

— DIGITAL AGRIFOOD COLLECTIVE

# Accelerating the inclusive digital transformation of agrifood systems

Learning publication | December 2021



### Content of this learning publication

In this publication we introduce the Digital Agrifood Collective (DAC) and capture the key learnings from the two sprints we organized with DAC members in 2021 on digital inclusion and commercial viability.

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# Intro to the Digital Agrifood Collective

In this section we introduce you to the backdrop of the Digital Agrifood Collective (DAC), the membership profile and the benefits we provide to members when joining DAC.

**Backdrop of the collective**

**Digital agrifood services are on the rise!**

There are **400+** service providers in Africa alone.

**33m** smallholder farmers have used at least one digital service.

And the impact on food security and income is proven (60 Decibels).

With DAC members we look at the role digital services can play in areas like:



**Access to markets**

**Access to information & training**

**Access to inputs and finance**

**Organising smallholders and supply**

**Online food marketplaces**

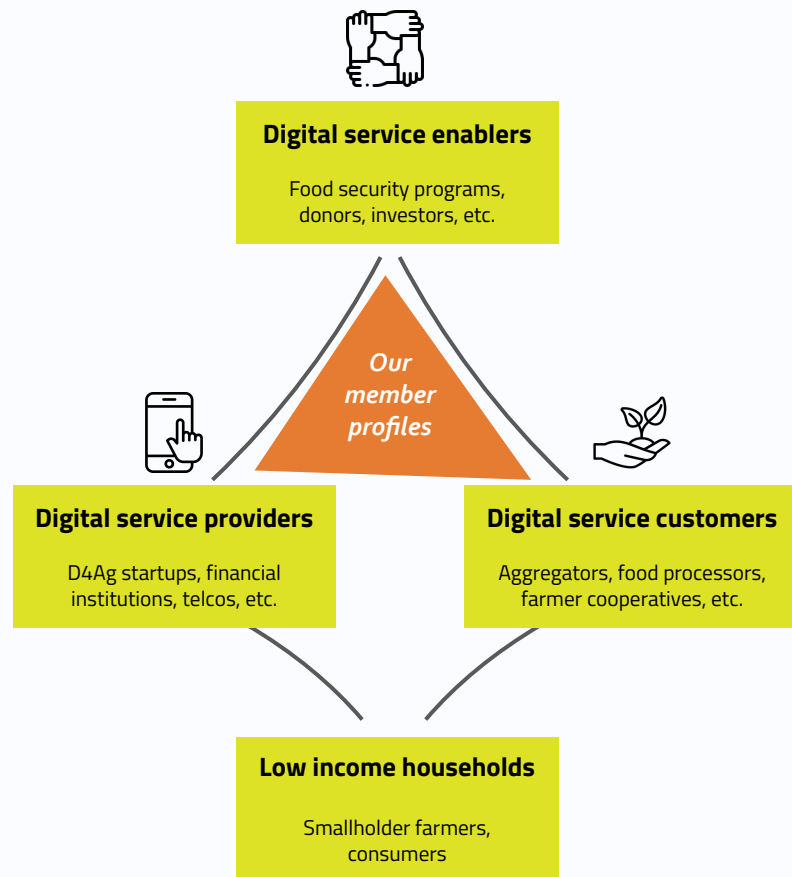
**Digital marketing**

## DIGITAL AGRIFOOD COLLECTIVE

### Our mission

We are a collective of organisations that **exchange learnings and align strategies** with the purpose to collectively **accelerate an inclusive digital transformation** of the agrifood systems in Sub Saharan Africa and Southern Asia.

Since 2020, the DAC activities are coordinated by



# DIGITAL AGRIFOOD COLLECTIVE

## Our members / endorsers

**Member quote:** “As SNV, with a broad set of projects that actively engage in D4Ag initiatives (as principal or secondary focuses), we strongly welcome the initiative for a Digital Agrifood Collective.”



### Digital service providers



Actively recruiting



### Digital service enablers



### Digital service customers

Out of scope for the DAC activities of 2021. We will approach this member group in the next years.

### Why join us?

Members can expect to:

- Access to state-of-the-art **tools and resources** that we will share and create together
- **Meet** with fellow specialists, funders and the private sector
- Collaborate on **joint activities and business development**
- Help craft our **collective model** for the long-term

In return, we expect all members to commit to the joint mission of our collective and present action plans in order to advance on inclusive digitalisation in your own organization. Specifically, you will be asked to attend work sessions, make available learnings and materials from your own programs or operations, and get buy-in from your leadership to put our joint strategies into action.

# About this learning publication

In this section we explain the structure of this publication, which covers the learnings, pledges and actions that we have explored as Digital Agrifood Collective in 2021.



## Removing barriers for digitalisation

In this publication we capture the key learnings from the two sprints we organized in 2021:

- **Digital inclusion** (June 14th 2021)

The D4Ag sector is growing, but unevenly across and within countries, creating a digital divide.

