



Stakeholder Consultation Workshop on "Co-Lab: the virtual collaboration platform for Digital Agri-food Systems" in Hyderabad, India

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Work package Enabling environment for digital ecosystems

Partners Agri-Innovation Hub, Professor Jayashankar Telangana State Agricultural University

Abstract The stakeholder Consultation workshop on “Co-Lab: The Virtual Collaboration Platform for Digital Agri-food Systems” was convened in July 2023 as an interactive discussion to brainstorm ideas and get feedback about the collaboration platform. The workshop brought together 13 stakeholders, both in person and remotely, representing agri-tech startups and CGIAR. Participants found that the workshop offered them a platform to codesign the Co-Lab platform for which they enthusiastically engaged in the brainstorming session, scoping potential South-South collaboration opportunities. Based on the participants' feedback, the Digital Innovation Initiative will refine and enhance the Co-Lab platform's features.

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Digital Innovation organized the workshop in consultation and with the active participation of many stakeholders (see Annex). Jawoo Koo (Digital Innovation lead) and Andrea Gardeazabal (Digital Innovation co-lead) were supported by Satish Nagaraji (ICT for development specialist). The planning and facilitation of the workshop benefited immensely from the professional support of Satish Nagaraji. We acknowledge the support of the AgHub - Agri-Innovation Hub of PJTSAU for providing the facility to host the workshop in their Institute.

Abbreviations

ICT	Information and Communications Technology
CIMMYT	International Maize and Wheat Improvement Center
PJTSAU	Professor Jayashankar Telangana State Agricultural University
CEO	Chief executive officer
DINA	Digital Innovation Navigation Assistant

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Workshop participants at AgHub - Agri-Innovation Hub of PJTSAU, July 28, 2023.

1. Background

The potential of digital technologies to revolutionize agriculture is widely acknowledged, with examples ranging from the European Union's exploration of digital agriculture integration into its policies (Patteri, 2017) to the transformative impact of technology on Indian farmers' lives (How Technology Is Helping India's Rural Poor, 2020). However, the realization of this potential is met with challenges such as the digital divide and limited

capabilities among farming communities, leading to uneven impacts (Hackfort, 2021; Xie et al., 2021). In response, the CGIAR Initiative on Digital Innovation is focused on driving inclusive and sustainable transformations in food, land, and water systems. Their efforts encompass addressing the digital divide through policy investments, enhancing information systems, and empowering marginalized communities with digital capabilities.

In this dynamic landscape, the Co-Lab platform emerges as a pivotal player. By fostering research, collaboration, and skills development, the Co-Lab aims to enable digital innovation within agri-food systems. Its three core aspects – research-based resources, a Global South Peer-to-Peer Innovation Space, and capacity-building components – converge with the overarching goal of delivering transformative benefits to the farming community in the Global South. In the pursuit of overcoming challenges and harnessing opportunities in the digital agriculture realm, the Co-Lab platform stands as a catalyst for positive change.

The workshop served as a platform to introduce this initiative and its overarching objective of catalyzing an inclusive and sustainable transformation in food, land, and water systems. By engaging stakeholders and inviting startups to be part of this platform, the workshop facilitated a dynamic exchange of insights and ideas, harnessing the collective potential to bridge the digital divide, empower marginalized communities, and drive impactful innovation. Moreover, by deliberating on potential collaboration with startups for innovative use cases, the workshop took a proactive step toward shaping the future of digital agriculture, making this collaborative effort a critical and promising endeavour.

2. Session mechanics

The stakeholder Consultation workshop on “Co-Lab: The Virtual Collaboration Platform for Digital Agri-food Systems” was convened in July 2023 as an interactive discussion to

brainstorm ideas and get feedback about the collaboration platform. The workshop was held with the following objectives:

2.1 Workshop objectives

1. Introduce the CGIAR Digital Innovation Initiative to local stakeholders.
2. Understand the digital ecosystem of AgHub partners and their innovations in agri-food systems.
3. Introducing the Co-Lab platform, understanding Co-Lab's operational approaches and inviting the start-ups to be part of the platform.
4. Engage stakeholders for feedback and insights on the design and features of the upcoming virtual collaboration platform tailored to serve start-ups, innovators, researchers and donors.
5. Deliberate on potential collaboration with start-ups for South-South innovation use cases.

2.2 Session format

Four sessions were designed to deliver on the workshop objectives. Each session was well timed and followed a logical sequence moving from initial sessions introducing the topic and later delving into deeper discussions.

