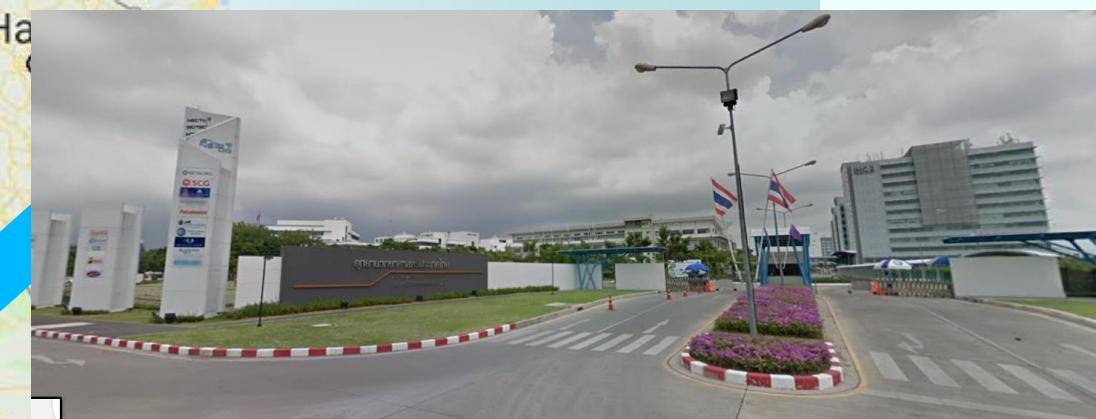
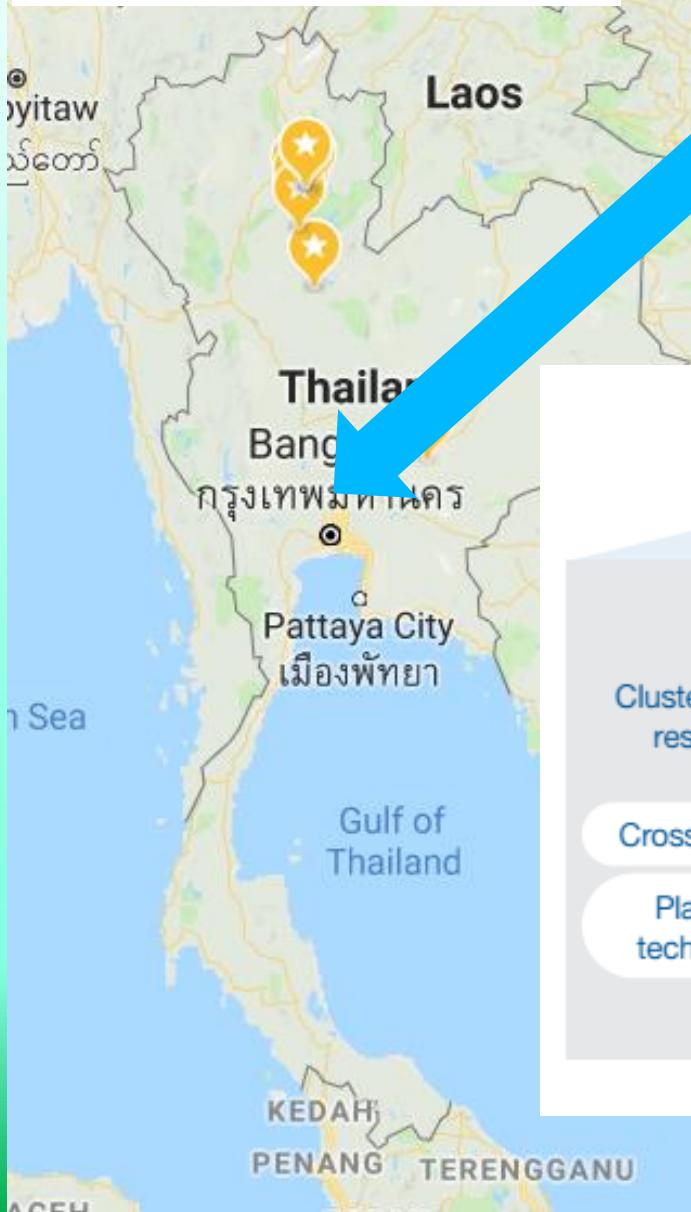


IoT Open-Platform WiMaRC System Wireless Sensor Network for Management and remote Control



NSTDA : National Science and Technology Development Agency
Location : Thailand Science Park 30 km north of Bangkok

