

Supporting



Digital Ethiopia

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Ethiopia Digital Connections for Prosperity

ACCELERATING INNOVATIONS: DIGITAL ETHIOPIA 2025

January 2023

This is an initiative to support the Prime Minister's Office Digital Advisor, the Ministry of Innovation and Technology and the Ministry of Agriculture in the implementation of the Ethiopia Digital Strategy 2025. The initiative is implemented by the Legatum Institute with support from the Cambridge University Business School and is funded by the Bill & Belinda Gates Foundation.

Digital Connections seeks to accelerate innovations for the benefit of the most disadvantaged Ethiopian citizens. It relies on the "Brokering Trust to Accelerate Innovations" framework developed by the Cambridge University Business School and successfully tested with the regional government of Cajamarca by the Legatum Institute.

This framework uses "neutral brokers" to connect innovative digital companies, which support social impact, with progressive government champions.

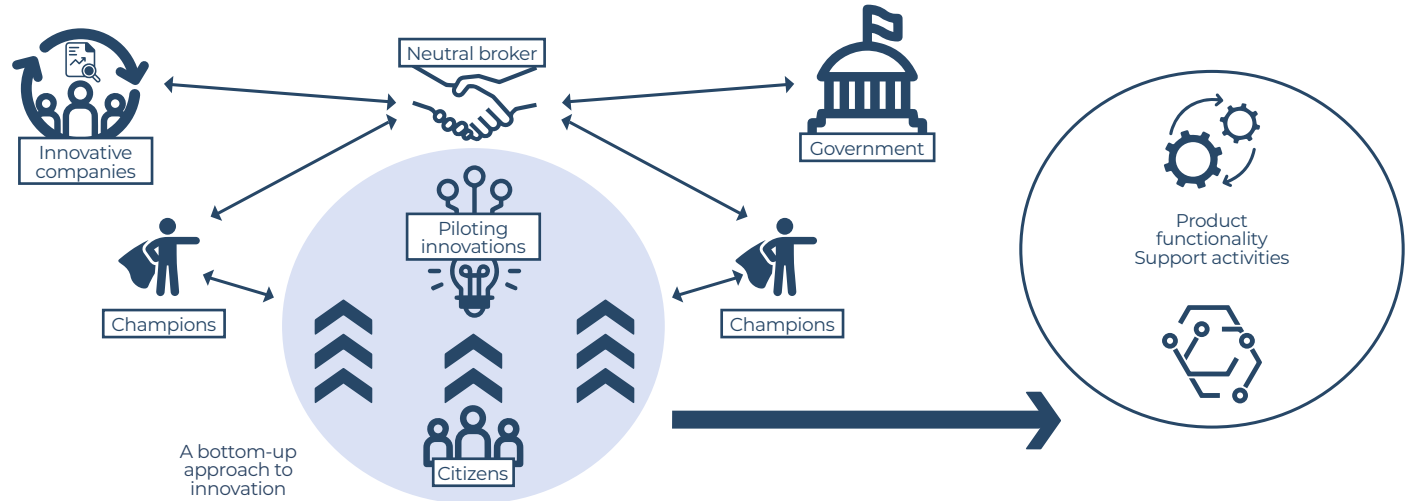
In Ethiopia, this initiative has brought together eight world-class innovative companies with government champions to support transformational digital projects and implementation of the Ethiopia Digital Strategy 2025. The India Stack has shown that building digital infrastructure can bring dramatic improvements in citizens' access to financial services and key public services.

Participating companies collaborate with each other and receive advice and feedback from government champions on how to make their projects most impactful for Ethiopian citizens.

The rest of this document presents the initiative and a profile of the eight participant companies.





Carlos Montes, Programme Director
Prof. Jaideep Prabhu
Prof. Filiberto Sebregondi

THE BROKERING TRUST TO ACCELERATE INNOVATIONS MODEL



Developed by Professor Jaideep Prabhu and Carlos Montes, University of Cambridge, 2022

