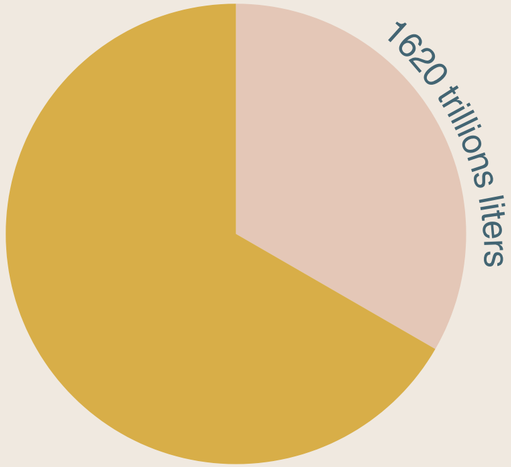
How much water is enough?

FULL NATURE FARMS | HKSTP PARTNER

Every year, 1/3 of the of fresh water is wasted due to inefficient irrigation practices.



= 648m

Olympic-sized swimming pools

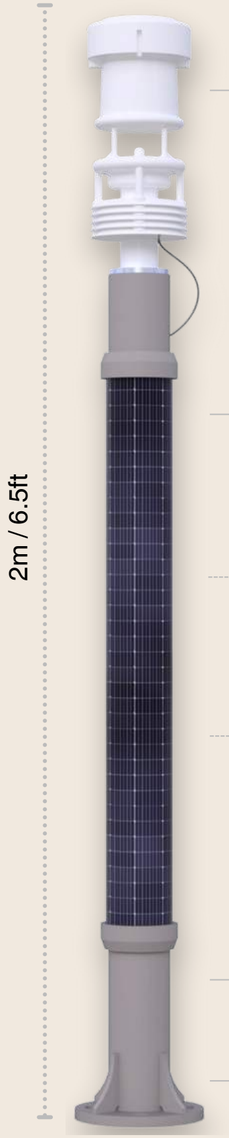
FULL NATURE FARMS | HKSTP PARTNER

What is *Rocket 2.0*?

Rocket 2.0 is **a smart irrigation system** that adjusts watering schedules in real time based on **data**.

Designed for farmers / operators, it optimizes water usage, reduces energy costs, cuts down on labor expenses, and promotes healthier plant growth.

Compared to traditional timer-based systems, which dispense water at set intervals without considering changing weather conditions, Rocket 2.0 prevents the unnecessary waste of freshwater resources.



