

The study explores the establishment of Sprout, an emerging innovation delivering quality content to smallholder farmers through a partnership model

- Mercy Corps AgriFin has worked with organisations on impactful innovations across the Digital Agriculture Technologies (DAT) ecosystem over the past decade and has commissioned a case study to highlight a new innovation Sprout
- The study first unpacks the digital content journey, highlighting key players, activities and challenges on the demand and supply side. From this context, the case introduces Sprout as an emerging innovation seeking to solve the challenges and ensure the timely transfer of information. At the end, AgriFin would like readers to take away learnings across four major areas:

Key takeaways





The **key activities and challenges** of the digital content creation and dissemination journey



The unique role DAPs focused on information can play in the ecosystem



A deepened understanding of how **Sprout is addressing the identified supply and demand side challenges**



Overview of the early impact and learnings from the Sprout innovation



Context

Smallholder farmers experience challenges accessing timely and accurate agricultural information to support their farming practices



- Smallholder farmers (SHFs) need timely and accurate agricultural information across the planting cycle. This includes content on input purchasing, farming practices, weather and market information
- Traditionally, farmers relied on government extension workers to access information. The SSA region has an average of one extension worker per 1,000 farmers. This represents an acute shortage of workers, limiting their ability to reach and support a wide group of farmers
- The limited access to extension services mean that farmers rely on, at times, unreliable sources. SHFs, particularly in marginalized areas, depend on agro vets and other farmers, who might also have limited knowledge. As such, farmers have difficulties accessing Good Agricultural Practices (GAP) and rely on outdated farming techniques

Over the past decade, an increasing number of agribusinesses and digital start-ups are creating and disseminating digital content to support farmers

- Digital innovations have emerged over the past decade offering generalized farming practices, tailored weather content and peer-to-peer capabilities for farmers to interact on created content
- These digital content and capabilities are offered by a different range of actors, who can be broadly segmented across the digital content creation and dissemination journey highlighted below

Digital content creation and dissemination journey











Content providers

 Providers create/curate content and either disseminate directly to farmers or engage intermediaries.
 Examples include AGRA and KALRO

Farmer facing organizations (FFOs)

 FFOs work more directly with farmers. They typically source content from providers, customize to local context and disseminate to farmers. Examples include Digicow

Smallholder farmers

Farmers access the content and use it across their planting cycle

For this case, FFOs and SHFs can be collectively identified as **content users**

Content creation and tailored dissemination requires a significant investment. Unless it reaches scale, cost per user becomes very expensive

Provider journey

Content creation/curation



Content dissemination



Content iteration



Provider challenges1

- Providers spend significant time and cost² both in creating new content and refining existing information from research institutions
- Providers do not always know which content is demanded, what is currently being supplied and what drives impact, leading to, at times, creation of low-uptake content or duplications
- Some providers have limited financial resources to invest in diverse dissemination channels to expand their reach
- Ultimately, the limited reach leads to high cost per final user

Due to limited internal capacity, some providers lack feedback mechanisms to engage users and obtain feedback to refine information or map the impact of their content

"It costs a minimum of KES 1 million (USD 8,300) to transform research in 1 value chain into the required digital formats."

- Assistant ICT Director, KALRO

"We spend a minimum of 3-6 months to create relevant digital value chains in Kenya."

- Assistant ICT Director, KALRO

FFOs and their SHFs also spend significant time and resources identifying and accessing agricultural content that meet their needs

Jser journey

Jser challenges¹

Content availability



farming and rese

- FFOs and SHFs often spend notable time and resources sourcing digital farming content from online sources and research institutions
- P Despite spending resources, some FFOs report that information on specific areas such as insurance or gender targeted content are often unavailable

Content access



- Some FFOs have limited financial resources and technical expertise to customize, digitize and disseminate the sourced content to their farmers
- On the receiving end, SHFs have limited access to digital devices.
 Particularly women farmers who are 18% less likely to own the devices due to social norms or limited income

Content usage



- FFOs experience further challenges engaging farmers on the digitized content due to issues such as digital illiteracy and language barriers
- Further, FFOs face challenges effectively engaging women SHFs due to additional time poverty and mobility constraints

"Historically, we spent <u>several months</u> waiting to access requested content from research institutions."

