Decibels, designed to provide a consistent and comparable framework for measuring impact across AgriTech and Agri-food enterprises. The tool integrates two complementary dimensions:End-User

Impact, which captures customer experience and livelihood outcomes, and Organizational Metrics, which track operational sustainability and inclusivity. Under the first dimension, Lydia detailed how customer satisfaction, Net Promoter Score (NPS), and "challenge rate" serve as indicators of user experience and product quality. Livelihood outcomes are measured through self-reported changes in income, production or yield, and perceived quality of life, offering a direct lens into farmers' economic and social progression.

The second dimension captures enterprise-level metrics including reach (the number of farmers or customers served), gender disaggregation of customers, gross revenue, and employment breakdowns, covering both total headcount and gender representation in leadership. Together, these dimensions create a holistic view of both social and operational performance. Lydia emphasized that the tool's design, just 17 questions, balances rigor with practicality, enabling AgTechs to integrate regular impact assessments without excessive cost or complexity. She highlighted the efficiency of the model:collecting data from 200–300 farmers costs about KES 47,000 per month, a fraction of traditional impact studies that can exceed half a million shillings. With each dataset accompanied by confidence intervals and triangulated through qualitative feedback, organizations can generate validated, easy-to-interpret dashboards. These dashboards display metrics such as NPS distribution, reported challenges, income and yield variations, and quality-of-life changes, outputs that can be used for internal learning, adaptive management, and external investor reporting.

In the final segment, **Audrey Chebet** from Briter demonstrated how these impact metrics integrate into AgBase, the sector's flagship data and intelligence platform co-created with Mercy Corps AgriFin. AgBase serves as a centralized repository for AgriTech and Agri-food company data, enabling firms to self-report and publish their verified impact metrics, thereby enhancing transparency, comparability, and investment readiness. Audrey explained that self-reporting through the AgBase Impact Profile Metrics Form, accessible via a QR code or Google Form, allows companies to share standardized data on their reach, funding, and outcomes. Once reviewed and verified, these profiles are published on the AgBase dashboard, contributing to a collective intelligence ecosystem that currently maps 1,236 organizations, 191 products, 38 categories, and over USD 2.72 billion in reported funding.



Through live demonstrations, Audrey illustrated how AgBase enables organizations to generate concise, investor-ready summaries of their results and benchmark their performance against peers in the region. Beyond visibility, she emphasized the strategic benefits of self-reporting:it builds trust with funders, reveals what models are working, reduces duplication of effort, and helps innovators stand out in competitive funding environments. Importantly, she urged participants to pair quantitative metrics with qualitative "customer voice" narratives, testimonies, quotes, and stories that give life and authenticity to data, transforming it from statistics into evidence of real-world change.

During the question-and-answer session, participants explored how the framework and AgBase tool could be adapted for B2B contexts, where end-user data is indirect, and how data quality, privacy, and reporting frequency could be maintained sustainably. The facilitators explained that the framework supports flexible modalities, including USSD/SMS-based farmer self-reporting, to reach users in low-connectivity areas. They reiterated that the future of impact measurement lies in integrating low-cost, standardized quantitative indicators with farmer-led feedback loops, ensuring that impact is not only measured but also understood and used to drive better products, stronger partnerships, and inclusive investment.

## Audience Q&A

The interactive question-and-answer session following the masterclass provided participants with an opportunity to clarify how the new impact measurement tool could be adapted across different business models, operational contexts, and data environments. The discussion, moderated by the facilitators, focused on ensuring that the framework remains inclusive, scalable, and adaptable to both B2C and B2B models, while maintaining data quality, ethical standards, and methodological rigor.

The first question centered on the relevance of the framework for business-to-business (B2B) models, where organizations serve financial institutions, cooperatives, or Agri-SMEs rather than individual farmers. Emma from 60 Decibels affirmed that the tool was designed with flexibility in mind and applies equally well to indirect service models. Metrics such as Net Promoter Score (NPS), challenge rate, revenue change, and employment impact remain valid and insightful for B2B contexts. The only indicator requiring adaptation is "quality of life," which in B2B settings can be replaced with more relevant measures such as business performance, access to finance, or operational efficiency. She emphasized that the goal is to maintain comparability while allowing contextual customization to ensure that every enterprise can capture outcomes meaningful to its stakeholders.

Participants also raised questions regarding data quality, training, and privacy, particularly as the tool moves toward public rollout. The facilitators confirmed that the standardized impact measurement tool was still under refinement, with a full public launch targeted for November. They underscored the critical importance of enumerator training to ensure consistent interpretation of indicators and to minimize bias during data collection. Proper orientation of enumerators, they explained, is what guarantees the credibility of self-reported data. On privacy, participants were reassured that AgBase operates under strict consent protocols, if the platform already holds partial data on an organization, it will seek explicit permission before publishing or updating that information. Each organization retains control of its own data and can fill in missing or updated fields through its self-reporting profile, ensuring transparency and ownership.

Another theme in the Q&A focused on reporting frequency and baselines. The facilitators clarified that there is no rigid reporting schedule; instead, frequency should be determined by context and capacity. For most organizations, conducting assessments annually or biannually strikes a balance between consistency and resource efficiency. The tool can also be deployed at the start of a program to create a reliable baseline, then repeated periodically to track longitudinal change. This flexibility allows both early-stage start-ups and mature enterprises to align measurement cycles with their funding, reporting, or operational calendars, reinforcing the principle that impact measurement should support decision-making rather than add administrative burden.

A particularly engaging exchange emerged around the idea of farmer-led data reporting, introduced by Carlton from the Cereal Grow Association, who asked whether farmers themselves could directly report on key indicators. The facilitators acknowledged that this approach was both promising and complex, hinging on farmers' capability, connectivity, and motivation. Various low-cost and accessible options were discussed, including USSD and SMS-based reporting, as well as local-language instruments that can bridge literacy gaps. Participants proposed that modest incentives, such as airtime credits, could help encourage participation and improve response rates. Shadrach from Dalberg Research contributed by recommending a verification sample of around 30% to strengthen confidence in farmer-generated data and reassure funders about accuracy. The facilitators agreed that while farmer-led reporting democratizes data and deepens ownership, maintaining data quality requires structured verification and triangulation with other sources.

The final discussion revolved around transforming metrics into compelling narratives that effectively communicate impact to investors and development partners. The facilitators encouraged participants to move beyond numeric indicators by combining key performance indicators (KPIs) with qualitative "customer voice" insights, direct quotes or stories

that contextualize why numbers shift over time. They stressed that these narratives not only humanize impact data but also uncover areas where certain sub-groups, such as women or youth, may be experiencing lower benefits. This deeper understanding transforms measurement into a learning and accountability process, rather than a compliance exercise.

## Masterclass:Session 2 Masterclass — De-risking Last-Mile Distribution and Climate Investment through Agent Network Optimization

### Introduction and Scene Setting

The masterclass opened a rich, practice-focused conversation about how agent networks, those human links between agribusinesses and farmers, can be professionalized to reduce distribution losses, strengthen trust, and make climate and commercial investments more viable. Nathanial Peterson framed the project's origin story:the Gates Foundation initially commissioned experiments to gamify seed sales and improve margins, but industry feedback pivoted the work sharply toward solving a more urgent problem, inefficient, fragile agent networks. This pivot set the stage for a multi-partner effort (the EMBE project) to move from small experiments toward an operational model that agribusinesses can adopt and scale.