2.3 Participants

The workshop brought together 13 stakeholders, both in person and remotely, representing Agritech startups, AgHub and CGIAR. Participants found that the workshop offered them a platform to codesign the Co-Lab platform for which they enthusiastically engaged in the brainstorming session. They understood the importance of collaborating to sustain digital interventions in agriculture which needs a holistic approach that includes the right policies, frameworks, ecosystem and capacities.

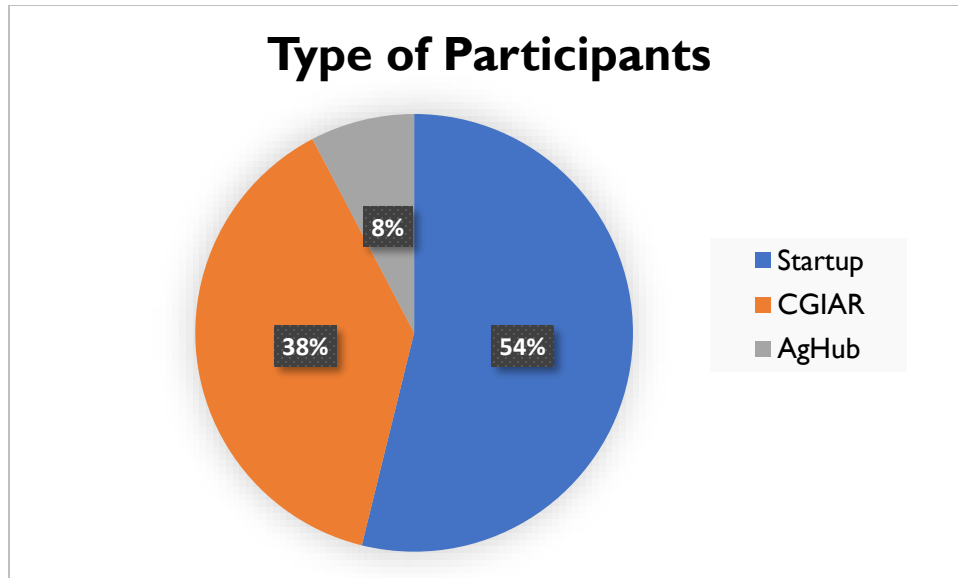


Figure 1: Participants of the workshop by type

2.4 Interaction method

Workshop interactions were captured using the Mentimeter survey. The discussion was moderated by Satish Nagaraji and Andrea Gardezabal using sequential engagement. This allowed each attendee to contribute in turn, ensuring organised and inclusive participation.

3. Session highlights

3.1 Session 1: Welcome and introductions

Speaker: Vijay Nadiminti

Vijay Nadiminti welcomed all the attendees to AgHub, expressing his appreciation for their presence. The session purpose and importance of collaborative discussions were highlighted.

3.2 Session 2: AgHub Startup ecosystem; Digital Innovators pitch

Speakers: Vijay Nadiminti and AgHub Startups

In Session 2, Vijay N. provided an insightful overview of AgHub's core mission and vision. AgHub is a pioneering Agri Innovation Hub with a clear goal: to foster innovation and

entrepreneurship within agri-food systems, generating impactful changes at both local and global levels. The hub's mission involves promoting innovative ideas and entrepreneurial ventures across agriculture and rural ecosystems. This is achieved through mentorship, piloting initiatives, and facilitating crucial connections to markets, research, and investment opportunities.

AgHub hosts diverse programs, each tailored to specific needs: Rural Entrepreneurship Programs, Student Entrepreneurship Programs, and Startup Entrepreneurship Programs. The comprehensive support provided by AgHub was highlighted, which includes personalized mentoring, state-of-the-art infrastructure, engagement with an investor community, technology validation and piloting, as well as essential links to farming communities and ecosystems.

Following the insightful briefing about AgHub, the floor was handed over to the attendees, providing them with an opportunity to introduce themselves and share details about their innovative solutions.

3.3 Session 3: Introduce the Co-Lab platform and interactive group discussion for feedback and insights on the design and features of the Co-Lab platform

Speakers: Jawoo Koo, Satish Nagaraji and Andrea Gardeazabal

During the session, Jawoo Koo delved into the CGIAR Digital Innovation Initiative, elaborating on its research activities organized around three key areas. The first flagship, the Digital Co-Lab, is a comprehensive platform for research, collaboration, and training to drive digital innovation within agri-food systems. The initiative seeks to empower partners to foster digital innovation by addressing challenges through collaborative efforts. Another focus is on developing Digital Twins, which involve real-time monitoring data to enhance

decision-support systems. Additionally, the Digital Inclusion Framework aims to bridge the digital divide and promote gender equity in the digital ecosystem.