Weather Station & Antenna

Solar Panels

Rechargeable Battery

ADAMS 4.0 IO Controller

IO Connectors

- **Soil & Crop Sensors**
- **Irrigation Devices**

Anchor Points

FULL NATURE FARMS | HKSTP PARTNER

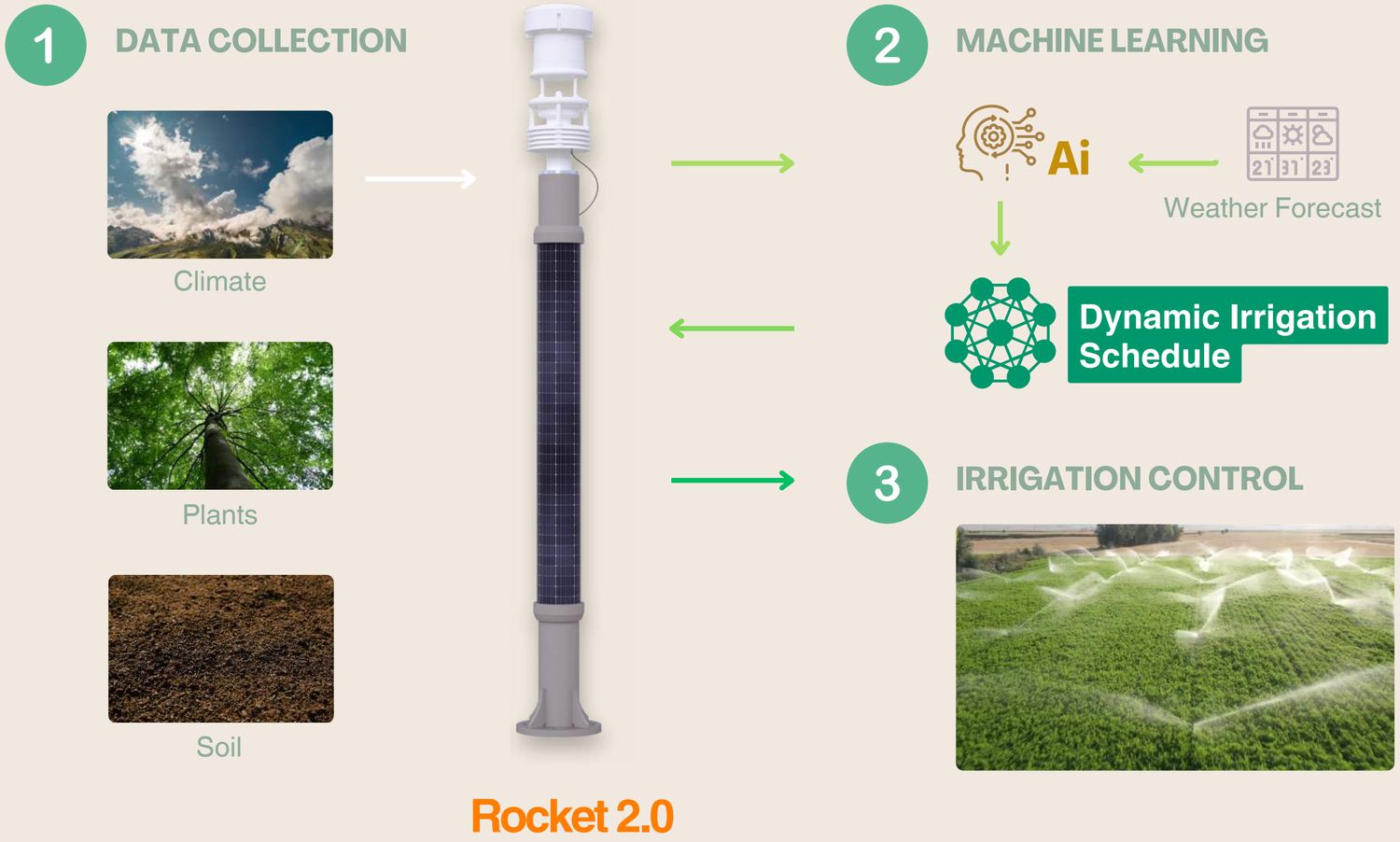
How Rocket 2.0 *works.*

1. **Data collection**
   Rocket uses multiple sensors to gather climate, plant, and soil data, which it sends wirelessly to a central server.

2. **Data processing**
   Our AI gathers these data, combing them with weather forecasts, it dynamically adjust the irrigation schedule in real time.

3. **Irrigation control**
   The schedule is sent back to the Rocket 2.0 to adjust the irrigation devices, such as water valves and pumps.

   Water usage is also measured.



FULL NATURE FARMS | HKSTP PARTNER

Performance

In our Hong Kong pilot project, Rocket 2.0 has achieved a 30% reduction in water usage, decreased labor hours by 40%, and minimized energy consumption from water pumps.

By automating repetitive tasks, operators can allocate more time to other activities within the gardens, leading to enhanced operational efficiency.

30%

Water Saving

Reduce Energy Consumption + Extending Lifespan

Reduce Labour Work

Increase Operation Efficiency

Healthier Plants

Rocket 1.0

FULL NATURE FARMS | HKSTP PARTNER

Rocket 2.0 @ CES2025

Rocket 2.0 has won two awards and garnered dozens of media mentions and interviews. Among them, the **TechCrunch** interview generated the most attention and inquiries.

Even now, we continue to receive almost daily inquiries from around the world.