### Why last-mile agents matter by Millicent Omala

Millicent Omala explained that last-mile distribution is not merely a logistics challenge; it is where innovation either meets farmers or fails. She stressed that agribusinesses often lack visibility beyond the shop door and reiterated a central maxim voiced during the session:"You can only serve your customers if you know them better." Millicent described how agents perform a suite of indispensable functions at the frontier:generating demand, sensitizing farmers to new inputs, facilitating credit or savings linkages, collecting on-the-ground data about product use and satisfaction, and feeding that intelligence back into corporate decision making. She emphasized that when companies treat agent recruitment and training as ad hoc or politically driven, attrition rises, trust with farmers breaks down, and distribution becomes brittle. Conversely, when agents are carefully screened, trained, and incentivized, retention improves, buying decisions are catalyzed, and product uptake becomes measurable and predictable.

### Evidence and learnings from EMBE by Nathanial Peterson

Nathanial Peterson walked participants through the empirical lessons from EMBE's country pilots. He explained that early attempts to gamify farmer engagement revealed a deeper, recurring industry plea:agribusiness partners wanted help optimizing their agent networks before they would integrate any new digital tool. EMBE's research therefore mapped the causal chain linking agent selection, training, incentive design, data quality, and downstream investor perceptions. Nathanial described concrete findings:recruitment that relies on informal networks or political patronage produces high attrition and fractured customer relationships; tailored, context-sensitive training plus performance-linked incentives produce more reliable data and higher sales conversion; and aggregated agent-collected data gives agribusinesses the market visibility necessary to claim investment readiness. In Nathanial's words, the evidence reframed agents as the "human infrastructure" that digital systems must serve rather than replace.

## Platform and practical tools

Building on the pilots, Millicent Omala unveiled the conceptual design of a digital agent-management platform and described how it operationalizes agent professionalization. She explained that the platform allows agents to be screened and credentialed, to undertake modular, gamified training, and to create searchable profiles that agribusinesses can use to match needs with capabilities. The platform also captures transaction-level farmer data, generates analytics on product performance and farmer preferences, and produces dashboards that translate agent activity into investment-grade indicators such as distribution efficiency, unit economics, and customer retention metrics. Millicent emphasized that the platform is not a one-season experiment but must be embedded into business processes to be sustainable; only when agent management is treated as a routine, institutional capability will investors view distribution as de-risked.

## Behavioral design and gamification by Rahab Kariuki

Rahab Kariuki and behavioral partners contributed the design rationale behind gamified training and incentive structures. Rahab described how gamification increases agent engagement with learning materials and improves adherence to data collection protocols by tying small, meaningful rewards to measurable behaviors. She explained that behavioral science informed the choice architecture of incentives, allowing agents to select the rewards that matter to them, whether airtime, equipment, or recognition, and that verification sampling and performance monitoring reduced data quality concerns among agribusiness partners. The behavioral approach, Rahab argued, shifts agents from being transient salesers to semi-professional market intermediaries who can sustain farmer relationships and reliably feed high-quality data into digital systems.

## Implications for climate finance and investor readiness

Throughout the session the speakers tied agent optimization directly to climate finance outcomes. Millicent and Nathaniel argued that investors underwrite climate and adaptation projects much more readily when they can observe end-user adoption and sustained behavior change. Agent-collected metrics, on adoption rates of climate-smart inputs, application quality, and localized environmental indicators, create the evidentiary basis for pay-for-performance, blended finance instruments, and index-linked products. By converting informal networks into professionalized, data-generating assets, the masterclass showed how last-mile systems can produce the traceable impact signals that climate funders require.

## Practical next steps and ecosystem actions

Speakers closed by outlining practical steps for agribusinesses and ecosystem actors. Nathanial urged pilots to move from isolated proof-of-concepts to integrated agent management systems that include recruitment standards, tailored training curricula, transparent incentive menus, and robust verification sampling. Millicent called for embedding platform capabilities into company operating models so agent performance data becomes part of routine decision making and investor reporting. Rahab recommended iterative behavioral testing to refine which incentives yield sustained agent performance across contexts. Collectively, they pressed for partnerships among agribusinesses, behavioral research teams, funders, and technology providers to scale tested models across markets.

### Conclusion

The masterclass concluded with a clear proposition:professionalizing agent networks is a high-leverage intervention that simultaneously improves market functioning, lowers distribution losses, and strengthens the case for climate and commercial investment. Nathanial, Millicent, and Rahab left participants with the conviction that agents are not an antiquated relic of informal markets but a strategic asset, one that, if digitized, professionalized, and incentivized with behavioral insight, can transform last-mile realities and unlock sustainable financing for smallholder-centered agriculture.

## Masterclass:Mt. Elgon – Enhancing Influence:Systems Leadership for Transformation in Digital Agriculture

### Introduction and Scene Setting

The Mt. Elgon Masterclass, facilitated by Wasafiri Consulting, marked a profound shift from earlier sessions that focused on structural solutions such as data systems and financing models. Instead, it delved into the human and leadership dimensions required to make those systems function effectively. Over 100 delegates participated in an immersive, highly interactive session centered on Systemcraft, a practical framework for diagnosing and navigating complex challenges.

Facilitators Stella Odhiambo and Ledama Masidza led participants through a reflective and participatory learning process that began with identifying persistent "stubborn problems" within their own organizations and projects. These ranged from chronic issues of data silos and poor milk quality to organizational culture and consistency challenges. Using vivid examples and relatable analogies, the facilitators guided participants to understand why traditional, linear solutions often fail in complex systems like agriculture and food systems.

The masterclass culminated in the application of Systemcraft's five non-linear dimensions—Organise for Collaboration, Set the Direction, Make it Matter, Change the Incentives, and Harness Collective Intelligence. Delegates translated these principles into immediate, practical actions and concluded with personal 30-day leadership commitments. The session reinforced a central truth:Africa's digital transformation will not succeed on technology alone—it requires adaptive, collective, and systems-oriented leadership capable of navigating the complex interplay of people, institutions, and incentives.

### The Innovation Paradox and the Leadership Imperative

Opening the session, Stella Odhiambo challenged participants to confront the paradox at the heart of Africa's innovation landscape. "There is no shortage of innovation in Africa," she declared, referencing the digital solutions and technologies showcased throughout the ALE. "But if we do not dig deeper into the systemic issues, many of these interventions will not last." She emphasized that the continent's next frontier of progress lies not in more technology, but in better leadership, leadership that is adaptive, collective, and self-aware.

Stella framed leadership as a systemic function, not an individual trait. She called for a generation of leaders who could operate beyond organizational boundaries, weaving connections across institutions and sectors. She cited the African Food Fellowship, represented by her co-facilitator Ledama Masidza, as an example of an initiative investing deliberately in developing this kind of networked, system-level leadership for Africa's food systems transformation.

### Interactive Problem Identification:Grounding in Reality

The facilitators designed the session to be experiential rather than theoretical. Early in the masterclass, each delegate was asked to identify one "stubborn challenge" they had faced, one that persisted despite repeated effort, funding, or training. The exercise instantly created ownership and contextual grounding for the learning ahead.

