

# The Digital Revolution in Agriculture

## ...Positioning for Success

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Development



**9.6 billion**  
**Approximately by 2050**



**7 billion**  
**and counting**

Today, there are more than 7 billion people on the planet, a figure that's expected to reach 9.6 billion by 2050.

If these numbers hold, overall food production will need to double in a relatively short period of time to meet demand to feed the world's population.

## Farmer's Database System



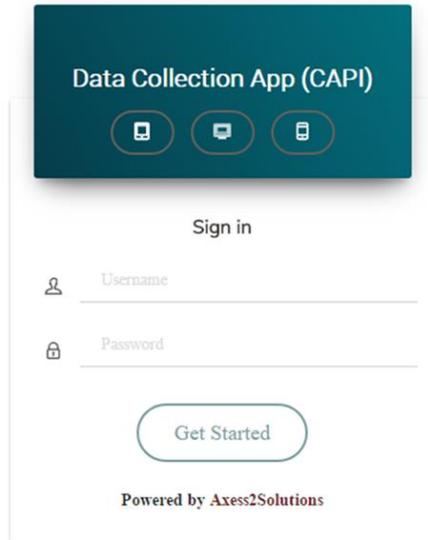
## Weather Forecast



## Access to Market Price



## AMIS-CAPIS Solution



Data Collection App (CAPI)

Sign in

Username

Password

Get Started

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# UNDERSTANDING DIGITAL REVOLUTION IN AGRICULTURE

## E-wallet System



## Unmanned Area Vehicle -Drones



- **Digital** technologies and analytics are transforming **agriculture**, making a farm's field operations more insight driven and efficient. **Digital**-based farm services, referred to as "precision **agriculture**," are helping to improve financial performance and boost yield.

# Potential Opportunities in Smart Agriculture



## Remote Monitoring Systems of Pests

- Automatic pest sensors
- Pest population forecast
- Pest behavior analysis



## Automatic Greenhouses

- Adaptive environment control
- Pest monitoring
- Increasing productivity of crops
- Productivity forecast



## Remote Visual Monitoring Systems

- Energy efficiency
- Autonomous operation
- Surveillance of critically endangered species of tern
- Optimal scheduling
- Real-time image capturing



## Colony Collapse Disorder

- Beehive entry-exit analysis
- Bee behavior analysis



## Microwave Pest Elimination Machine

- Low-cost, high efficiency
- Non-destructive operation



# Precision agriculture (PA)

**Precision agriculture (PA) is a farming management concept based on observing, measuring and responding to inter and intra-field variability in crops.**



