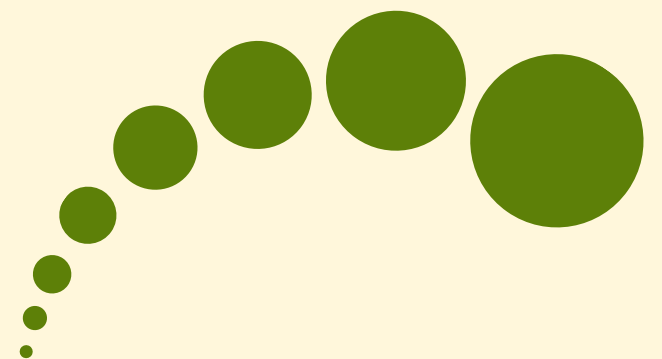


AIOT AGRICULTURE

**NEW VISION GREEN
TECHNOLOGY**





ABOUT US

New Vision Green Technology Holdings Limited (New Vision) is a green technology integration startup based in Hong Kong (Greater Bay Area). The company focuses on the development and promotion of modern green technology applications.

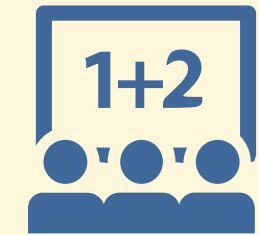
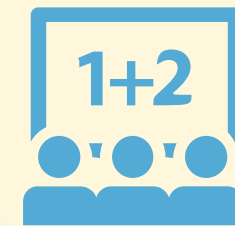
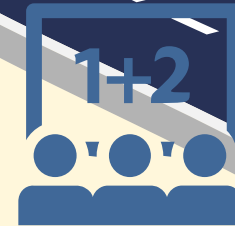
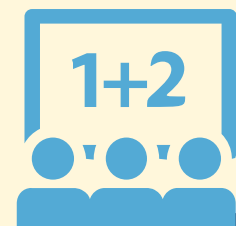
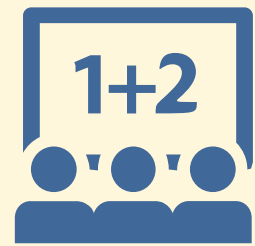
New Vision holds multiple intellectual property rights in core green fields such as AIOT smart agriculture, waste recycling, and circular economy. The founding team has extensive connections and entrepreneurial experience in technology, finance, and industry. The company aims to integrate various research outcomes, exploring innovative models for the integration of industry, government, and academia through practical applications.