Among the shared reflections, **Carol Mburu** of the Eastern and Southern African Dairy Association spoke of the enduring problem of poor milk quality, despite continuous farmer training programs. "The impact of poor quality," she said, "is not just about food safety, it's about reduced access to markets and low profitability."

**Fatima Derebu** from Strathmore University highlighted data-sharing barriers, lamenting that "despite having a national governance framework, we are still working in silos." Meanwhile, an agribusiness founder spoke candidly about the difficulty of sustaining organizational rhythm and culture amid growth:"How do you keep a rhythm that ensures the same team spirit and vision even as you scale?"

This reflective exercise grounded participants in reality and set the tone for honest, practical engagement. It underscored that the toughest barriers to transformation are not always technical, they are often systemic, relational, and behavioral.

### Understanding Complex Systems:From Complication to Complexity

Transitioning from reflection to theory, Ledama Masidza introduced a foundational distinction between complicated and complex systems. Using vivid metaphors, he described a complicated system as something like a bicycle or a biryani recipe, mechanical, predictable, and repeatable. "If you follow the recipe and measure carefully," he explained, "you get the same delicious result every time."

In contrast, complex systems, like ecosystems, communities, or food systems, are adaptive, dynamic, and unpredictable. He humorously compared them to his "moody dog, Zella," whose behavior changes based on subtle environmental and emotional factors. "You can't solve complex systems with a fixed plan," he emphasized. "You must experiment, learn, and adapt."

Participants quickly recognized that the most persistent problems in agriculture, from fragmented data ecosystems to low market adoption of AgTech, are inherently complex. They cannot be solved with linear interventions or one-off projects. This realization laid the foundation for introducing Systemcraft, Wasafiri's structured yet flexible framework for navigating complexity.

## Introducing the Systemcraft Framework

Stella Odhiambo unveiled the Systemcraft Framework as a practical guide to designing interventions that match the complexity of real-world systems. Distributing color-coded cards to each table, she explained that the framework consists of five interconnected dimensions, which should not be viewed as sequential steps but as a palette of strategies that can be applied adaptively:

- *Organise for Collaboration* – recognizing that change is inherently collective, this dimension calls for building diverse coalitions, both formal and informal, to align efforts and share ownership of solutions.
- *Set the Direction* – creating a shared sense of direction and clear milestones, even if the pathway remains uncertain. This provides a "north star" to guide experimentation and resource mobilization.
- *Make it Matter* – anchoring initiatives in compelling narratives that resonate emotionally and socially, connecting innovation to people's lived experiences.
- *Change the Incentives* – rethinking the formal and informal motivations that drive behavior, ensuring systems reward desired change rather than maintaining the status quo.
- *Harness Collective Intelligence* – cultivating mechanisms for continuous learning, data sharing, and reflection to understand how systems evolve and to adapt in real time.

As Stella reminded the group, "Systemcraft is not about solving the problem—it's about shifting the system so that the problem becomes solvable."

## Applying Systemcraft:Real-World Examples from East Africa

To illustrate how Systemcraft works in practice, the facilitators drew on a series of vivid case studies from East Africa.

For Change the Incentives, Ledama Masidza shared an example from Busia County, where a regenerative farming initiative linked soil-health practices to access to input loans through digital tracking tools. The incentive alignment produced a 155% increase in yields and incomes, proving that environmental stewardship and profitability can reinforce each other.

On Organising for Collaboration, Stella Odhiambo acknowledged this as the "toughest but most crucial dimension." She highlighted the common tension between institutional goals and collective progress, stressing that transformation often requires building "unusual coalitions" that cut across sectors, such as government, tech innovators, and smallholder farmer groups.

For Make it Matter, Ledama recounted his work in a Kilifi fishing village grappling with ecological collapse due to overfishing. By facilitating dialogues rooted in community stories, "their lived experiences, fears, and hopes"—the project transformed apathy into ownership, ultimately leading to Kenya's first coral-based locally managed marine area.

Set the Direction was illustrated through Kenya's Oil Crops Development Program, where a clear government directive to boost domestic production of soya, sunflower, and canola provided a unifying vision that mobilized investment and aligned actors across counties and private sectors.

Lastly, Harness Collective Intelligence came to life through a coastal youth-led research project. Using participatory methods, local youth investigated the root causes of mistrust between communities and police. Their solution was both symbolic and practical, painting a local police station together, a gesture that rebuilt trust and collaboration.

## Delegates in Action:Practicing Systems Leadership

Participants then moved from theory to application in group exercises. Each table selected one or two Systemcraft dimensions to apply to their "stubborn" challenge and worked collaboratively to design prototype interventions.

One group, focusing on drought resilience, chose Harnessing Collective Intelligence as their guiding dimension. Delegate Brian described their vision:"We realized that pastoralists, extension officers, and scientists all have valuable but fragmented knowledge. Our intervention is to create a platform where this indigenous and expert intelligence can be synthesized to inform action."

Another group, tackling data-sharing inefficiencies, focused on Setting the Direction. They proposed establishing a shared data vision built around clear value propositions for every stakeholder, government, private sector, and research institutions, to build trust and predictable demand for open ecosystems. Their proposal emphasized the need for coordination mechanisms that make collaboration economically rational, not just idealistic.

The group presentations revealed the participants' growing fluency with systems thinking, moving away from project-centric solutions to system-level strategies.

## Conclusion and Call to Action

The masterclass concluded with a reflective yet energizing call to action. Stella Odhiambo and Ledama Masidza invited each participant to translate insight into immediate practice by developing a personal 30-day action plan anchored on the following questions:

- Which two Systemcraft dimensions could unlock the most progress in your challenge?
- What is the first concrete move you will make?
- Who is one ally you must bring along?
- What signal of progress will show that change is underway?

In closing, Stella delivered an empowering message that captured the spirit of the session:"You are leaving not just with ideas but with practical tools you can use to shift systems. This is how transformation begins, one leader, one system, one shift at a time."

Participants departed energized, not as passive attendees but as activated system leaders, equipped with a tangible framework and renewed conviction that transformation in digital agriculture demands both technological innovation and the human capability to lead it collaboratively and adaptively.

# REVERSE PITCHING:

*Investor Perspectives on Building Investable AgTechs*

## Fred Kiio
### AECF (AFRICA ENTERPRISE CHALLENGE FUND)

**Theme:Inclusive Agribusiness and Blended Finance**

Fred focused on how AECF uses blended finance to support high-impact agribusinesses that target rural inclusion. He explained that AECF's mission is to back commercially viable businesses that generate tangible benefits for smallholder farmers and marginalized communities. Funding is primarily through grants and zero-interest loans, typically ranging from $100,000 to $1.5 million, deployed using a milestone-based disbursement model tied to both business and development KPIs. He emphasized the importance of demonstrating that commercial capital alone cannot address a business's needs, thus justifying catalytic public funding. Beyond financing, AECF provides technical assistance and business development support to help firms reach commercial sustainability. Fred also shared lessons from the agri-tech sector, cautioning that while technology can accelerate agricultural transformation, it cannot replace strong business fundamentals. He underscored the importance of backward and forward integration and building trustworthy leadership, as investors ultimately invest in people as much as in ideas.