- Director, Ethiopian Agricultural Transformation Agency

"We initially dedicated <u>significant resources</u> and still could not obtain relevant content on topics such as livestock insurance."

- Founder and Managing Director, Digicow



Emergence of Sprout as a solution to the supply and demand side issues

Sprout is a Digital Agricultural Platform that aims to promote the supply and access of relevant and high-quality content

- Sprout is an open content agriculture business to business to consumer (B2B2C) **platform** where experts and FFOs meet to share and discover farmer-friendly, digital ready content and services designed to build smallholder skills, resilience and income earning opportunities
- The platform is a public good designed by **Mercy** Corps AgriFin, with funding from GIZ and significant content contribution from KALRO
- Sprout was initially conceived in 2020 as the Open Content Agricultural Platform (OCAP) in response to the desert locust invasion in Eastern Africa. It has now been transformed into a wider. agricultural information platform released in September 2021



Key features (as of September 2022)

- Platform manager Mercy Corps AgriFin
- **Content** Relevant information across food crop and livestock value chains, climate smart practices and emerging field technologies
- Geographical scope Kenya, Ethiopia, Tanzania, Zimbabwe and Nigeria
- **Languages** English, Swahili and Amharic
- **Dissemination channels SMS¹, USSD²,** Interactive Voice Response (IVR), Social Media, Face-to-Face Training and WhatsApp
- **Contributors** 24 onboarded partner organizations

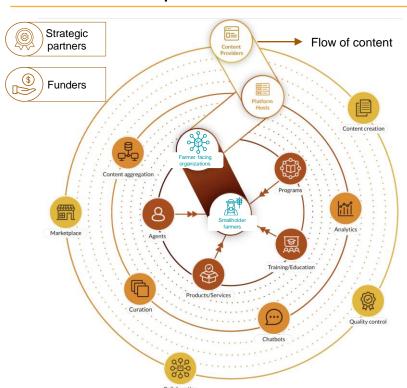






At its core, Sprout is a partnership platform that connects content providers and FFOs to facilitate the collation and sharing of content

Sprout model



• The main categories of partners directly engaging the platform include:



Content providers - Organizations such as AGRA and CABI create and/or curate reliable data and learning materials for smallholder farmers



Platform host – Mercy Corps AgriFin collates content from providers and uploads it on the platform*



Farmer facing organizations - Entities such as Digicow and DigiFarm distribute the collated content to smallholder farmers



Strategic partners – Foundational organizations responsible for designing and launching the platform, i.e., Mercy Corps AgriFin, GIZ and KALRO



Funders – Organizations that provide financial resources to support the development of the platform i.e., the World Bank and CGAP

Sprout enables content providers to focus on high-impact content and reach scale more efficiently, reducing the cost of content per user

Provider journey

Content creation/curation



Content dissemination



Content iteration



Challe-

- Providers incur high costs creating content and, at times, produce relatively similar output
- Some content providers have limited dissemination channels and reach
- Providers experience difficulties refining content due to limited feedback from end users

Sprout's solution

- By hosting volumes of content on one platform, providers have a holistic view of existing information
- This enables providers to decide whether to focus on a different topic or update their content, reducing time and resources spent
- Sprout connects providers and FFOs, enabling the created content to be disseminated to an extended reach of farmers through diverse FFOs
- The platform also enables providers to inform the ecosystem of the existence of their other products
- Sprout has **embedded feedback** loops on the platform to enable providers to improve/update their content in response to usage data and requests from FFOs and their farmers

"By working with partners and using their information, we have

- Assistant ICT Director, KALRO

"Leveraging the digital capabilities of partners has reduced the

- Assistant ICT Director, KALRO

Likewise, Sprout addresses the user challenges by collating relevant information, offering diverse dissemination channels and customizing content

