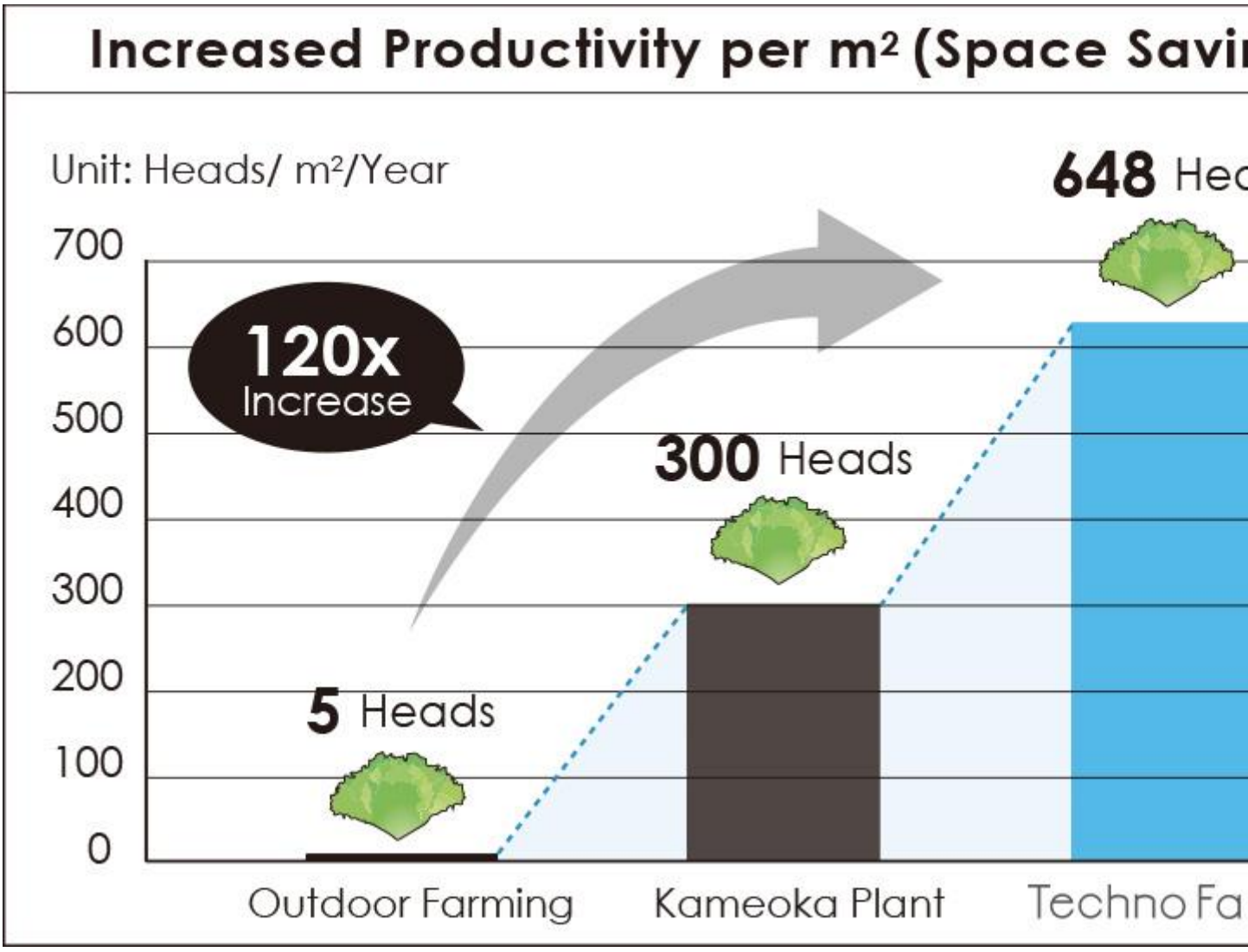
Unprecedented Productivity Through Advanced Robotics

A combination of advanced cultivation techniques and robotics enables the automation of processes such as the transplantation of plant seedlings and the panels on which they grow. By reducing the number of workers that are involved in the cultivation process, we minimize the risk of bacterial growth and contamination from foreign bodies, ensuring production of only the most pristine and safe vegetables. Furthermore, substantially higher yields are achieved per square meter by locating cultivation racks closer together. Our use of robotics ensures that this next generational agriculture system not only reduces labor costs, but also achieves even greater efficiency and higher quality.