## John Kavilu
### KPMG (IMPACT FINANCE LEAD)

**Theme:Investment Readiness and Governance for Agribusinesses**

John presented KPMG's role in impact finance and enterprise structuring, emphasizing how proper financial systems and governance attract investors. He noted that KPMG supports both private and public sector clients, including development finance institutions, by improving their financial management and compliance frameworks. Businesses seeking funding, he said, must demonstrate not only profitability but also financial discipline, transparency, and credible governance structures. KPMG evaluates whether a company can track its finances, handle audits, and comply with fiduciary standards, critical elements when dealing with public or blended funds. He emphasized investment readiness, urging entrepreneurs to strengthen record-keeping, governance, and reporting systems before seeking external capital. John also observed that many promising startups fail not for lack of innovation but for weak governance and poor documentation. KPMG, through donor-backed programs, occasionally provides technical advisory support and investor readiness training to address these gaps, aiming to nurture more bankable, well-governed African enterprises.

## Mwombeki Baregi
### IFC (INTERNATIONAL FINANCE CORPORATION)

**Theme:Scalable Investment, Equity, and Exit Strategies**

Mwombeki outlined the IFC's approach to private-sector investment, describing it as the World Bank's arm for private enterprise development. IFC invests across sectors, including finance, infrastructure, and agribusiness, with annual agricultural commitments reaching $9 billion globally. Its minimum ticket sizes typically run in the millions, focusing on companies that have already proven their business models. He distinguished IFC's equity and debt instruments, stressing that IFC avoids distorting markets through unsustainable subsidies. Mwombeki urged entrepreneurs to understand their business fundamentals, client base, and financial metrics, including knowing whether they are a fintech, ag-tech, or disruptive tech model. A key takeaway from his remarks was the need for an exit strategy, something many agritech firms overlook. Investors like IFC expect clear plans for returns, whether through buyouts, acquisitions, or IPOs. He concluded by emphasizing sustainability, economic viability, and scalability, noting that successful investment requires both sound operations and credible long-term planning.

## Eugene Gikonyo
### MERCY CORPS VENTURES

**Theme:Early-Stage Venture Capital and Climate Innovation**

Eugene shared how Mercy Corps Ventures supports early-stage innovation across Africa and Latin America, focusing on climate resilience, fintech, and ag-tech. The organization operates through three arms:the Venture Lab (testing nascent technologies), Venture Investments (equity-based funding), and the Venture Platform (post-investment support). Ticket sizes range from $50,000–$300,000, primarily targeting pre-seed startups. He described how Mercy Corps runs thematic calls, for example, on water security and AI for climate resilience, and supports pilots through short-term grants coupled with mentorship and technical advisory. Eugene emphasized the importance of co-founding teams, validated problem statements, and strong leadership dynamics as predictors of success. He shared examples such as Masao Hub in Tanzania, leveraging AI for soil analytics and farmer advisory, and Agrares, a data orchestration platform in Uganda. He concluded that AI is an enabler, not a silver bullet, urging startups to focus on real-world application, scalability, and measurable impact in climate-smart agriculture.

## Philip Moturi
### NCBA GROUP (LOOP DIGITAL BANKING)

**Theme:Digital Financing and Agricultural Value Chain Liquidity**

Philip introduced Loop by NCBA, a digital-first bank driving financial inclusion in agriculture through technology-enabled financing models. He explained how Loop provides end-to-end agricultural financing, covering inputs, machinery, seeds, and production costs, expanding access beyond traditional banking limits. Through partnerships with ERPs and cooperatives, NCBA offers advance payments to farmers based on their produce already delivered, helping unlock working capital while mitigating credit risk through data visibility. Loop's philosophy centers on supporting upstream value-chain actors, producers and aggregators, rather than end consumers. Moturi emphasized automation, digital KYC, and data integration as critical for de-risking agricultural finance, noting that reliable technology reduces fraud and operational inefficiencies. He highlighted agriculture as a high-growth area, particularly in underutilized zones like western Kenya's rice sector. Philip concluded by affirming NCBA's readiness to partner with agritechs to scale digital financing solutions and accelerate capital flow to Africa's productive rural economy.

## Kuria Wanjau
### FSD AFRICA

**Theme:Catalytic Finance and Capital Facilitation**

Kuria described FSD Africa's investment instruments designed to unlock private capital for development, particularly in green and inclusive finance. He outlined their range of tools, grants, returnable grants, and risk capital, structured to de-risk early-stage innovation. Investments range from $100,000 for ideation-stage startups (split between capital and technical assistance) to multi-million-dollar funds targeting mature ventures. FSD Africa primarily invests through intermediaries, funds and facilities that on-lend to small and growing businesses, rather than directly into enterprises. Kuria emphasized capacity building, explaining that many promising founders lack basic financial management or governance capabilities, hence the need for technical assistance, mentorship, and even fractional CFO/CEO support. He also highlighted FSD Africa's involvement in carbon finance and climate-smart initiatives, bridging impact and profitability. Kuria concluded by noting that their ultimate goal is to make businesses investor-attractive, blending public and private capital to enable sustainable growth in Africa's impact investment ecosystem.

## Larissa Shnayder
### IDH (SUSTAINABLE TRADE INITIATIVE)

**Theme:Blended Investment and Sustainable Supply Chains**

Larissa focused on sustainability-driven investment, highlighting how IDH blends public and private finance to advance green, inclusive growth. She explained that IDH operates across multiple investment tiers, from early ideation support (~$100K) to scale-up investments up to $10 million, often combining grant and debt instruments. She emphasized risk-sharing, ensuring that entrepreneurs and investors are aligned on sustainability metrics and exit pathways. Larissa described IDH's collaboration with various funds to channel climate-smart, gender-responsive, and inclusive capital, particularly in renewable energy and carbon markets. Beyond funding, IDH provides technical assistance, helping startups strengthen governance, financial reporting, and investor alignment. Her remarks underscored the need for patient capital, adaptive investment models, and systemic partnerships to achieve scale in sustainable agribusiness. Larissa positioned IDH as a facilitator of catalytic ecosystems, ensuring that environmental and social impact goals are embedded into investment decisions and that African enterprises become more resilient and globally competitive.

## Joshua Murima
### BRITER BRIDGES

**Theme:Data Intelligence and Ecosystem Building for Inclusive Investment**

Joshua presented insights from Briter Bridges, an organization that provides market intelligence and data-driven insights to strengthen Africa's innovation and investment landscape. He emphasized the critical role of evidence-based decision-making in bridging the information gap between entrepreneurs, investors, and policymakers. Joshua noted that many investment decisions across Africa are constrained by fragmented data and limited visibility of early-stage ventures, particularly in agritech and climate innovation. Briter Bridges aims to change this by mapping ecosystems, tracking capital flows, and identifying emerging trends in food systems, green finance, and digital inclusion. He stressed that sustainable transformation requires better coordination between data, capital, and policy, urging investors to leverage real-time intelligence rather than intuition. Joshua also highlighted the importance of local context, noting that scalable innovation depends on understanding regional market dynamics and inclusive value chains. His message underscored that data is the foundation for smarter, more equitable investments, enabling African enterprises to attract capital and grow sustainably.

# MARKET EXHIBITION BOOTH

## Key Takeaways from the Market Exhibition Booth

**Project MOCHA** showcased how coffee lovers can become direct investors in Africa's coffee value chain, redefining agricultural financing through inclusive, digital investment.