- **Commercial viability** (October 6th 2021)

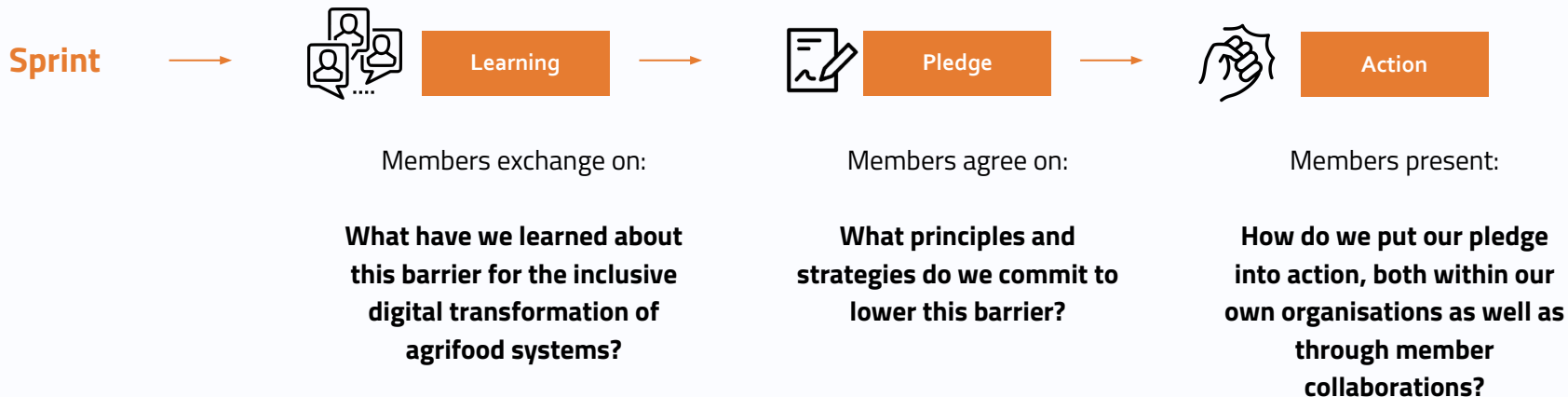
Digital service models are not always easy to monetise and entrepreneurs therefore struggle to unlock investments for scale.

Other barriers that DAC members identified and that we might want to tackle in future pledge-to-action sprints:

- **User-centered design** There is a lack of digital services and use cases, including bundled services, that are truly desirable for smallholders.
- **Overhyped technologies** The real added value of hyped technologies such as drones and blockchain still needs to be demystified and proven in the field.
- **Local talent** Organisations struggle to tap into tech-savvy human capital.
- **Ethical business models and data usage** There is a need for more coherence and coordination of farmer data protection.

## How do we work?

Members join our 'pledge-to-action sprints' to collectively remove barriers for inclusive digital transformation of agrifood systems. Each sprint has three steps, facilitated by NFP and Bopinc. **In this publication we share the outcomes of the 2 sprints that were organized in 2021, on digital inclusion and commercial viability of digital agrifood services.**



# Sprint 1: Learnings about digital inclusion

In this section we share our research methodology and key learnings on the topic of **digital inclusion for mobile-based agrifood services**.

## Which experts and resources did we consult for our learnings?

### Interviews/surveys with:

- Digital service providers: MDairy Agritech, Safaricom
- Digital service enablers: 6oDecibels, GSMA, MercyCorps (Agrifin), WUR, NSO, NAB, SNV, Cordaid, IDH, NL MoFA
- Digital service customers: n/a

### Literature consulted:

- What's Cooking: Digital Transformation of the Agrifood System ([World Bank Group](#), 2021)
- Scaling Up Disruptive Agricultural Technologies in Africa ([World Bank Group](#), 2019)
- Bridging the digital gender divide ([OECD](#), 2018)
- Agrifin annual learning event ([Mercycorps](#), 2021)
- Connected Society: Delivering digital inclusion for all ([GSMA](#), 2020)
- Inclusive Digital Agriculture: Making value chains work for farmers with disabilities ([GSMA](#), 2021)
- Digital Equity Policy Brief ([GSMA](#), 2019)
- Agrifin impact reports for D4Ag Companies ([6o Decibels and MercyCorps](#), 2020)
- Digitalisation of Agriculture report ([CTA](#), 2019)
- Mobile Gender Gap Report ([GSMA](#), 2019)
- Space for Food Security: Stimulating smallholders' access to emerging AgTech and FinTech markets ([NSO/G4AW program](#), 2021)

## Digital Divide: What is the problem?

*Fact: All technologies go through an adoption curve*

X

*Finding: But there might be barriers that stop agri technologies to be adopted beyond the early adopters*

*So far digital solutions have primarily reached **early adopters** (eg. middle-class farmers or farmers in well organised value chains). Many digital service providers fail to reach marginalised users and contribute to equitable growth of the sector, such as women, youth, disabled and rural groups.*

Early adopters

Early majority

Late majority

Laggards

# Digital Divide: Each farmer is unique

*"I have a very basic phone and only use it for phone calls. I believe I have all the knowledge to run my farm, no need for mobile phone based support"*



**George (58)**

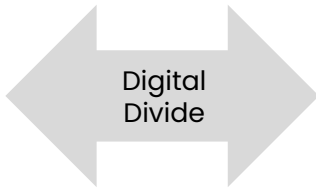
*Typically older and more rural farmers that currently do not use formal financial services nor digital for their personal or business purposes. They don't own a phone or too poor to buy one.*

*"My husband has a smartphone but I don't really use it. I heard from others that it's unsafe and there are a lot of scams"*



**Beryl (42)**

*Generally older farmers who are happy with the way things are, and are reluctant to change their current means of doing business. They own a basic phone or smartphone.*



*"I'm using my smartphone every day to find agri info and exchange with other farmers on Facebook. I've heard of many new agri apps as these companies approach me often."*



**Peter (28)**

*Mix of young and old farmers who already are subscribers of advisory services or trying new ideas to increase their productivity. They are open to new solutions, but might have some concerns. They own a basic phone or smartphone.*

## Digital inclusion defined

**Digital inclusion is about making digital services accessible, understandable and affordable for as many low-income producers and consumers as possible.**

**That way everyone can benefit from the digital transformation of the agrifood sector, regardless of their age, gender, location, disability, education, and prior experience with digital services.**

Our definition for this collective



## Why is this so important?

Based on our literature research and expert consultation:

- **Low-income producers (and consumers)** being the backbone of the agrifood sector, should not be left out. More so, because more evidence is becoming available on how digital solutions positively impact this group through better access to finance, information and markets. (World Bank, 2019)
- This requires **efforts from all stakeholders**, including the digital service providers but also digital transformation enablers such as GOs, NGOs and donors.