Targeted Research

Cluster-based research



Cross-cutting

Platform technology

Service and Data Innovation



Sensors and Intelligent System

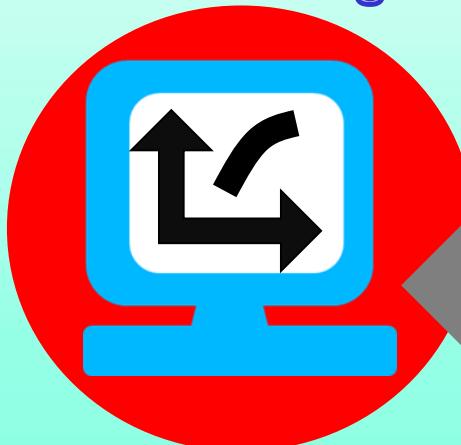


National Electronics and Computer Technology Center

Management



Monitoring



Remote Control



Ai Smart Farm

Farmer



Images



Sensors



DATA

Digitalized Crop Requirement

Yield Prediction

Pest Prediction

Cost Prediction

Management



Monitoring



Remote Control



Ai Smart Farm

DATA

Digitalized Crop Requirement
Yield Prediction
Pest Prediction
Cost Prediction

Farmer



Images



Sensors

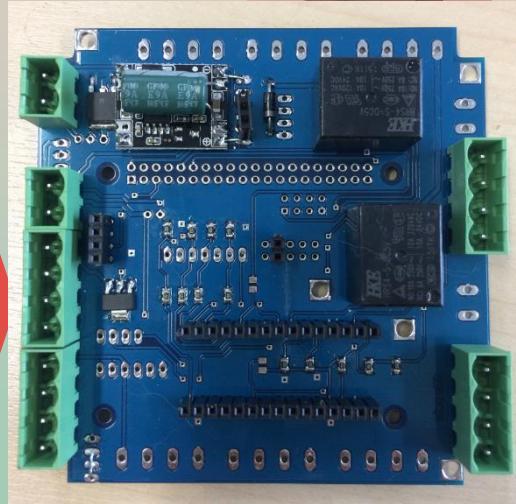


WIMARC

WIMARC-Platform



SENSORS

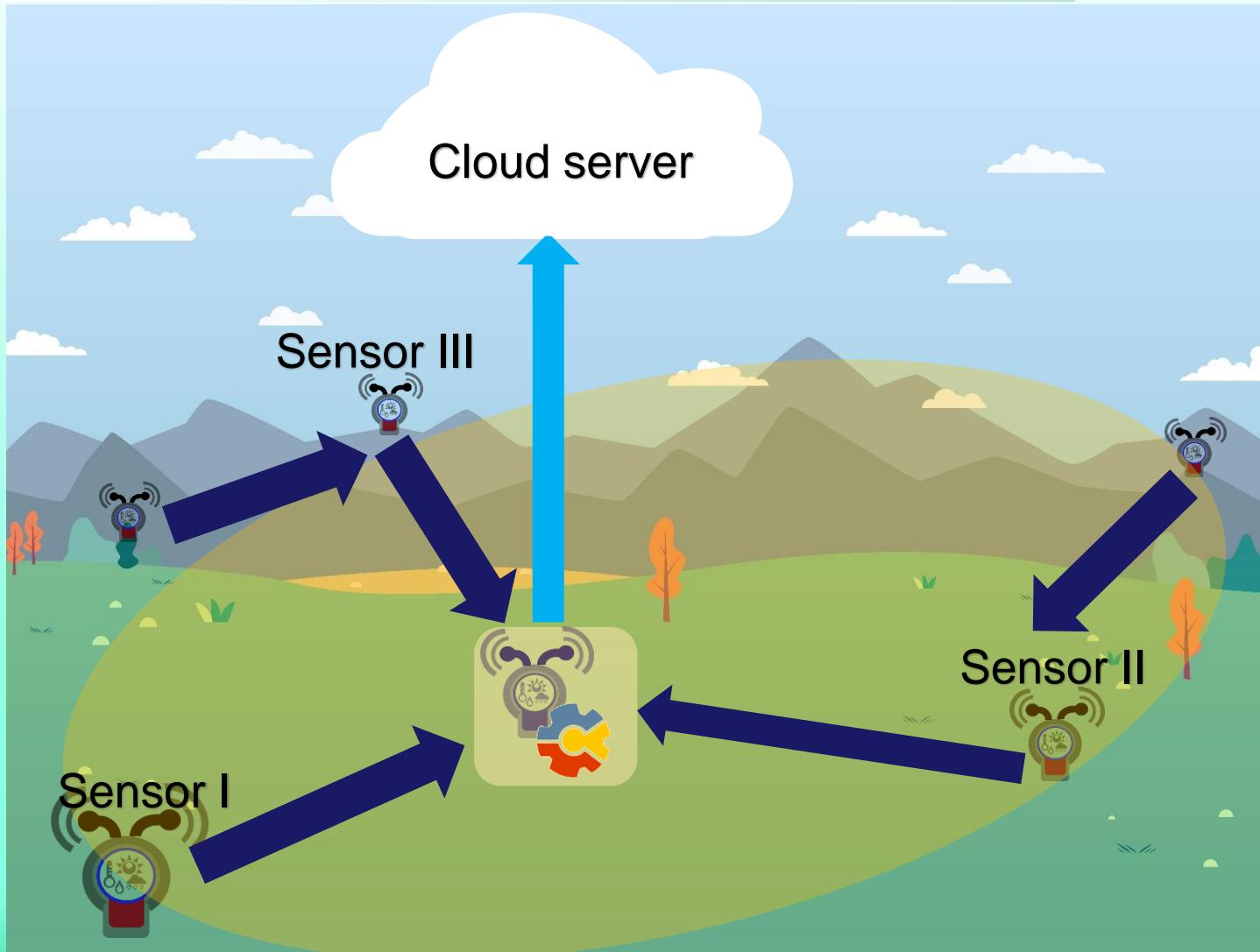


WIMARC
Gateway

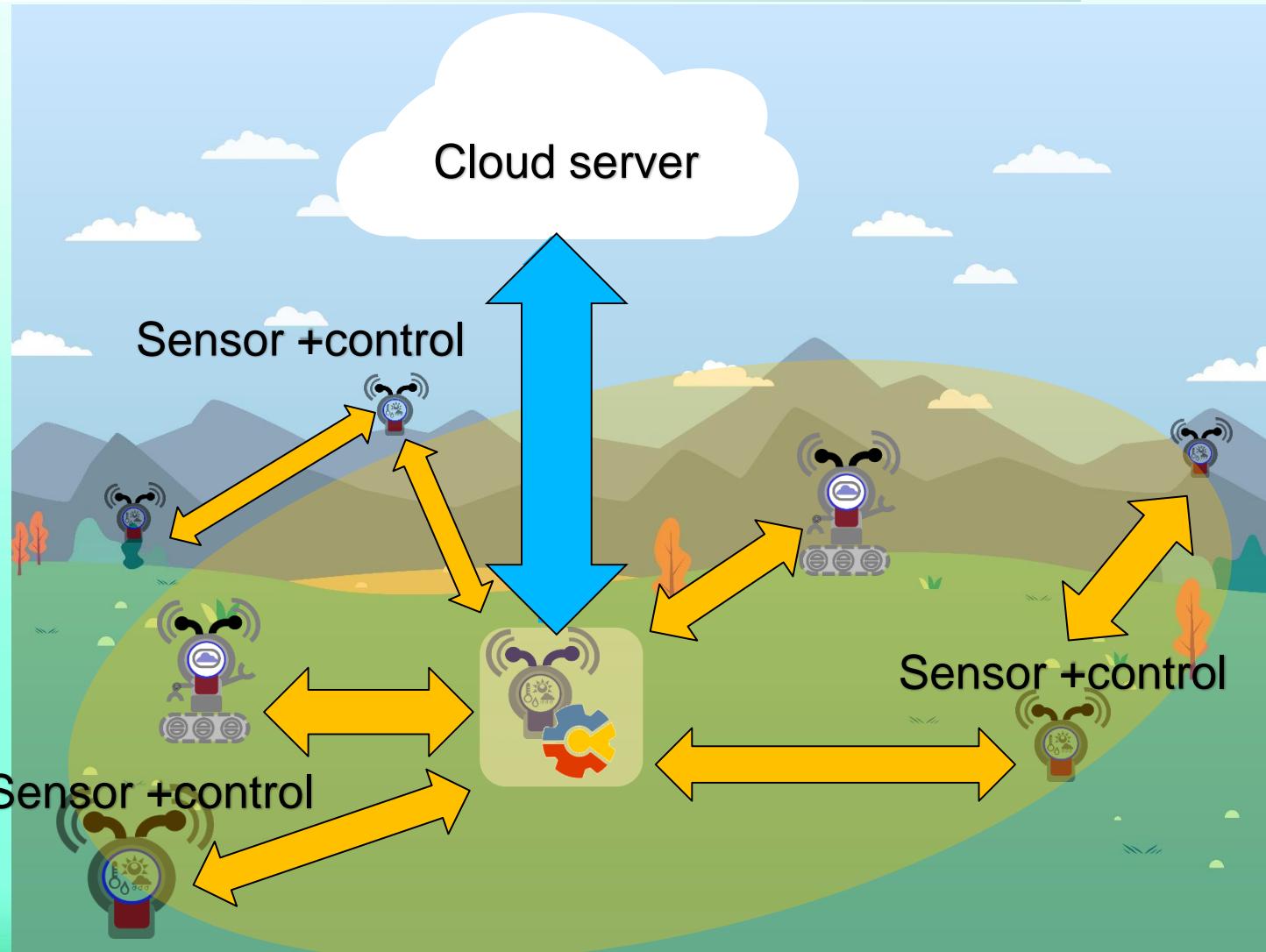


Cloud
Server

Wireless Sensor Network



Wireless Sensor + Smart remote Control