**AgriGhala (by AgriBora)** demonstrated how digital storage and commodity-backed financing can turn post-harvest produce into tradable financial assets for farmers.

**Extension Africa** highlighted how digitized advisory services are bridging the information gap and modernizing farmer support systems across Africa.

**RHEA** illustrated the power of AI chatbots in delivering instant, localized agronomic advice via WhatsApp for accessible, data-informed farming.

**AgriScanAI** presented AI-enabled crop diagnostics that help farmers detect diseases and nutrient deficiencies instantly through smartphone imaging.

**Lersha Solutions** emphasized integrated access to inputs, mechanization, and finance through a unified digital platform and agent network.

**Ketha** underlined the need for digital financial inclusion, investment readiness, and data-driven capital access for agri-SMEs and farmers.

**ISDA Virtual Agronomist** demonstrated how AI and satellite data can deliver hyper-localized, climate-smart crop management insights to smallholders.

**Busara Global** showcased behavioral science applications that improve farmer decision-making, digital product adoption, and program effectiveness.

**Kiifya** highlighted farmer-centered digital payments and financial services designed to strengthen financial inclusion in rural communities.

**Agnexus Africa** demonstrated data-driven agribusiness intelligence tools that support value chain optimization and market linkages.

**IDH** presented blended finance and market transformation models that accelerate sustainable sourcing and farmer resilience.

**Dev Global** exhibited technology and data solutions supporting digital IDs, climate services, and last-mile agricultural delivery systems.

**Eprod** showcased its enterprise-grade supply chain management platform used to streamline aggregation, traceability, and payments across farmer networks.

**Mediae** demonstrated digital mass-extension platforms (including the Shamba Shape Up model) that deliver accessible, farmer-friendly agronomic education.

**ICIPE** presented innovations in biological pest control, IPM, and climate-resilient research for healthier, sustainable food systems.

**Briter** exhibited its intelligence platform that tracks innovation, investment, and ecosystem trends shaping Africa's agri-food technology landscape.

**Acre Africa** showcased agriculture micro-insurance products that protect farmers against climate shocks and yield losses.

**NCBA Loop** demonstrated flexible digital banking and SME financing solutions tailored to youth, agripreneurs, and small businesses.

## Project MOCHA – Turning Coffee Lovers into Investors

Project MOCHA redefines coffee financing by enabling everyday coffee lovers to invest directly in Africa's coffee value chain. Through a digital platform, it connects farmers, processors, and investors, channeling capital into sustainable coffee production. The initiative supports traceability, fair pricing, and community-driven impact while transforming coffee appreciation into a vehicle for inclusive agricultural investment.

## AgriGhalla (Powered by AgriBora)

AgriGhalla, powered by AgriBora, is revolutionizing Africa's agricultural value chain by providing smallholder farmers with secure digital storage, real-time market access, and commodity-backed financing. By digitizing post-harvest management and linking farmers to buyers and financial institutions, the platform enhances liquidity, reduces losses, and empowers farmers to use stored commodities as tradable financial assets.

## Extension Africa – Connecting African Farmers

Extension Africa bridges the information and advisory gap for African farmers by digitizing agricultural extension services. Using mobile and web platforms, it delivers localized, crop-specific guidance, connects farmers to experts, and facilitates access to inputs and markets. Its mission is to modernize extension delivery, improve productivity, and empower rural communities through data-driven, timely, and inclusive agricultural knowledge.

## RHEA – Your Personal Agronomist on WhatsApp

RHEA is an AI-powered personal agronomist accessible via WhatsApp, offering farmers instant, localized agricultural advice. The chatbot provides real-time responses on crop health, pest management, and weather updates, integrating AI with conversational simplicity. RHEA democratizes agronomic expertise, enabling smallholders to make data-informed decisions anytime, anywhere, through an accessible, low-cost, and farmer-friendly digital interface.

## AgriScanAI

AgriScanAI leverages artificial intelligence and smartphone imaging to help farmers instantly diagnose crop diseases, pest infestations, and nutrient deficiencies. By analyzing leaf images and generating treatment recommendations, it bridges diagnostic gaps and reduces dependency on physical extension visits. The solution empowers farmers with predictive insights, reducing crop loss and improving productivity through data-driven precision agriculture.

## Lersha Solutions

Lersha is an integrated digital platform offering smallholder farmers a one-stop solution for accessing inputs, mechanization services, and finance. Through its mobile and agent network, farmers can "order, pay, and access" agricultural resources seamlessly. By connecting farmers to verified suppliers and service providers, Lersha strengthens efficiency, transparency, and inclusivity across the agricultural input and service value chain.

## Ketha

Ketha is a Kenyan agri-finance and innovation hub that empowers Agri-SMEs and farmers through digital financial solutions, investment readiness programs, and capacity building. By facilitating access to credit, markets, and partnerships, Ketha bridges the gap between agriculture and capital. Its mission is to unlock sustainable growth through data-driven investment models and inclusive digital financing for rural enterprises.

## ISDA – Virtual Agronomist

ISDA's Virtual Agronomist is a digital advisory platform that delivers hyper-localized, AI-driven crop management advice to smallholder farmers. By integrating weather, soil, and satellite data, it offers predictive insights on planting, irrigation, and pest management. The tool enhances productivity, resilience, and sustainability, equipping farmers with actionable intelligence for smarter, climate-responsive agricultural decision-making.

## Busara Global – Behavioral Science for Better Agricultural Decisions

Busara Global presented evidence-based behavioral insights that strengthen agricultural program design and farmer engagement. Through experiments, user-testing, and cognitive research, Busara helps organizations build digital tools farmers trust and adopt. Their work enhances decision-making around input use, financial services, and climate-smart practices, ensuring that innovations meaningfully align with farmer realities.

## Kiifya – Digital Finance for Rural Households

Kiifya showcased inclusive digital financial services tailored for farmers and rural MSMEs. Their tools simplify payments, support savings groups, and streamline financial flows in fragmented value chains. By enabling secure transactions and accessible digital wallets, Kiifya strengthens financial inclusion and supports the transition to cashless, transparent rural economies.

## Agnexus Africa – Intelligence for Agribusiness Growth

Agnexus Africa demonstrated advanced agribusiness analytics, market mapping, and data platforms that help enterprises understand value chain dynamics. Their tools support investment decisions, buyer–seller linkages, and supply chain optimization. Agnexus plays a critical role in helping agri-SMEs unlock market opportunities through real-time intelligence.

## IDH – Catalyzing Sustainable Value Chains

IDH highlighted its blended finance mechanisms, service delivery models, and sustainable sourcing programs. Their booth emphasized public, private partnerships that improve farmer resilience, strengthen traceability, and enable climate-smart production. IDH continues to drive inclusive markets where farmers and agribusinesses benefit from long-term, sustainable growth.

## Dev Global – Digital Infrastructure for Agriculture

Dev Global exhibited digital public goods and geospatial tools supporting national ID systems, climate advisory services, and agricultural data governance. Their solutions help governments and partners scale digital transformation in agriculture, enabling better targeting, service delivery, and farmer inclusion.