## How big is the problem?

### Inequality within countries

#### Infrastructure:

- **7%** of the world's population is not connected in 2019, mostly in rural areas (GSMA, 2019)

#### Usage barriers:

- While the coverage gap continues to narrow, the usage gap remains 6 times bigger, meaning **44%** of the people that can be connected face usage barriers as they cannot afford handsets, lack digital skills, or cannot enjoy relevant content (GSMA, 2020)
- Globally, software and IT service companies are lagging behind with an average digital inclusion score of only **0.53** out of 2 (27%) as compared to 0.82 (41%) for hardware companies and 0.85 (43%) for Telcos. ([World Benchmarking Alliance](#), 2021)
- Better educated (large scale) farmers are more likely to engage in digital agriculture (World Bank, 2019)

#### Cultural norms incl. gender :

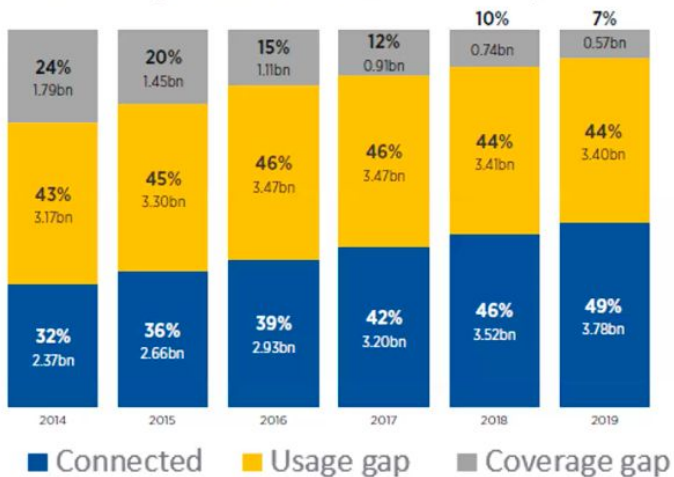
- Women are up to **28%** less likely than men to own a mobile and up to **57%** less likely to use mobile internet (GSMA, 2019)
- The gender gap is biggest in South Asia (51%) and Sub Saharan Africa (37%), as compared to the global average (20%) (GSMA, 2019)
- Persons with disabilities who live in rural areas and relying on subsistence farming for their livelihoods are less likely to own a mobile phone and use mobile internet than persons without disabilities. (GSMA, 2021)

## How big is the problem?

### Inequality within countries

The problem with digital inclusion is not in the coverage gap, but in the usage gap: people do not make use of available digital services, due to reasons such as affordability, digital literacy and cultural norms.

Evolution of global mobile internet connectivity, 2014-2019



## How big is the problem?

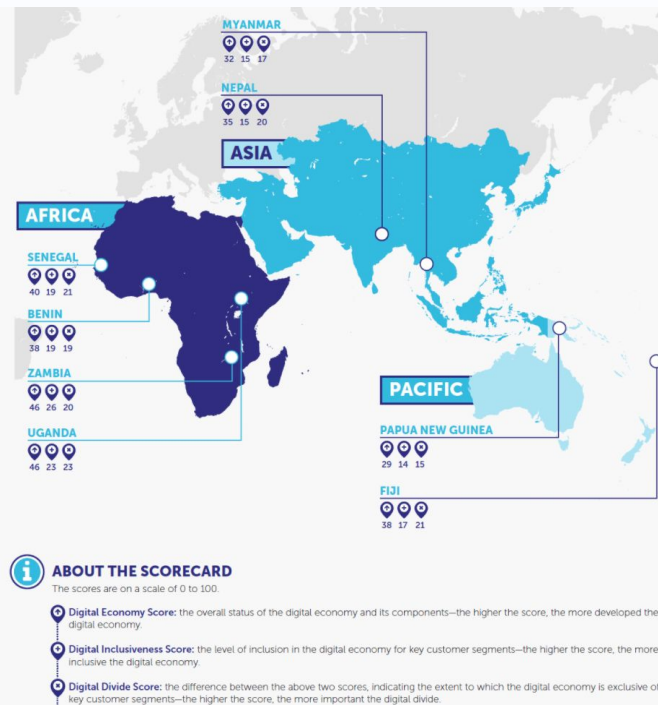
## Inequality between countries

### Investment inequality:

- Many countries, eg. Francophone West Africa, have not benefited from the same investments in infrastructure and D4Ag industry as other countries, eg. Kenya, Nigeria and India (CTA, 2019)

### Digital innovation ecosystem:

- Not the same ecosystem of incubators and early-stage investors to help D4Ag companies get off the ground in all countries. (CTA, 2019)



# Sprint 1: Pledge on digital inclusion

In this section we share the pledge which resulted from our session with DAC members on digital inclusion, which was held on June 14th 2021.

## Input for our pledge: How to realise digital inclusion?

*\*The barriers are ranked by order of importance (proxy used: number of mentions in literature and by experts and members)*

Based on the literature and expert interviews, we compiled the following list of barriers for digital inclusion.