AGRO-AIOT PLATFORM MILESTONE

Numerous Prizes & Awards



2013

2015

2022

2015-2024

2024

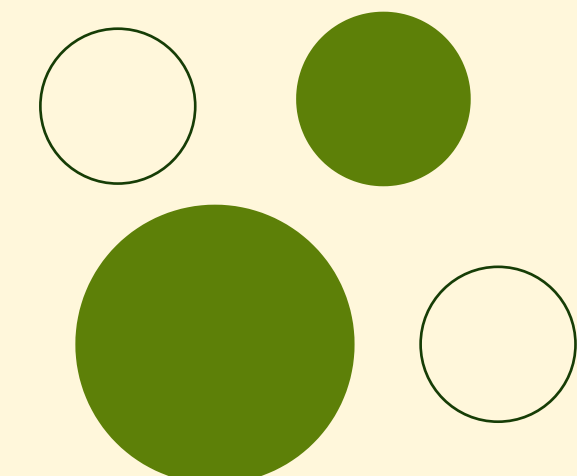
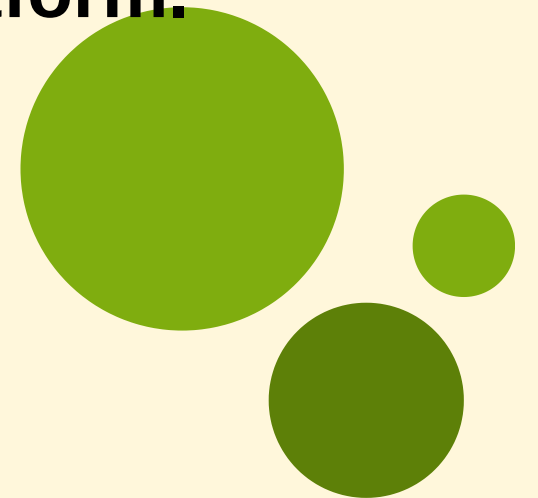
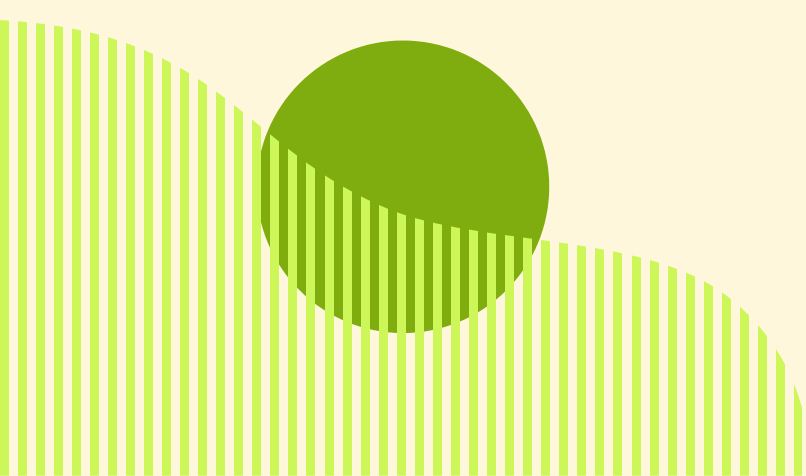
Initiated in Taiwan

In operation

**ChatGPT's (LLMs')
breakthrough is
accelerating the
development of
the platform.**

Over 40 Agro-AIoT
projects completed

5 Agro-AIoT
projects launched
in HK.





COMPANY VISION

- **Become an incubator and driving force for the green technology industry.**
- **Help Hong Kong and the Greater Bay Area become a leading region for global green industry transformation.**
- **Contribute to the sustainable development of the Earth.**



CURRENT SITUATION AND PAIN POINTS OF AGRICULTURE IN HONG KONG



Current Situation

Hong Kong's agriculture generally small-scale farms that offer a rich diversity of crops. According to statistics, there are currently over 2,000 farms in Hong Kong, including nearly 200 organic farms, with a total arable land area of about 700 hectares.

Pain Points

1. **Lack of Systematic Technological Support:** Farm operational efficiency is generally low, production costs are high, and successful experiences cannot be scaled up effectively.
2. **Insufficient Traceable Supply Chain Management and Local Brand Promotion:** This makes it difficult to compete with other regional farmers.
3. **Aging Population and Labor Shortages:** This leads to unstable incomes and challenges in attracting new entrants to the industry



SOLUTIONS

Our program aims to promote mature AIoT smart agricultural technologies, thereby enhancing productivity and transforming into sustainable or high-value operational models to facilitate agricultural modernization, leading to high-tech development and increasing overall competitiveness.

Goals (3-5 years):

- Promote the development of AIoT urban agriculture in Hong Kong, extending AIoT agriculture to 20-30% of organic farms in Hong Kong (approximately 50 farms), and laying a solid foundation for future promotion in the Greater Bay Area (GBA) and other regions.

Key Focus Areas:

1. Establish a Smart Agriculture AIoT Technology Service Platform: Promote AIoT organic farming, including the cultivation of valuable Chinese medicinal herbs.
2. Enhance Crop Quality and Production Efficiency: Utilize smart agriculture AIoT technologies to improve crop quality, establish traceable supply chain management, and more.
3. Systematic and Phased Promotion: Extract commercially valuable research topics (related IP) through systematic and phased promotion, thereby driving the vigorous development of agriculture in Hong Kong and the Greater Bay Area.



