

Innovation Packages and Scaling Readiness workshop: PigSmart digital extension platform in Uganda



INITIATIVE ON
Sustainable Animal
Productivity

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About SAPLING: CGIAR's Sustainable Animal Productivity for Livelihoods, Nutrition and Gender inclusion (SAPLING) is working in seven countries focusing on livestock value chains to package and scale out tried-and-tested, as well as new, innovations in livestock health, genetics, feed and market systems. SAPLING aims to demonstrate that improvements in livestock productivity can offer a triple win: generating improved livelihoods and nutritional outcomes; contributing to women's empowerment; and reducing impacts on climate and the environment. Its seven focus countries are Ethiopia, Kenya, Mali, Nepal, Tanzania, Uganda and Vietnam.

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Introduction

Pig production is crucial for both the economy and food security of Uganda. Demand for pork is increasing rapidly and the annual per capita pork consumption, at 3.4 kg, is the highest in East Africa. Fueled by the rising demand for pork, the number of pigs in Uganda increased from 0.2 to 4.1 million between 1980 and 2018¹. A significant number of households (over 1 million) are engaged in pig farming². This sector has substantial opportunities for reducing poverty and enhancing livelihoods; nevertheless, limitations on productivity persist and impede numerous farmers³. In response to the persistent productivity limitations in the pig farming sector, the PigSmart digital extension platform was developed as a beacon of hope. This digital innovation tool is set to revolutionize pig farming in Uganda, forming part of the collective the Sustainable Animal Productivity for Livelihoods, Nutrition and Gender inclusion (SAPLING) integrated pig productivity enhancing package. The package addresses best practices and innovations in feeding, herd health management, improved genetics, manure management and heat stress management. The extension messages from the integrated content have been developed into audio skits in Luganda, the local language for the Central region, to ensure inclusivity and enhance farmer comprehension.



PigSmart is not just a platform; it is a comprehensive digital ecosystem of solution providers strategically tailored to address the unique challenges faced by small-scale pig farmers. With a mission to enhance production and increase income among pig farming communities, PigSmart brings together a diverse range of digital solutions, each meticulously crafted to tackle specific issues identified by stakeholders in the pig value chain. This comprehensive approach is designed to reassure stakeholders about the potential impact of the platform.

At its core, PigSmart aims to revolutionize the small-scale pig farming industry by providing timely, relevant, and actionable information to farmers. This digital platform offers a bundled suite of solutions, including extension-facing services that employ multimedia-supported extension sessions. By leveraging cutting-edge technology, PigSmart facilitates farmer-facing interventions, delivering multimedia solutions directly to the farmer's fingertips. These solutions are designed to empower farmers with the knowledge and tools they need to optimize their pig farming operations.

To unlock the full potential of the PigSmart digital extension platform, a crucial workshop led by the innovation owner Emily Ouma brought together a diverse group of experts. This group included representatives from veterinary services, the Ministry of Agriculture, extension agents, digital platform service providers, and most importantly, the heart of the industry—the farmers themselves. This collaborative gathering explored how to refine PigSmart, making it a potent tool for increased productivity and enhanced economic opportunities for Uganda's pig farmers. The workshop was facilitated by Ijudai Jasada and Ronnie Ahumuza using the Innovation Packages and Scaling Readiness Tool.⁴

¹ Uganda Bureau of Statistics. Statistical Abstract. Kampala: Uganda Bureau of Statistics (2018)

² <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10239858/>

³ <https://www.ilri.org/news/addressing-ugandas-pig-value-chain-constraints-pigsmart-way>

⁴ <https://www.ilri.org/knowledge/publications/innovation-packages-and-scaling-readiness-framework-optimizing-regional>



This report delves into the insights gained from the workshop, identifying user needs and challenges, and ultimately, designing an innovation package to propel PigSmart towards successful scaling to ensure that by the end of 2024, SAPLING and partners will work together with PNR farms Africa Ltd and the national district local governments, to accomplish the use of PigSmart digital extension platform by 100 livestock extensionists, and a total of 120, 000 pig farmers of which 50% are women, in Central and Eastern regions of Uganda, contributing to enhanced resilience and adoption of integrated technologies and best practices and improved pig productivity by 20-30%

Objectives of the workshop

- Identify user needs and challenges faced by farmers and agents in platform adoption.
- Design an innovation package to complement the core platform and optimize its effectiveness.
- Assess the platform's readiness for scaling and develop a roadmap for expansion.

Workshop overview

The PigSmart innovation was introduced by the innovation owner, Emily Ouma after which the SAPLING scaling ambition, which refers to the initiative's goal of expanding the reach and impact of the PigSmart platform, was discussed with the experts to get their views on the reach targets. Experts deliberated and discussed before targets were agreed upon based on time, resources, the current state of pig production, and the feasibility of the delivery model. Participants were grouped in their areas of expertise, where detailed discussions were made to unearth the various bottlenecks and challenges that will impede the scaling of the innovations. The groups also discussed on multiple solutions and enablers that can complement the core innovation to improve its viability and feasibility to achieve scale in Central and Eastern Uganda.