Removing barriers*
1. Digital literacy and tech awareness
2. Affordable devices and mobile ownership
3. Relevant content and user-friendly design
4. Costs of inclusive business cases
5. Good infrastructure
6. Cyber security and trust
7. Extra: standardising inclusivity / impact metrics

*From a low-income producer (or consumer) perspective*

*"I don't know how to use a (smart)phone and what solutions are out there"*

*"I can't afford a (smart)phone or in my community, women don't own phones"*

*"I can't find many agri solutions that meet my needs and I find them hard to use"*

*"I know my family living close to the city use digital agri services, but they're not here"*

*"I don't have stable internet coverage and no mobile money agents in my area"*

*"I'm afraid to share my data and use the internet as I heard about scams"*

*We can't compare digital inclusion interventions if we measure things differently*

### Outcomes from our sprint in June '21 to realise digital inclusion

Goals	Principles
<b>1.</b> <b>We improve digital literacy and tech awareness</b>	<ul style="list-style-type: none"><li>- We need to design for lower literacy by choosing devices and channels that people are comfortable using.</li><li>- We need to deliver digital skills building training at scale, especially for women and other marginalised groups.</li><li>- We need to exchange our targets on women inclusion and keep each other accountable for this.</li></ul>
<b>2.</b> <b>We develop more relevant use cases and content</b>	<ul style="list-style-type: none"><li>- We need to make sure mobile services are solving an actual need, are easy to use, and offered in local languages.</li><li>- We need to bundle services to cater for all user challenges such as combining remote agri input training with a finance solution for purchasing those inputs.</li><li>- We need to provide tailored onboarding and after-sales support to (marginalised) groups that have difficulties using a service.</li></ul>
<b>3.</b> <b>We (help) share the costs of inclusive business models</b>	<ul style="list-style-type: none"><li>- We need to explore new (economic) incentives to help entrepreneurs include marginalised groups that are more costly to onboard as users.</li><li>- We need to explore and test more innovative strategies for revenue generation and cost-sharing (eg. public/private or startup/MNC).</li><li>- We need to create favorable conditions for digital services and enterprises to grow into underrepresented countries.</li></ul>
<b>4.</b> <b>We use standardised metrics to measure and compare inclusivity</b>	<ul style="list-style-type: none"><li>- We need to establish and use the same impact metrics (and similar M&amp;E approaches) to measure the inclusivity of our work.</li><li>- We need to use standard metrics to be able to compare our work so we can learn which digital inclusion interventions are more effective than others.</li></ul>

*Other goals not included in this pledge, but considered important for digital inclusion, are: 5. We (help) introduce affordable devices and boost mobile ownership (among women), 6. We (help) make sure everyone can access good connectivity and mobile money, and 7. We establish trust and (cyber) security for new internet users.*

# Pledge for removing the digital divide in agrifood systems

### Goals

1. We improve digital literacy and tech awareness
2. We develop more relevant use cases and content
3. We (help) share the costs of inclusive business models
4. We use standardised metrics to measure and compare inclusivity

### Examples of action taken by members

- **WUR** will host a workshop on impact measurement criteria.
- **PUM** Senior experts offers to connect projects to PUM experts with a wide range of experience in D4Ag companies to offer advisory services
- **MercyCorps** is creating an Open Content for Agriculture Platform and invites DAC members to add content.

Signed by the leadership of our members



# Sprint 2: Learnings about commercial viability

In this section we share our key learnings on the topic of **commercial viability for digital agrifood services**.



## Which experts and resources did we consult for our learnings?

### Member survey filled out by:

- Digital service providers: Yielder, Ignitia, Tech4Ag, Cropin, Arinifu, iCRA, Qilimo
- Digital service enablers: Solidaridad, RVO, Rabobank Partnerships, WUR, SNV, PUM, Commonwealth, VC4A, 2SCALE

### Literature consulted:

- Scaling Up Disruptive Agricultural Technologies in Africa ([World Bank Group](#), 2019)
- Agricultural platforms in a digital era: Defining the landscape ([IDH](#), 2021)
- What's Cooking: Digital Transformation of the Agrifood System ([World Bank Group](#), 2021)
- Overview of the D4Ag Sector in Africa ([SNV](#), 2020)
- Agrifin annual learning event ([Mercycorps](#), 2021)
- The Digitalisation of African Agriculture report ([CTA](#), 2019)
- Agriculture in Africa 2021 ([Oxford Business Group & OCP](#), 2021)
- Mapping Agriculture Investing in Africa ([Village Capital](#), 2020)
- Space for Food Security, Part 1: Users and Services ([NSO/G4AW program](#), 2021)
- Space for Food Security, Part 2: Sustainable business models and scaling ([NSO/G4AW program](#), 2021)
- OCP Agriculture Africa Report ([Oxford](#), 2021)



## Commercial viability defined

**Digital agrifood services are 'commercially viable' when they are offered by (for-profit) enterprises that generate revenues from the services.**

This provides the service providers with a steady income that is needed to sustain and scale-up their activities. It also helps them attract (private) investment.

Services that remain largely dependent on donor funds or prize money are not considered commercially viable because their income and sustainability is uncertain.

Most of the 16 survey respondents agreed that commercial viability is a necessity but often difficult to realise when focusing on low-income producers.



## Why is this important?

**Having a commercial mindset: know who you serve!**

A classic example of a lack of human-centred design is the play-pump water system. The idea was to let children play while pumping water for their community. It was highly successful in raising millions of dollars. In reality, children soon became bored with the play-pump and adults had to struggle to pump water through an inefficient system.

**PROMISE**  
to donors



**REALITY**  
for the users



Read more: [Everyone Deserves Great Design](#)

## Why is this important?

### Having a commercial mindset: know who you serve!

Companies tend to focus on donors, rather than their end-users and/or paying customers.



