GSMA AgriTech Webinar, 3rd October 2019
Making The Case For Agribusinesses To Invest In Last-Mile Digitisation
Webinar agenda

• The GSMA AgriTech programme
• Challenges emerging in last-mile sourcing
• Agribusiness benefits from value-chain digitisation
• Measuring success of digital-tool implementation
• The GSMA Innovation Fund for digitisation of agricultural value chains
• Support package for agribusinesses
• Partnership opportunities
• Q&A
THE GSMA

Has represented the interests of mobile operators worldwide for more than 30 YEARS

Unites more than 750 mobile operators with almost 400 companies in the broader mobile ecosystem

Convenes more than 200,000 people annually from across the globe to industry-leading events

Focuses on activities where collective action can deliver significant benefits

Led the mobile industry to formally commit to the Sustainable Development Goals
58 million lives impacted to date

We drive innovation in digital technology to reduce inequalities in our world
Reducing inequalities in our world

**CLEANTECH**
Leveraging digital technology as an enabler for the world’s transition towards sustainability

**ASSISTIVE TECH**
Improving the accessibility and affordability of mobile services for persons with disabilities

**M4D UTILITIES**
Unlocking access to affordable and improved energy, water and sanitation services

**MOBILE FOR HUMANITARIAN INNOVATION**
Accelerating the delivery and impact of digital humanitarian assistance

**MOBILE MONEY**
Accelerating the digital financial ecosystem for the underserved

**CONNECTED SOCIETY**
Addressing access and usage barriers to increase mobile internet adoption

**CONNECTED WOMEN**
Reducing the gender gap to increase digital and financial inclusion for women

**DIGITAL IDENTITY**
Enabling robust and unique digital identity for greater inclusion

**ECOSYSTEM ACCELERATOR**
Delivering social impact and scale through mobile innovation

**AGRITECH**
Digitising the agri value chain to drive mobile financial inclusion for small holder farmers
The GSMA AgriTech Programme

**Vision**
Equitable and sustainable food chains that empower farmers and strengthen local economies

**Mission**
We bring together and support the mobile industry, agricultural sector stakeholders, innovators and investors in AgriTech space to launch, improve and scale impactful and commercially viable digital solutions for farmers in the developing world
Breaking down our focus areas

**Digitisation of procurement**
- Facilitate transition of agribusinesses to digital technologies in the food chain, with focus on procurement from smallholders:
  - Real-time communication
  - Digital payments and records
  - Transparency

**Climate resilience**
- Test and scale models for using mobile for climate resilience in agricultural sector, especially solutions for smallholders, such as:
  - Weather services
  - Climate-smart agriculture
  - Climate finance

**Financial inclusion**
- Develop farmer economic identity that allows access to financial instruments and income generating assets:
  - Digitisation of smallholder farmer records and profiles
  - Customised financial services
Holistic digital agribusiness tools integrate multiple digital solutions that address last-mile challenges

**Digital Solutions**

<table>
<thead>
<tr>
<th>BUSINESS CHALLENGES</th>
<th>DIGITAL SOLUTIONS</th>
</tr>
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<tbody>
<tr>
<td>Farmers do not follow best practices and lack skills and access to agri-related information, educational resources, etc.</td>
<td>1. <strong>Information services:</strong> Agricultural extension, education, certification standards, skills development</td>
</tr>
<tr>
<td>Cash payments are risky and costly for both agribusinesses and farmers. A cash economy also prevents farmers from accessing credit savings and insurance.</td>
<td>2. <strong>Mobile money:</strong> Transfers, payments and digital financial services</td>
</tr>
<tr>
<td>Farmers do not have the formal and/or economic identities necessary to capture transactional history, geolocation, farm size, etc.</td>
<td>3. <strong>Digital profiles:</strong> Mobile for authentication and verification and as a tool to create economic identities/digital profile</td>
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<tr>
<td>Agribusinesses need full and real-time visibility for traceability and certification of goods when sourcing from smallholders.</td>
<td>4. <strong>Track and trace systems, farm management systems</strong></td>
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<tr>
<td>Agribusinesses rely on manual systems that do not capture the data required for efficient equipment, farm and warehouse management.</td>
<td>5. <strong>IoT applications for agriculture:</strong> Equipment logistics, crop, soil and weather monitoring, smart warehousing</td>
</tr>
<tr>
<td>Agribusinesses rely on manual data management systems and lack real-time visibility into their business data.</td>
<td>6. <strong>Agribusiness analytics:</strong> Predictive analytics, precision agriculture</td>
</tr>
</tbody>
</table>
### Business challenges emerge across all stages of last-mile sourcing