MaejoLORA



Master Node Open Field Installation



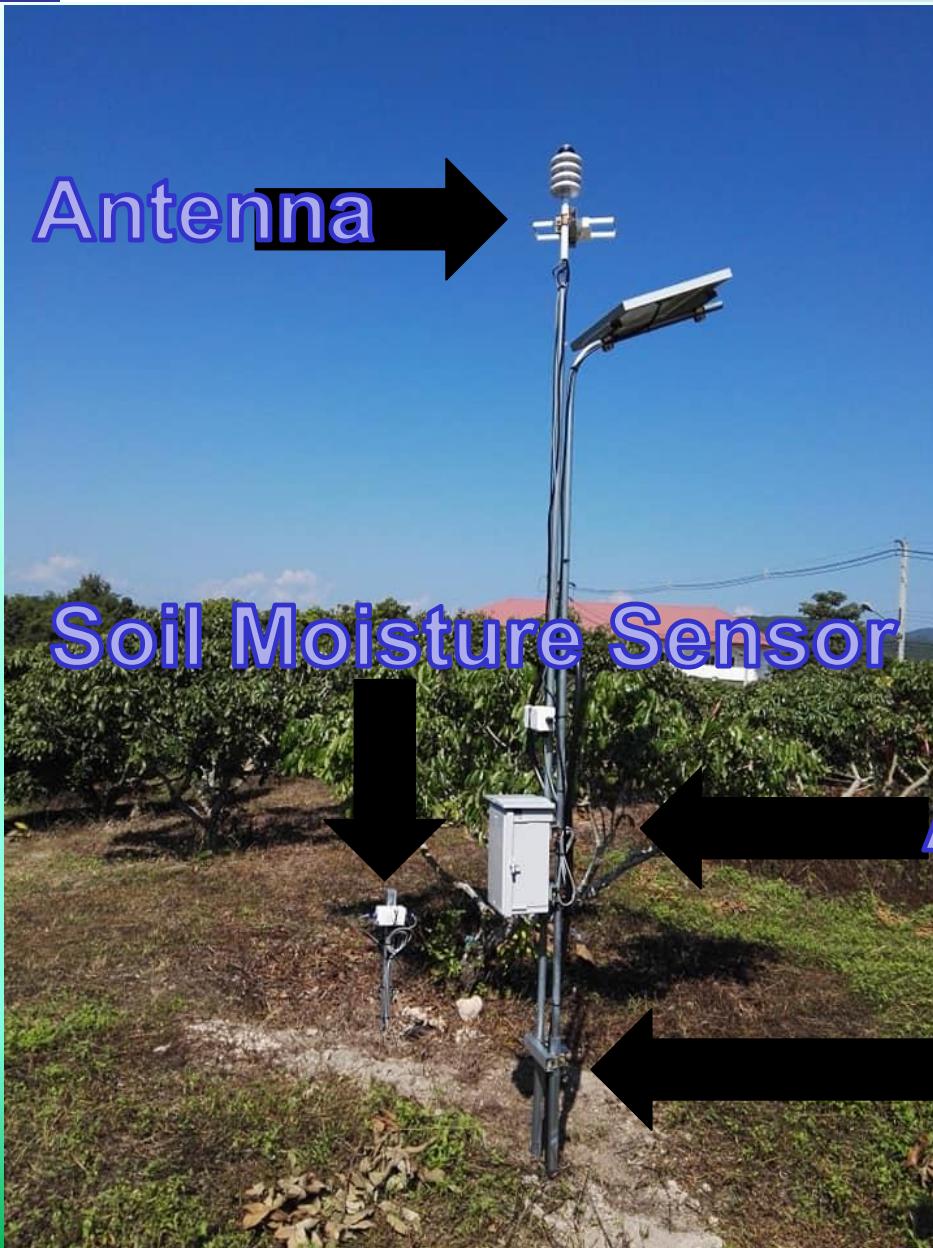
Sensors

Webcam

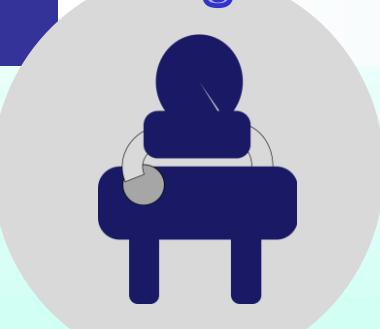
Arduino Sensor Node

Support

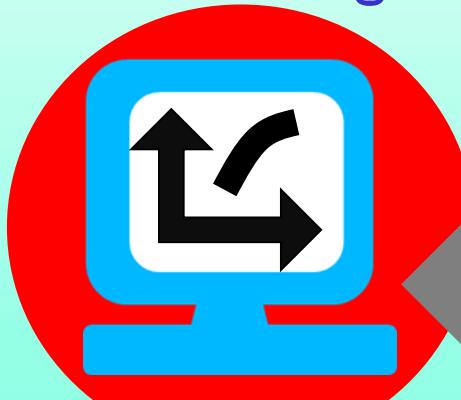
Client Node Open Field Installation



Management



Monitoring



Remote Control



Ai Smart Farm

DATA

Digitalized Crop Requirement
Yield Prediction
Pest Prediction
Cost Prediction

Farmer



Images

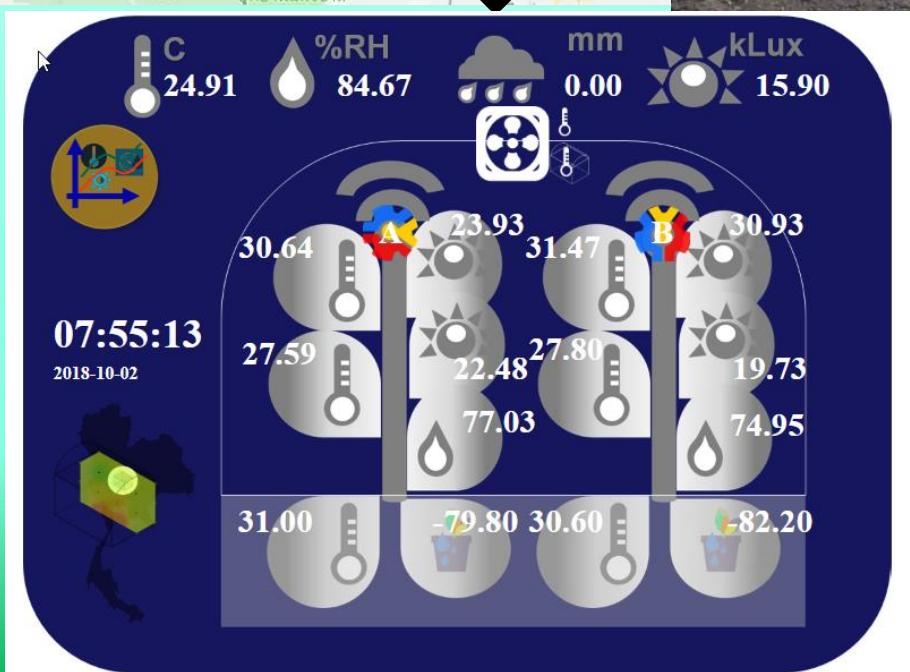
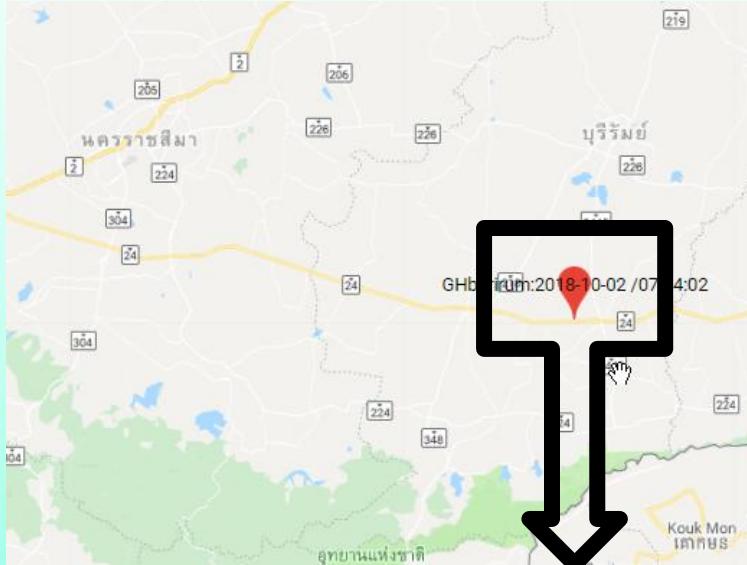


Sensors



WIMARC

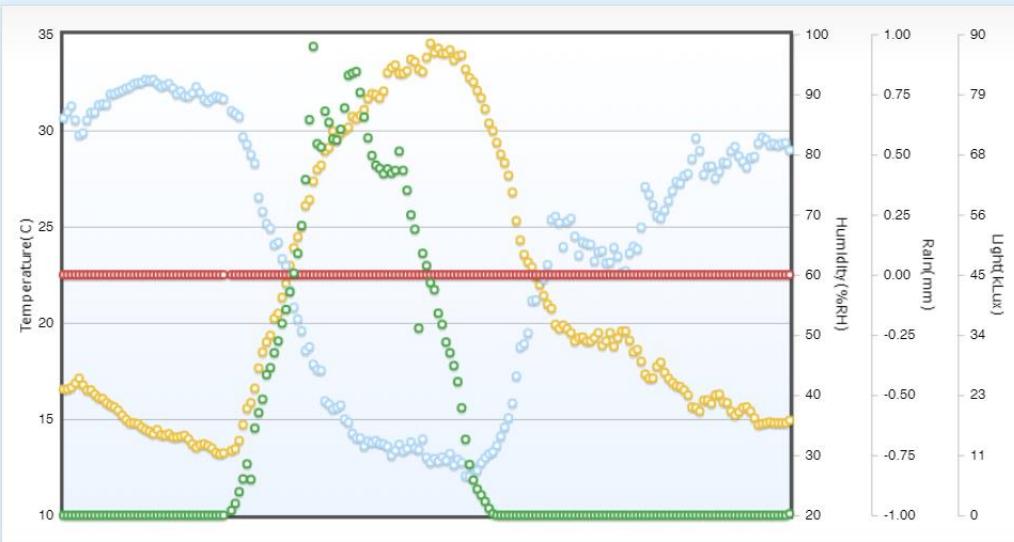
Greenhouse System



Sensor data

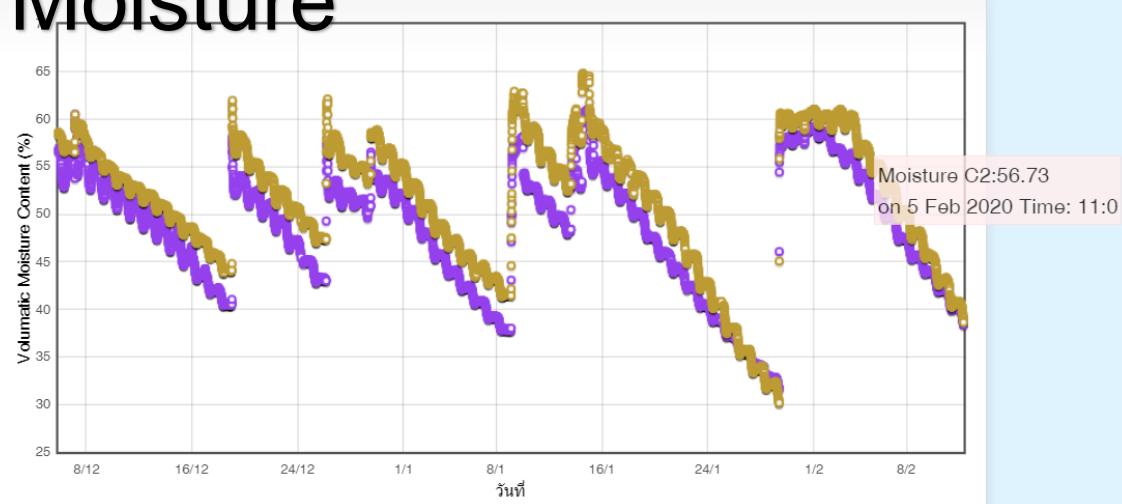
Air Temperature Humidity Rain Light Intensity

Enable tooltip



-Farm Management
-Pest & Disease Prediction

Moisture



-Water Management

Image



2018-10-02 12:50 (+07)