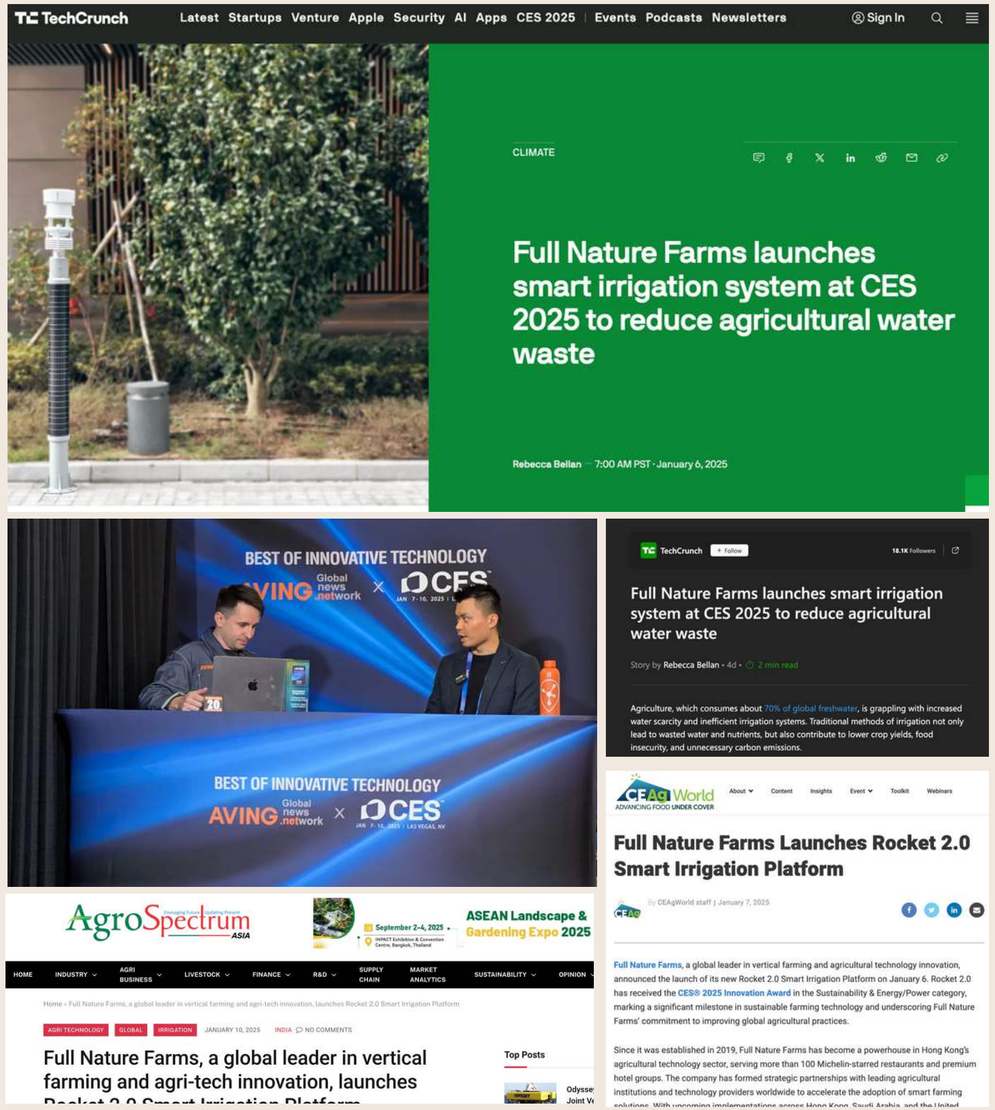
CES 2025 proved to be a highly successful launch for Rocket 2.0, highlighting the promising potential of the U.S. market.

Awards:

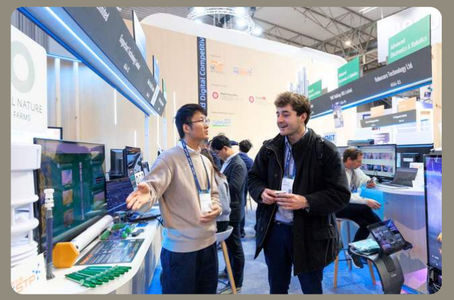
CES Innovation Awards 2025 Honoree

Bronze Award 銅獎 HONG KONG ICT AWARDS 2024 香港資訊及通訊科技獎

Social Media coverages:



MWC GSMA



Rocket 2.0 was also showcased at MWC 2025, generating dozens of concrete leads in the local market, further proving its global relevance and demand.

FULL NATURE FARMS | HKSTP PARTNER

We have secured both PoC and commercial projects for Rocket 2.0, with many more in the pipeline.

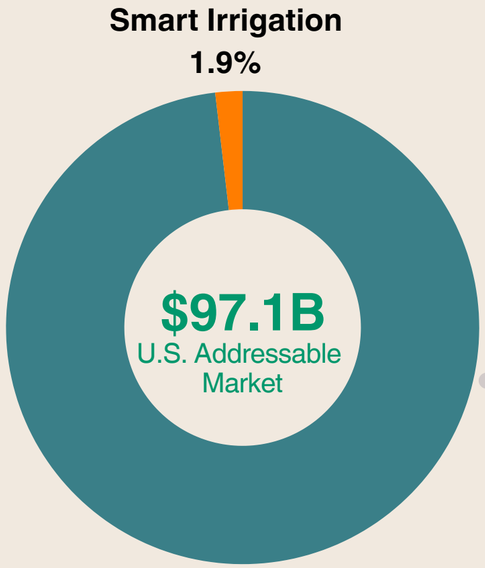
The next major deployments will be at the *University of Georgia (Griffin)* **and** *the HKFYG Organic Farm*.