## Eprod – End-to-End Supply Chain Management

Eprod demonstrated its widely used supply chain management platform that digitizes farmer profiling, field operations, aggregation, quality control, and payments. The platform is instrumental in helping organizations manage thousands of farmers efficiently while ensuring transparency, traceability, and operational efficiency.

## Mediae – Digital Mass Extension at Scale

Mediae showcased farmer-focused educational content, including the widely known Shamba Shape Up model. Their platforms translate technical agronomy into engaging, practical information accessible through television, radio, and mobile. Mediae's approach increases awareness, knowledge retention, and adoption of improved practices among millions of farmers.

## ICIPE – Climate-Smart Biological Innovations

ICIPE presented cutting-edge research on biological crop protection, insect ecosystem management, and climate adaptation. Their work supports integrated pest management, pollination services, and healthier agro-ecologies. ICIPE innovations help farmers reduce chemical dependency and improve sustainability.

## Briter – Mapping Africa's Agricultural Innovation Ecosystem

Briter displayed its interactive intelligence tools that track innovation trends, startup activity, and investment flows across Africa's agri-food landscape. Their datasets and analytics strengthen evidence-driven investment, policy design, and ecosystem development.

## Acre Africa – Insurance for Climate Resilience

Acre Africa showcased micro-insurance products, including weather index, seed replacement, and yield insurance, designed to protect smallholders from climate-related risks. Their innovations enhance farmer confidence, reduce vulnerability, and enable better planning and investment.

## NCBA Loop – Youth-Centric and SME Digital Banking

NCBA Loop demonstrated flexible digital banking solutions offering savings, loans, budget tools, and payment services tailored to young entrepreneurs and growing agri-SMEs. Their products support financial discipline, credit access, and digital financial management in the agriculture sector.

# RECOMMENDATIONS FROM THE 9TH ALE

## Programming Recommendations

### Collaboration and Coordination

The 9th ALE emphasized that the agricultural technology landscape in Africa is crowded with multiple players tackling similar challenges through fragmented approaches. Across all sessions, particularly those on financing, digital agriculture roadmaps, and AI, the need for structured collaboration and ecosystem coordination was repeatedly underscored. Participants noted that duplication of solutions, data silos, and fragmented pilots lead to inefficiency and farmer fatigue. Effective coordination mechanisms, such as data-sharing frameworks, joint innovation pipelines, and national AgTech coordination hubs, are essential for aligning investments, building shared digital infrastructure (like DPI), and promoting interoperability.
Action Point:Develop a continental AgTech coordination mechanism underpinned by shared datasets, open standards, and common reporting tools to align investments and reduce overlap.

### AgTech Solutions for Dryland and Climate Resilience

Programming should prioritize climate-resilient and dryland-focused innovations, particularly in pastoral and semi-arid regions where vulnerability to drought and market shocks remains high. The ALE discussions revealed that informal financing mechanisms, such as SACCOs and table banking groups, can serve as anchors for risk-sharing and adaptation when institutionalized and digitally enabled. Programs targeting these regions should blend financial inclusion with resilience-building, linking insurance, credit, and data-driven advisory systems.
Action Point:Design programs that integrate microinsurance, digital advisory, and blended finance instruments for dryland farmers to enhance adaptive capacity and reduce vulnerability to climate shocks.

### Bridging the Gap between Technology and the Smallholder Farmer

While digital innovation has advanced rapidly, the last-mile gap between technology providers and smallholder farmers persists. Farmers often lack digital literacy, reliable connectivity, and trust in new tools. The ALE emphasized leveraging human intermediaries, such as village agents, youth champions, extension officers, and cooperatives, to connect digital services to users in an affordable and sustainable manner. Partnerships with local governments and existing extension networks can reduce costs while improving adoption.
Action Point:Establish blended human–digital delivery models that embed farmer-facing agents in AgTech platforms to enhance access, training, and feedback.

### Human-Centered Design Approach to Solution Development

The success of AgTech and financial innovations depends on how well solutions fit into farmers' realities, not how advanced the technology is. Participants highlighted that most farmers, particularly women and youth, are excluded from solution design processes, leading to low adoption. A human-centered design (HCD) approach, one that involves farmers in problem identification, design, testing, and scaling, ensures usability and trust. Co-creation enhances ownership and makes solutions contextually relevant.
Action Point:Embed human-centered design principles in all program cycles, ensuring smallholder representation in pilot testing, feedback sessions, and scaling strategies.

### Programming for Digital Public Infrastructure (DPI) and Artificial Intelligence (AI)

DPI and AI emerged as transformative pillars throughout the event. DPI provides the shared backbone for interoperability, while AI enhances precision, analytics, and predictive capability. The ALE called for joint public–private investments to build scalable, inclusive, and open digital infrastructure that underpins innovation across finance, advisory, insurance, and supply chains. Participants noted that AI tools should be localized, reflecting African languages, climatic patterns, and data realities.
Action Point:Develop joint DPI–AI programs co-owned by governments, research institutions, and the private sector, ensuring affordability, inclusivity, and local data sovereignty.

### Actionable Digital Advisory Service Content

While multiple digital advisory platforms exist, the actionability and accessibility of information remains limited. Most content is not localized or easily interpretable by smallholder farmers. The ALE highlighted the need for multichannel dissemination, SMS, voice, WhatsApp, and radio, to reach farmers with varying literacy levels. Advisory must be data-driven, timely, and actionable, turning insights into on-farm decisions.
Action Point:Invest in user research and local language content development to ensure that digital advisories are farmer-friendly, adaptive, and result-oriented.

### Credit Score Profile Development for Smallholder Farmers

A persistent obstacle to agricultural finance is the absence of credible credit profiles for smallholder farmers. Despite vast data generated by AgTechs, insurers, and input providers, most financial institutions cannot use it due to lack of standardization and trust. ALE participants recommended the creation of shared, interoperable credit profiling systems based on transaction, production, and behavioral data. Such systems would enable financial institutions to price risk accurately and extend credit sustainably.
Action Point:Establish a national farmer credit registry integrated into the DPI framework, using shared APIs to link AgTechs, banks, and cooperatives.

### Gender and Youth Inclusion as Core Design Principles

Women and youth remain the backbone of African agriculture yet face barriers in finance, technology adoption, and leadership. The ALE sessions revealed that inclusion must go beyond token participation to encompass agency, access, and benefit-sharing. Programs must tailor products to women's value chains, flexible payment models, and digital literacy needs, while youth engagement should prioritize innovation hubs and skill-building for AgTech entrepreneurship.
Action Point:Embed gender- and youth-sensitive indicators and budgets in all AgTech programs, ensuring inclusive access to finance, data, and decision-making processes.

### Strengthening Impact Measurement and Data Governance

The AgriFin–Briter masterclass revealed that impact data drives investor confidence. Programs must integrate low-cost, standardized impact measurement frameworks that link operational metrics to farmer outcomes. Furthermore, shared data governance protocols are critical to protecting privacy while promoting transparency.

Action Point:Institutionalize a unified impact measurement and reporting framework for AgTech programs, harmonized with tools like AgBase to ensure comparability and credibility.

### Ecosystem Capacity Building and Systems Leadership

Transformation requires systems leadership, leaders who can manage complexity, foster collaboration, and sustain long-term change. ALE participants agreed that capacity-building initiatives must move beyond technical skills to include systems thinking, partnership brokering, and adaptive management.