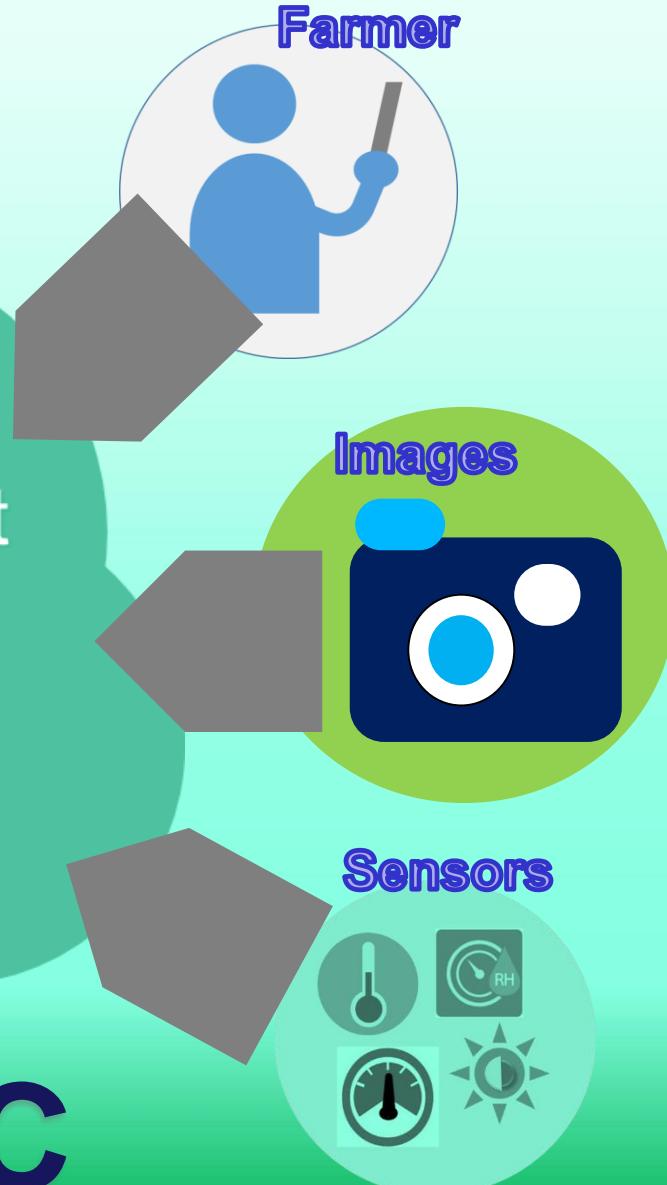
Ai Smart Farm

DATA

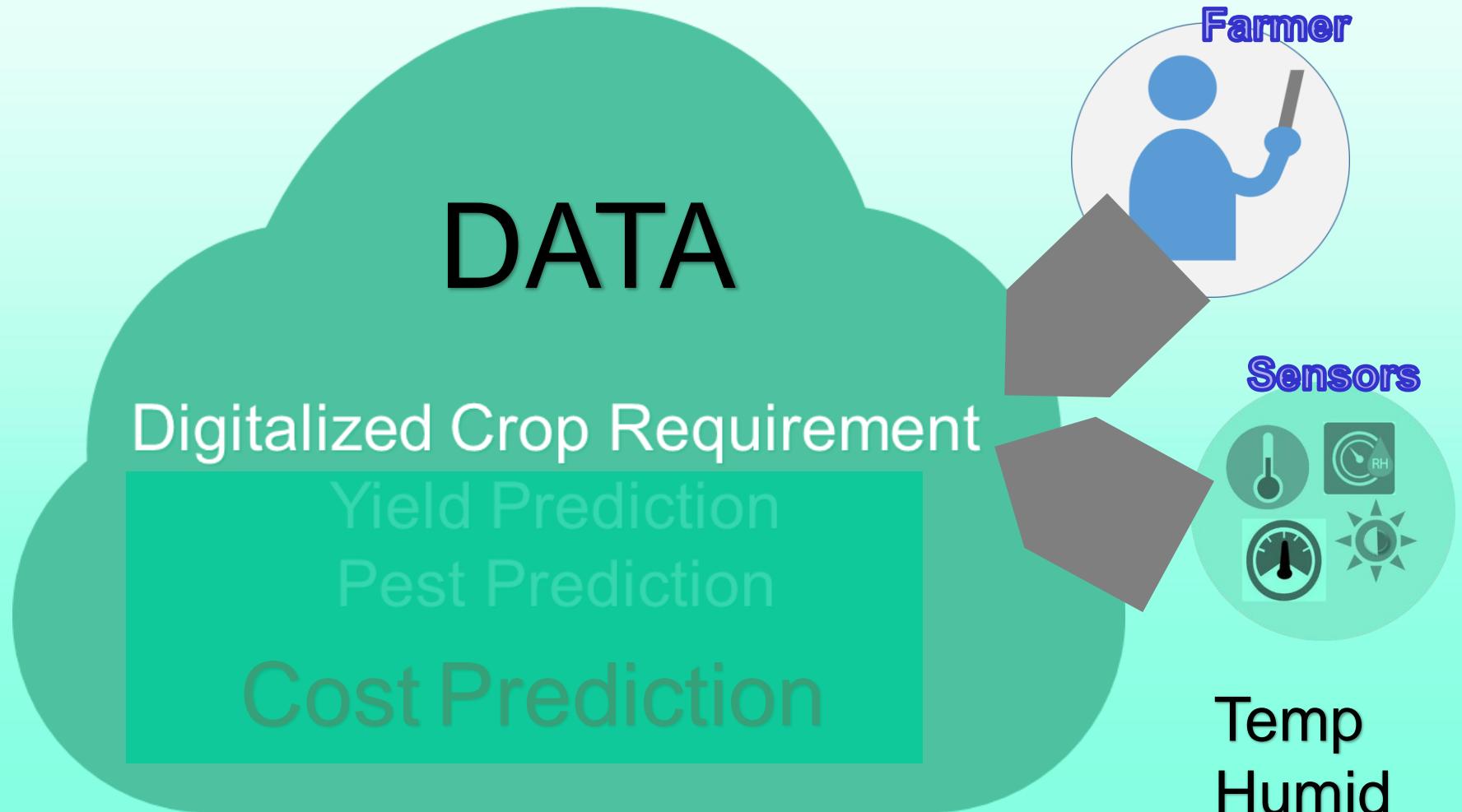
Digitalized Crop Requirement
Yield Prediction
Pest Prediction

Cost Prediction

WIMARC

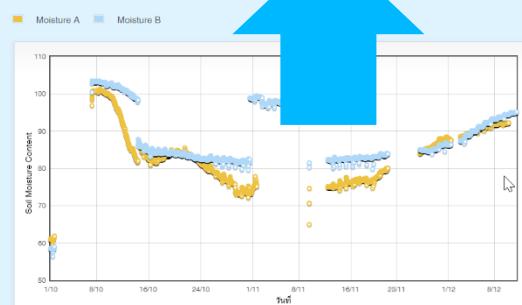
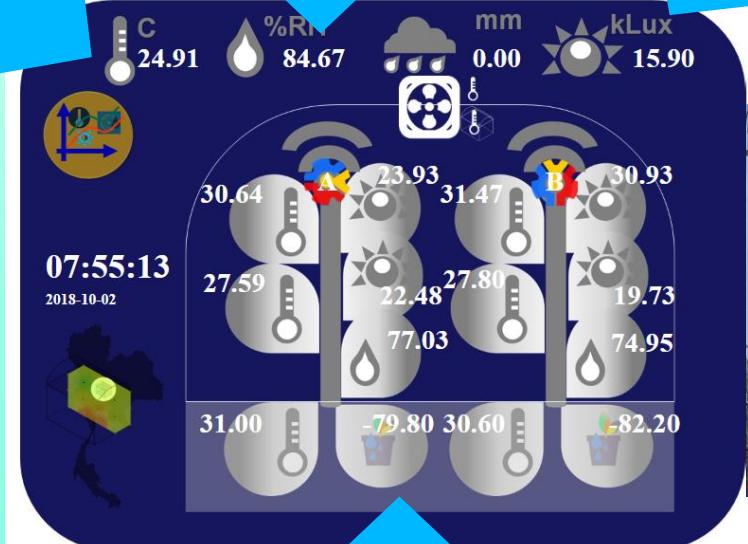
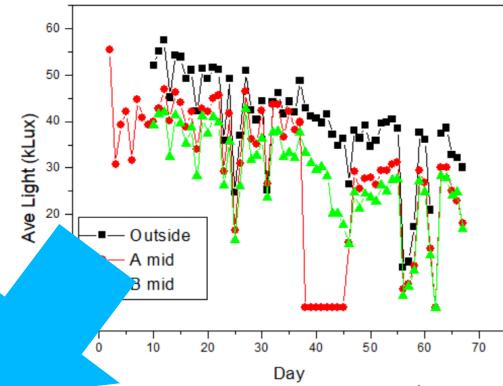
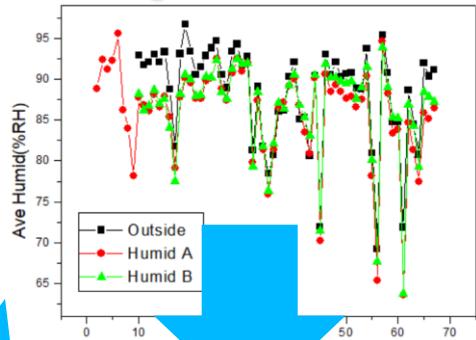
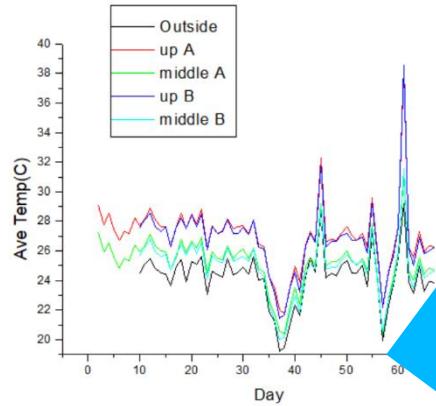