Increased Productivity per m² (Space Savi
Unit: Heads/ m²/Year
700
600
500
400
300
200
100
0
120x
Increase
5 Heads
300 Heads
648 Hea
Outdoor Farming
Kameoka Plant
Techno Fa

01.Environmental Control Technology

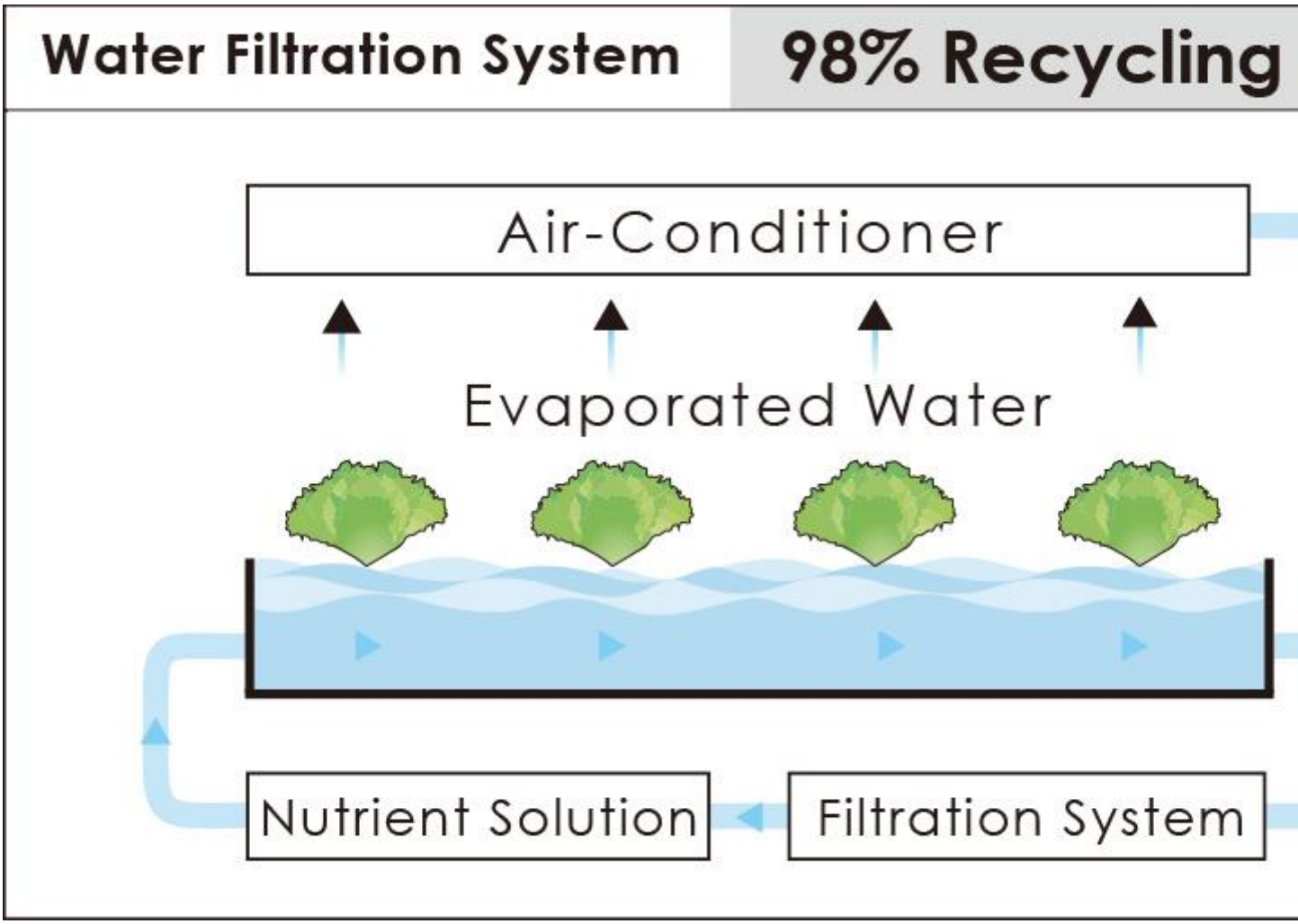
Always Ensuring Ideal Conditions for Fresh Produce

