Indonesia Agriculture Hackathon
Enabling Digital Innovations for Agri-Food System Transformation

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Cultivhacktion

Harvesting innovations through technology to create a more inclusive agricultural transformation in Indonesia

Supported by:

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Using Digital Innovations to enable Agri-Food System Transformation

Potential Gains from Farm-to-Fork

Recent analysis suggests **private sector in Indonesia** a growing source of digital innovation: at **least 55 agriculture-specific digital solutions** already exist, covering 5 key areas

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<tr>
<th># of digital solutions</th>
<th>Source</th>
<th>Solutions</th>
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<tbody>
<tr>
<td>Supply chain &amp; Data management</td>
<td>18 (32.7%)</td>
<td>• Traceability and certification systems&lt;br&gt;• Digital ID / farm data digitalization&lt;br&gt;• Supply chain management</td>
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<td>Market access</td>
<td>22 (40.0%)</td>
<td>• E-commerce platform&lt;br&gt;• Offtaker matching &amp; aggregation&lt;br&gt;• Warehousing, delivery &amp; logistics&lt;br&gt;• Trading platform for Ag inputs</td>
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<td>Digital financial services</td>
<td>16 (29.1%)</td>
<td>• Digital payments / e-wallet&lt;br&gt;• Digital lending / crowdfunding platforms&lt;br&gt;• Savings&lt;br&gt;• Micro-insurance</td>
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<td>Digital information</td>
<td>33 (60.0%)</td>
<td>• Farm / inventory management tools&lt;br&gt;• Market / price information&lt;br&gt;• Agronomy advisory (e.g. chatbot, digital content)</td>
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<td>Precision agriculture</td>
<td>13 (23.6%)</td>
<td>• Drone, aerial &amp; satellite (remote technology)&lt;br&gt;• On-site technology (soil / temperature sensors)&lt;br&gt;• Farm-level mechanization / input technology</td>
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Lack of infrastructure in remote areas
• Supply chain management
• Transport & logistics matching
• Route optimization
• E-commerce

Lack of structure in farmer groups
• Aggregation tools
• Cooperative management platform
• Direct-to-farmer financing

Excessive GHG emissions
• Precision agriculture
• Data platforms
• Tracking/surveillance platforms

Promotion of irrigation and mechanization
• Precision agriculture
• Smart irrigation/cold storage systems
• IoT

Pressure to develop inclusive & sustainable supply chains
• Traceability/supply chain certification

Promotion of domestic production of key crops
• Digital credit, input purchase, education, e-commerce

Investment in replanting of plantation crops
• Peer-to-peer credit for replanting

WBG Approach to Strengthening Indonesia's Digital Agriculture Ecosystem

**Strengthening Foundations for Digital Agriculture**
- Development of e-Agriculture Strategy (with FAO)
- Identification of building blocks, public policies and instruments to support digital agriculture transformation
- Development of Digital Agriculture Roadmap and Investment Plan
- Strengthening institutional capacity for Digital Agriculture

**Fostering Learning and Partnerships**
- Fostering public-private partnerships in Digital-Ag: Microsoft-MoA MoU (Feb 2021)
- Government-to-Government knowledge exchange between Kenya and Indonesia (Aug 2021)

**Crowdsourcing Solutions**
- Hackathons and Innovation Challenges

**Piloting and Mainstreaming Digital Agriculture Solutions**
- Supporting the development of a farmer registry
- Leveraging digital solutions for agricultural exports promotion
- Testing and scaling up of digital solutions in selected value chains through I-CARE
Structure of the Hackathon

● Geographic and value-chain focus
● First hackathon will focus on the West Java horticulture sector
● Problem Statements taken from three perspectives (Central Government, Provincial Government and Private Sector) for the following themes:
  1. Enhancing farm productivity and resilience to climate and related shocks
  2. Facilitating farmers access to markets (finance, input, output)
  3. Supporting public sector decision-making
● Support to participants
  1. Shortlisted teams will receive mentoring from subject matter experts
  2. Winning teams will receive prize award and mentoring to support the further development of their solutions, plus networking and scale-up options.
Vision of Indonesia Agriculture

Digital Transformation