Singapore’s space industry and nature-positive food production

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Office for Space Technology & Industry, Singapore

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OSTIn Overview

Singapore's National Space Office

Capability development
Nurture space technology development to serve national imperatives through investing in space-related R&D

Industry development
Grow a viable and globally competitive space industry through supportive industry development strategies

Policies & Regulations
Develop policies and an enabling regulatory environment for Singapore's space activities, and contribute to a cooperative international space regime

Partnerships
Establish an international partnership strategy and bilateral and multilateral partnerships to support focus areas

Talent Development
Contribute to the development of the future workforce through space-based STEM outreach initiatives

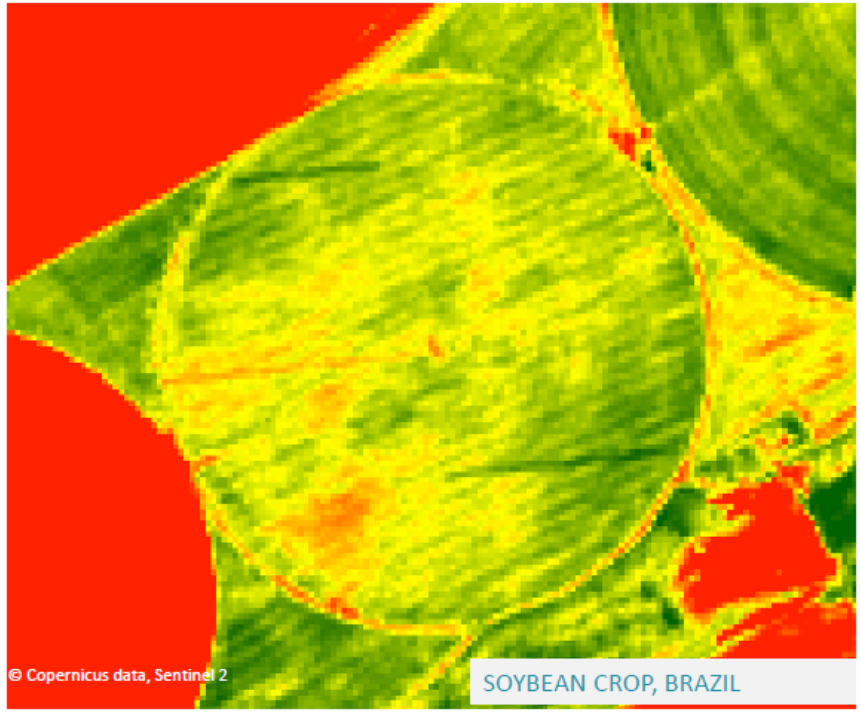
Contribution to Nature Positive Production

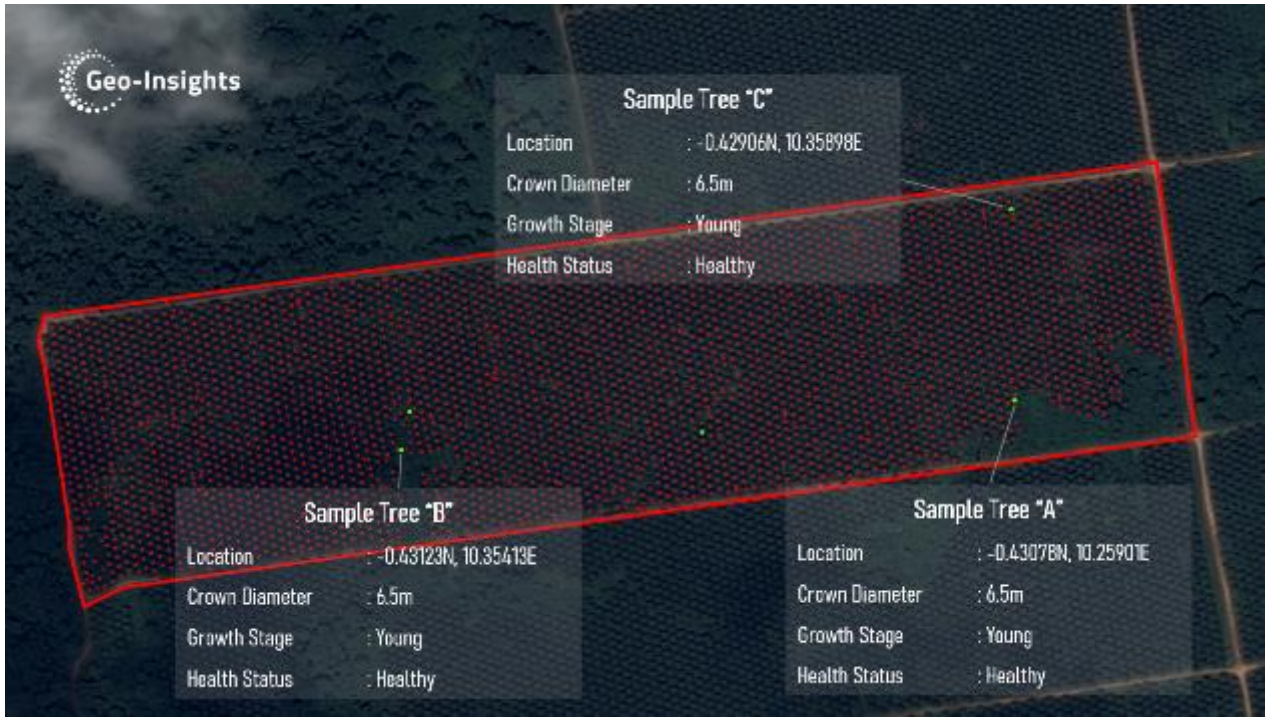
1. **Improving yield and efficiency of agriculture, to reduce land required for food production and increase space for nature**

