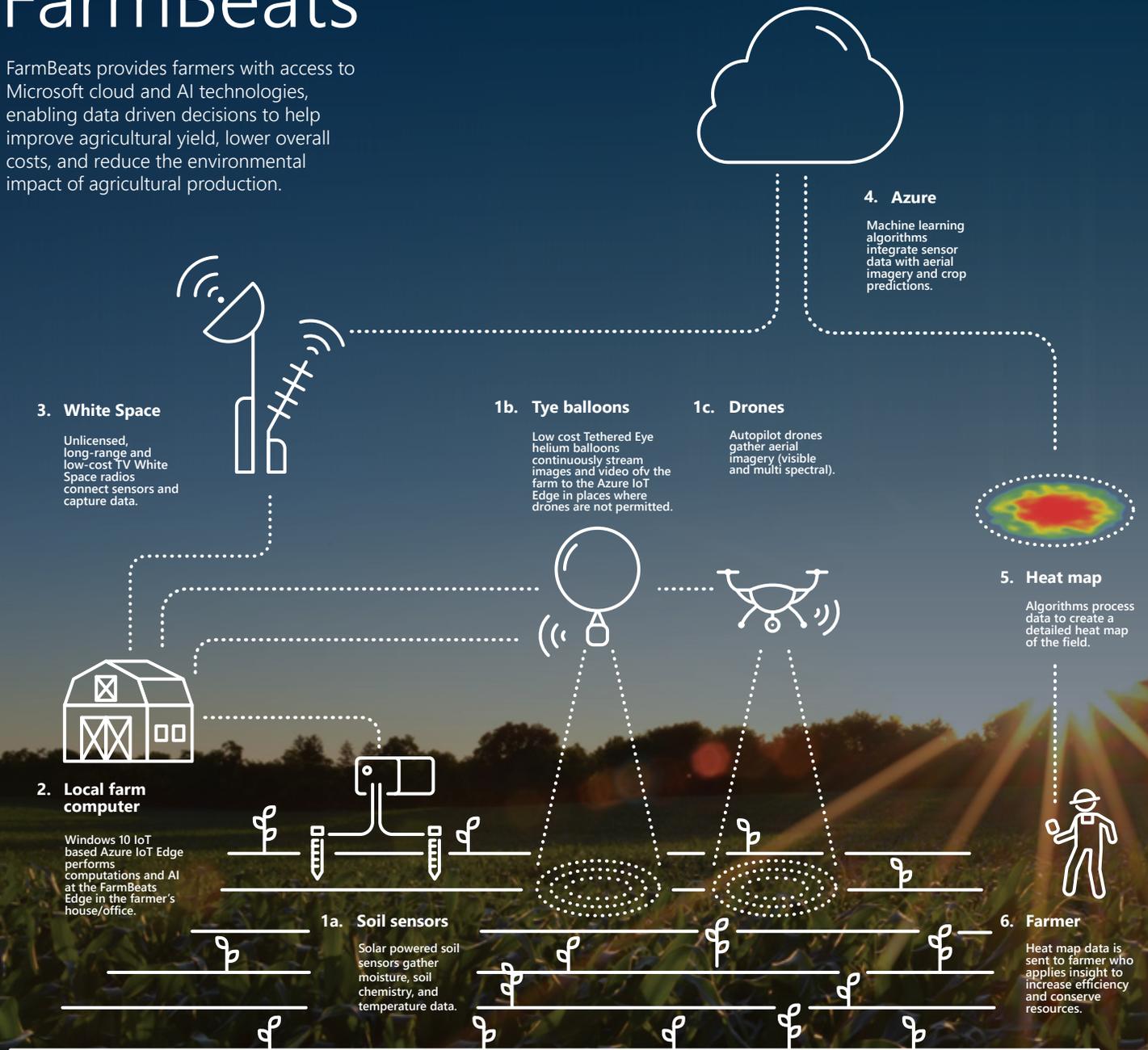


FarmBeats

FarmBeats provides farmers with access to Microsoft cloud and AI technologies, enabling data driven decisions to help improve agricultural yield, lower overall costs, and reduce the environmental impact of agricultural production.



Challenge

Several studies have demonstrated the need to significantly increase the world's food production by 2050. However, there is a limited amount of additional arable land, and water levels have also been receding. Our goal is to enable data driven farming. We believe that data, coupled with the farmer's knowledge and intuition about his or her farm, can help increase farm productivity, and also help reduce costs. However, getting data from the farm is extremely difficult since there is often no power in the field, or Internet in the farms. As part of the FarmBeats project, we are building several unique solutions to solve these problems using low-cost sensors, drones, and machine learning algorithms.