DIGITAL CONNECTIONS: COMPANIES AND TARGETS

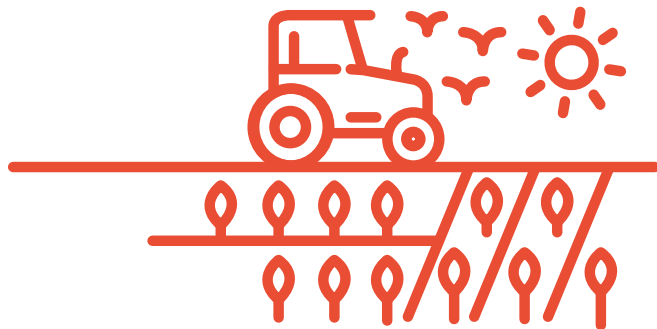
Participating Companies	2022 Results	Progress achieved				
		1	2	3	4	5
Hello Tractor 	50 tractors fitted with HT App					
M-pesa Africa/Safaricom M-PESA 	Specialty coffee pilot and agricultural extension pilot discussed					
CGIAR 	Beta National Agricultural Data Hub					
Precision Development 	Increase in digital advisory services to 40,000 dairy farmers					
Digital Green 	120 self-help group leaders (women farmers) use digital financial book					
Amazon Web Services 	Cloud Policy executive training programme requested for 2023					
Africa 118 for Google 	New programme					
Simprints 	New programme					



HELLO TRACTOR: UBER FOR THE FARM

Elevator pitch

60% of farms in sub-Saharan Africa are powered by humans and 220 million farmers live on less \$2 per day. HT is an app that allows farmers to rent tractors and use them as and when needed, and connects tractor owners with farmers that need the tractors, helping to make tractors more profitable.



Record so far:

- 2014 Nigeria: start; HQ in Kenya
- 17 countries, 3,000 tractors on platform and 600,000 farmers reached
- Partners: John Deere, Heifer International, AWS, Microsoft, Stanford University, Corteva, GSMA

How can HELLO TRACTOR help transform Ethiopia?

- Revolutionise agriculture: tractors boost production and increase income: planting 40 times faster at one-third of conventional costs.
- Help to build agri-digital ecosystem.
- Scale up innovative pay-as-you-go financing for tractors.
- Last mile booking agents with direct access to farmers.

“ Before when I did not use the tractor, I would get 100–120 bags of maize in a harvest, but now when I use the tractor, I get 200 bags of maize in the harvest. ”

**Hassan Dauda, Farmer,
Kano State, Nigeria**

HELLO TRACTOR in Ethiopia

End of 2022 results

50 tractors on the HT platform

Expected 2023 results

- 300 tractors on the HT platform
- Pilot common booking agents (Ethio telecom and Corteva)
- Pilot digital input loans to farmers (Ethio telecom)

Challenge

Availability of financing to meet demand from farmers.

 www.hellotractor.com



M-PESA: AFRICA'S MOST SUCCESSFUL MOBILE MONEY AND LARGEST FINTECH

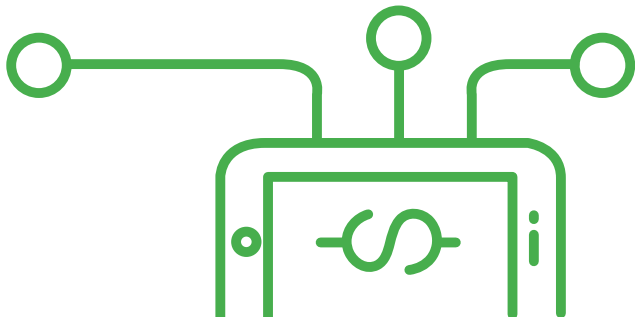


Elevator pitch:

Financial services to millions of people who have mobile phones but not bank accounts, or only limited access to banking. Digitfarm provides farmers with one-stop access to quality farm inputs and Connected Farmers provides input loans and instant access to credit providers, resellers and insurers.

Record so far:

- 2007 started by Safaricom (Vodafone's Kenyan associate). Today M-PESA Africa is a Vodacom & Safaricom joint venture
- 7 countries, 51 million users and over \$314 billion in transactions
- Kenya Digifarm: mobile one-stop access to information and financial services.
- Kenya Connected Farmer: communication and financial transactions between agricultural processing businesses and farmers



How can M-PESA help transform Ethiopia?

- Provide small farmers with a simple accessible and ubiquitous platform to access financial services and agricultural extension.
- Helps to build agri-digital ecosystem and fintech. Creates additional data on producers that facilitates risk management.
- Apply digital solutions to transform the coffee value chain and boost exports, including tracing and tracking throughout the supply chain.



M-PESA AFRICA in Ethiopia

2022 results

Formulation and agreement on pilots

- vertical integration for specialty coffee
- provide personalised digital advice services on soil for irrigation area

Expected 2023 results

- Specialised coffee pilot implemented
- Personalised digital advice services on soil pilot implemented (both pilots to benefit 5m farmers)

Challenge

Time needed to reach agreement with all key stakeholders on plan and implementation details.



