

An Agriculture Use Case for ID

An Overview of the Mastercard Farmer Network

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Amha Mogus, Director of User Experience

Mastercard Lab for Financial Inclusion

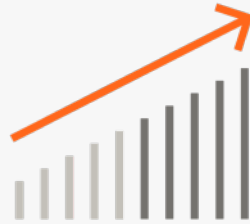


Agriculture in Sub-Saharan Africa



750M

smallholders farmers
in Africa by 2030. (1)



\$880B

Projected annual
agricultural output in
Africa **if key barriers** are
addressed. Currently
\$280B / year. (2)



<6%

farming households using
DFS beyond basic wallet
& P2P e.g. that use long
term savings accounts or
access loans for inputs,
equipment or labour. (3)



64%

of farming
households own a
mobile phone.

1. CIAT STUDY: [HTTPS://CCAFS.CGIAR.ORG/PUBLICATIONS/HOW-MANY-FARMERS-2030-AND-HOW-MANY-WILL-ADOPT-CLIMATE-RESILIENT-INNOVATIONS#_WANNMON97IU](https://ccafs.cgiar.org/publications/how-many-farmers-2030-and-how-many-will-adopt-climate-resilient-innovations#wannmon97iu)
2. MCKINSEY GLOBAL INSTITUTE: [HTTP://WWW.MCKINSEY.COM/GLOBAL-THEMES/MIDDLE-EAST-AND-AFRICA/LIONS-ON-THE-MOVE](http://www.mckinsey.com/global-themes/middle-east-and-africa/lions-on-the-move)
3. BILL AND MELINDA GATES FOUNDATION: AG + FSP PROGRAM PLAN 2014

Defining the Farmer Problem Statement

Target Customer

Smallholder farmers selling their produce either individually or via groups such as Farmer Producer Organizations or cooperatives.

Description of pain points

Farmers are desperately looking for **better markets and pricing** for their produce. They currently depend on several tiers of **middlemen** to access the market and are often **cheated on pricing**. Additionally, farmers do not access relevant financial services from financial institutions who see them as risky and not credit worthy.

Problem to be addressed

MFN is an agriculture marketplace platform that digitizes payments, workflows, and farmer transaction histories, bringing to bear the much needed efficiency and cost savings to the agriculture value chain.

Defining the Agribusiness Problem Statement

Target Customer

Agribusinesses, sourcing a variety of produce from farmer organizations, traders or individual farmers.

Description of pain points

At harvest time, agribusiness must **source commodities** via numerous phone calls and in-person trips, and pay smallholders and cooperatives in large volumes of cash. Furthermore they are **unsure of what produce is available** from farmers and the expected quality.

Problem to be addressed

MFN is an agriculture marketplace platform that digitizes payments, workflows, and farmer transaction histories, bringing to bear the much needed efficiency and cost savings to the agriculture value chain.

Agriculture

Mastercard Farmer Network (MFN) is an agriculture platform that digitizes marketplaces, payments, workflows, and farmer transaction histories. The platform seeks to drive agri-value chain efficiencies for actors such as farmers, aggregators, buyers, financial institutions and value added service providers. The platform is currently in use in East Africa and India.



3 Key Moments in the Farmer's Journey



Desirable



Feasible



Commercial



Principles While Considering Agriculture Identity

1

Accessibility through multiple form factors.