Andrea Gardezabal, Digital Innovation co-lead, underscored the initiative's aim to rectify the uneven impact of digital innovations witnessed over the past years. Highlighting the need for a holistic approach, the importance of cohesive policies, frameworks, ecosystems, and capacities to sustain digital interventions in agriculture was emphasised. The proposed Co-Lab platform serves as a collaborative space that unites stakeholders rather than fostering competition, exemplified by the Guatemala use case where diverse weather stations contribute data to enhance national weather forecasts.

Satish Nagaraji introduced the Co-Lab platform to the participants. The core objectives of Co-Lab are to promote research, collaboration, and skills development for digital innovation in agri-food systems. The platform comprises various facets, including research-based resources, a peer-to-peer innovation hub for the Global South, and capacity-building components such as an online academy, events, and webinars. Digital Agri Co-Lab Platform's components include the Digital Innovation Navigation Assistant (DINA), the Global South Innovation Space, Digital Public Goods, Online Academy, and Events.

3.4 Session 4: Interactive discussion

Speakers: Satish Nagaraji and Andrea Gardezabal

To gauge participants' expectations and motivations, a mentimeter survey was conducted, revealing valuable insights that were subsequently discussed. The participants engaged in a productive discussion about their anticipated usage of the Co-Lab Platform, their expectations, and potential enhancements, further enriching the collaborative dialogue.

3.4.1 Insights from the Mentimeter Survey

Poll 1: When participants were prompted to encapsulate Co-Lab in a single word, their responses reflected a variety of perspectives. Co-Lab was a platform for collaboration, co-

innovation, leverage network, one-stop solution., information sharing and learning. One of the views said it to be too big or expansive. These succinct descriptions not only underscored the multifaceted nature of Co-Lab but also portrayed its role as a hub for fostering diverse interactions and knowledge exchange among participants with varying backgrounds and expertise.



Figure 2: Participants describing Co-Lab in one word

Poll 2: When participants were asked about their preferred platform of engagement within Co-Lab, the results indicated a higher preference for the "Innovation Space" compared to "DINA" and the "Online Academy." This trend underscores a collective interest in collaborative innovation and peer interaction over other aspects.

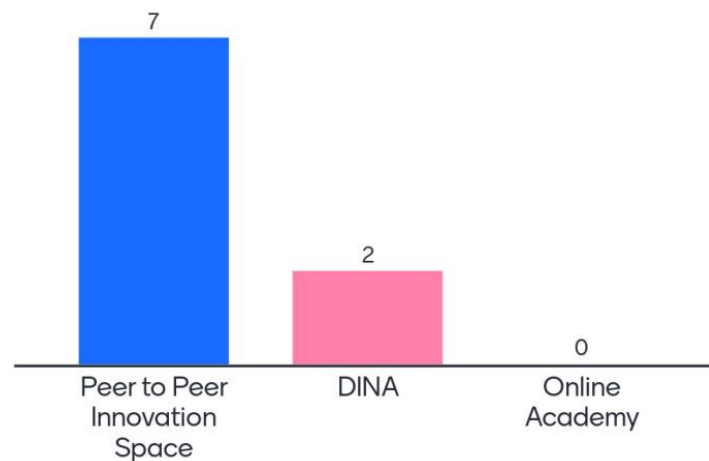


Figure 3: A comparison of participants' preferences for Co-Lab engagement

Poll 3: In response to the question "How would you be a part of the Co-Lab?" participants expressed diverse ways of engagement. Many participants saw the platform as an opportunity to connect and co-create with global peers, leveraging their collective expertise to address shared challenges in the agricultural ecosystem. They highlighted intentions to contribute by sharing their expertise, research findings, and digital solutions, as well as learning from problems faced in different regions to enhance their solutions.

Poll 4: Initial reactions to the Co-Lab's design yielded a mix of responses. While some participants found it ambitious and narrow in focus, others lauded its user-friendliness, futuristic approach, and innovative communication methods. DINA and the Learning Academy were particularly praised for their intuitive design, though some expressed the need for deeper exploration of the Peer-to-Peer section.

Poll 5: In terms of ranking the features of the Innovation Space, the Collaboration Space emerged as the most favoured aspect, followed by Resource and Funding Opportunities and Data Explorer.