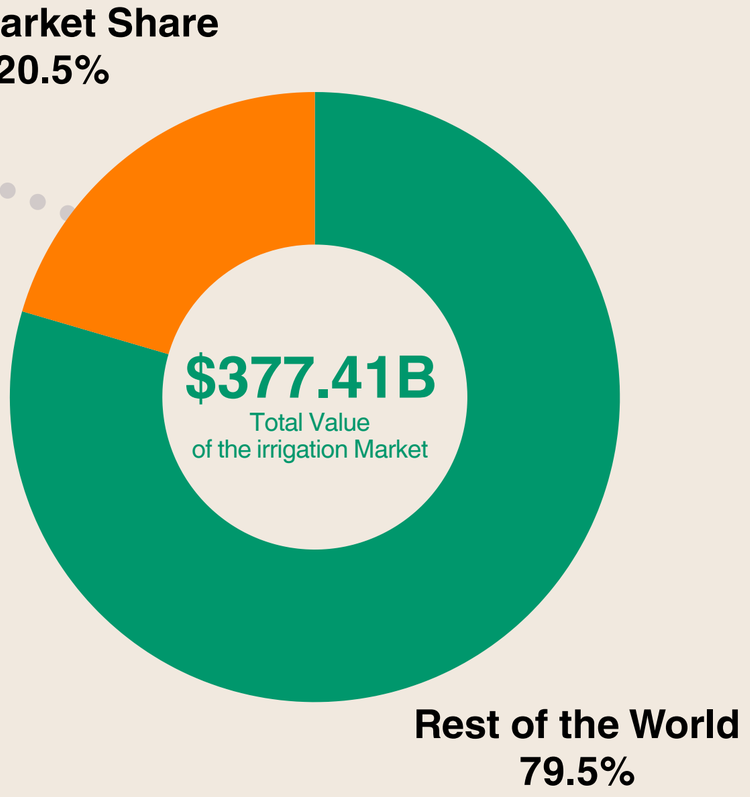
By implementing an innovative business model, we can effectively *eliminate* entry barriers for users.

	Sensor Cost (USD / pc)	**Monthly Fee** (USD / pc)	**Irrigation Control** (USD / month)	**Future Proof** (Upgradable)
FULL NATURE FARMS	**Free**	**$20**	**$10**	**Yes**
ARABLE	$2,750	~$100	No	No
cropx	$600 - $1200	~$40 - $50	Undisclosed	No
teralytic	$750	~$150	No	No

Irrigation is still an
***old-school* practice,**

highlighting the growth potential of the *Rocket 2.0* in the sector.





570 million
farms worldwide

Using US's market data for reference.

The climate is changing and the way we *irrigate* needs to change with it.