SPECIFIC IMPLEMENTATION OF THE PROMOTION PLAN



Based on our team's nearly ten years of research achievements in the field of agricultural AI and the successful application of AI and IoT technologies in farms, we have divided the Hong Kong Smart Agriculture Promotion Plan into three modules:

1) **Module A: Promotion of Mature Core Technologies** – Environmental Monitoring and Control

- IoT Monitoring: Implement IoT systems for monitoring soil, water, and climate conditions.
- Modeling and Analysis: Develop models to analyze environmental data, enabling feedback control for irrigation and fertilization.

2) **Module B: Crop Video Monitoring and AI Analysis**

- Video Capture: Utilize video technology to monitor crop growth patterns, pests, diseases, and weeds.
- AI Analysis and Optimization: Apply AI algorithms for analyzing video data and optimizing crop management practices.

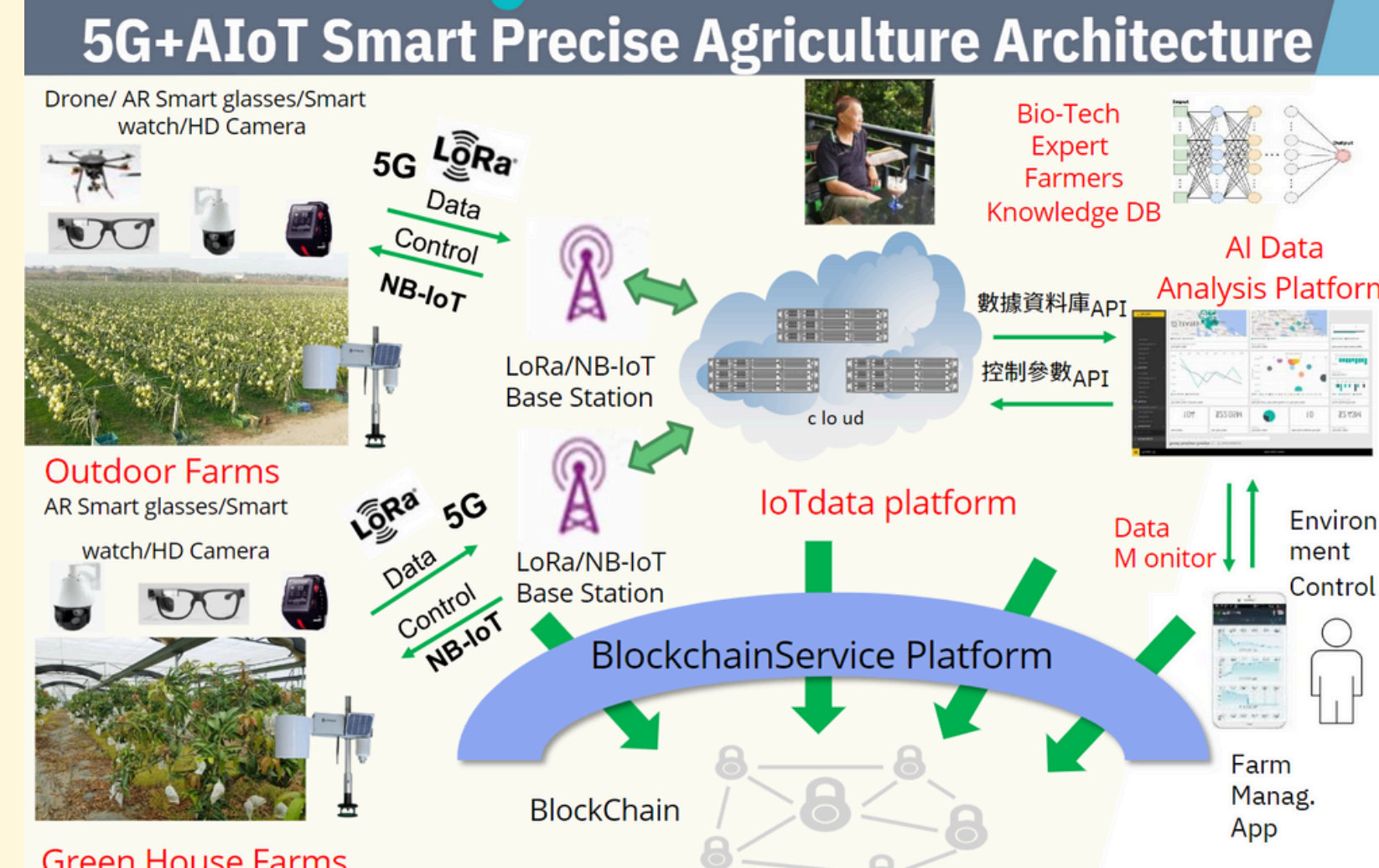
3) **Module C: AI Platform and Blockchain Applications**