When focusing too much on your donor

**Learning:** “The most important reason for a sustainable business case is to ensure the financing of long-term service provision (after the project and donor funding ends)”

[NSO G4AW, 2021](#)



When putting your end-user at the center

**Learning:** “By being perceived as customers, the needs of smallholders become central to the service applications.”

[NSO G4AW, 2021](#)



When you realise your end-user is not your paying customer

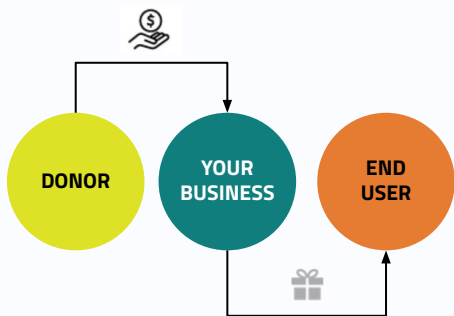
**Learning:** “Smallholders have limited capacity and willingness to pay for digital agrifood services.”

[NSO G4AW, 2021](#)

## Why is this important?

### Having a commercial mindset: know who you serve!

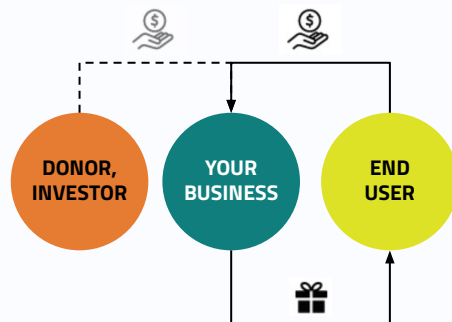
Companies tend to focus on donors, rather than their end-users and/or paying customers.



#### When focusing too much on your donor

Leads to:

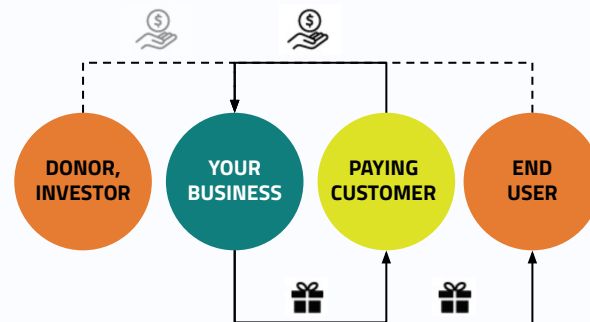
- X Rejected propositions by end-users
- X Insecure business finance
- X No lasting impact



#### When putting your end-user at the center

Leads to:

- ✓ Desirable propositions for end-users
- ✓ Stable income through revenues
- ✓ Impact coupled with business growth
- X Smallholder specific challenges: digital literacy, affordability, free services, etc.



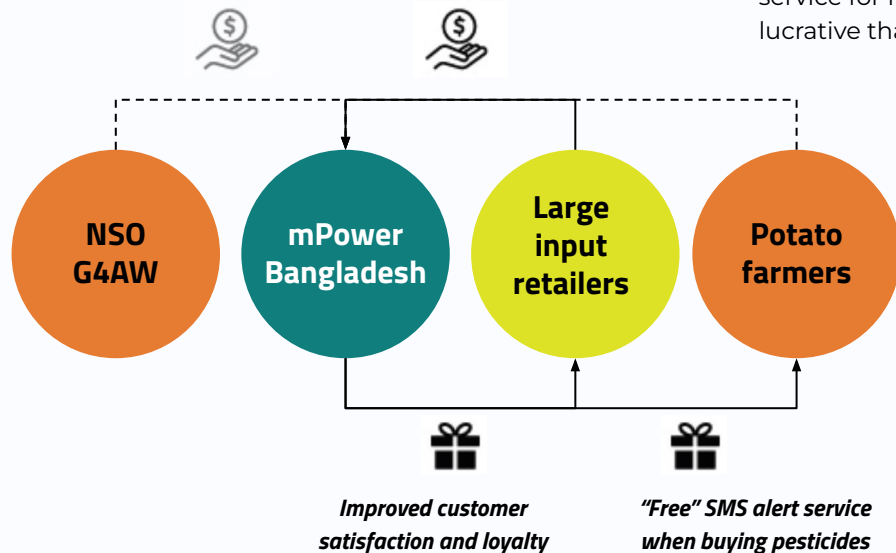
#### When you realise your end-user is not your paying customer

Leads to:

- ✓ **Same as on the left**
- ✓ Lower marketing costs, easier onboarding
- X Bigger customer pipeline challenges

## Example: Geopotato Bangladesh

[Geopotato](#) is a project by mPower under the G4AW Program which provides an SMS alert service for late-blight disease among Potato farmers in Bangladesh. mPower partnered up with a large input retailer who sells pesticides to the potato farmers. This large input retailer pays mPower to be able to provide the SMS service for free when farmers buy their pesticides. This model proved much more lucrative than getting farmers to pay individually for the SMS service.



### 2 ways of realising commercial viability with annual opex of \$50k:

1. Get 50,000 farmers to pay a \$1 subscription fee, or
2. Find 1 or 2 B2B customers to pay \$50,000

## State of the sector

### Are digital service providers able to generate revenues?

**400+** digital agrifood service providers in Africa alone. [SNV, 2020] \*

**70%** of service providers are estimated to generate revenue. [CTA, 2019]

But only **26%** managed to break-even with their financial model. [CTA, 2019]

Many are very early stage enterprises that are yet to report revenues. [SNV, 2020]

About **60%** of solutions available in Africa in 2019 are launched after 2016, and 20% since 2018. [Oxford, 2021]

**80%** of service providers rely on diversified revenue streams, not being able to generate sufficient revenue from their core services or customers. [CTA, 2019]

Only **25%** of the 25 G4AW projects is financing their operations (partly) through sales of the newly developed service. More than **50%** expects to always rely on grants as their sales revenues would not suffice. [NSO, 2021]

\*For the web-links to publications see page 24

## State of the sector

Examples of companies that managed to establish a commercially viable business model for their digital services in Africa and South Asia.