Action Point:Establish regional systems leadership fellowships and cross-sector training programs to nurture leaders capable of driving collective impact in digital agriculture.

## Policy Recommendations

### Creating an Enabling Policy and Regulatory Environment

Governments play a critical role in unlocking agricultural innovation. The ALE underscored the need for policies that incentivize investment, enable data sharing, and reduce compliance burdens for innovators. Harmonizing national and county-level regulations and adopting risk-based supervision will promote financial inclusion and innovation.

Action Point:Develop national digital agriculture policies anchored on the Digital Agriculture Roadmap (DAR) and ensure alignment across ministries, regulators, and private actors.

### Incentivizing Digital Agricultural Finance

Regulatory frameworks should recognize that digital finance significantly lowers transaction costs for smallholder lending. However, taxes and collateral requirements continue to limit access. Governments should remove excise duties on digital finance transactions, subsidize agricultural credit, and recognize alternative collateral forms such as warehouse receipts, group guarantees, or crop insurance.
Action Point:Review financial regulations to encourage innovation in agricultural lending and create tax incentives for financial institutions serving smallholder farmers.

### Improving Access to Smartphones and Connectivity

Digital transformation cannot occur without access to affordable devices and internet connectivity. ALE participants observed that women and smallholders remain excluded due to high costs of smartphones and data.
Action Point:Reduce taxes and import duties on smartphones and agricultural data bundles; expand last-mile network infrastructure through public–private partnerships to improve connectivity in rural areas.

### Strengthening Data Governance and Digital Sovereignty

As AI and DPI adoption accelerates, governments must protect data privacy while enabling interoperability. Participants cautioned against unregulated data extraction by external actors, advocating for locally governed data systems.
Action Point:Establish national data protection and ethical AI frameworks to ensure responsible innovation, with clear standards for consent, use, and sharing of agricultural data.

### Institutionalizing Public–Private Partnership (PPP) Platforms

The success of Kenya's AgTech PPP Facility demonstrated the value of structured collaboration between government, private sector, and development partners.
Action Point:Institutionalize neutral PPP platforms at regional and national levels to coordinate investments, avoid duplication, and promote joint accountability in digital agriculture development.

### Mainstreaming Digital and AI Literacy in Agricultural Education

To sustain transformation, the workforce must evolve. ALE discussions emphasized the importance of integrating digital literacy, AI awareness, and data skills into agricultural training curricula and extension systems.
Action Point:Revise national agricultural education frameworks to include digital agriculture modules, AI ethics, and data-driven decision-making.

### Promoting Local Manufacturing and Data Hosting

Dependence on imported technology and foreign-hosted data poses economic and security risks.
Action Point:Create incentives for local manufacturing of digital devices and cloud infrastructure hosting within Africa to strengthen sovereignty, reduce costs, and build regional resilience.

### Advancing Gender-Responsive Policy Frameworks

Policymakers must design gender-transformative policies that address structural inequities in access to finance, land, and digital tools. This includes promoting equal ownership of assets, joint land titling, and targeted financial instruments for women farmers.
Action Point:Enforce gender mainstreaming across agricultural and ICT policies and track progress through gender-disaggregated data and national dashboards.

### Establishing Regional Knowledge-Sharing and Benchmarking Platforms

To accelerate collective progress, countries should collaborate on regional knowledge exchange and benchmarking of digital agriculture initiatives.
Action Point:Set up an African AgTech Observatory under a regional body (e.g., AU or COMESA) to monitor investments, impact, and innovation trends, promoting peer learning and accountability.

# GLOSSARY AND ACRONYMS

| Acronym | Meaning |
|---|---|
| ALE | AgriFin Learning Event |
| AI | Artificial Intelligence |
| AgTech | Agricultural Technology |
| AgriFin | Mercy Corps AgriFin |
| AgBase | Agriculture Intelligence and Market Insights Platform |
| Agri-SMEs | Agricultural Small and Medium Enterprises |
| AgriGhalla | AgriBora-powered Agri Storage and Financing Platform |
| Agnexus Africa | Agnexus Agribusiness Intelligence Platform |
| Acre Africa | Agriculture and Climate Risk Enterprise Africa |
| B2B | Business to Business |
| Briter | Briter Intelligence |
| Busara | Busara Global Behavioral Science Lab |
| CSA | Climate Smart Agriculture |
| DCSA | Digital Climate Smart Agriculture |
| DAR | Digital Agriculture Roadmap |
| Dev Global | Development Global Digital Solutions Lab |
| DPI | Digital Public Infrastructure |
| Eprod | Enterprise Productivity Supply Chain Management Platform |
| FAO | Food and Agriculture Organization |
| FCDO | Foreign, Commonwealth and Development Office |
| FSD Kenya | Financial Sector Deepening Kenya |
| GBF Fund | Green Business Fund |
| GDP | Gross Domestic Product |
| ICIPE | International Centre of Insect Physiology and Ecology |
| IDH | The Sustainable Trade Initiative |
| IFC | International Finance Corporation |

| Acronym | Meaning |
|---|---|
| ISDA | International Smallholder Development Agency |
| KALRO | Kenya Agricultural and Livestock Research Organization |
| KETHA | Kenya Agri-Finance and Innovation Hub |
| Kiifya | Kiifya Digital Financial Services |
| KIMIS | Kenya Integrated Management Information System |
| LERSHA | Lersha AgriTech Platform |
| MCA | Mercy Corps AgriFin |
| Mediae | Mediae Farmer Education and Mass Extension Platform |
| MoA | Ministry of Agriculture |
| MOCHA | Mobilizing Coffee Lovers into Agricultural Investment |
| MSME | Micro, Small and Medium Enterprises |
| NCBA Loop | NCBA Digital Banking Platform |
| NGO | Non-Governmental Organization |
| NPS | Net Promoter Score |
| PPP | Public-Private Partnership |
| RHEA | AI-powered Personal Agronomist on WhatsApp |
| SHFs | Smallholder Farmers |
| SACCO | Savings and Credit Cooperative Organization |
| UNCDF | United Nations Capital Development Fund |
| USAID | United States Agency for International Development |
| VSLA | Village Savings and Loan Association |
| WFP | World Food Programme |