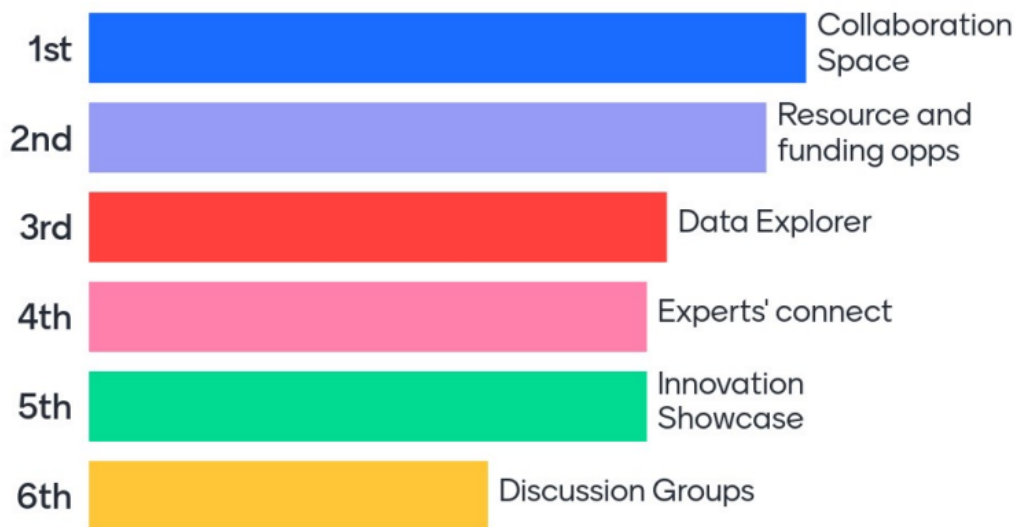


Figure 4: Participants rank the features of Innovation Space

Poll 7: Regarding missing elements within the Innovation Space, participants highlighted the need for components like "commercialization of research with trackable metrics," "localization," "crop-based verticals," "detailed/verified personal profiles," "outcome of innovation/collaborations," and a "seamlessly integrated calendar space."

3.4.2 Insights from the interactive group discussion

During the interactive group discussion, certain problem points were identified. It was revealed that some participants were reluctant to share their data unless incentivized, and concerns were raised about managing the ambitious nature of the projects. To address these issues, suggestions included focusing on niche collaborations based on specific crops and building the platform in phases, gradually adding specialized features.

3.5 Session 5: Wrap up and the way forward

Speaker: Satish Nagaraji

In the closing remarks, Satish Nagaraji addressed all the insightful talks and thanked everyone for their unique contributions. He concluded by saying that this was only the start of the collaborative journey.

4. Conclusions and next steps

The participant feedback and insights from the Co-Lab engagement survey revealed a strong inclination toward the "Innovation Space" within the Co-Lab platform, suggesting a collective interest in collaborative innovation and peer interaction. Participants expressed a diverse range of engagement strategies, aiming to leverage the platform for global connections and co-creation to address shared challenges within the agricultural ecosystem. While reactions to the platform's design were mixed, with some perceiving it as ambitious and others commending its user-friendliness, specific components like DINA and the Learning Academy were well-received for their intuitive interfaces.

Participants also provided valuable input on missing elements in the Innovation Space, emphasizing the importance of features such as localized commercialization metrics, crop-specific verticals, and verified personal profiles. The discussions further identified challenges related to data sharing incentives and managing the multifaceted nature of the projects, proposing solutions that revolved around focused crop-based collaborations and phased platform development.

4.1 Looking ahead

Looking ahead, the Co-Lab platform is poised for a promising trajectory. With a strong preference for the Innovation Space and a rich variety of participant engagement strategies, the platform is well-positioned to foster collaborative innovation and knowledge sharing in the agricultural domain. Participants' feedback, which highlights the need for localized and trackable metrics, crop-focused verticals, and improved personal profiles, can serve as a roadmap for refining and enhancing the platform's features.

The Co-Lab's commitment to facilitating collaborative problem-solving is evident from the diverse ways participants intend to contribute, building a strong foundation for its future growth and impact. As the platform evolves, addressing data sharing concerns and refining

project management processes will be critical to ensure sustained engagement. Ultimately, the Co-Lab's journey is marked by its ambitious yet practical approach, promising a collaborative ecosystem that supports transformative innovation in the agri-food sector.

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6. Annexure

6.1 List of Participants

Sr. No	Name	Organisation
1	Andrea Gardeazabal	CIMMYT
2	Dr. Lakshmi Santhanam	Renkube
3	Jawoo Koo	IFPRI
4	Karthik Rao	Core Carbon X
5	Krishna Kumar Ponnada	Transity
6	Parbir Mishra	TRST01
7	Prajwal M	Oscillo Machines
8	Sachin Hegdekudgi	RootsGoods
9	Vijay Nadiminti	Ag Hub
10	Shetalika Sharma	Froots
11	Satish Nagaraji	CIMMYT
12	Satyan Velumani	CIMMYT
13	Sherin Maria	CIMMYT