**Access to  
information  
& training**

**Organising  
smallholders  
and supply**

**Access to  
inputs and  
finance**

**Online  
marketplaces**

*See also: Mapping Agriculture Investing in Africa  
([Village Capital](#), 2020)*



**State of the sector****Financing available**

**Many** digital service providers are largely donor or government funded. [SNV, 2020]\*

**14/16** Most DAC survey respondents argue that digital service providers keep chasing grants and prize money because this is an easier way for them to finance their operations than through commercial revenue streams.

Approximately **€175m** in annual donor funding flows to Africa-focused digital agri service companies, as compared to private sectors investments of approx. **€47m**. [CTA, 2019]

**8/16** DAC survey respondents believe many digital service providers cannot access private capital because there are not enough investors active in this sector or because their ticket sizes or conditions are out of scope.

The market for agritech in Africa is estimated at **€2.3bn and €5.3bn**, with only **€127m** currently captured. [Oxford, 2021]

More investors are stepping in (consult *Agtech investor repositories such as: [NSO G4AW](#), [GIZ Investment Guide](#), [VC4A](#)*)

**44** agtech companies in Africa secured A/B/C series private investments [VilCap, 2020]

## State of the sector

Financing available: inequality between countries



Rwanda raised **\$11.6 million** in overall Venture Capital funding.



Levels, a startup from the United States that sells a biometric patch that tells you that oatmeal spikes your blood sugar, raised **\$12 million** for its seed A round.

**There's a striking inequality between countries in amounts of available Venture Capital funding**

## State of the sector

## The 'unicorns'



**\$1.3 million** seed round

Founded in 2019  
South Africa

Khula provides tools and platforms to support the growth of businesses in the agriculture supply chain, announced to scale its operations across the country.



**\$20 Million** series C

Founded in 2010  
India

Cropin provides a data-driven farm management platform with real time insight on crop growth along with predictive analytics solutions.



**\$85 Million** series B

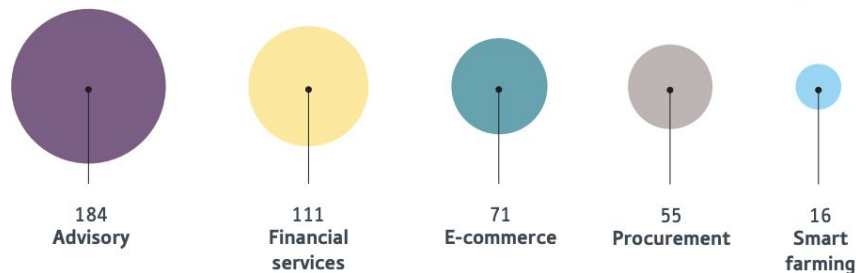
Founded in 2014  
Kenya, USA

Using AI to predict food production for governments but also companies like Unilever.

## State of the sector

The most common service in the market is the hardest one to monetise

Active digital agriculture services in sub-Saharan Africa by type, January 2020



Top-five countries by number of digital agriculture services, January 2020



[Oxford, 2021], [CTA, 2019]

Services ranked by commercialisation difficulty (from our DAC survey)

1. Farmer advisory **(15/17)**
2. Agribusiness software **(4/17)**
3. Farmer market access **(4/17)**
4. Farmer financial services **(0/17)**

***"Farmers might not be willing to pay for advisory services, when not bundled with additional benefits like input services, access finance and markets"*** - Survey respondent

**Barriers to overcome****Inhibitors for revenue generation and commercialisation***Internal:*

- **Value creation:** The focus of agritech projects and startups is often on developing the tool and not the cost-benefit analysis for paying customers and end-users. [Solidaridad, interview]
- **Customer identification:** G4AW projects faced challenges of finding and retaining customers, with sometimes unclear business commitment of B2B partners. [NSO, 2021]
- **Lack of entrepreneurial leadership:** G4AW projects often lacked sales competences in their team and many were not clear about who owns and leads the business. [NSO, 2021]

*External:*

- **Increased competition:** Free services from NGOs or the government becoming available. [NSO, 2021]\*
- **Market immaturity:** The digital agrifood market is immature in certain countries such as in Francophone Western Africa. Therefore it is not likely that standalone business models will readily emerge. [NSO, 2021].
- **Knowledge gap:** Service providers experiment with a wide range of service delivery models, with no winning revenue models emerging just yet. [SNV, 2020]

# **Sprint 2: Pledge for improved commercial viability**

In this section we share the recommendations for our pledge which resulted from the session with DAC members on commercial viability, which was held on October 6th, 2021.

## Input for our pledge

Commercial viability, that is attractive to investors, comes from:



**Relevant proposition** Do you have a service that is desirable for your end-users and paying customers?



**Entrepreneurial excellence** Does your team have sales intentions and capabilities?



**Rock solid business models** Do you maximise your revenues and minimise your costs?



**Proven potential to scale** Do you know the realistic market size that you can obtain?

→ These principles were worked out together with DAC members for the workshop of October 6th, 2021, which resulted in the following pledges for digital service providers and digital service enablers.