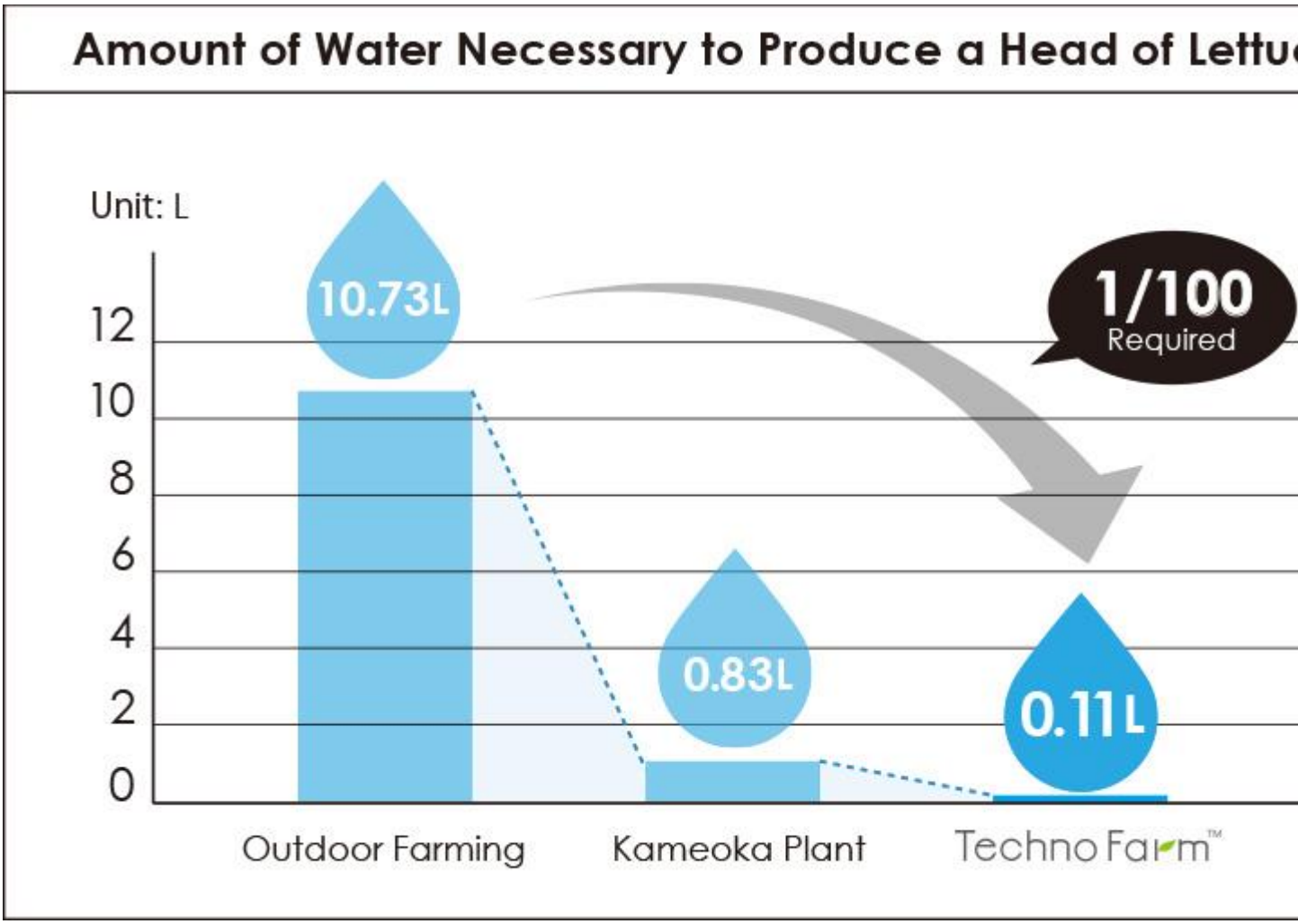
Vegetables respond to even the slightest changes in temperature, humidity, airflow, and CO2. These have been critical issues for large spaces where it can be extremely challenging to create uniform conditions throughout the cultivation environment. To solve this problem we have independently developed our own unique air control system that ensures high quality vegetables are produced reliably even at a large scale. When combined with an enclosed environment, this allows for vegetable production nearly anywhere from urban areas and cold regions to deserts.