• FFOs spend significant time and resources sourcing farming content



Content usage

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Sprout's solution

Sprout has collated **certified information across 65 content areas** including food crop and
livestock value chains onto one
platform, reducing the time and effort

previously incurred by FFOs

- Some FFOs have limited expertise digitizing and disseminating content
- SHFs have limited access to devices
- Sprout administrators support and build capacity of FFOs to adapt and channel content into diverse channels including SMS and IVR* that reach a wider group of farmers
- FFOs experience challenges engaging farmers due to digital literacy and language barrier issues
- Sprout administrators work with FFOs to customize content into local languages such as Swahili and Amharic that are better understood by farmers and promote usage

"We could <u>spend a month</u> searching and customizing content on a topic. Now, we <u>spend hours</u> accessing content from Sprout."

- Founder and Managing Director, Digicow

"Sprout has enabled us to source certified content. Without credible content, you are prone to lose the farmers' trust."

- Founder and CEO, M-Shamba

Sprout is also supporting FFOs to implement gender-intentional content provision, addressing gendered issues in access to information



Customized content



Access to devices

Gendered issues in access to information*

- Limited customized content in value chains or farming areas that engage most women farmers
- Across SSA, women are 18% less likely to own devices. Hence, limiting their ability to access digital content primarily distributed using devices

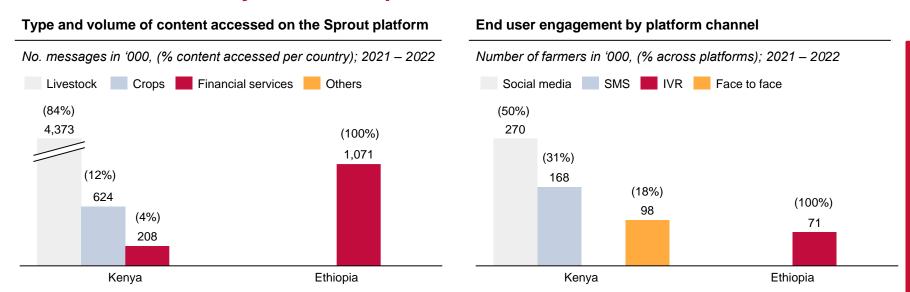
Solutions within the Sprout ecosystem

- FFOs noted that women farmers in their cohorts were extensively engaged in poultry
- Digicow engaged Sprout team to contextualize content on the poultry value chain and plug into the dissemination channels
- FFOs work with Sprout to tailor content and materials for group trainings that avail relevant information to both women farmers who do not have access to devices



- The platform administrators understand that more effort is needed to ensure that end to end aspects of the Sprout platform are gender transformative and are working on initiatives to support this strategic need
- One of these projects is with CGAP in Cote d'Ivoire where they are **initially identifying value chains that engage most** women SHFs before tailoring content and using channels that will effectively reach them

To date, over 5.9M messages across multiple value chains have been sent to 607K farmers in Kenya and Ethiopia



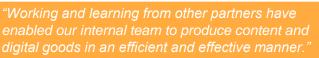
- Through FFOs, over **5.9 million messages** have been sent to **607K farmers in Kenya and Ethiopia** in Sprout's first year, **an estimated 4% of the 14M¹ farmers** accessing AgTech solutions across both countries
- A value chain analysis shows that farmers in Kenya mostly engaged animal husbandry content² in the livestock chain. Conversely, in Ethiopia, the ATA primarily accessed and shared financial literacy content with their farmers
- Analysis of platform channels show that farmers in Kenya opted for various channels including social media, SMS and IVR. In Ethiopia,
 the end users were comfortable accessing the financial literacy content in local dialects through the IVR channel

Sprout has contributed to capacity building of partners, who reported improved efficiency, effectiveness and technical capabilities to use and disseminate content



Content providers

- KALRO has noted that working with partners and leveraging new technologies have boosted their internal capacity to:
 - Improve efficiency of producing content and digital goods
 - Improve effectiveness of their content and products meeting the evolving needs of their end users