## Pledge for digital service providers

### Pledge for realising commercial viability for digital agrifood services

#### As a digital service provider, we commit to explore our role in:

**1. Value enhancements** Service providers need to look critically at the value proposition underlying their business model. A service offering that lacks value or desirability for paying customers and end-users, needs to be enhanced to make the offering commercially viable. Use Human Centered Design principles to create a value proposition that is desirable, distinctive, and trustworthy for your customers.

**2. B2B revenue models** Service providers need to identify revenue models that provide a large enough and steady flow of incoming cash. This might mean moving away from smallholder farmers being the (only) ones paying for the services. Commercially viable business models often rely on B2B offerings for larger value chain actors (such as aggregators, food processors, input suppliers) that become paying customers.

**3. Service bundling & platforms** Service providers need to provide holistic services to improve the experience for their paying customers and end-users. For example, by offering farmer advisory services in combination with financial input financing. The integration of multiple services can be established through strategic partnerships between different service providers (use APIs or other tactics for integration). Services providers that struggle with commercial viability, might want to explore the possibility of acquisition by large companies such as telcos or banks. These larger players are often better equipped to make the services commercially viable and scalable.

*Other strategies from the survey and workshop that are less prioritized by members, and therefore not included in this pledge are: 4. Cost optimisation: Service providers should find ways to reduce the costs of their business by, for example, using cheaper technology and open data, reducing costs of staff, or share costs through strategic partnerships. 5. Alternative revenue models: Service providers need to explore novel revenue models by, for example, selling the data and insights collected from farmers (with the caveat that farmer data is used in a fair manner). 6. Entrepreneurship Service providers need to boost their entrepreneurial excellence and recruit talented team members such as people with proven sales competences.*



Signed by the leadership of our members



## Pledge for digital service enablers 1/2

### Pledge for **realising commercial viability for digital agrifood services**

#### As a digital service enabler, we commit to explore our role in:

- 1. Partnership brokering** Service enablers can play an important role in making connections between digital service providers and B2B customers that are new to them such as large agribusinesses. Similarly, startups could benefit from partnership brokering when they seek collaboration with large institutions like MFIs, Banks and Telcos.
- 2. Access to private capital** Service enablers need to mobilise (angel/impact) investors and help establish relationships between digital service providers and investors. When service enablers provide grants to service providers (such as startups) for the development and piloting of new solutions, these funds can be leveraged to attract private capital from the investors.
- 3. Market development / narrowing digital divide** Service enablers can cost-share the investments needed for mass digital literacy training and behavior change campaigns of smallholder farmers. For many service providers, these market demand creation activities among smallholder farmers are too costly.
- 4. Data policy (and management)** Service enablers need to liaise with other enablers and stakeholders to establish industry standards, in particular for fair data policy. This allows service providers to better manage how they combine data streams, broker data sharing when working in partnerships with governments and institutions. Also, service enablers can contribute to the establishment of safe databanks with vetted Farmer IDs, which reduces the need for service providers to invest in Know Your Client (KYC) processes when identifying and onboarding new farmers.

## Pledge for digital service enablers 2/2

### Pledge for **realising commercial viability for digital agrifood services**

#### As a digital service enabler, we commit to explore our role in:

**5. Enabling environment** Service enablers need to create equal chances for service providers by, for example, eliminating bias towards larger and foreign owned companies. Donors should also be cautious about not oversupplying the industry with grants as this might cannibalize the market when the grants are used to provide free or highly subsidised services.

*Other strategies from the survey and workshop that are less prioritized by members, and therefore not included in this pledge are:*

1. **Pipeline alignment:** Service enablers can exchange on what companies they work with and which ones they would vouch for
2. **Learning capture:** Service enablers that conduct research on success factors for commercial viability, could share best practices.
3. **Coaching & Advisory** Service enablers can play an important role in building the business capabilities of entrepreneurs.
4. **Establish long-term PPPs** Service providers can help establish Public-Private Partnerships in poorer markets or for very costly services. Sometimes services cannot become commercially sustainable due to a lack of financial resources with farmers and other value chain actors.
5. **Results based finance:** Service enablers can explore alternative financing instruments such as RBF which, in comparison to grants, introduces stronger incentives for service providers to sell their service and commercialise their business.
6. **New market entry:** Service enablers can help scale services into geographies that would benefit highly from the service but that cannot be easily reached or served by service providers.



Signed by the leadership of our members

# Sprint 2: Practical tool for assessing commercial viability

In this section we share a practical tool for assessing the commercial viability of your digital agrifood services. Try it out for your own case, and take the 'fictional case study' as an example on how to fill out the worksheet. Feel free to share your filled worksheet with us for feedback.



## 1. Your team

Does your team have entrepreneurs with the intention and capabilities to sell on a commercial basis?

No

### Improve your team

*Tip: Identify or create a commercial entity and recruit (local) team members that have sales expertise.*

Yes



## 2. Your offering

Do you have something "sellable"? And have you validated your target group is happy with your offering?

No

### Improve your offering

*Use Human Centered Design principles to improve the desirability of your service.*

Yes

## 3a. Your end user

Who uses your offering primarily?

Farmers and other individuals

Large value chain actors

Other

## 3b. Your paying customer

Who is willing to pay your bills and what do you offer them in return?

Farmers (B2C)

Large value chain actors (B2B)

Other (B2G, B2NGO)



## 4. Your revenue model

How do your customers pay you? For your paying customers (in 3b), choose a revenue model and add the price point.

Examples:

For B2C, subscriptions at \$2 per season

For B2B, advertising at \$100 for 1,000 SMS

**More examples in the Annex**

## 5. Your profit & loss

What are your annual costs? How much of these costs are covered with revenues you generate?

