



Agriculture products traceability management based on IOT

Shenzhen Wissea Electronic Technology Co.,Ltd

01 enterprise

good promotion on
quality management

comprehensive,realtime
dynamic traceability
management system

02 transport
keep farm product
fresh and high
effieinct transport

**03 supermarket
& restarant**

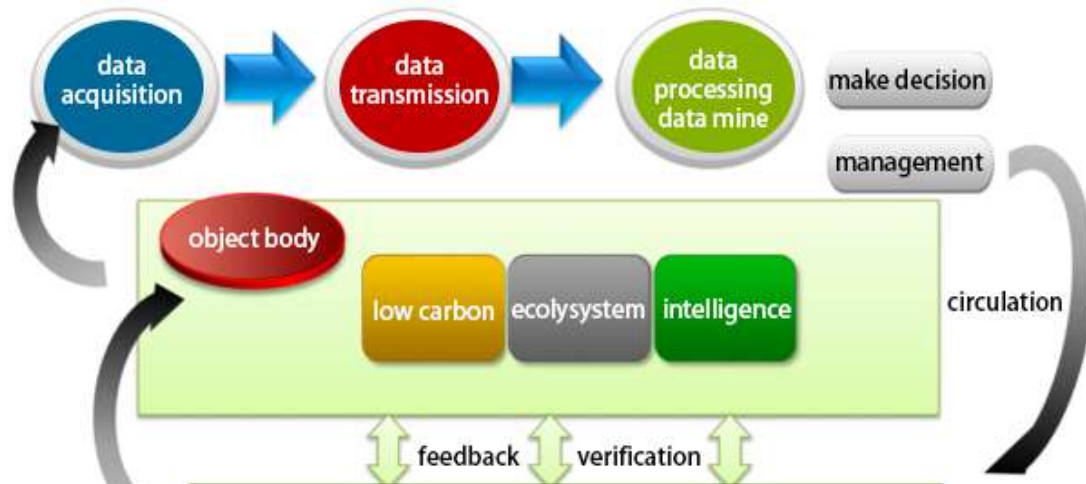
purchasing reliable farm
product with good
traceability

**04 goverment
management**

Food surveillane
department
make decision,
standardization ,
food safe

creating great value

Traceability



Artificial intelligent (AI) in traceability

1. Real-time acquisition of pest/disease image data; automatically upload for analysis ;
2. All pictures and analysis data support operations such as uploading, storing, managing, exporting, and invoking;
3. Automatic analysis, alarm, and prediction of pest/disease outbreaks;
4. Semi-mobile design, support WLAN data transmission, solar power supply;
5. Support real-time surveillance of basic plant morphological characteristics (regularly), and automatically upload to analysis platform;
6. According to different growth stages of plants, intelligently analyze leaf length, leaf color, leaf shape, melon length, melon color, melon shape, plant height and other characteristics, and intelligently classify data, upload, store, etc., to assist in data statistics;

Case: fruit traceability

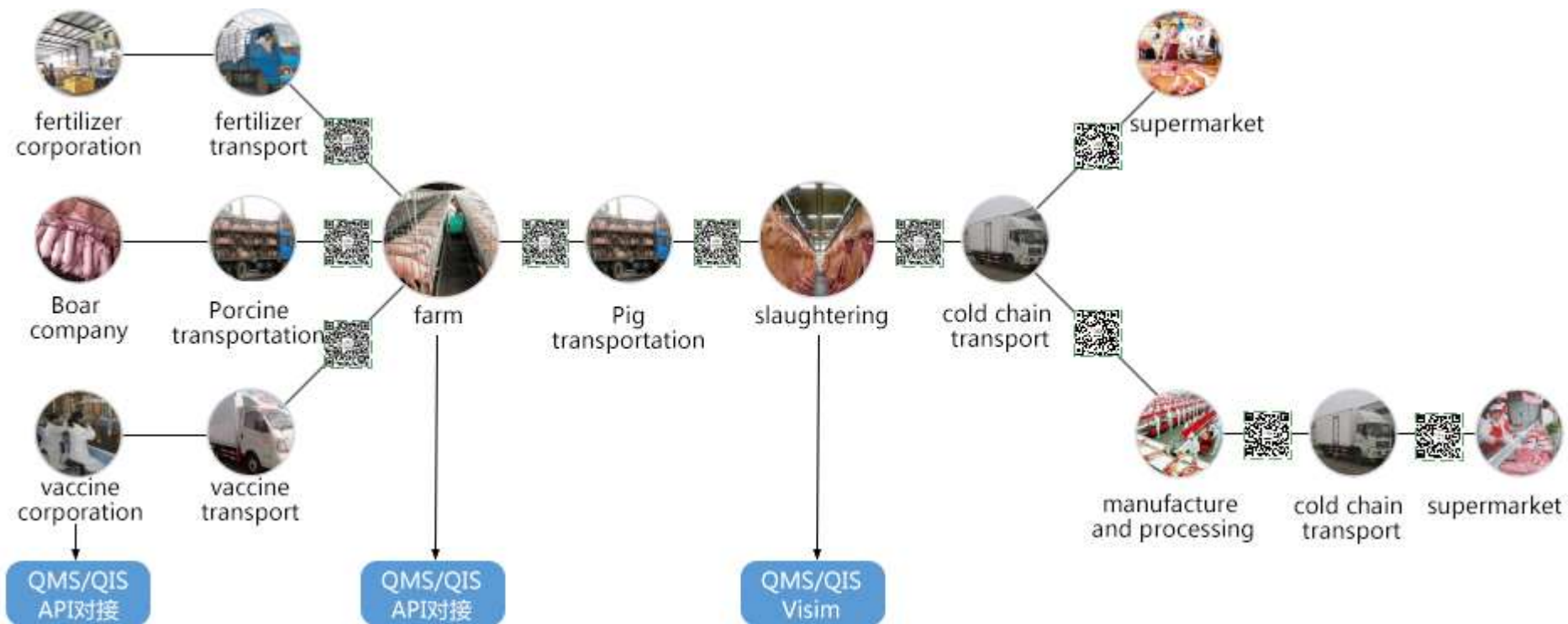
For agricultural promotion algorithm, parameters of growth potential, flowering period, initial harvest period, harvest period, and final harvest period, conduct discriminant analysis from various aspects, linear regression analysis provide data (provide data tables, sample data, sample characteristics separately).
sample category feature dimension unbalanced after obtaining data, data normalized, linear regression analysis performed on sample data.