- Digital Twin and Blockchain Platform: Establish a digital twin for Hong Kong agriculture along with a blockchain platform.
- Data Traceability: Create systems for product data traceability, enhancing the reputation of Hong Kong agricultural brands and developing high-value models.



DEVELOPED CORE TECHNOLOGIES FOR SMART AIOT AGRICULTURE

1. LoRa/NB-IoT sensors for soil/water/intelligent monitoring and weather stations
2. Automated video/image/audio capture/recording/analysis system
3. Automated irrigation/fertilization and environmental control
4. AI models for crop/fruit grading
5. AI models for pest and disease identification/control
6. Agricultural digital twin
7. Blockchain-based food traceability service platform

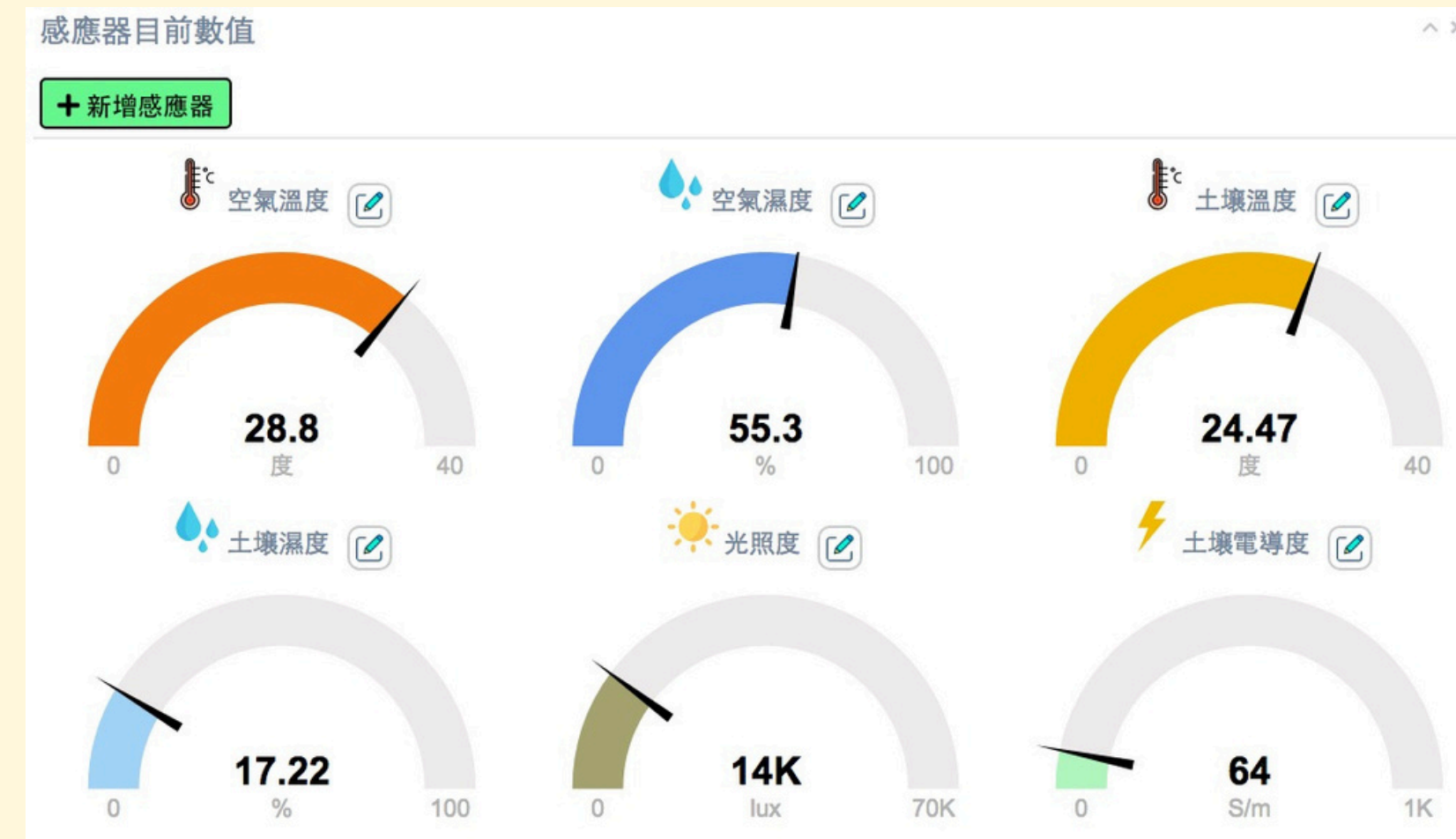
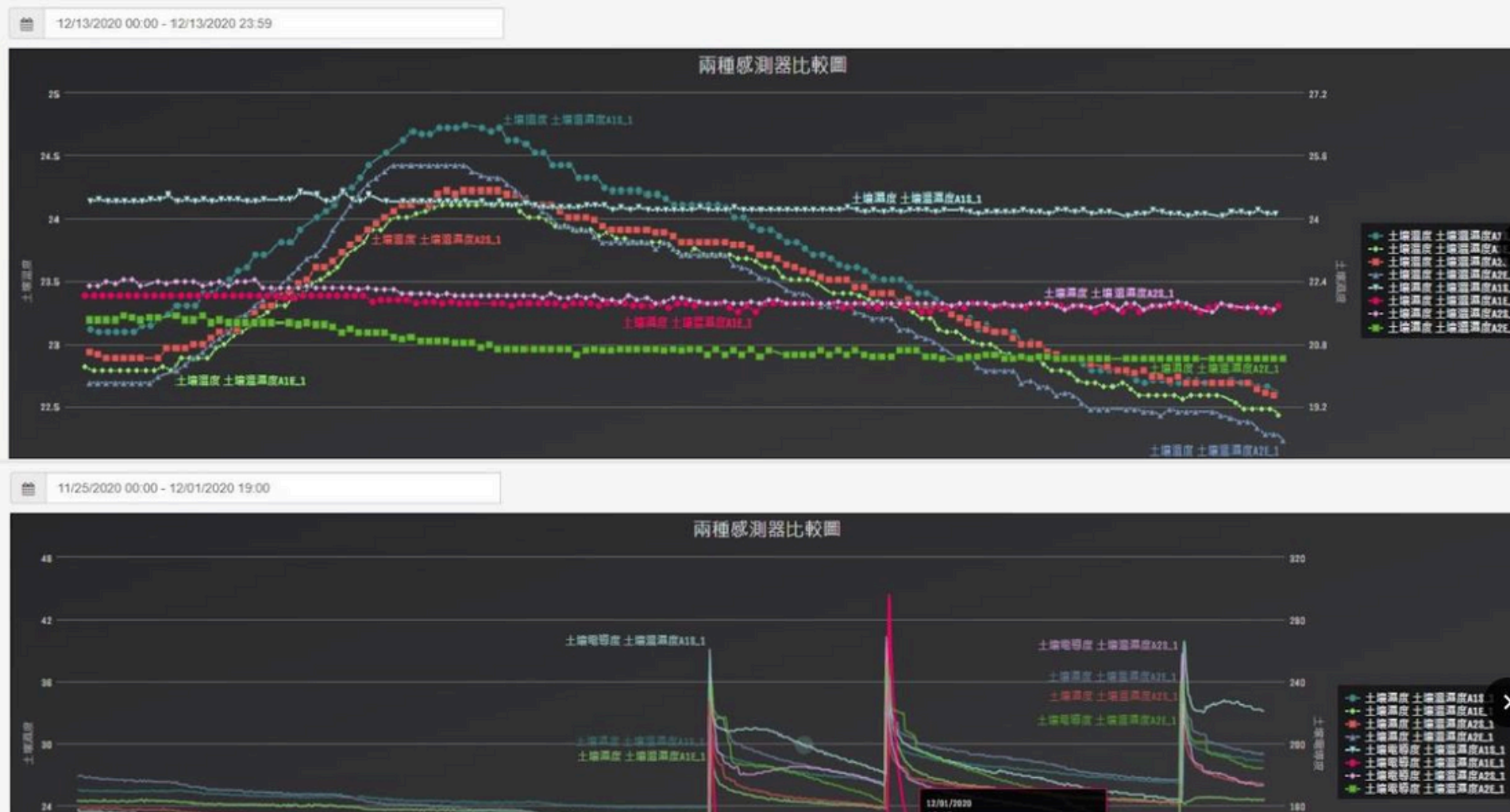


