The ESA Business Incubation Centre in Harwell, UK, started its operations in 2011 and is managed by the Science and Technology Facilities Council (STFC). It is located at Harwell Campus, a world leading science, technology and business campus based in South Oxfordshire with more than 4,500 researchers, engineers and innovators from over 150 high-tech organisations, and a focal point and cluster for the UK's rapidly growing high-tech space community.

IPF Africa

IPF Africa plan to deliver space to farmers in southern Africa.

Website

Founded in 2015 by

- **Max Dafforn**
- **Lucy Bane**

Incubation period

01-03-2015 to 01-03-2016

About IPF Africa

IPF Africa is a precision farming service designed to give farmers in Southern Africa access to satellite imagery in order to help them assess the health of their growing crops. IPF utilise multispectral satellite data to measure crop colour, biomass and vigour which they call eyeCrop. IPF would like to take eyeCrop one step further and allow users to identify crop damage while out in the field through their seeCrop app.

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The challenge

The current practice of viewing eyeCrop imagery is useful for showing variations in crop biomass but, crucially, the imagery cannot provide the user with what and why those variations exist in the field. This app will allow growers to hone in very quickly on problem areas and then treat only those areas saving them time and money and reducing the well-documented detrimental effect of chemical applications on the environment. This is especially pertinent in southern Africa where growers are farming very large areas and not able to crop walk all of their land regularly. Farmers also need to know what chemicals to purchase for the growing season. This is currently decided reactively by walking the crops and assessing the chemical requirements. Chemicals can therefore only be ordered once the pest or disease has been observed, leading to delay between observation and treatment.

The solution

IPF Africa will provide farmers with high resolution satellite imagery of their growing crops. This imagery will be delivered via the mobile seeCrop app which will allow farmers to identify areas of crop damage without having to walk the field. They can then use the app to log the area of the problem and record what the cause is.

The app allows the farmer to target chemical inputs more effectively thereby saving time and money. There are also significant health and environmental benefits to reducing unnecessary chemical applications. These include: reduced chemical residues entering the food chain, reducing adverse effects on non-target organisms and extending the lifespan of crop protection chemicals by delaying the evolution of resistance caused by over application.

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seeCrop