Card based model



Smartphone or feature phone based model

2

Secure, Scalable, and Easy to Understand



Explaining values and answering questions



Restful API's to facilitate interoperability



Best in class security insights

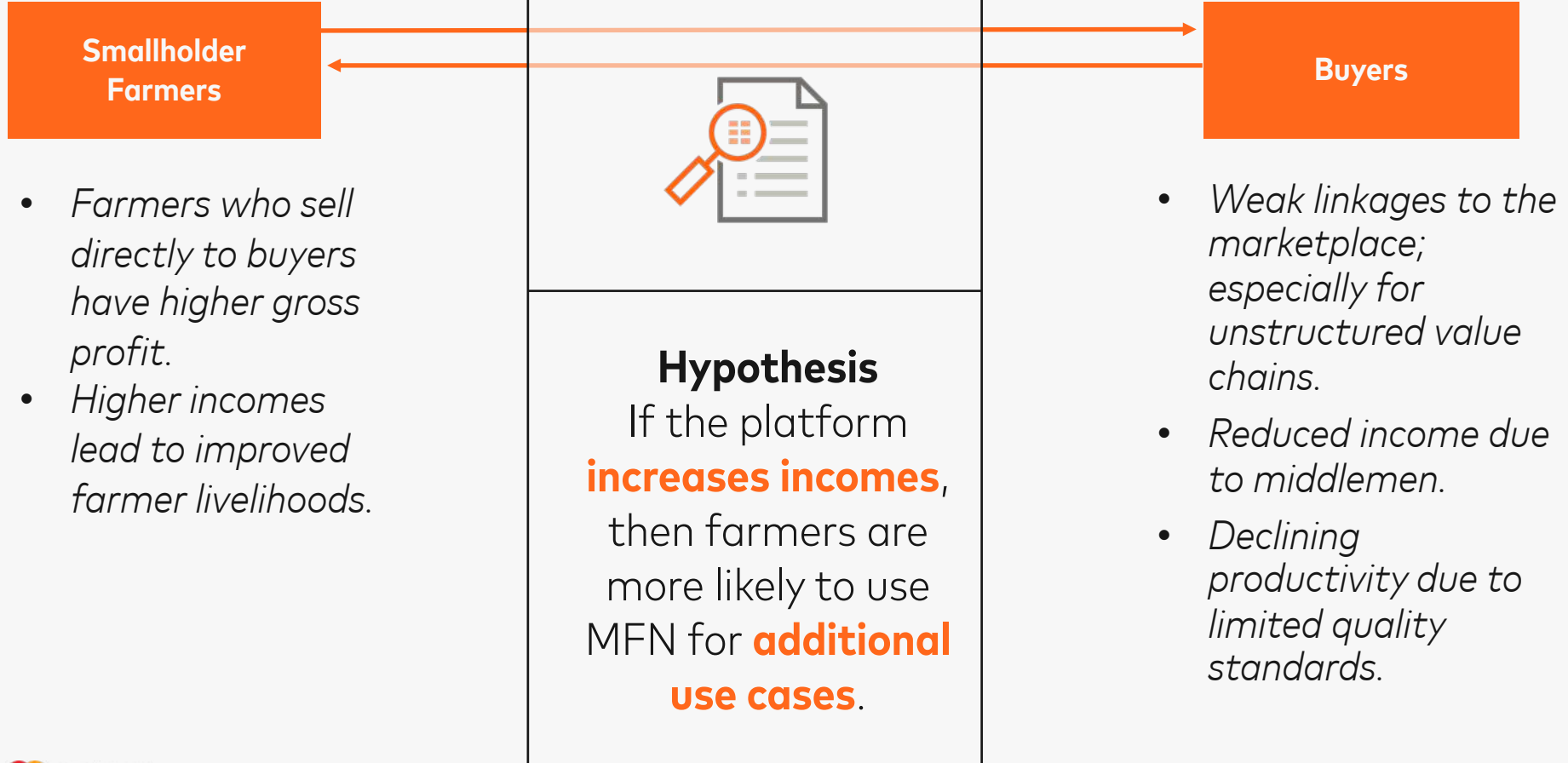
3

Ensuring Privacy



Privacy by Design

Marketplace Led Approach



The Marketplace Led Model Operationalized

ONBOARDING

1
Buyers, aggregators
and farmers
Register on MFN



DIGITAL TRANSFORMATION

3
Broadcast
order via
mobile, web,
or SMS



4
Suppliers
respond to
order

LOGISTICS

5
Supplier