#### Value-chain stages
- **Farmer recruitment**
  - Farm and farmer profiling
  - Farmer onboarding
  - Input provision
- **Capacity building**
  - Agri extension support
  - Farm Development Plans
- **Programme management**
  - Sustainability
  - Certification
  - Traceability
  - Outgrower schemes
- **Crop purchasing**
  - Crop collection
  - Crop transportation
  - Quality control
  - Warehousing
- **Financing**
  - Farmer payment
  - Advances and loans
  - Receipt issuing

#### LAST-MILE SOURCING

#### Example value-chain activities
<table>
<thead>
<tr>
<th>Value-chain activity</th>
<th>Farmer notification</th>
<th>Capacity building</th>
<th>Programme management</th>
<th>Crop purchasing</th>
<th>Financing</th>
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<tbody>
<tr>
<td>Flexible digital tool</td>
<td>Manual profiling is</td>
<td>Agri extension support</td>
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<td>Crop collection</td>
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<td>Mobile technology</td>
<td>Information dissemination is costly</td>
<td>Manual data collection impedes progress tracking at real time</td>
<td>Farmers side-sell as they are unaware of collection schedule</td>
<td>Farmer notifies buyer of intent to sell using mobile technology. Collection schedule is shared with farmers</td>
<td>Mobile money allows transition from cash to digital payments. Digital push notifications replace paper receipts</td>
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#### Example pain points
- Manual profiling is time-consuming and disorganised
- Manual record keeping makes reconciling input loans a challenging process
- Information dissemination is costly
- Farmers are often busy and unable to attend
- Manual data collection impedes progress tracking at real time
- Certification bodies may oppose manual records
- Farmers side-sell as they are unaware of collection schedule
- Crop collection vehicles are not utilised efficiently
- Cash payments are risky and costly
- Manual reconciliation of payments is lengthy and prone to errors

#### Opportunity for last-mile digitisation
- Farmer notifies buyer of intent to sell using mobile technology. Collection schedule is shared with farmers
- Mobile money allows transition from cash to digital payments. Digital push notifications replace paper receipts
### Business challenges emerge across all stages of last-mile sourcing

#### Value-chain stages

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#### Opportunity for last-mile digitisation

- **Flexible digital tool permits targeted and accurate collection of data in a variety of formats**

- **Mobile technology**
  - Allows crop buyers to disseminate information to farmers in a timely and cost-effective manner

- **Digital survey tool**
  - Allows users to develop personalised questionnaires and track programme progress at real time

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**Value chain stages**

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<tr>
<th>Value-chain stage</th>
<th>Activities</th>
</tr>
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</table>
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|                   | - Farmer onboarding  
|                   | - Input provision  |
| Capacity building  | - Agri extension support  
|                   | - Farm Development Plans  |
| Programme management | - Sustainability  
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Value-chain stages
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Value-chain digitisation leads to operational efficiencies and business performance improvements

Example use cases in agricultural value-chain digitisation

- Manage last-mile transactions
- Introduce traceability
- Keep track of field training implementation
- Communicate directly with field staff and farmers
- Create customised visualisations and action plans

Operational efficiencies

- Efficiently audit farmers for compliance with certification programmes
- Achieve full and real-time visibility
- Establish effective communication channels
- Assess individual farmer and community needs
- Increase farmer loyalty

Business-performance improvements

- Eliminate the high cost of cash payments
- Achieve better crop prices through improved management of crop quality
- Grow revenues by meeting the forecasted demand for crops
- Translate supply chain optimisation to profitability growth
Relevant KPIs are required to determine success of any digital tool implementation project

<table>
<thead>
<tr>
<th>1) Understand business objectives</th>
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<tbody>
<tr>
<td>Identify and define business objectives. Ensure commitment by all parties and attach clear timelines.</td>
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<table>
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<tr>
<th>2) Select KPIs</th>
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<tr>
<td>Determine drivers of your business objectives to decide on success metrics that help you measure progress.</td>
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<tr>
<th>3) Identify stakeholders</th>
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<tr>
<td>Identify project implementation partners and specific activities that employees can do to help achieve the business objectives.</td>
</tr>
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</table>
Example KPIs for measuring digital project success in cocoa value chain in Ghana

1. Evacuation: transfer of procured cocoa from purchasing clerk locations to cocoa buyer’s central warehouse.
MTN Ghana’s mAgric is a mobile-based application that enables purchasing clerks to record crop procurement from farmers digitally and pay farmers for their produce instantly via mobile money.

It address the inefficiencies of cash-based payments and the challenges of using paper-based systems. It offers buyers the opportunity to better manage the funds that go into the purchase of crops and maintain real-time visibility of the procurement process. Mobile money also reduces farmers’ travel time and waiting time for payments, increases payment security and offers financial stability through better money management. Digital payments can serve as an entry point to financial inclusion for previously unbanked farmers.

mAgric currently targets farmers in the cocoa value chain, Ghana’s most important cash crop and second largest export commodity. MTN Mobile Money is looking to expand the tool to more value chains and farmers.