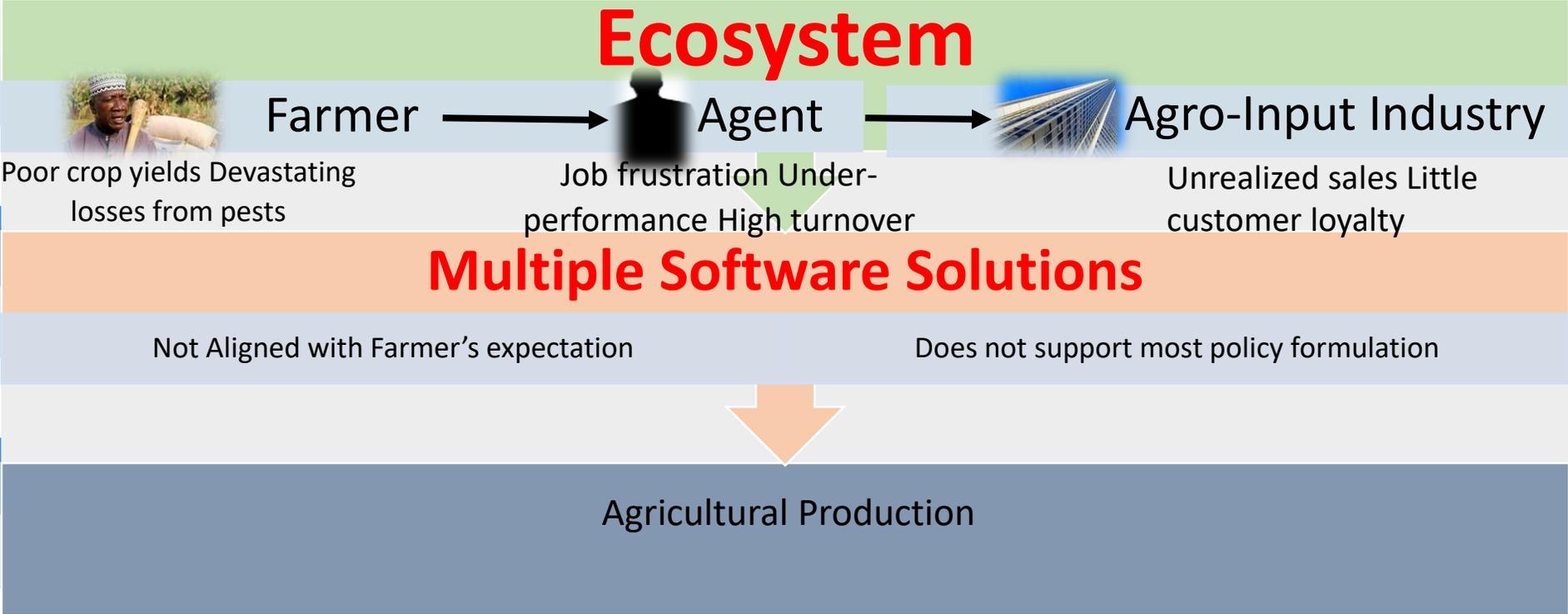
# Digitalized Agriculture in Nigeria



The Agricultural Sector in Nigeria is one of the key drivers of the economy. It has the potentials to open up more employment opportunities, create wealth and guarantee adequate food for our rapidly growing population.

Digital Agriculture is an emerging field in Nigeria focusing on the enhancement of agricultural and rural development through improved information and communication processes.

# Challenges



# Other Challenges....

- Identifying agricultural lands and mapping them to farmers.
- Problem of traceability and transparency in agricultural production.
- Integrity of data.
- Infrastructural challenges in rural areas.



# What we are doing>>>

Introduction of GIS for Soil Mapping across the country to guide each state to enable them produce crop of comparative advantage



Use of AMIS-CAPI System to ensure the integrity of data captured by enumerators

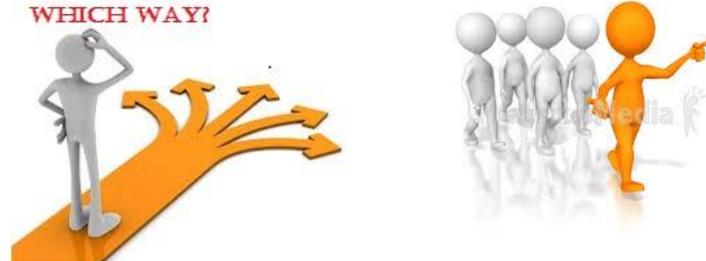


Provision of Broadband to access network in the rural areas



Seed Certification under the Ministry NASC

# 1. e-AgricTech Stakeholder Forum



The forum will bring together, the existing innovators and enable government share its policy direction with them which will enable the creation of sustainable and research guided solutions