SPECIFIC CASE EXPERIENCE



Our team has extensive successful experience in AI smart agriculture. Over the past decade, we have collaborated with more than 40 farms in Taiwan (including organic vegetables, bananas, mangoes, pineapples, coffee, rice paddies, dragon fruits, flowers, etc.) to apply AI and IoT technologies on these farms. At the same time, these AI smart farms also provide experiential fields for training AI talent. The team has developed many cloud-based AI smart agriculture platforms and AI training platforms for talent training and assessment of our AI models, including video/image recognition AI models (using AR smart glasses) and audio recognition models (using the AI tapping device invented by our team).

Sample of Intelligent data analysis platform





THREE SAMPLE CASES IN TAIWAN

1. SAVINGS ON L/COST - 30%; ON F/W - 15%; YIELD + 15%
PAYBACK PERIOD: 2-4 YEARS

Technology Implementation	Farm 1	Farm 2	Farm 3
Types of Farms	Open-field Soil Planting	Greenhouse Soil Planting	Greenhouse Hydroponic Cultivation
Cultivation Crops	banana	mango	Short-term Leafy Vegetables
Project Implementation Demonstration Area (Mu)	300 (Mu)	Greenhouse 5.4 (Mu)	300 (sq. m)
Project Implementation of Smart Agriculture Technology	Establish IoT agricultural environmental data monitoring equipment to understand the farm's environmental conditions through a smart agriculture data platform and agricultural data command center. This allows the Yilong headquarters to monitor the soil fertility of contracted farms in real-time and provide timely fertilizer recommendations to ensure the flavor of the bananas.	Establish IoT agricultural environmental data monitoring equipment and implement an image recognition and real-time monitoring system for mango leafhoppers. This will complete the collection of environmental information and pest image data, enabling timely pest control, improving quality, and reducing agricultural losses.	Establish greenhouse structures, hydroponic systems, water temperature/water quality detection systems, environmental monitoring systems, and environmental automation cloud monitoring platform services. By integrating automated energy-saving, water-saving, and disaster prevention features, as well as nutrient solution formulations, overall production value can be increased.
Outcomes	<p>(1) Quantitative Factors The cost investment per mu is approximately 6,400. Exports increase from about 500 metric tons to 1,000 metric tons, with domestic sales at 1.2 yuan per kilogram and exports at 3.6 yuan. Annual increased income is 1.2 million (500 x 1000 x 2.4), with a payback period of about 1.6 years.</p> <p>(2) Qualitative Factors Achieved Japan's GGAP certification, reducing the return rate of exports to Japan and minimizing losses for the farm.</p>	<p>(1) Quantitative Factors The cost investment per mu is approximately 105,000. Exports increase by 20% (from 500 kilograms to 2,500 kilograms), leading to an increase in sales revenue of 14,400, and labor cost savings of 38,000. The payback period is about 2 years (105,000 / (14,400 + 38,000)).</p> <p>(2) Qualitative Factors Obtained Global G.A.P. and TGAP certification, entering high-end supermarkets in Taipei.</p>	<p>(1) Quantitative Factors Area: 300 square meters, annual production: 13,125 kilograms, price per kilogram: 100, annual income: 1.31 million, costs: approximately 460,000, net income: 850,000, payback period: about 3.4 years.</p> <p>(2) Qualitative Factors Passed 481 pesticide tests by SGS with no detections; Intertek testing showed nitrate levels at 6 ppm, with no detection of nitrite.</p>