Sourced from: GSMA, 2019, “Digitising the agricultural last mile in Ghana: MTN Mobile Money’s mAgric”
In June 2019, the AgriTech programme launched the **GSMA Innovation Fund (IF) for digitisation of agricultural value chains**. A consortium of mobile operator and / or AgriTech provider could apply for funding.

<table>
<thead>
<tr>
<th>Fund Objectives</th>
<th>GSMA Targets</th>
<th>Primary Use Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Scale enterprise solutions which digitise the agricultural last mile</td>
<td>• 700K Farmers</td>
<td>• Farmer profiling</td>
</tr>
<tr>
<td>• Promote farmer financial inclusion, livelihood and climate resilience</td>
<td>• 8 Markets</td>
<td>• Procurement &amp; payment</td>
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<td></td>
<td>• 24 Months</td>
<td>• Communication / advisory</td>
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<tr>
<td><strong>Secondary Use Cases</strong></td>
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<tr>
<td>• Hyperlocal weather forecasts</td>
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<td>• Hyperlocal weather forecasts</td>
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<tr>
<td>• Decision agriculture</td>
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<td>• Decision agriculture</td>
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<tr>
<td>• Derivative mobile financial services (e.g. credit)</td>
<td></td>
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</tbody>
</table>
The fund will support up to 8 projects in eligible countries in Africa and Asia

Africa:
- Angola
- Benin
- Burkina Faso
- Burundi
- Cameroon
- Chad
- Côte d'Ivoire
- Democratic Republic of Congo
- Ethiopia
- Gambia
- Ghana
- Guinea
- Guinea-Bissau
- Kenya
- Liberia
- Madagascar
- Malawi
- Mali
- Mauritania
- Mozambique
- Niger
- Nigeria
- Rwanda
- Senegal
- Sierra Leone
- Swaziland
- Tanzania
- Togo
- Uganda
- Zambia
- Zimbabwe

Asia:
- Bangladesh
- India
- Indonesia
- Nepal
- Myanmar
- Pakistan
- Sri Lanka

Note: Markets highlighted in red are eligible for both Data Driven & Mobile Money Driven categories, while the rest are eligible for Mobile Money Driven only
**Support package for agribusinesses**

IF applicants need to secure commitments (at least one qualifying agribusiness partner and two further agribusiness clients) to pilot the service with. For selected markets, **GSMA can match you with IF applicants.**

| Who can join? | Agribusiness client | Agribusiness partner  
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<tr>
<td></td>
<td>Any agribusiness that aligns with the IF objectives and commits to being a pilot client via an MoU or LoI.</td>
<td>Any agribusiness that is developing or implementing plans to optimise field operations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What’s in for me?</th>
<th>Agribusiness client</th>
<th>Agribusiness partner</th>
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<tbody>
<tr>
<td></td>
<td>Results from design research that provide greater visibility into last mile operations. A subsidised service trial period to test the service.</td>
<td>Risk capital (via the lead applicant) to mitigate risks of investing in last mile digitisation. Funding to travel to and participate in GSMA Working Groups.</td>
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<thead>
<tr>
<th>What are my responsibilities?</th>
<th>Agribusiness client</th>
<th>Agribusiness partner</th>
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<tr>
<td></td>
<td>Participate in User Experience (UX) and product design field research. Host a service pilot and share commercial data as part of a data driven product iteration process and for donor reporting purposes.</td>
<td>Support the lead applicant with understanding the wider agribusiness and agricultural landscape of the operating market. Support other agribusinesses understand the opportunity to digitise the last mile.</td>
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<thead>
<tr>
<th>What commitment is required?</th>
<th>Agribusiness client</th>
<th>Agribusiness partner</th>
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<tr>
<td></td>
<td>Make staff and farmers available for UX and product design interviews. Make management available for input into product requirements. Allocate resources needed to deploy a pilot (e.g. farmer on boarding).</td>
<td>Participate in additional aspects of UX and product design research. Allocate a 20 per cent full time employee with clear KPIs associated with last mile digitisation. Participate in knowledge sharing activities.</td>
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</table>
Innovation Fund timeline

2019

May

Concept notes

Jun

Business Plans

Jul

Sep

Oct

Nov

Dec

Jan

Feb

Mar

2020

Business Plan submission deadline 31st October 2019

We are here

Agribusiness profiling

Panel

Contracting
Partnership opportunities

If you are an agribusiness
   Join an applicant consortium until 31 October
   Participate in GSMA’s agribusiness profiling (9 Oct to 10 Nov)

If you are an IF business plan applicant
   Contact your MEM now if you need support with identifying agribusiness partners

If you are an AgriTech
   Introduce agribusiness contacts to IF applicants and the GSMA

To find out more, please contact Panos Loukos at ploukos@gsma.com