CGIAR: WORLD'S LARGEST PUBLICLY FUNDED AGRICULTURAL RESEARCH CENTRE



Elevator pitch:

CGIAR science supported the Green Revolution and today it can help find solutions to achieve a sustainable and climate-resistance agriculture to benefit the poorest. CGIAR has more international presence, resources and partners than any other publicly funded agricultural research centre in the world.

Record so far:

- 1971: start; coordinated international agricultural research efforts supporting the Green Revolution
- 89 countries, 15 top-class research centres and more than 3,000 partners
- 60+ innovations that changed the world, increasing productivity and incomes for farmers

How can CGIAR help transform Ethiopia?

- Its agricultural innovations have the potential to reach 80% of rural households, e.g., soil and water conservation and maize varieties.
- Support government policies with its top-level research.
- Big Data Platform solutions to address emergency situations, e.g., locus monitoring.
- Open and transparent government Agricultural Data Hub to support digital infrastructure
- Evaluations of digital agricultural initiatives



CGIAR in Ethiopia

2022 results

- Beta version of National Agricultural Data Hub

Expected 2023 results

- National Agricultural Data Hub is used by key stakeholders.
- Impact evaluation of key digital innovations is launched.

Challenge

As a large organization, delivering timely and impactful results in partnership with different stakeholders is difficult.

 www.cgiar.org



PRECISION DEVELOPMENT: MOBILE PHONES PROVIDING AGRICULTURAL ADVICE TO EVERY FARMER



Elevator pitch:

Small farmers do not have access to relevant and easy-to-understand advice. PxD's solution is to build low-cost two-way information systems at scale to spread actionable and useful knowledge to improve the lives of the poorest through basic mobile phones. The focus is on learning, innovating and iterating for impact. It helps that it was co-founded by an economics Nobel Prize winner!

Record so far:

- 2016 Boston, USA: start
- 10 countries, reaching 7 million farmers
- \$1.59 average cost per user
- Make learnings and research outputs publicly available to spark innovation

How can PD help transform Ethiopia?

- Proving easy-to-understand, targeted agricultural advice to change farmers' behaviour and their productivity. This public good is undersupplied by private markets.
- “Netflix for Agriculture”: farmers provide information knowing that this would allow the system to make better recommendations for them, and this in turn improves the system's performance in providing recommendations.
- Model use of experimental approach to test, iterate and scale solutions.



Precision Development in Ethiopia

2022 results

- Digital advisory services for 40,000 additional dairy farmers to reduce calves' mortality.

Expected 2023 results

- Digital advisory services for 210,000 additional dairy farmers.

Challenge

Establish that advice provided results in change of behaviour of dairy farmers and a substantial increase in their incomes.

 www.precisiondev.org

DIGITAL GREEN: FINDING EASY WAYS TO DISSEMINATE INNOVATIONS TO SMALL FARMERS



Elevator pitch:

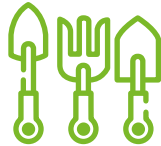
The vulnerability of small farmers makes them risk-averse to innovations. DG finds ways to communicate the advantages of innovations in ways that farmers find accessible and attractive. For example, by screening locally relevant videos showing how neighbours adopt new technologies.

Record so far:

- 2018 India: start, spin-off from Microsoft Research
- 11 countries
- 2.3 million of the poorest farmers households
- Tested multiple digital technologies: including community videos, Farmstack (for data exchange), actionable weather forecasts, bookkeeping app for farmers and mobile courseware

How can Digital Green help transform Ethiopia?

- 560,000 farming households have been already reached and given the presence of 50,000 government extension workers, there is a large scaling potential
- Community centred approach and use of local languages facilitate the adoption of innovations
- Collaborate with other companies to support the digital agricultural ecosystem, including for the transparent sharing of government data, Farmstack
- Pilots new technologies to women farmers, for example, digital accounting to strengthen entrepreneurship.