AGRO-AIOT PROJECTS IN HK

(1) MAI PO NATURE RESERVE PROJECT (WWF)



(2) NGO YI O RICE PROJECT



(3) PRIVATE 20 ACRE PROJECT





OUR TEAM

EXECUTION TEAM



Professor Zhou Yuqing

Professor Zhou earned a Ph.D. in Mathematics and a Ph.D. in Finance from Columbia University and Stanford University respectively. He previously taught at The Chinese University of Hong Kong, where he later received a lifetime appointment. Prof. Zhou has rich experience in investment and entrepreneurship.



Mr. Zhang Yu

Mr. Zhang has over 20 years of experience in the development of application technology in the semiconductor electronics industry. He previously served as a senior engineer and director at Texas Instruments (TI) in Shenzhen. He also held the position of Deputy General Manager at Shenzhen Excellence Group, where he was responsible for industrial planning.



Mr. Frank Su

Mr. Su has over 20 years of experience in the financial industry. He has worked at Deloitte as an auditor and served as a director and division head at Standard Chartered Bank in the commercial banking sector. Mr. Su is also the executive director of HK Emission Exchange Ltd specialising in carbon neutrality business.

R & D TEAM



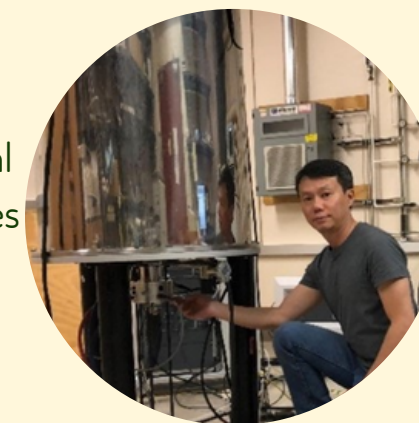
Professor Huang Nengfu

Professor Huang is a distinguished professor at National Tsing Hua University in Taiwan. He served as the Dean of the College of Electrical Engineering and Computer Science from August 2016 to July 2022. Professor Huang is the founder of the startups Broadweb and ShareCourse and has extensive experience in both research and entrepreneurship.



Professor Martin Tsui

Professor Tsui is currently an Associate Professor in the Earth and Environmental Sciences program at CUHK. He also serves as the Director of the Environmental Science program and is a fellow at the Institute of Environmental, Energy and Sustainable Development. Additionally, Professor Tsui was a member of the National Key Laboratory of Agricultural Biotechnology in Hong Kong and has a rich academic background and research achievements in the field of agriculture.



Professor Alex Chow

Professor Chow is a professor in the Earth and Environmental Sciences program at CUHK. He previously served as a professor at Clemson University in South Carolina, USA. Professor Chow has extensive academic background and research achievements in the fields of soil and water chemistry, as well as carbon neutrality and climate-adaptive water systems.





THANK YOU

Contact person: Mr. Frank Su
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