collects
produce from
farmers



6
Buyer's field agent **collects**
produce & **pays supplier**

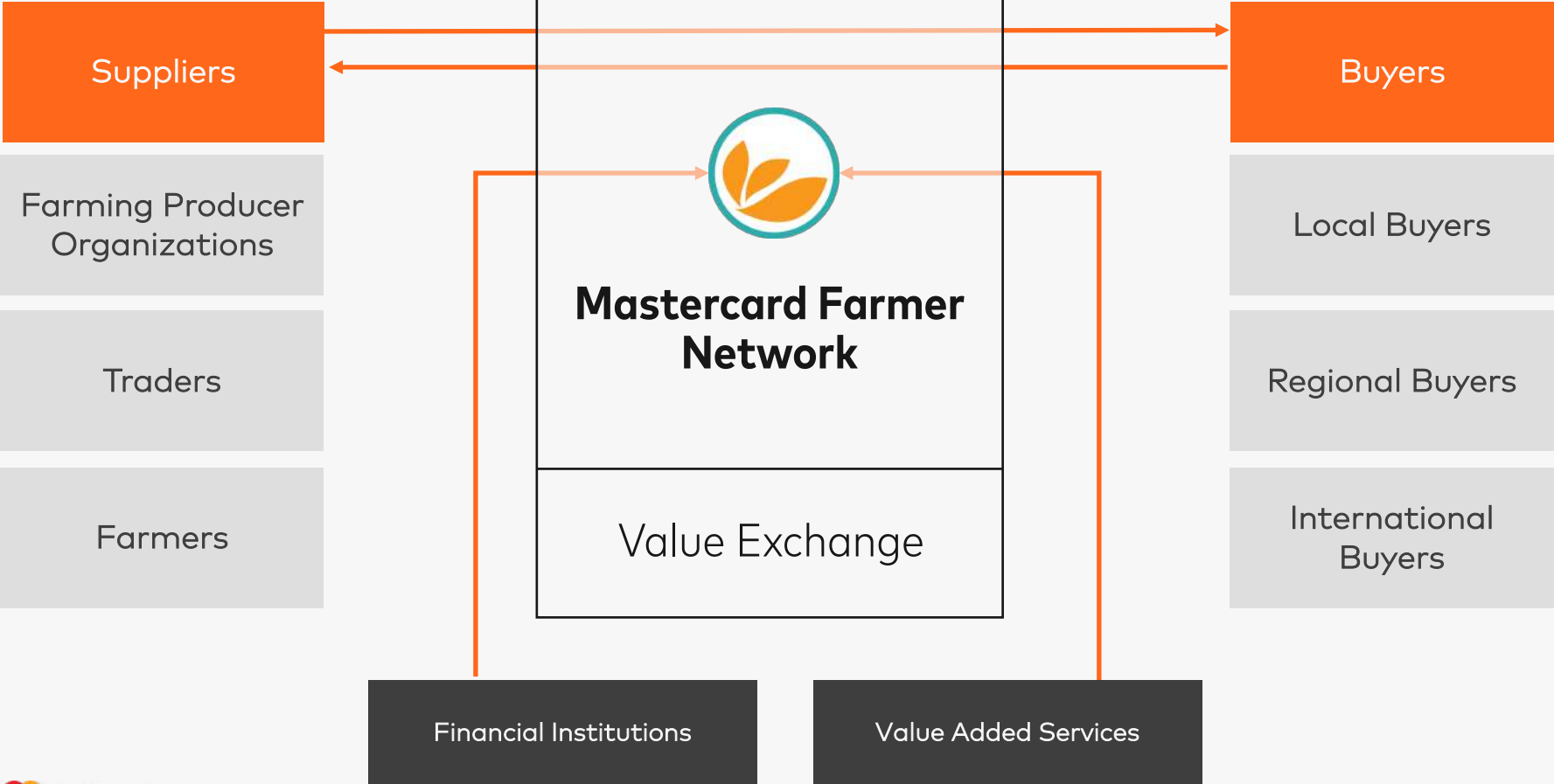


PAYMENT

7
Supplier **pays**
farmers



Scaling the Marketplace Model



Key Platform Components

Value Added Services

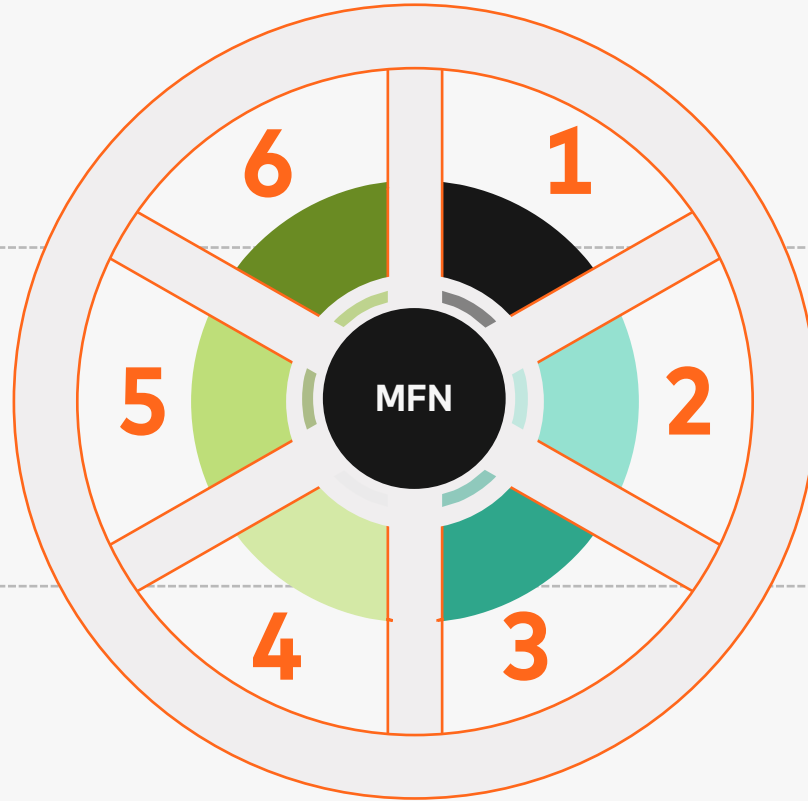
API capability to allow third parties to offer services (e.g logistics, extension, mechanization).

Agri-Input Management

API capabilities to allow third party input procurement and distribution to groups of farmers/FPOs

Financial Services

API capability to allow FSP to process payments, issue credit, insurance etc. to farmers and value chain actors



Registration

API for third party farmer data sharing; bulk upload via web and mobile registration of farmers. Consider farmer self registration via SMS or USSD

Communication Management

Web capability for enterprise clients to communicate to staff and farmers via SMS; Enable 2-way communication for farmers to request services via SMS

Order & Collection management

Allow buyers to order, collect and pay FPOs and farmers. Option for API with buyers with legacy procurement systems.