Ai Smart Farm



WIMARC

Crop Requirement



Ai Smart Farm

DATA

Digitalized Crop Requirement

Yield Prediction

Pest Prediction

Cost Prediction

Farmer



Images

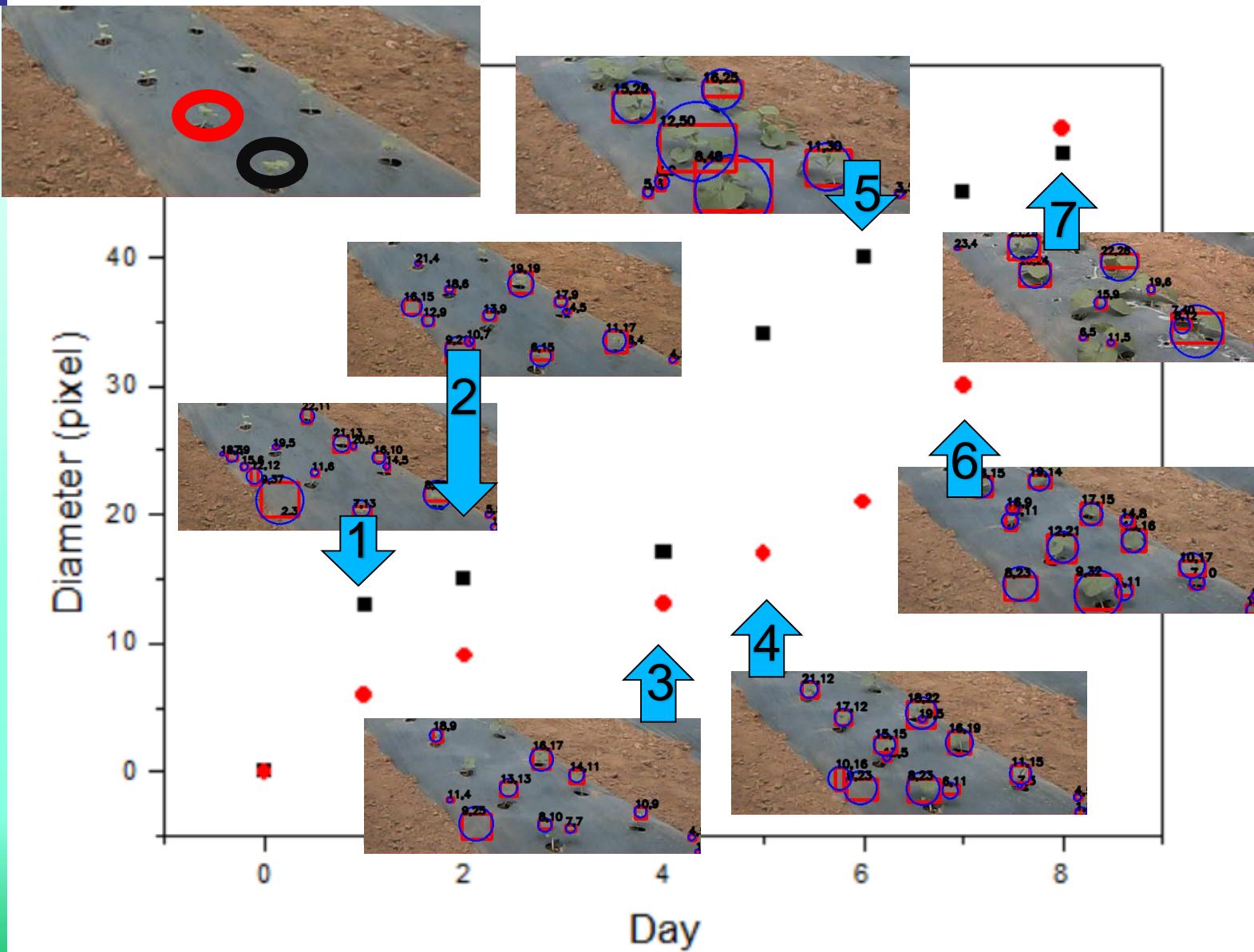