# 2. e-AgricTech Hub



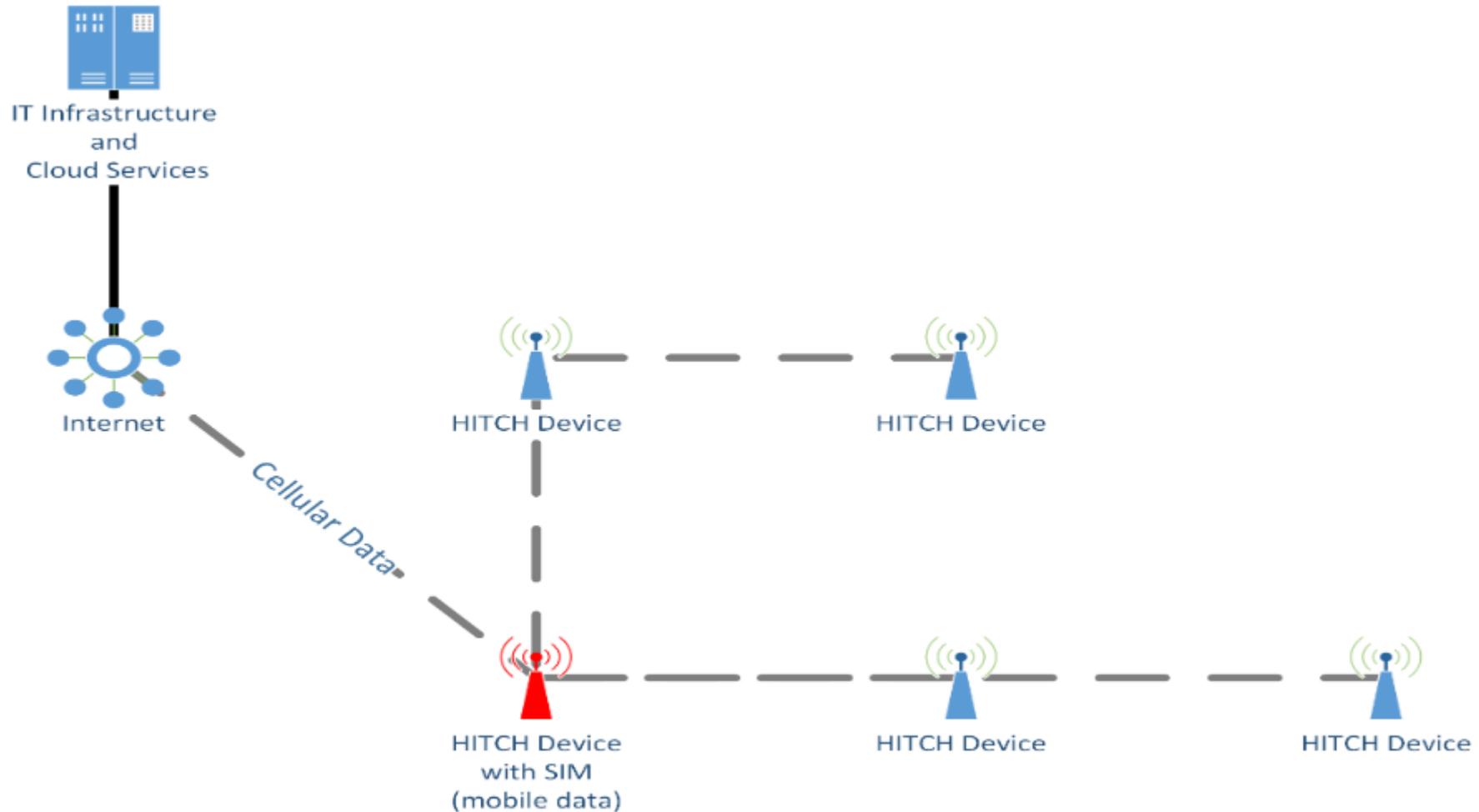
Through this hub, the upcoming innovators will be familiarized with the challenges facing agriculture in the country at the value chain level for them to provide innovative ideas and solutions to the problems.

# 3. e-Agriculture Web Portal



## 4. The HITCH

FMARD is working with its consultant to deliver content to the underserved.



# Conclusion

There are so much opportunities available in this growing Digitalization in Agricultural Sector. The fourth industrial revolution is here, we cant deny it and as a nation, we need to take advantage of it and properly position ourself in the this emerging opportunity to grow the economy.