Interoperability Expanded through Ecosystem Stakeholders



4. FinTechs.
Financial Services, Payments.



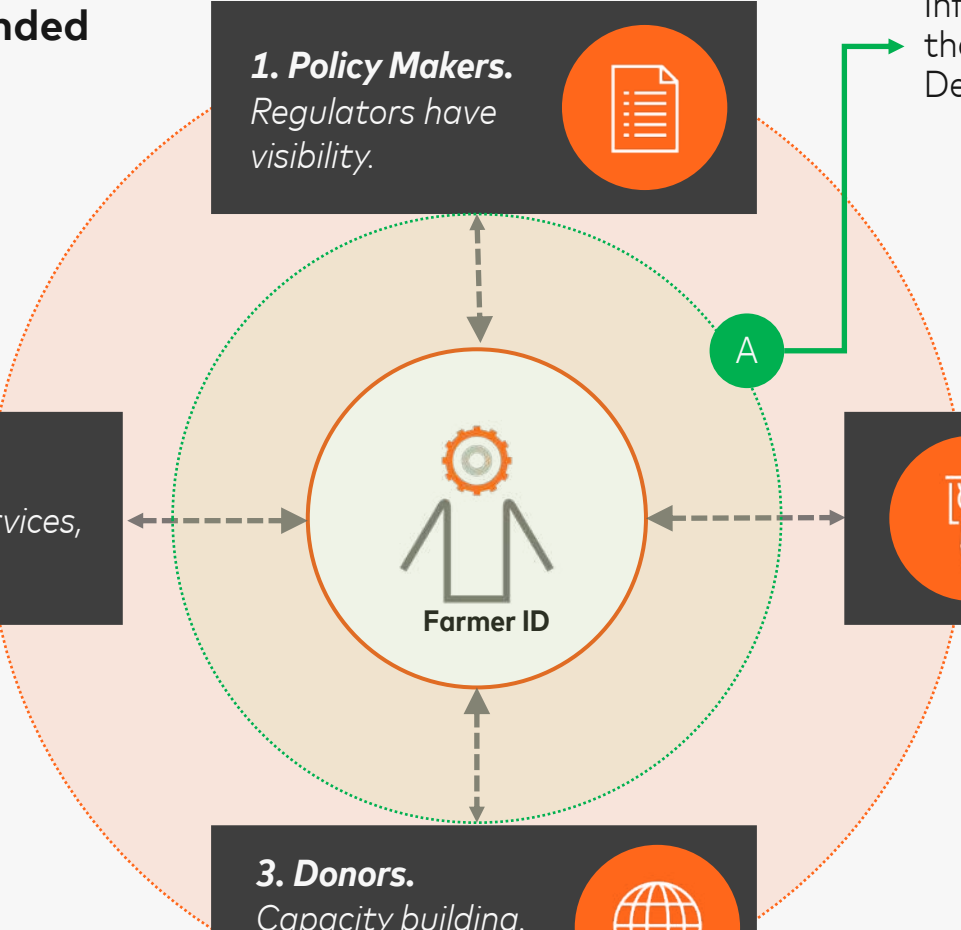
1. Policy Makers.
Regulators have visibility.



2. Commercial.
Third party service providers.

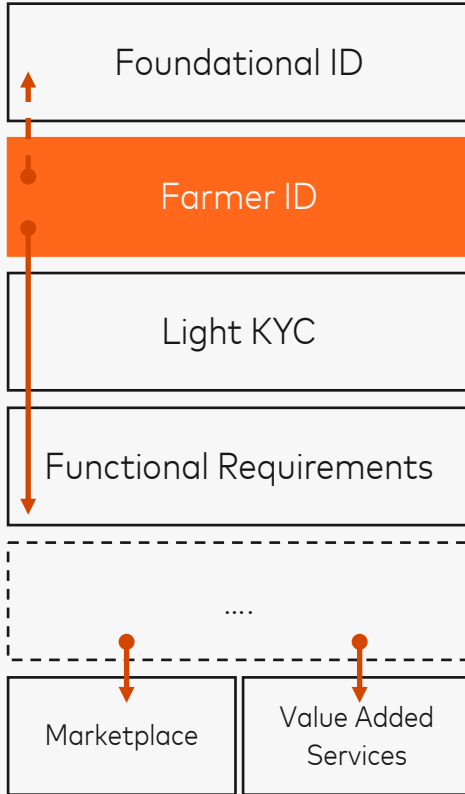


3. Donors.
Capacity building.



Information control layer that leverages Privacy by Design.

On Farmer ID



• What is Farmer ID?

Farmer ID is a digital identity scheme that is designed to be extensible. Given the agriculture value chain, Farmer ID is functional in nature, but can expand to include foundational ID schemes as well.

• How do we drive farmer engagement?

- We work primarily with agribusiness partners to register farmers.
- Information session and training's are incorporated into the service model to facilitate understanding.
- Data capture is incremental and governed by the minimum data required for a given service.

Can We Solve Broader Ecosystem Inefficiencies?