Digital Green in Ethiopia

2022 results

- 120 self-help group women leaders pilot the use of digital accounting books (each group includes 25 farmers)

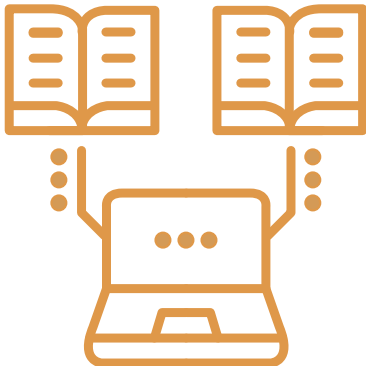
Expected 2023 results

- 4,150 women farmers use digital accounting books

Challenge

Women farmers adopt digital books.

 www.digitalgreen.org



Elevator pitch:

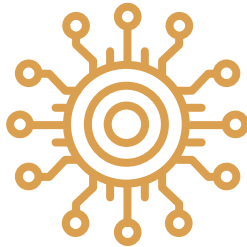
Alphabet (Google) is one of the world's largest companies. Africa 118 implements Google training programmes in Ethiopia. Digital tools can bring financial inclusion, agricultural extension and public service access but this requires digital education. Resources and methods to support digital education. Africa 118 is also a leader in digital marketing for medium and small enterprises in Africa.

Record so far:

- 2010 Canada: start
- 9 countries
- Has helped business to build digital presence
- Fastest-growing digital marketing service provider for small and medium enterprises in Africa

How can Africa 118/Google help transform Ethiopia?

- Improve productivity of SMEs in agriculture and export sector by gaining access to training by Hustle Academy.
- Provide basic digital literacy and social media for small farmers.
- Provide employment opportunities for young people through cloud training – Google Academy.



Africa 118/Google in Ethiopia

2022 Results (new)

December 2023 (expected)

- Define targets for Hustle Academy
- Define targets for digital literacy
- Define targets for cloud training

Challenge

Partnering with government and other companies to gain access to more users of its free programmes

 www.africa118.com



SIMPRINTS BIOMETRIC IDENTIFICATION FOR THE WORLD'S POOREST

Elevator pitch:

Over 1 billion people around the world have no reliable form of ID, limiting their participation in the economy and access to public services. Simprints has developed biometrics that work for the world's poorest, e.g., when fingerprints have been damaged by hard work, and allows them to access to digital identities and financial and public services.



Record so far:

- 2014, Cambridge University (UK): start
- 17 countries reaching 2.1 million people
- Solutions for cash and aid distribution, immunisations, infectious diseases, maternal health and neglected tropical diseases.

How can Simprints help transform Ethiopia?

- Contribute to the digital identity block.
- Integrate biometrics into existing frontline workers' mobile tools and workflow to improve their productivity, e.g., health extension workers can pull up records 10X faster and reduce the number of woreda data discrepancies.



Simprints in Ethiopia

2022 results

- n/a new

Expected 2023 results

- Define target for Electronic Community Health Information System to digitalise health extension workers.

Challenge

Close consultation with government at different levels is needed.

 www.simprints.com



LARGEST WORLD PROVIDER OF CLOUD COMPUTING SERVICE

Elevator pitch:

Subsidiary of Amazon (3rd most valuable brand in the world) and largest provider of on-demand cloud computing platforms and API's to individuals, companies and governments. Largest market share of cloud infrastructure.



Record so far:

- 2006: launch, subsidiary of Amazon; one of the big 5 US information technology companies
- Captured cloud computing platform market
- Founded AWS Academy for top-class training
- Makes storing data on the the internet easy: the first AWS service was Simple Storage Service.

How can AWS help to transform Ethiopia?

World class training on cloud policy to public and private stakeholders in Ethiopia, could provide the right environment for deploying world-class policies.



AWS in Ethiopia

2022 results

- Government of Ethiopia has requested training. Waiting for AWS to provide dates.

Expected 2023 results

- Cloud policy executive training delivered by AWS.

Challenge

Large international corporations have limited engagement with African countries.

 www.aws.amazon.com

TIMELINE OF PROGRAMME ACTIVITIES



Jun 2022

Workshop

All participating companies introduced their activities to government champions



Jul 2022

Bilateral discussions

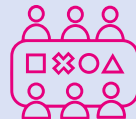
between programme director and companies and government champions. Discussions revealed the importance of data sharing transparency.



Sept 2022

Bilateral discussions and workshop

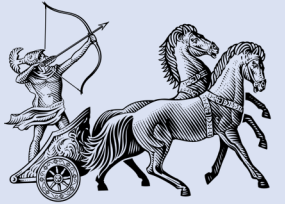
Further scoping of companies' projects and defining end-of-year targets. M-PESA Africa/Safaricom workshop for government champions (Digital Advisor PMO and Ethiopia Coffee and Tea Authority) and other companies.



Jan 2022

Workshop

To present 2022 results and define next steps.



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