- Assistant ICT Director, KALRO



"With improved effectiveness and efficiency, KALRO's visibility is increasing in the ecosystem" - Assistant ICT Director, KALRO



Farmer facing organizations

- FFOs noted that they experienced some technical difficulties customizing and bundling content
- Engaging on Sprout improved their internal technical capabilities, enabling them to digitize and disseminate content efficiently



"Before Sprout, we experienced difficulties designing and bundling content into our SMS platform. Sprout provided support and taught our teams how to do it." - Founder and CEO, M-Shamba



"Sprout supported our team to customize and digitize content for our diverse dissemination channels." - Founder and Managing Director, Digicow

Sprout member, Digicow have early evidence of the platform's impact on improving their internal capabilities and farmers' practices



Spotlight on Digicow

- Digicow is an AgTech innovation that enables dairy farmers to access relevant content and technical assistance to support data-driven decisions in their farming practices.
- Digicow engaged Sprout to access livestock breeding and financial literacy content. In turn, Sprout leveraged platform members to source relevant content and supported Digicow to contextualize the information for their 10,000 farmers
- The partnership has had a notable impact on Digicow, including:



Technical expertise – Gaining expertise on best practices of bundling and digitizing content into diverse channels



Partnerships – Gaining further exposure in the ecosystem including the commitment of one funding partner to support its growth and extend reach

 Digicow has noted that the timely dissemination of digital content in <u>addition to training</u>, and <u>veterinary support</u> have contributed to <u>observed improvement amongst their</u> farmers.* The impact includes:



Productivity – Farmers accessing the mineral salts content have seen milk production increase by an average of 2.5 liters



Disease avoidance – The digital content on artificial insemination for breeding has helped avoid transmission of diseases



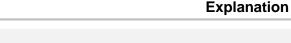
Pest control – The training content on tick treatment has allowed farmers to decrease the cases of east coast fever and reduce the costs of treatment by 81%

"The financial literacy content has increased the awareness levels on insurance, as a result, a significant proportion of our farmers are applying for livestock insurance cover."

- Founder and Managing Director, Digicow

The early experience on the Sprout platform has provided a set of learnings

Learning





Onboard technical leads early



Stay agile to adjust services and support offered to meet needs



Cultivate relationships with relevant government agencies

- Engaging technical leads early in the process allows them to draft and oversee the implementation of a technical strategy that guides the platform's evolution
- Sprout recruited an experienced technical lead early this year leading to an accelerated development of the platform's capabilities
- Partners engaged on a collaborative and information sharing platform require varying levels of support. For example, some FFOs required further support to contextualize and disseminate information in addition to accessing content
- Sprout was agile enough to identify the need and adjust its internal capacity to provide tailored support to the different partners
- Sprout's key value proposition is its ability to collate and disseminate certified content in a timely manner
- This denotes the value of building strong relationships with government agencies to not only access content but also expedite the approval of curated content from other partners

*The platform is at the early stage and more learnings/success factors will emerge as the platform evolves.

Building on these learnings and maintaining its agility, Sprout aims to evolve into a Pan-African platform in the medium term

• Sprout's firm commitment is to ensure that SHFs in SSA have access to timely, relevant, high-quality content that can contribute to improving productivity and livelihoods. To achieve this vision, Sprout will explore three growth pathways in the short and medium term:

1

Engage more partners .



- Engage more diverse partners including content providers who offer climate-smart and gendertransformative content
- Work with FFOs in more SSA countries to engage a wider pool of SHFs

2

Provide live content and refine existing offerings



- Engage partners to add **live weather forecast and marketplace content on the platform**. These services will enable farmers to plan efficiently and possibly maximize output
- Work internally to refine the technical infrastructure to allow content providers to better upload and manage content before the dissemination stage

3

Explore monetization avenues



Explore opportunities to monetize aspects of its offerings to enable the platform to evolve sustainably as it adds more partners and services. A potential monetization channel could include setting an affordable fee to access the marketplace service