Workshop output

Challenges/obstacles/bottlenecks

Low capacity to interpret and use information appropriately, especially by the farmers

Women farmers do not own mobile phones and lack user capacity and know how to operate smart devices

Enablers/Complementary innovations

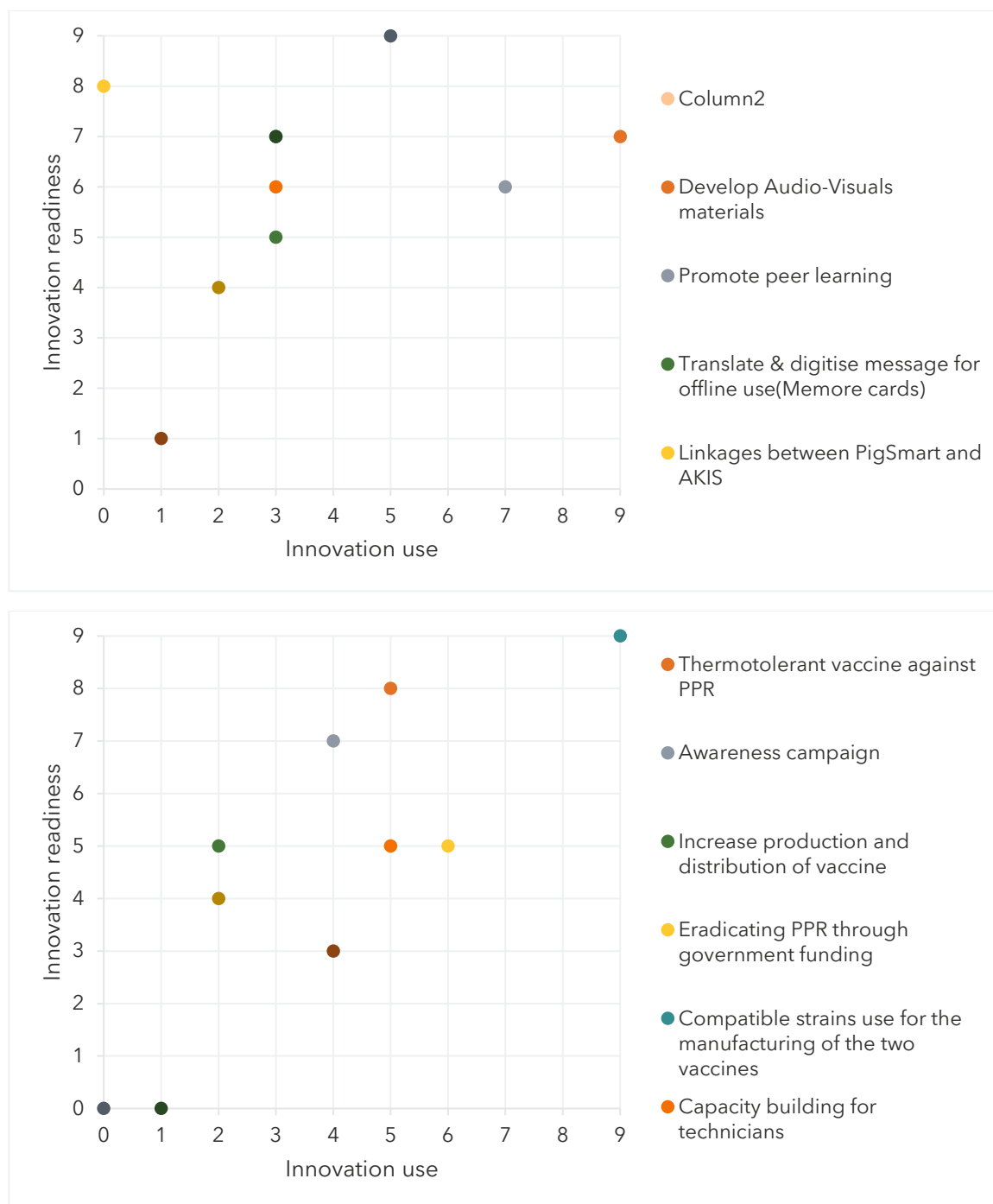
Develop and use a wide range of simplified formats of information especially audio-visuals that are appropriate for pig farmers

Promote peer learning, and create farmer groups in various remote locations

Key knowledge materials are in English and are limited in availability	Translate documents/handouts into Luganda, digitize and share messaging content using flash sticks, memory cards for remote and offline usage
No linkage between the PigSmart platform and the Agricultural Knowledge and Information System (AKIS)	Create a linkage between the PigSmart digital tool and the Agricultural Knowledge and Information System (AKIS) platform
Limited financing and lack of resources to sustain the innovation beyond the project implementation period	Provide financial literacy training for farmers
The platform fails to capture more value additions along the value chain such as marketplace, and business linkages	Update and upgrade the PigSmart tool to have a marketplace, data pool, two-way communication and networking mechanism for farmers, researchers, and extensionist
No legal framework around the use of digital platforms in current legal frameworks	Collaborate with key policy experts to review existing frameworks, develop regulations and guidelines to support digital extension
There is no clear coordination among stakeholders in the Pig value chain to ensure maximum benefits of digital extension services	Effective engagement strategy through awareness campaign to show the benefits and relevance of the app to each stakeholder category
Need for a mindset change from analog to digital	Training on mindset change providing mentorship and motivation
Lack of clear promotional strategy targeting other stakeholders in the pig value chain such as vets and feed stockists	Strengthen existing multistakeholder platforms.

The graph in Figure 1 below summarizes the readiness and use of the various enablers (complementary innovations) proposed by the participants to address the challenges uncovered during the design workshop. Marketing authorization remains a critical bottleneck to actualizing the scaling ambition.

Figure 1: Scaling readiness graph



Source: Workshop participants as captured in Table 1

Conclusion and recommendations

The PigSmart Platform holds significant potential to empower pig farmers and improve their productivity. This workshop identified opportunities for optimization and scaling through an innovative package encompassing improved content, agent support, and user-centricity. The team will use the various recommendations suggested by the experts to prioritize the enablers based on their readiness and use levels as realized in Uganda.

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