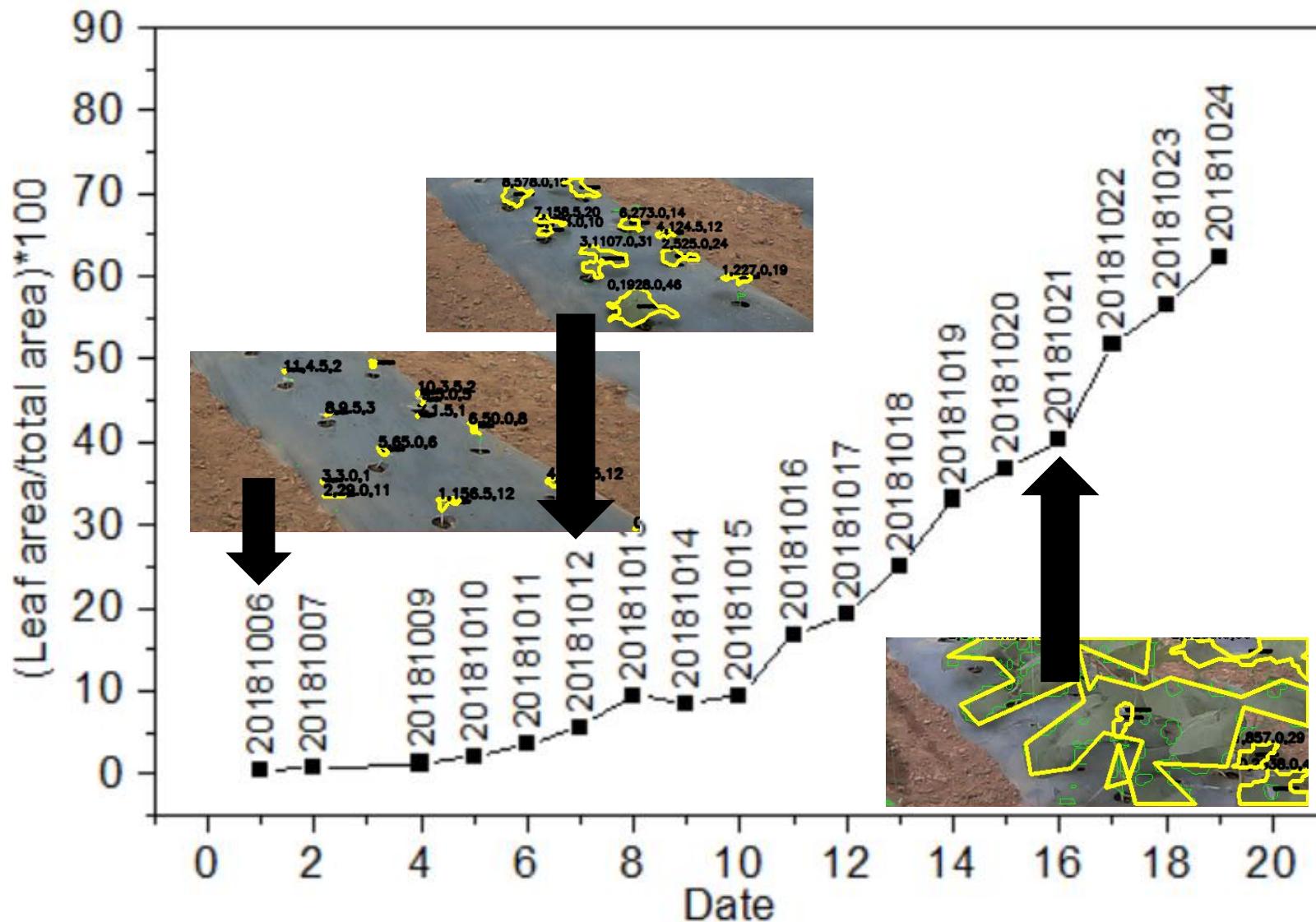
Sensors



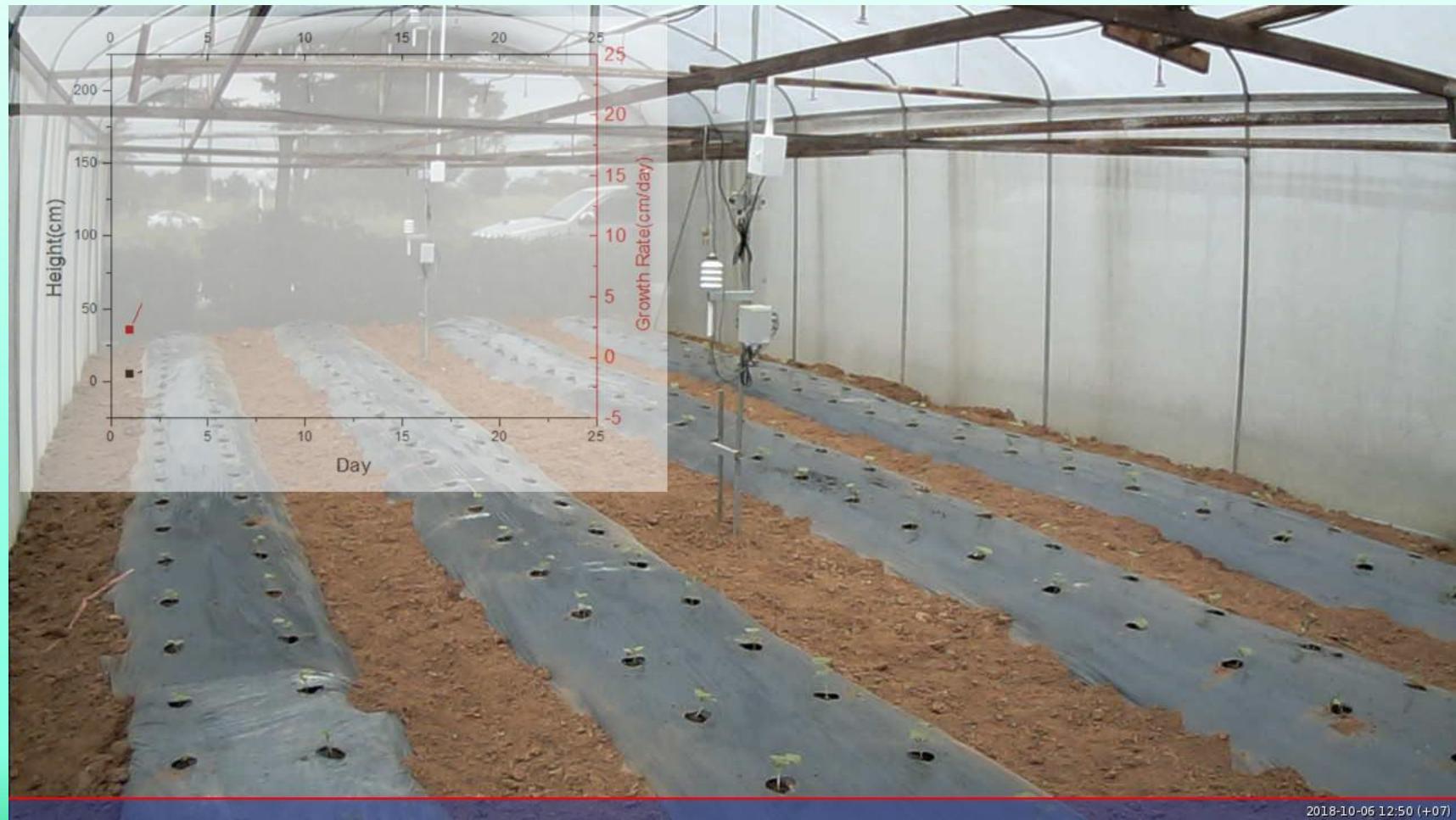
WIMARC

Leaves Size Monitoring

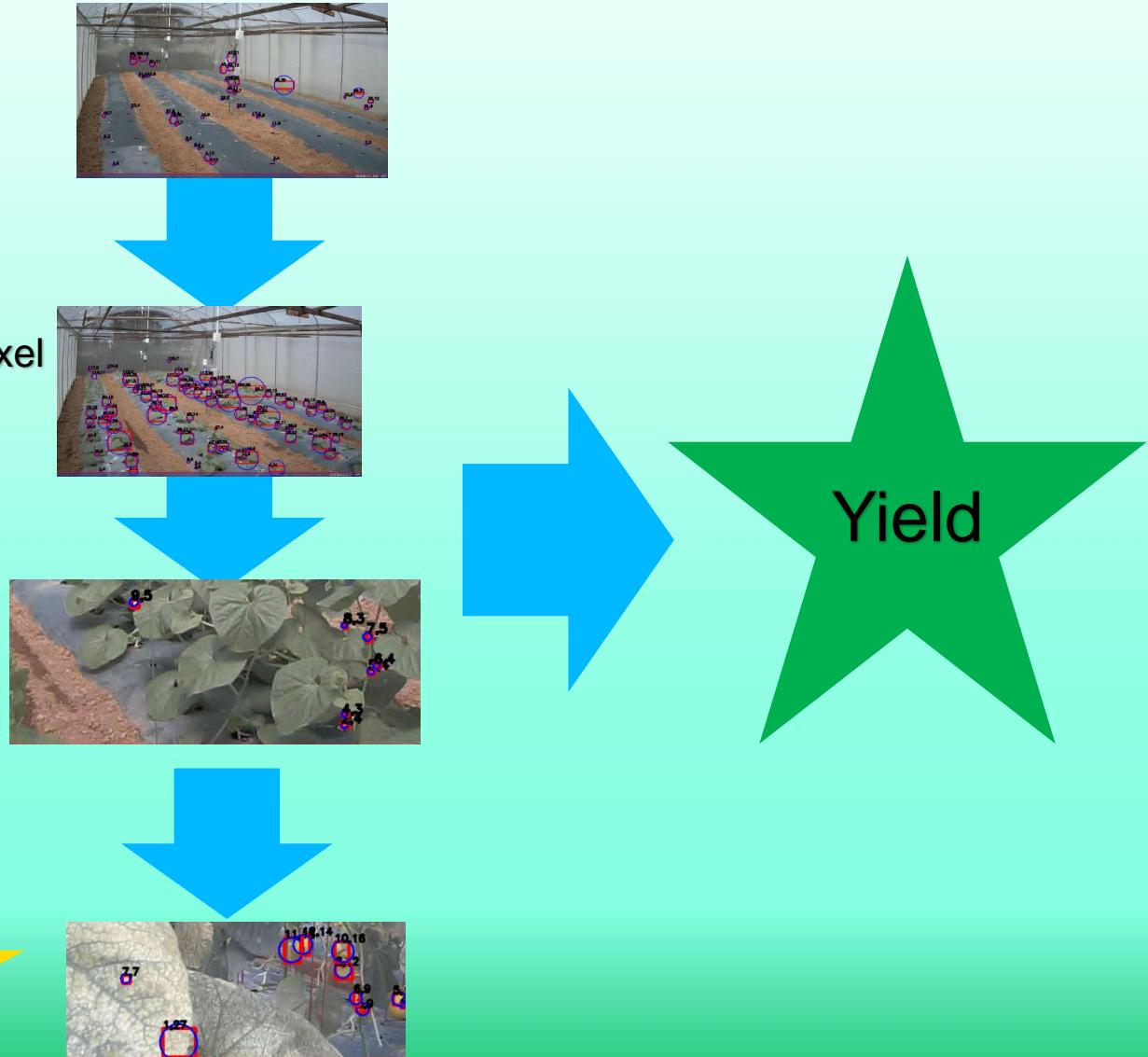
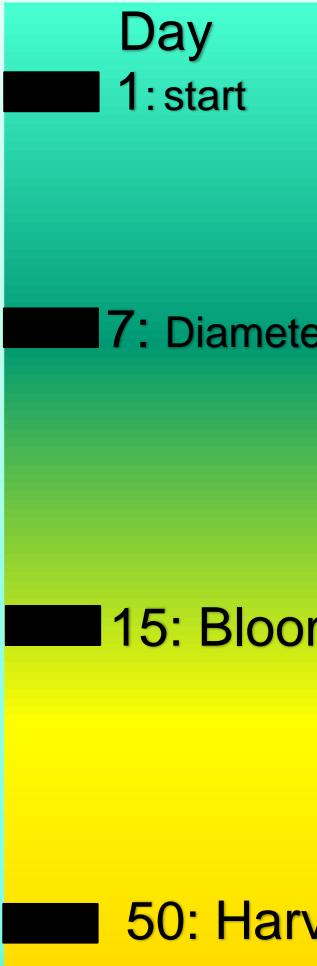




