



Oli Hilbourne
Co-chief executive and
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Outfield Technologies

Case study

Outfield background and story

Outfield is a Cambridge-based agri-tech startup helping fruit growers to become more efficient, profitable and sustainable. The Outfield system is designed to provide farmers with accurate and reliable fruit counts, blossom mapping and yield estimates. This is critical for making informed decisions around resource management, harvest, storage and sales. The system uses a combination of drone technology and cutting-edge machine learning to collect and analyse data that can help growers see how their orchards or vineyards are performing. The Outfield team has been working with apple growers around the world to develop their system since 2019, and have now delivered over 1000 reports to growers to help optimise blossom thinning, precision fertiliser applications and harvest logistics.



How it works

Currently, growers make a loss on their crop in a year where it performs poorly and production is low, and in a good year will manage single digit profit margins. With Outfield, growers know exactly how much fruit they're growing and where, allowing them to optimise production and make orchards more homogeneous. Outfield blossom maps are used for precision applications, early season fruit loading maps guide thinning, and yield estimates are used to plan sales and harvest logistics. Outfield growers use off-the-shelf drones to automatically survey orchards affordably, on demand and in a fraction of the time required by competing systems. Outfield is also currently working on integrating with drone-in-a-box systems which will make it possible to survey crops autonomously and with frequency that has not been achievable before.



“Collaboration with the UK Agri-Tech Centre is helping Outfield expand into new markets such as Morocco and into new industries such as viticulture. It’s been great to work with the UK Agri-Tech Centre team and their network of innovation farms, and we are looking forward to much more collaboration in the seasons to come!”

Oli Hilbourne, Co-chief executive and founder of Outfield

Agri-Tech Centre Collaboration

Outfield is collaborating with UK Agri-Tech Centre on the £1 million Innovate UK supported VISTA project. This is a project to create a digital mapping system for vineyard and fruit growers around the world. The VISTA map will capture the locations of plants and rows, mapping out field infrastructure such as posts and irrigation systems. VISTA will create a standard format for easy data sharing and integration, allowing growers to combine different precision farming systems together to improve production outputs. Digital mapping empowers informed decision making in horticulture and VISTA will create a standard for digital maps of commercial vineyards and orchards in the UK and across the globe.

UK Agri-Tech Centre has also been supporting Outfield in carrying out a trial of the system with a grower in Morocco, in partnership with the Moroccan Pole Digitale. In the trial, the Outfield crop monitoring system is being deployed on an apple farm near Ifrane to track the blossom and crop loading of their orchards through the season. Morocco is a large agricultural exporter and the apple industry there is growing rapidly. Agri-Tech Centre’s support has been invaluable in creating connections in the country and helping Outfield to deploy in Morocco.