Cash out:

Cash in:

Examples:  
Staff, geodata,  
marketing, etc.

Examples:  
Revenues, loan,  
donations, etc.

Difference:

% of income coming from revenues:



## 6. Your potential to scale

What can you do to maximise your revenues and reduce your costs? With these strategies, what is the realistic market size that you can obtain?

Costs reductions:

New revenues:

Examples:  
Use of open data or  
partner with NGOs.

Examples:  
Advertising or add  
new service offering

Obtainable market size:



## 1. Your team

Does your team have entrepreneurs with the intention and capabilities to sell on a commercial basis?

Through their sales team, the company establishes commercial relationships with farmer touch points such as agribusinesses, insurance and input providers.



## 2. Your offering

Do you have something "sellable"? And have you validated your target group is happy with your offering?

Weather forecasting and crop advisory SMS service for smallholder farmers. Farmers are willing to pay if the service is bundled, for instance with inputs.

## 3a. Your end user

Who uses your offering primarily?

Farmers and other individuals <i>SHFs, extension workers</i>
Large value chain actors <i>Agribusinesses</i>
Other

## 3b. Your paying customer

Who is willing to pay your bills and what do you offer them in return?

Farmers (B2C) <i>SHFs, extension workers</i>	33%
Large value chain actors (B2B) <i>Agribusinesses, input retailers Financial institutions</i>	33%
Other (B2G, B2NGO) <i>(Development grants)</i>	33%



## 4. Your revenue model

How do your customers pay you? For your paying customers (in 3b), choose a revenue model and add the price point.

Farmers: Airtime  
  
Agribusiness: Contracts with farmers paying through input purchase

## 5. Your profit & loss

What are your annual costs? How much of these costs are covered with revenues you generate?

<b>Cash out:</b>	<b>Cash in:</b>
Staff: 30k	B2C revenues: 15k
Office: 7k	B2B revenues: 15k
Marketing: 9k	Grants: 15k
Data: 14k	
= \$ 60k /year	= \$ 45k /year

Difference: \$ -15k /year

% of income coming from revenues: 67%



## 6. Your potential to scale

What can you do to maximise your revenues and reduce your costs? With these strategies, what is the realistic market size that you can obtain?

<b>Costs reductions:</b>	<b>New revenues:</b>
Reduce farmer marketing costs by leveraging loyal farmers.	Drive loyalty and monthly payments from farmers.

Obtainable market size: 3m SHFs

Revenue model	Explanation	Example	Advantages
<b>Pay-per-use</b> (B2C)	<b>Customers pay on the basis of what they effectively use.</b>	Farmer advisory SMS. Mobile money transactions.	Lowers the perceived entry barrier for customer to try out new solutions for as much/long as they want.
<b>Subscriptions</b> (B2C, B2B)	<b>Customers pay a regular fee, usually on a monthly or annual basis, to gain access to a product or service.</b>	SaaS providers for eg. ERP software. Weather forecast subscriptions.	While customers benefit from lower usage costs (in the long run) and guaranteed service availability, the company generates a predictable and steady income stream.
<b>Freemium model</b> (B2C)	<b>Customers enjoy a basic version of of the offering for free. Once persuaded by the benefits, customers to pay for the premium version.</b>	Social media like LinkedIn.	A free offering attracts large volume of customers that want to "try-before-they-buy". Although a smaller subset, premium customers can generate sufficient revenue.
<b>Data monetisation</b> (B2B)	<b>Stakeholders such as governments, large companies and financial institutions pay for the aggregated data collected about the users of the service.</b>	Food production forecasts. Farmer credit worthiness. Targeted marketing.	Can be a lucrative additional revenue stream when large volumes of data are collected anyhow. Data analytics and AI can generate unique insights that can be extremely valuable for large agrifood value chain actors.
<b>Indirect payments</b> (B2B)	<b>Customers pay indirectly through other transactions such as: data they provide, a deduction from their income, their payments for loans/insurance/mobile money.</b>	Input sales bundled with SMS advisory.	Provides opportunities to collaborate with other actors in the value chain.
<b>Advertising</b> (B2B)	<b>End-users do not pay as the main source of revenue comes from a third party customer that is interested in advertising to your customers/user base.</b>	Social media like Facebook. Input adverts in farmer advisory SMS messaging.	Lowers the barrier for users/customers to engage, while the service provider benefits from large brands paying for advertisements. Finding a few paying advertisers can be easier than finding a lot of paying farmers.
<b>Licensing</b> (B2B)	<b>The licensor (firm that develops/sells the technology/service) transfers know-how and assets to the licensee (firm wanting to the the same technology/service) that pays a license fee.</b>	New seed varieties.	Creates opportunities for faster and more widespread introduction of a service, particularly when licensing to customers with large networks of farmers/customers.

Cost minimisation strategies for digital service providers	Explanation
<b>Collaboration</b>	Collaborating with other parties to share costs of eg. marketing and farmer training. These can be NGOs or GOs that share similar goals of empowering smallholders.
<b>Smaller teams</b>	Optimizing the number of FTEs in the core team and/or working with team members or freelancers (such as developers) in countries where salaries are lower.
<b>Open data</b>	Using open datasets (eg. Sentinel satellite data) instead of paying for data.
<b>Low-cost procurement</b>	Replacing existing service providers by more affordable ones.
<b>Economies of scale</b>	Scaling the service to more farmers or other users, either individually or through licensing of the service to organisation in countries where the service provider is not active yet.

## — DIGITAL AGRIFOOD COLLECTIVE

Visit our webpage in the 'communities of practice' section on the  
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