2. **Improving traceability and trackability of food, to reduce demand from illegal sources such as illegally cleared forests**

3. **Improving efficiency of aquaculture, to enable food production from the sea and manage environmental impact**

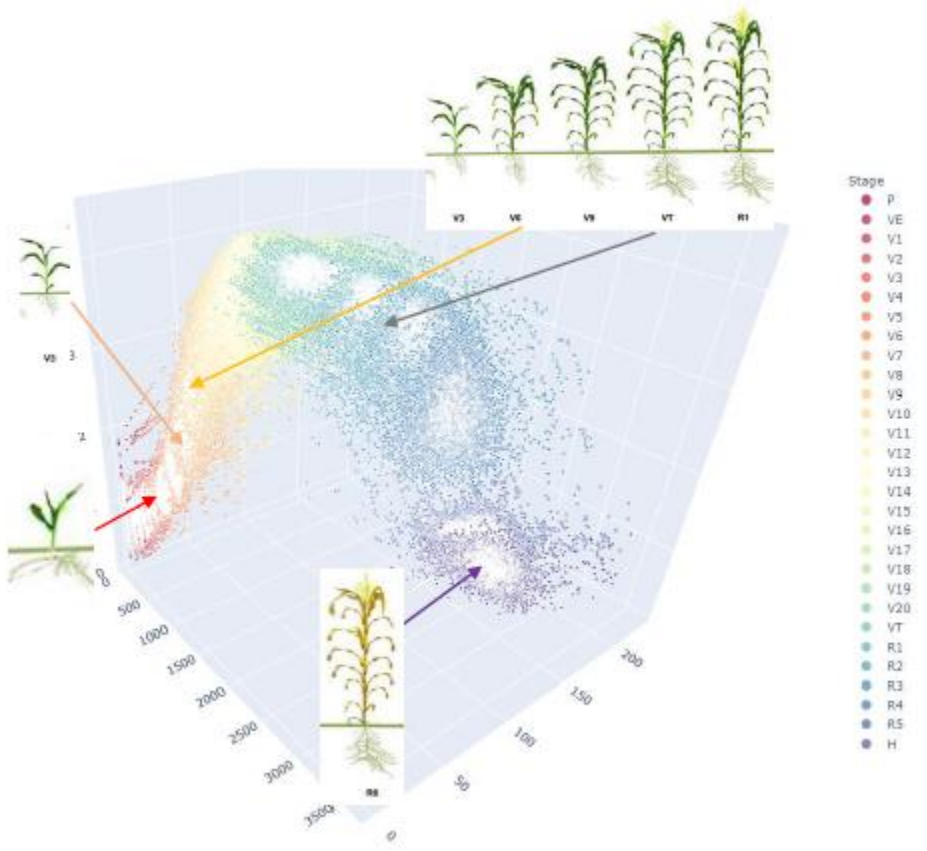
1. Improving yield and efficiency of agriculture





Various crop parameters including crop numbers, crop health, soil moisture and other conditions can be monitored through remote sensing

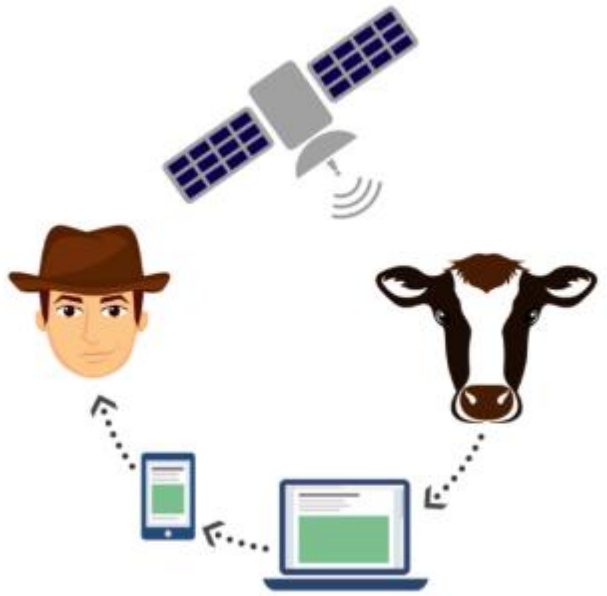
1. Improving yield and efficiency of agriculture