Growth Rate



Crop Calendar



Ai Smart Farm

DATA

Digitalized Crop Requirement

Yield Prediction

Pest Prediction

Cost Prediction

Farmer

Images

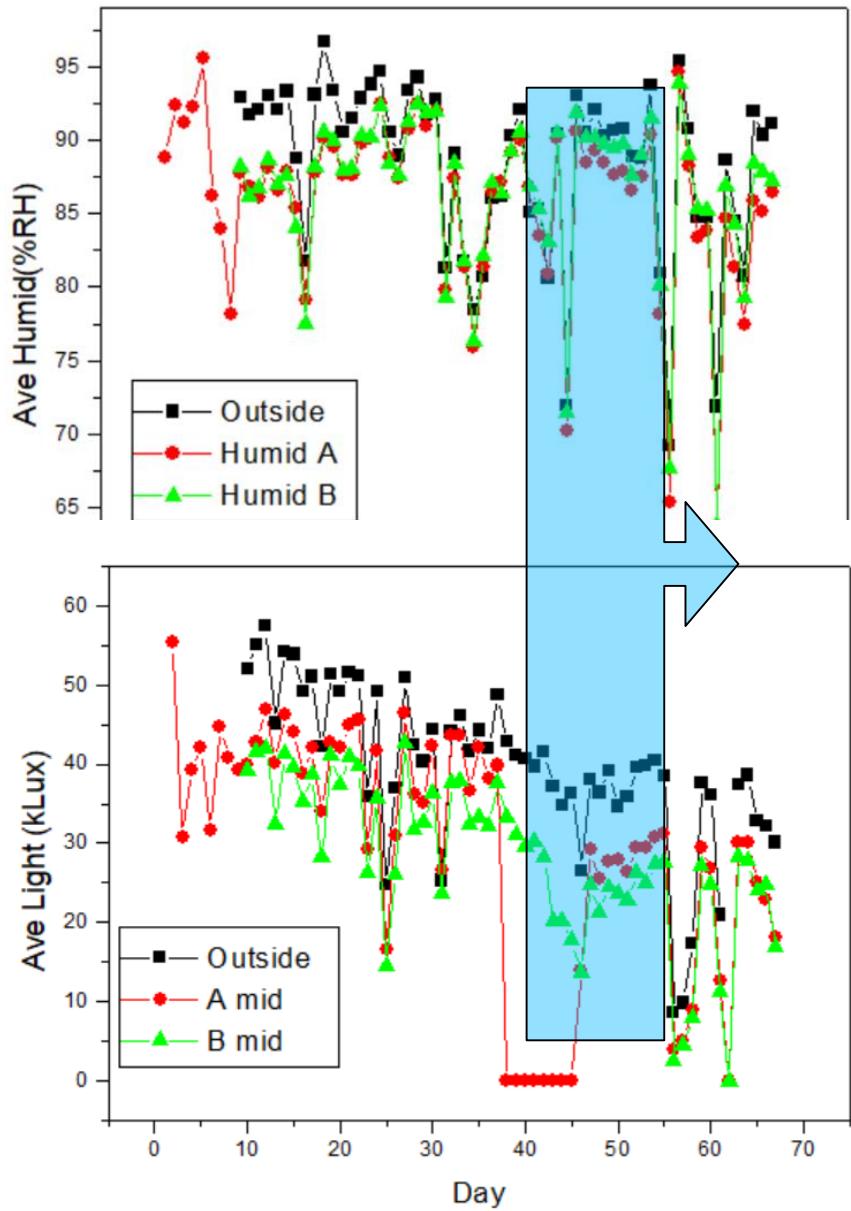


Sensors

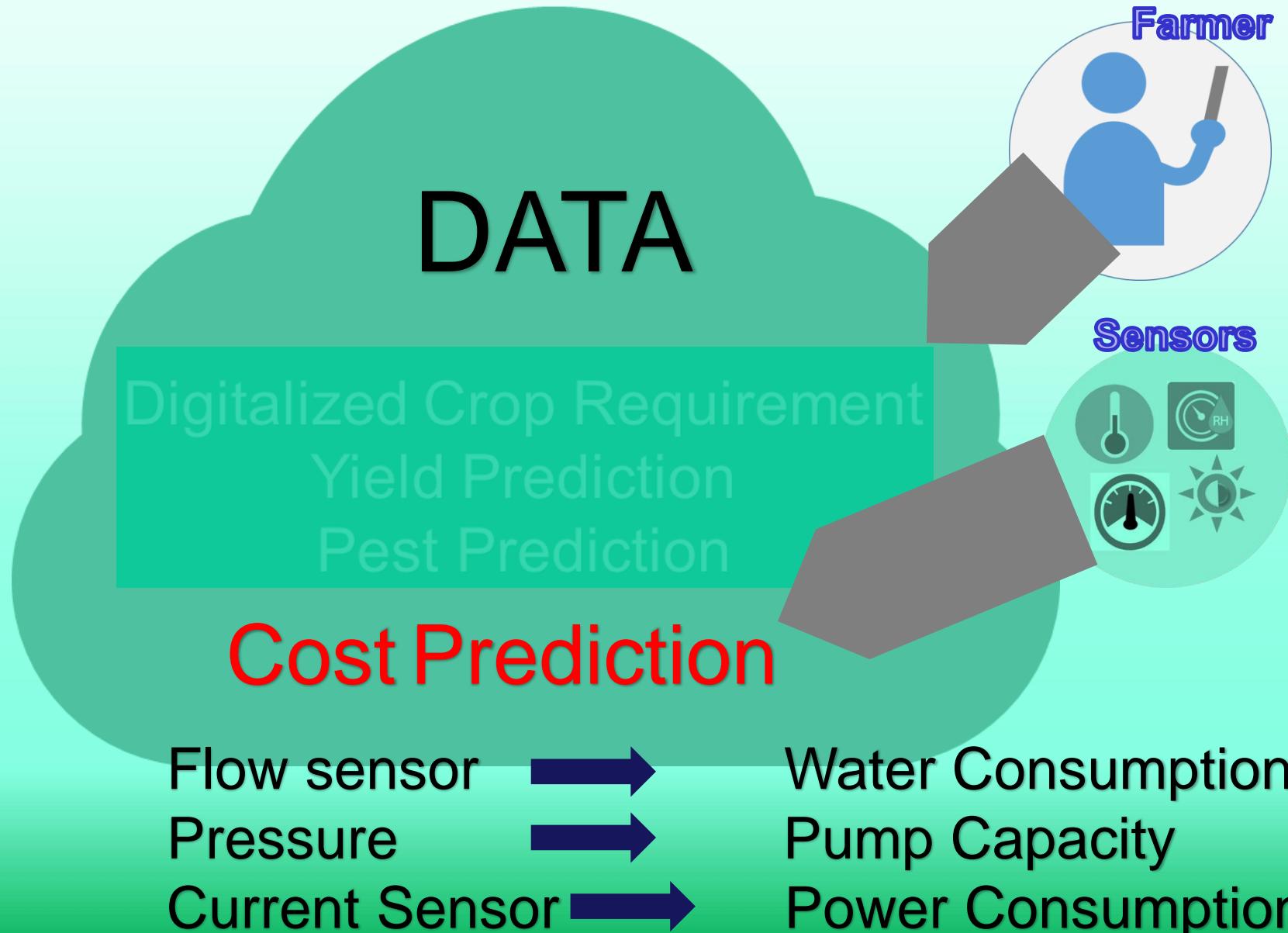


WIMARC

Predictive Pest



Ai Smart Farm

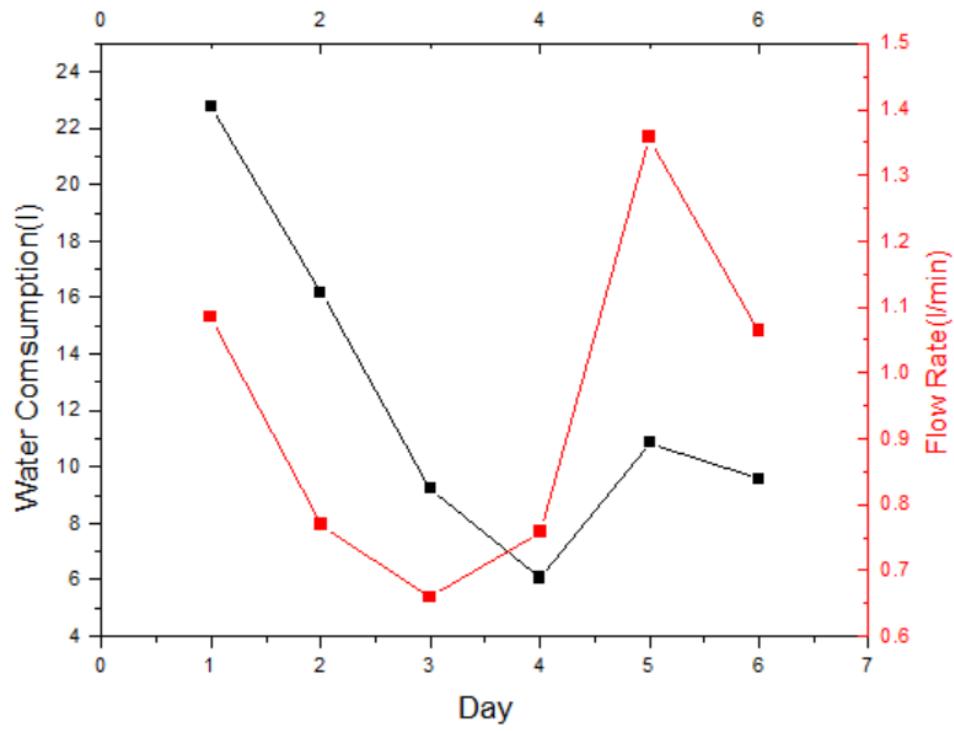


Water Consumption

Flow Sensor

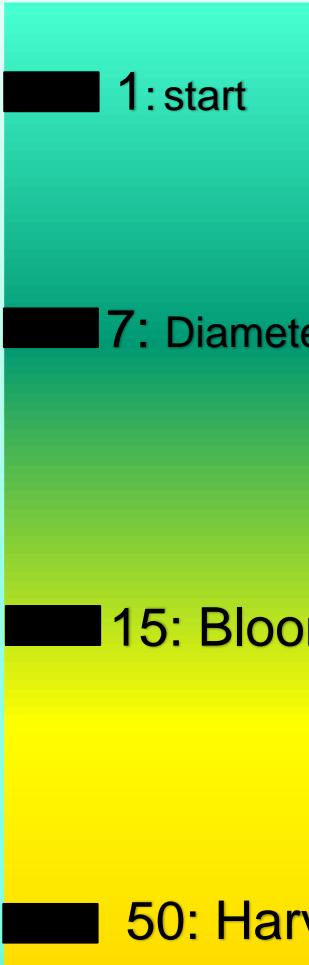


Pressure Sensor



Crop Calendar

Day



Goal



Treatment

- Fertilization
- Pest Prevention



Cost

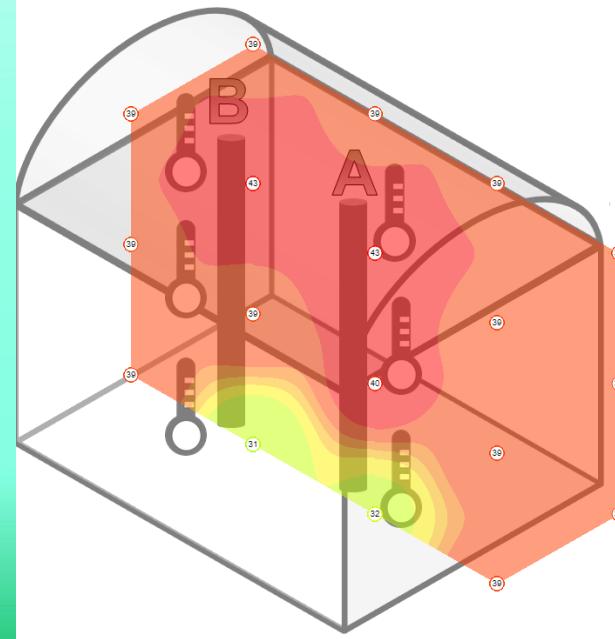


Case study : Temp Control

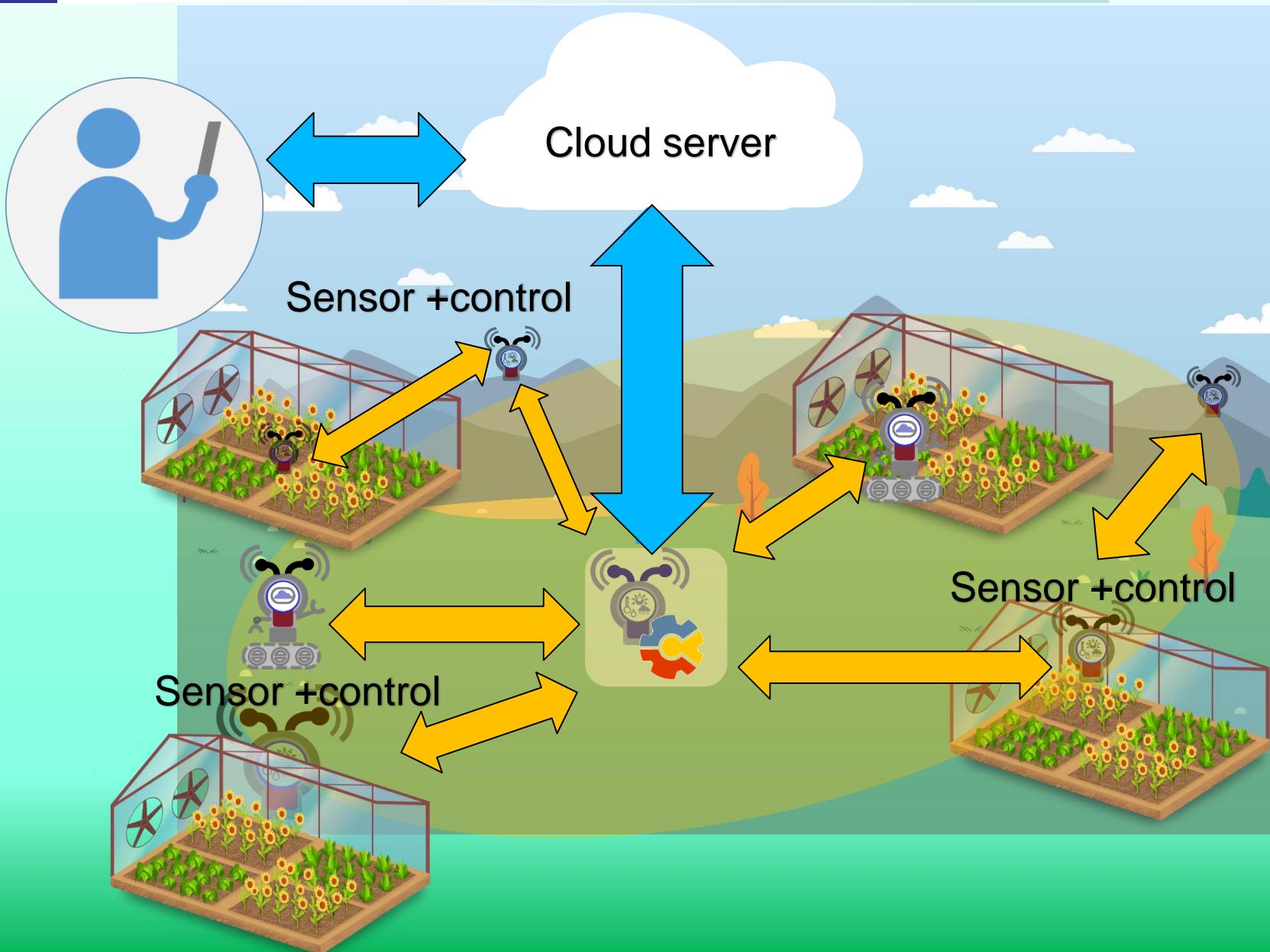


Temperature Monitoring

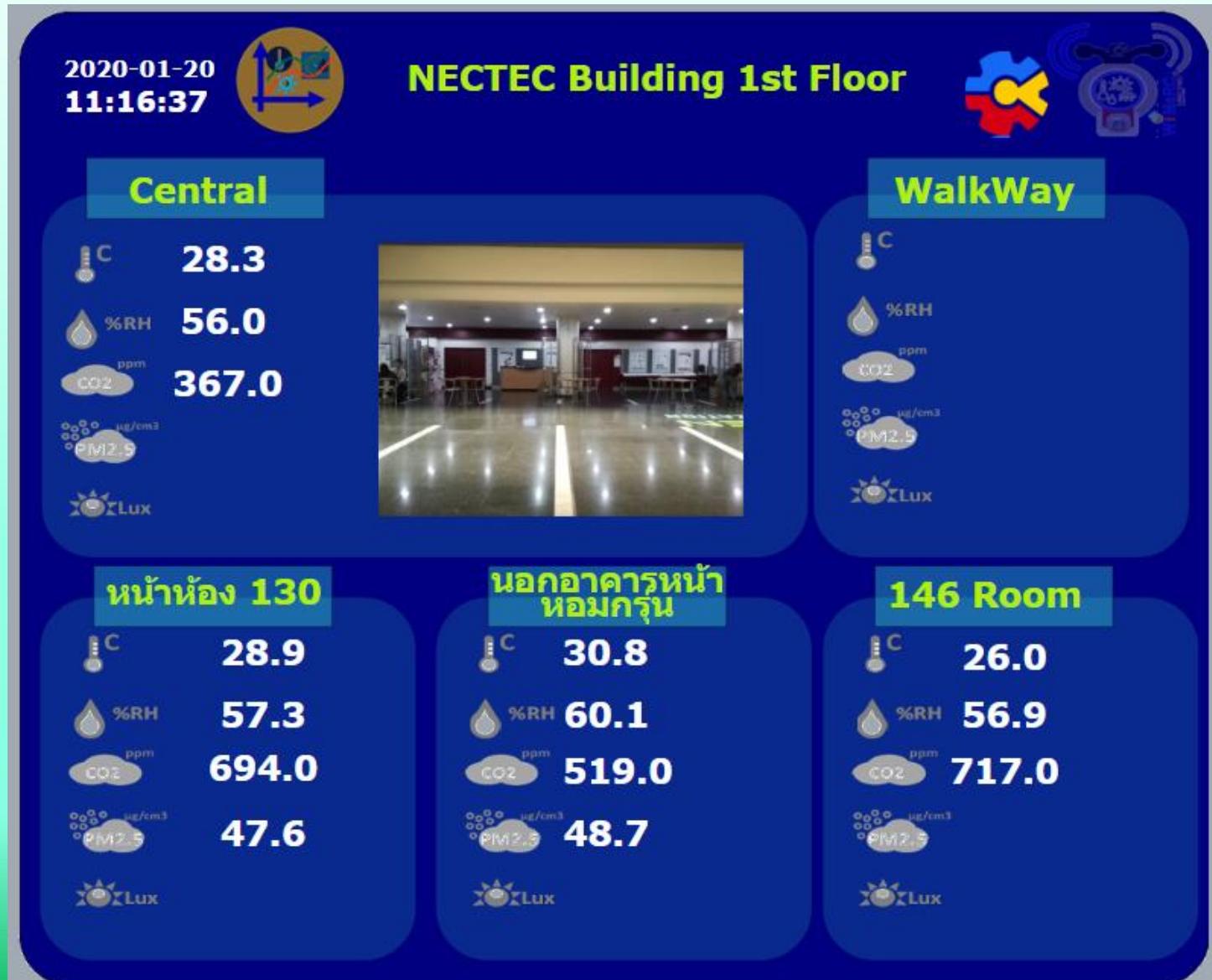
- Temperature Distribution
- Temp Control Design



Smart remote Control



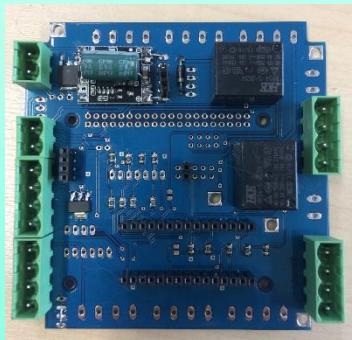
Environmental Monitoring



Environmental Monitoring



System Features



- High Reliability(7/24)
- OTA (over the air) update
- Low Investment Cost
(from 30-100 US dollar)
- Low Maintenance (once per year)
- Low Operation Cost (less than 10 US dollar/year)
- Self development

Handshake,
Load Balance

Online buffer

Open source
Hardware &
Software

Low online
traffic

Open source
software

FarmWiMarC

IoT WiMarC Farm | Search - IOT wimarc - GitHub | Part 2: Introduction to NETF | FarmWiMarC | FarmWiMarC · GitHub

GitHub, Inc. [US] | https://github.com/FarmWiMarC

<https://www.facebook.com/groups/1917457581829558/>

IoT WiMarC Farm | Public Group

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Write Post

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