# ANNEXES

# ANNEX 1:EVENT PROGRAM

## Mercy Corps AgriFin 9th Annual Learning Event Draft Program

**Radisson Blu, October 14th 2025**

| **Data Driven innovations and Investment:Harnessing intelligence to build sustainable, investable Agri-Food Systems.** | |
|---|---|
| **Time** | **Activities – Exhibitors will be available whole day** |
| **7:00 a.m. - 8:30 a.m.** | **Guest arrival and breakfast** |
| **8:30 a.m. - 9:00 a.m.** | **Opening Remarks/Keynotes- Mt Kilimanjaro**<br><br>This session seeks to set the tone, grabbing the audience's attention and encouraging them to participate and contribute to the sessions that follow.<br>• Sieka Gatabaki – Program Director, Mercy Corps AgriFIn<br>• Stewart Collis - Senior Program Officer, Gates Foundation<br>• Tamara Cook- FSD Kenya CEO<br>• Abrhame Endrias – Founder LERSHA |
| **9:00 a.m. – 10:00 a.m.** | **Presentation on Global State of Digital Agriculture Report**<br><br>This presentation unpacks the Global State of Digital Agriculture Report, spotlighting AgTechs in emerging markets, respective investment flows that are driving innovation across food systems. From capital trends to transformative technologies, it uncovers how strategic funding is shaping the future of global food resilience and sustainability.<br>**Presenter:**Umang Prabhakar ISF<br>**Facilitator:**Dario Giuliani- Managing Director and Founder Briter |
| **10:00 a.m. - 10:30 a.m.** | **Refreshment Break** |
| **10:30 a.m. - 12:45 p.m.** | **SESSION 1- Mt Kenya - Roundtable**<br>**Bridging the Investment Gap:Unlocking Capital and Innovation for Agri-SMEs:**<br>A deep dive into aligning capital, innovation, and finance to strengthen Agri-SMEs and transform food systems<br>**Session leads:**Grace Njoroge<br>**Fireside chat speakers:**<br>• Jared Osoro- Financial Sector Economist, Central Bank of Kenya<br>• Millycent Aoko- Investment Manager, Acumen East Africa<br>• Munyi Nthigah- CEO, Ketha<br>**Group discussions and revolving mic share-out**<br>**Closing session remarks:**Mike McCaffrey, Regional Digital Manager, UNCDF |

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|---|---|
| **10:30 a.m. - 12:45 p.m.** | **SESSION 2- Kilimanjaro-Theatre style**<br>**Harnessing Emerging Technologies to Unlock Investments for Agri-SMEs:**Cross sectional convergence (AgriTech-Fintech-AI synergies)<br>Africa's agriculture is full of potential, and AI could be the game changer. This session dives into how smarter investments—in people, data, and digital infrastructure—can help unlock that promise. Speakers will share real stories, challenges, and opportunities shaping AI adoption in agri-SMEs, and explore how partnerships and innovation can drive lasting impact across the continent.<br><br>**Session lead:Emmanuel Makau**<br><br>**Presenters**<br>• Jessica Colaco – CEO Lintons Foundation<br>• Nathanial Peterson – Senior Scientist Climate Action Lever The Alliance of Bioversity International & CIAT<br>• Dr Denis Mujibi – Associate Director, Strathmore AgriFood Innovation Center (SAFIC)<br>• Hafsa Jumare Founder and CEO CoAmana<br><br>**Panelists**<br>• Alfred Ongere – Founder and CEO AI Kenya<br>• Charlene Migwe – Program Director Caribou<br>• Dr. Shiko Gitau – Founder and Managing Director Qhala<br>• Stewart Collis - Senior Program Officer, Digital Solutions, Agricultural Development at Bill and Melinda Gates Foundation |
| **10:30 a.m. - 12:45 p.m.** | **SESSION 3- Mt Elgon Round Table**<br><br>**Strengthening Ecosystems**:Coordination and Partnerships for Scaling AgTech:<br>To explore ecosystem solutions which facilitate collaboration and coordination for uniform collective investments and growth of Agri-SME Ecosystems.<br>Present the vision, design, and value proposition of the World Bank Kenya PPP Facility.<br><br>**Session Lead:Samuel Karanja**<br><br>**Presenters:**<br>• Marie-Agnes Jouanjean<br>• Lavender Apollo<br><br>**Guided Group Discussions:** Printed prompt cards<br><br>**Fireside chat Panelists**<br>• Moderator- Dario Guiliani, Founder at Briter Bridges<br>• Mike Kigathi, Digital Agriculture Specialist, FAO<br>• Marie-Agnes, Senior Agricultural Economist, World Bank<br>• Elana Laichena, Managing Director Kenya, Delta40<br>• Salome Wanjiku, Financial Inclusion and International Development Specialist, CGAP |
| **12:45 p.m. - 2:30 p.m.** | **Lunch break/Networking/Marketplace** |
| **2:30 p.m. - 3:30 p.m.** | **Masterclass - Mt. Elgon**<br>**Enhancing influence:**Systems Leadership for Transformation in Digital Agriculture - Wasafiri Consulting<br>The session will equip participants with a clear understanding of Systemcraft as a practical leadership tool, enabling them to apply its five dimensions across diverse contexts to tackle complexity and drive change.<br><br>**Facilitators:**<br>• Stella Odhiambo – Communications & Engagement Lead<br>• Ledama Masidza – Connect & Food Systems Action Lead |

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| **2:30 p.m. - 3:30 p.m.** | **Masterclass - Mt. Kenya**<br>**Strengthening Impact Measurement for Agtechs**<br>The session will provide an overview of the importance, approaches, and indicators to be measured during an impact assessment, indicating how to collect and report data from users cost effectively.<br>In addition, the session will introduce the impact toolkit that seeks to ensure that institutons/Agtechs communicate and share the value of their work through the AgBase platform.<br><br>**Facilitators:**<br>• Ritah Setey, Mercy Corps AgriFin<br>• Lydia Wafula, Mercy Corps AgriFin<br>• Audrey Chebet, Briter |
| **2:30 p.m. - 3:30 p.m.** | **Masterclass- Mt. Kilimanjaro**<br>**De-risking last mile distribution and climate investment through agent network optimization-** Alliance for Biodiversity- CGIAR – Mt. Kilimanjaro<br>The session will include a presentation from the Enabling Market Intelligence and Building Engagement (EMBE) project. The project implemented by Alliance of Bioversity International and CIAT, which is part of CGIAR works to provide data, analysis, and insights into agricultural markets and systems. It will involve an audience engagement/interactive segment.<br><br>**Facilitators**<br>• Nathanial Peterson, Senior Scientist \| Climate Action Behavioral Optimization & Private Sector Support, Alliance of Bioversity International and CIAT<br>• Millicent Omala, Climate Finance Policy Expert, Climate Action, Alliance of Bioversity International and CIAT<br>• Rahab Kariuki, Engagement Director, Risk Management Portfolio, Busara |
| **3:30 p.m. - 4:00 p.m.** | **Refreshment break** |
| **4:00 p.m. - 5:30 p.m.** | Reverse pitching session- Mt. Kilimanjaro<br>What We Wish You Knew:Insights from the Other Side<br>As part of this multi-session program, the session will offer a fresh approach to connecting startups with the right capital and strategic partners. It builds on ALE's mission to foster collaboration, transparency, and meaningful partnerships across the agricultural innovation ecosystem.<br><br>**Speakers/Pitchers:**<br>• Dario Giuliani- Managing Director and Founder Briter<br>• Fred Kiio- Associate Director- Agri Business at the AECF ( Africa Enterprise Challenge Fund)<br>• John Kavilu- Senior Manager KPMG - Impact Finance Lead<br>• Mwombeki Baregu- Investment Officer IFC.<br>• Eugene Gikonyo- Investment Principal at Mercy Corps Ventures<br>• Philip Moturi- Head of Ecosystem Business, NCBA group<br>• Larissa Shnayder - Innovation Manager IDH<br>• Kuria Wanjau- Manager FSD Africa<br>**Session Lead:**Elias Nure<br>**Closing Remarks:**Sieka Gatabaki |
| **All Day** | **Market exhibition booth** |
| **6:30 p.m -8:30 p.m.** | Networking Event<br><br>Guests leave at their leisure |


MERCY CORPS AGRIFIN | AGRIFIN LEARNING EVENT