02.Water Recycling Technology

Utilizing Every Drop

Techno Farm™ recycles 98% of the water used in cultivation by utilizing nano filtration technology that enables water to be reintroduced while also capturing water that transpires from the vegetables. This results in a system that utilizes merely 1% of the water used for outdoor cultivation and enables water scarce regions to grow vegetables, and preserve precious natural resources.


Water Filtration System
98% Recycling
Air-Conditioner
Evaporated Water
Nutrient Solution
Filtration System



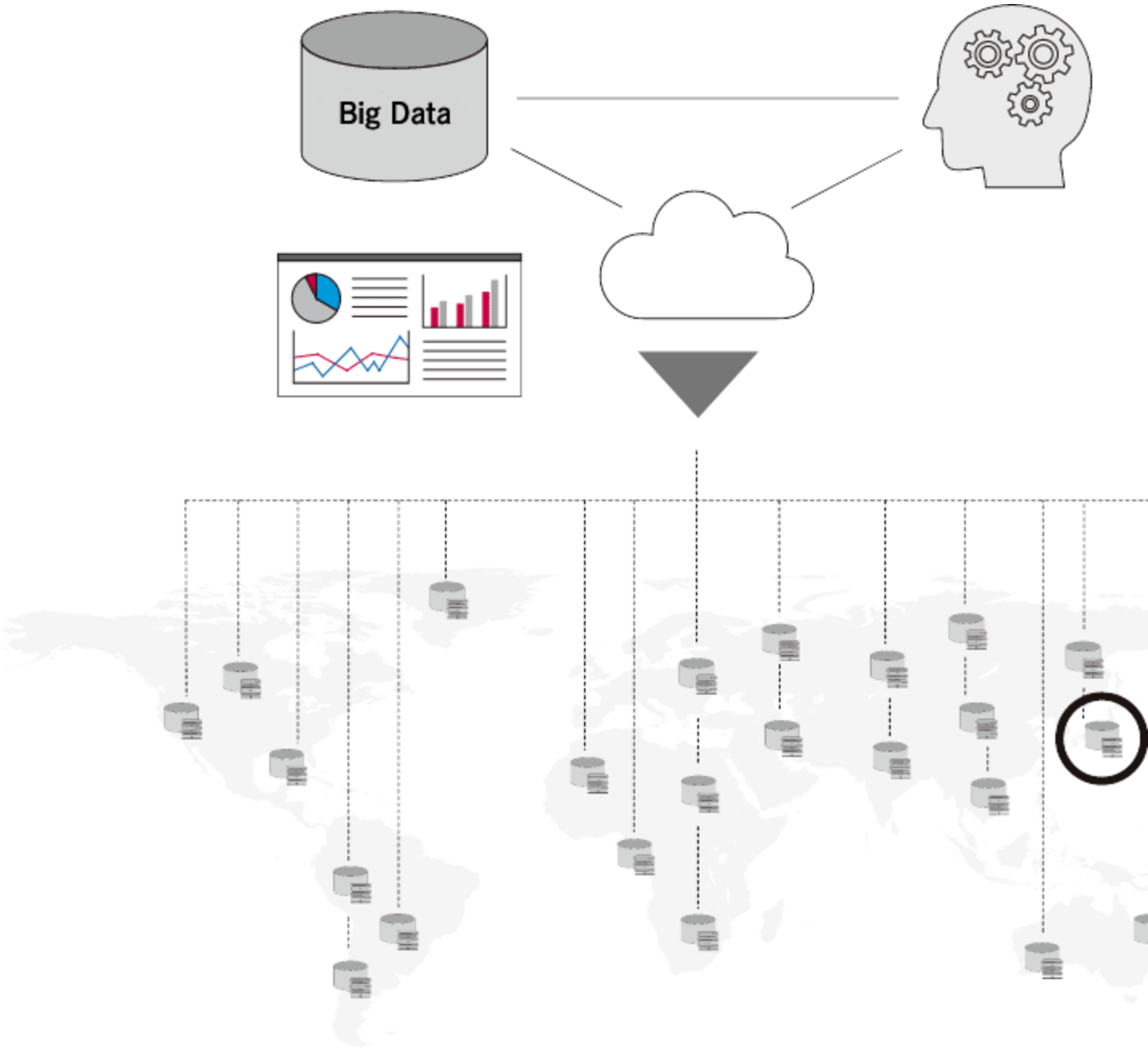
03.Specialized LED Lighting

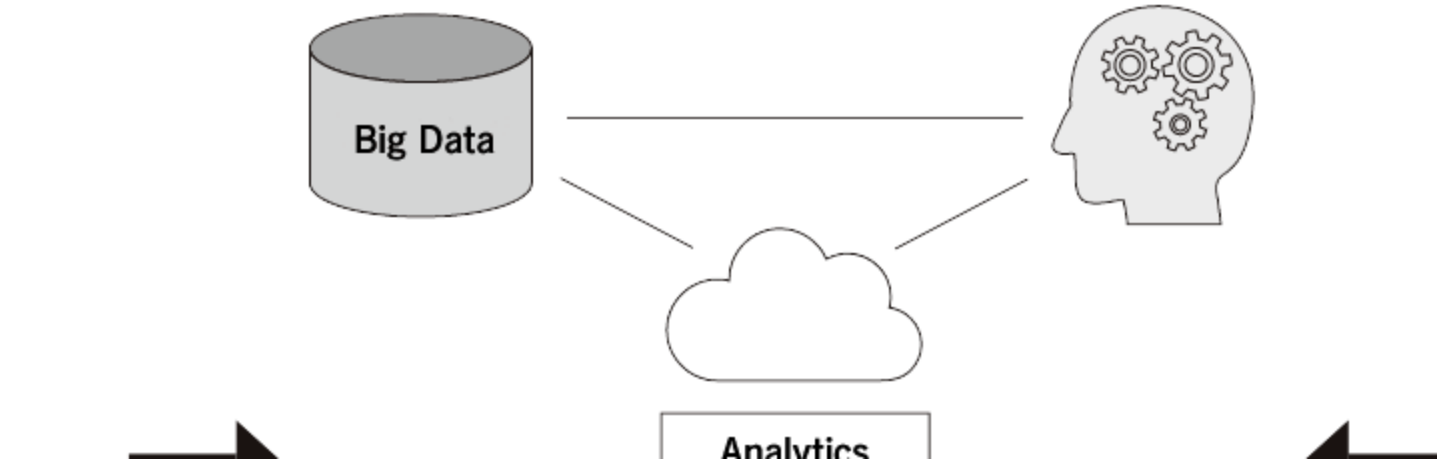
Helping Plants See the Light

By understanding and developing optimal lighting for the cultivation of plants in an indoor vertical farm setting, we have been able to reduce plant waste and decrease energy costs by 30% when compared to conventional LED lights. These lights encourage the healthy growth of vegetables by utilizing the optimal wavelengths for photosynthesis. Meanwhile, reductions in the cost of manufacturing the lights has enabled *Techno Farm*™ to be a cost effective and highly efficient solution for vegetable cultivation.

Adopting Intelligence, Evolving Smart Agriculture

We aim to create an advanced production management system based on yield simulation data obtained from sensors during cultivation that act to determine the growing conditions ideal for maximizing yields. By accumulating big data from each farm over time the AI system steadily improves its analytical precision. Meanwhile, by instantly sharing and reproducing cultivation expertise for all of our operations worldwide, we aim to maximize the efficiency and achieve truly smart agriculture.


Big Data


Big Data
Analytics