Tidbit types, leaf color, leaf shape, fruit shape, fruit color, whether fruit shoulders, parameters directly identified by image provided by convolutional neural network (CNN) provide data (parameter type picture, identify green leaf, provide green leaf images, pictures at different angles).

Pre-processing (including illumination pre-processing, image cropping and pyramid stratification) , data applied as training set, feature extraction model establishment performed training set image using convolutional neural network. neural network.

Poultry product traceability platform

information collection structure



PROJECT INTRODUCTION

This project is the IOT fishery traceability management system based on the large data and sensor monitoring services. It traces the origin of aquatic products through the intelligent fishery platform, including underwater environmental parameters monitoring, outdoor environmental parameters monitoring, video monitoring, intelligent monitoring system integration and so on. Cheng's information record has achieved the effect of interlocking and verifiable data, avoiding data loss or human intervention in the process of fish production and circulation, greatly improving the safety of fish food, allowing consumers to buy at ease and eat at ease.



CASE STUDY

河北亚雄现代农业有限公司设施农业系统

菜单管理

首页

实时监测

汇总统计

设备管理

系统管理



温室名称： 4号大棚
温室温度： 24.00°C
温室湿度： 20.00%
温室光照： 100.00lux
CO2浓度： 600.00ppm
土壤湿度： 10.00%
土壤温度： 25.00°C
土壤 PH： 7.00
采集时间： 2016/1/29 15:03:14

[查看详情 >>](#)



温室名称： 1号大棚
温室温度： 13.35°C
温室湿度： 21.96%
温室光照： 31.22lux
CO2浓度： 778.15ppm
土壤湿度： 0.00%
土壤温度： 9.60°C
土壤 PH： 4.13
采集时间： 2016/3/10 18:29:21

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温室名称： 2号大棚
温室温度： 18.85°C
温室湿度： 67.92%
温室光照： 59.82lux
CO2浓度： 402.32ppm
土壤湿度： 0.00%
土壤温度： 18.30°C
土壤 PH： 8.28
采集时间： 2016/5/23 17:36:56

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温室名称： 3号大棚
温室温度： 24.00°C
温室湿度： 20.00%
温室光照： 100.00lux
CO2浓度： 600.00ppm
土壤湿度： 10.00%
土壤温度： 25.00°C
土壤 PH： 7.00
采集时间： 2016/1/29 15:02:15

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■ PLATFORM MANAGEMENT

- Database construction
- Wireless gateway access
- WSN network data transmission
- Platform information management PC & APP
- Data acquisition, daily weekly monthly, annually report and analysis
- Video real-time surveillance



■ INTERFACE DISPLAY



>> PROJECT INTRODUCTION

The project is a traceability management system of pig industry based on big data and sensor monitoring services, which is built by Ruihai Intelligence. By scientific means, it can record the whole process information of four links: breeding farm, slaughterhouse, cold chain transportation process and fresh meat retail store, so as to achieve interlocking and verifiable results. The links are closely linked to avoid data loss or human intervention in the production and circulation of meat products, so as to ensure the safety of meat products and ensure the identity of each pig before and after death. The system automatically records the core data of each pig before and after birth, and displays it in the whole process of consumption terminal. It is easy to see the pork at a glance.



» PLATFORM MANAGEMENT

- 1. Real-time, accurate, comprehensive and intuitive whole process monitoring
- 2. AI analysis
- 3. Let computing resources provide services for users like water resources.
- 4. Android, iOS, WEB unified platform operation experience



» INTERFACE DISPLAY