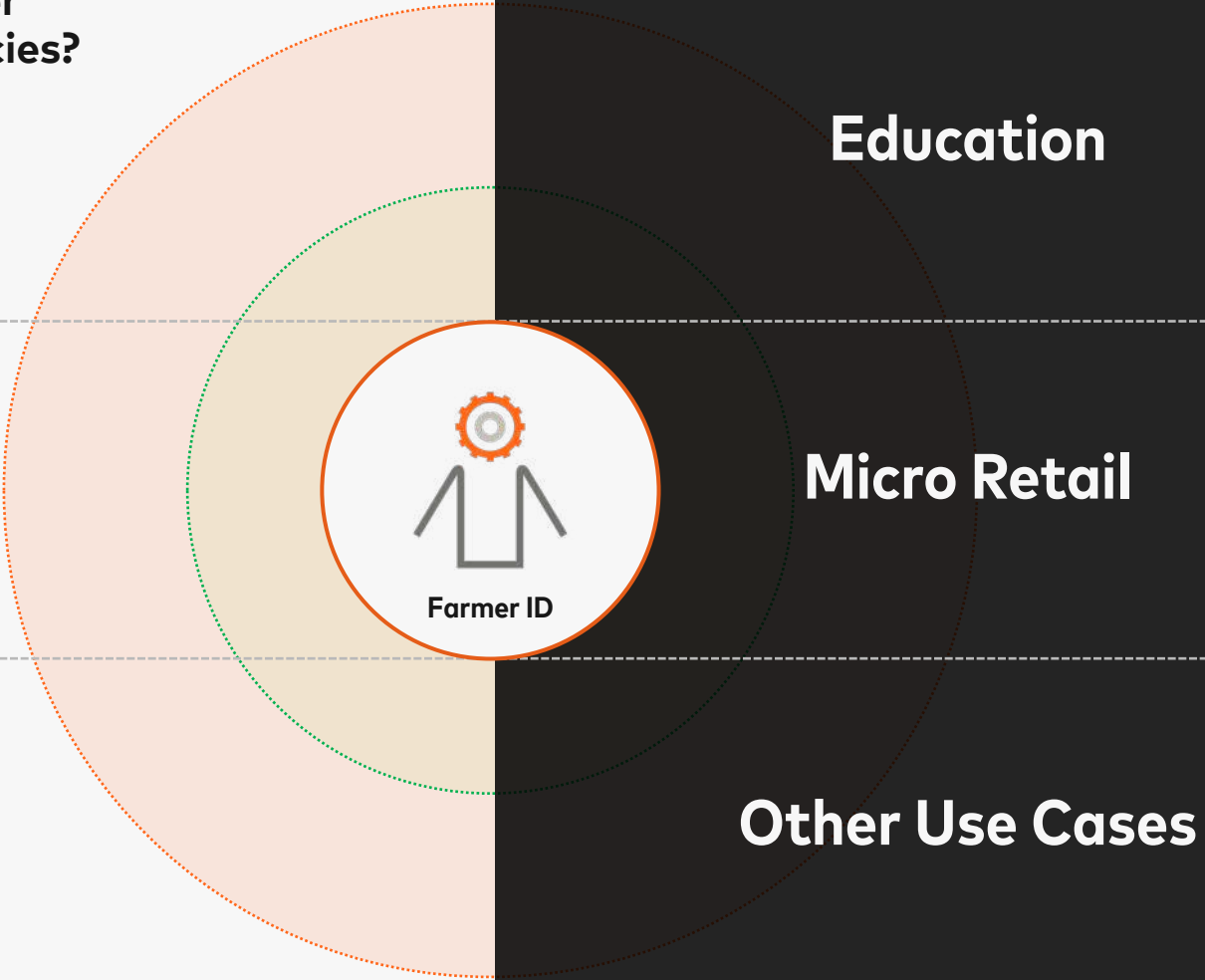
Desirable



Feasible



Commercial



Education

Micro Retail

Other Use Cases



THANK YOU

Amha Mogus

Director of User Experience

Mastercard Lab for Financial Inclusion

amha.mogus@mastercard.com | Twitter: @Amha