Solution

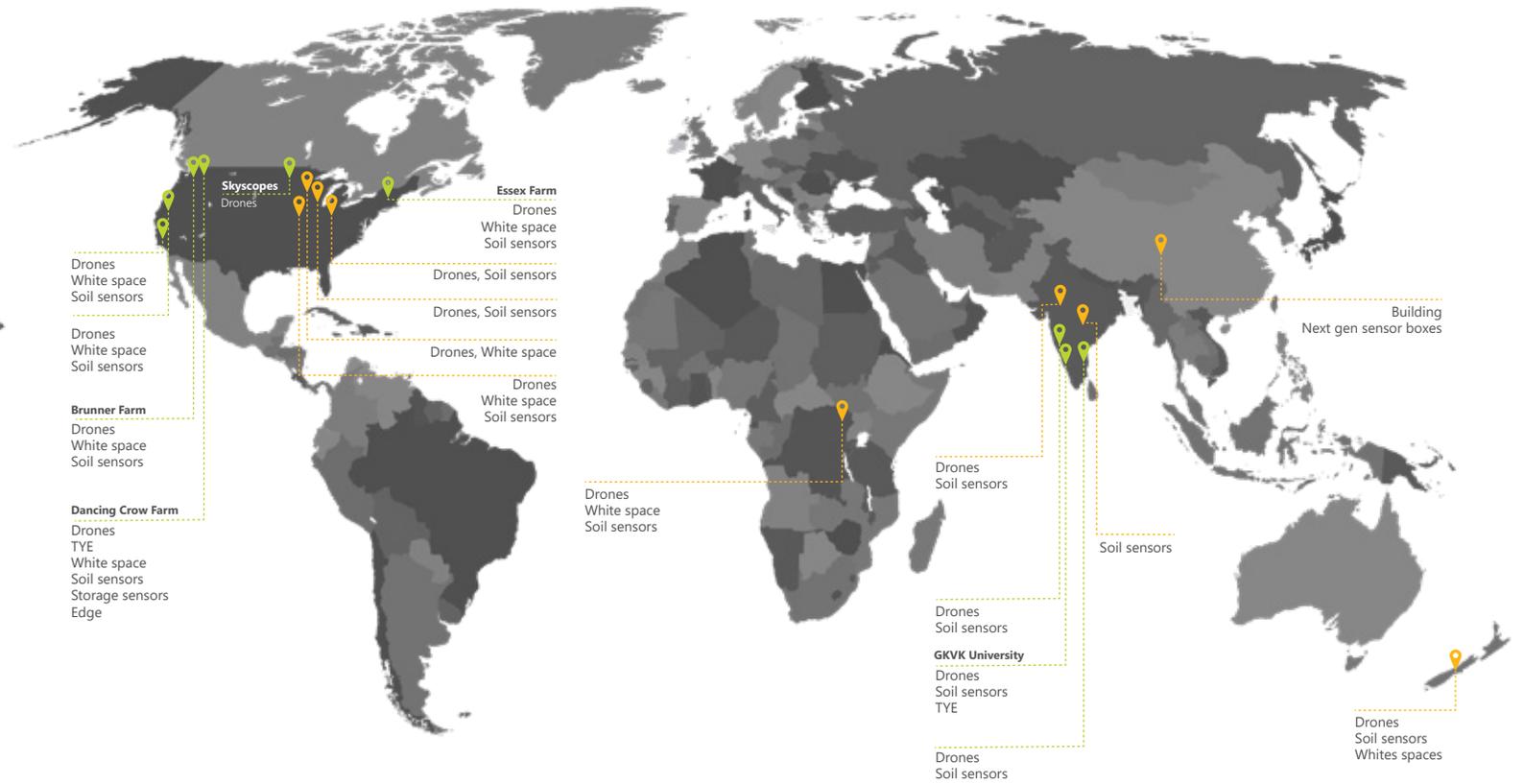
FarmBeats uses TV White Space (TVWS) radios to wirelessly connect sensors and capture data; and machine learning (ML) algorithms to integrate sensor data with aerial imagery and other relevant data (such as weather, crop predictions, and best practices) to deliver actionable insights to farmers, all at a fraction of the cost of existing solutions. Our collaborators, the government of India, the Gates Foundation, and leading agricultural companies, such as BASF, Bayer, Land O'Lakes, and Mahindra, are crucial to this effort, and support our longstanding commitment to sustainability. This is a digital transformation of agriculture, at both small and large scales, that's critical to meeting 21st century food-supply challenges.





FarmBeats

Pilot status



- Current pilot projects
- Potential pilot projects

PROJECT SPOTLIGHT

Dancing Crow Farm Carnation, WA

Dancing Crow Farm is employing next-generation sensors, drones, and machine learning algorithms from the FarmBeats program to increase the efficiency of their operation, and to teach other farmers how to use technology to be better custodians of their resources. Through the program, they have decreased water input and increased yield, allowing them to operate an increasingly sustainable farming program that can be replicated by their partners and students around the country.

For more information about FarmBeats, go to microsoft.com/aiforearth