FULL NATURE FARMS

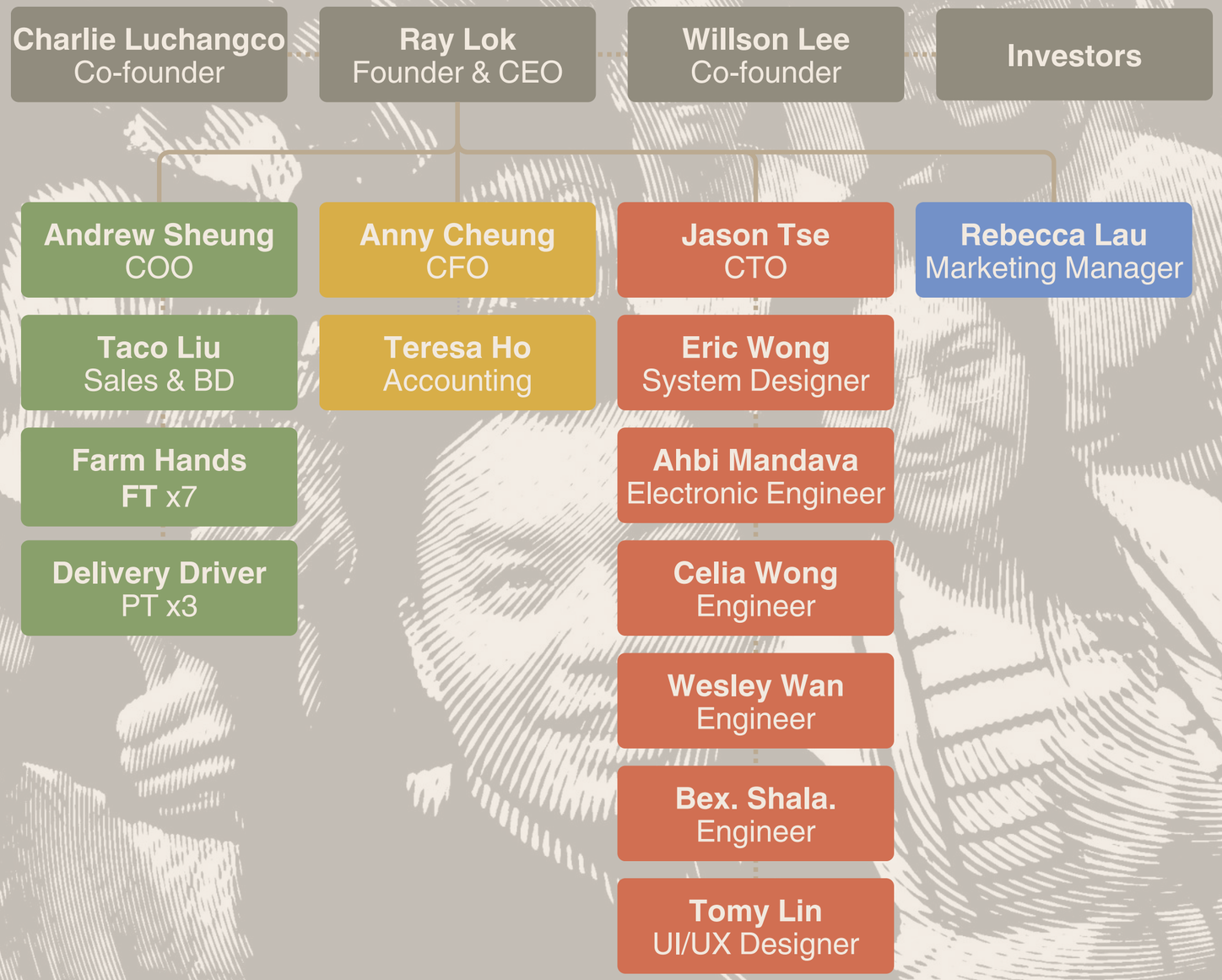
HKSTP PARTNER

Us.

Our team brings together diverse expertise, ***from farmers to engineers***, enabling us to develop innovative solutions.

We have successfully completed dozens of EPC projects for governments, private entities, and universities, and we are now expanding globally.

Additionally, our local vertical farm supplies over 160 F&B customers since 2019.



FULL NATURE FARMS | HKSTP PARTNER

About the Founder

Ray Lok was born and raised in Hong Kong, where he attended local schools before pursuing a Bachelor's degree in Global Business at the University of Southern California.

He gained experience across various industries, starting as an intern at PCCW before working as a photographer for several summers. He later joined a design and trading studio and became involved in the garment and manufacturing business.

In 2013, Ray discovered his true passion for agriculture. He founded **Evergreens Republic** and established the first **USDA-certified organic** aquaponics greenhouse farm in Lau Fau Shan.

In 2018, Typhoon Mangkhut completely destroyed the greenhouse. In response, he launched a fundraising effort and founded **Full Nature Farms**, shifting his focus to indoor farming.

He is currently a committee member of ***PolyU RiFood*** and ***SADF of AFCD***.

Agriculture, Fisheries and Conservation Department
The Government of the Hong Kong Special Administrative Region

Contact

Ray Lok

CEO & Founder

ray.lok@fullnature.com
+852-9856-9904
www.fullnature.com

Office:
Unit 617, 6/F, Building 19W, 19 Science Park West Avenue, Hong Kong Science Park

Farm:
Unit 9B, On Fat Industrial Building, 12 Kwai Wing Road, Kwai Chung, Hong Kong

LinkedIn:

FULL NATURE FARMS | HKSTP PARTNER