Remote sensing can be used to identify crops in small farms, statistically estimate growth stage, and use predictive analytics to recommend fertilization and moisture

Geo-Insights

2. Improving traceability and trackability of food



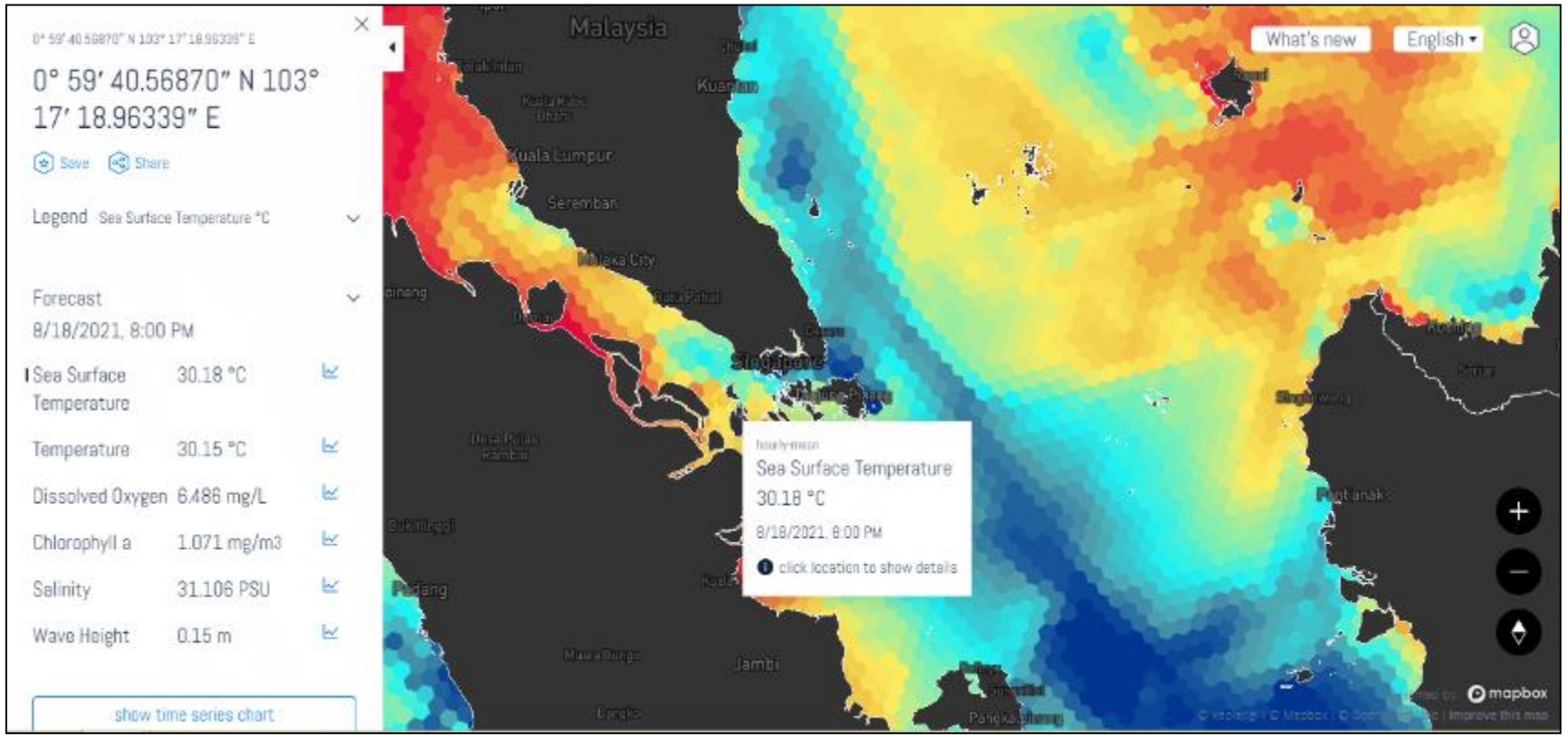
The cow wears an external smart device that transmits data to the company's central servers for processing and analysis

Satelllite tracking can be used to monitor anomalies in cattle, and also guard against illegal activities e.g. cattle rustling which may be linked to illegal grazing

CHIPSAFER

3. Improving aquaculture

Measuring water characteristics through remote sensing and AI for aquaculture



Aquaculture farmers can use remote sensing information and analytics to keep track of broad characteristics of the ocean including temperature, dissolved oxygen, salinity and wave height


Thank You
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