AGRITECHATHON
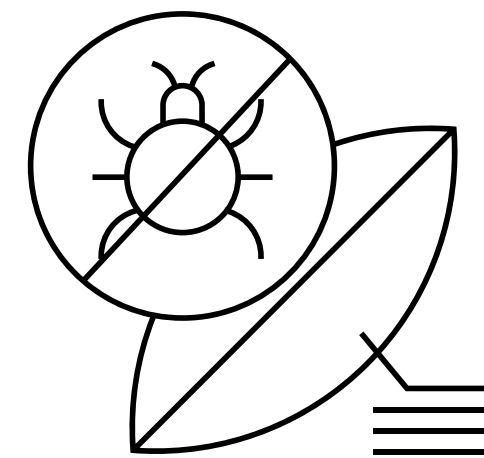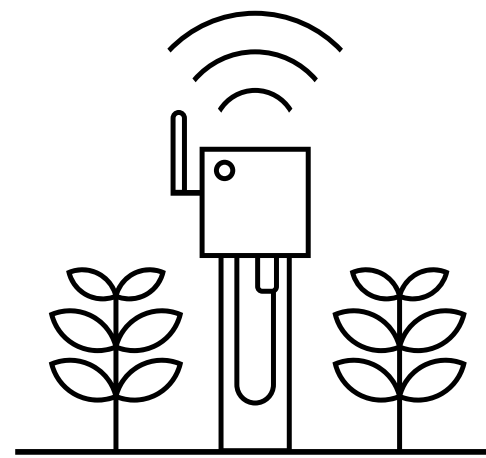
Plant. Grow. Innovate.

OCTOBER 9TH- OCTOBER 11TH 2020 VIRTUAL EVENT

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Europe
South Asia
United Kingdom

Contents

Introduction

From the British Agricultural Revolution of the 18th century to playing a fundamental part in the Green Revolution of the 1960s and 70s, the UK is no stranger to agricultural innovation in evolving, growing and implementing revolutionary methods to increase productivity, drive efficiency and maximise yields.

With the termination of the EU's Common Agricultural Policy, new agricultural liinitiatives are driving and making it easier for the industry to embrace AgriTech, to enable innovation, and transform the agriculture, horticulture and forestry sectors.

There is now, and will continue to be, more opportunities for investment in the excellence of the UK AgriTech sector to grow new businesses and export overseas.

Programme

Day 1 - Friday 9th October

19:00 - Official Launch

19:30 - Final Team Formation

20:00 - Challenge Brief

20:30 - Intro to Judges & Mentors

Day 2 - Saturday 10th October

08:00 - Idea Keynote

08:30 - Idea Generation

09:00 - Hacking Begins

12:00 - First Checkpoint

13:00 - Hacking Continues

15:00 - Mini Coding/Marketing Challenge

18:00 - Second Checkpoint

19:00 - Workshop – How to Build a Personal Brand

20:00 - Hacking Continues

Day 3 - Sunday 11th October

09:00 - Workshop - Pitch Perfect

10:00 - Mentor Sessions

12:00 - Final Demos

15:00 - Jury Deliberation

16:00 - Winner Announcement

16:30 - End of Hackathon
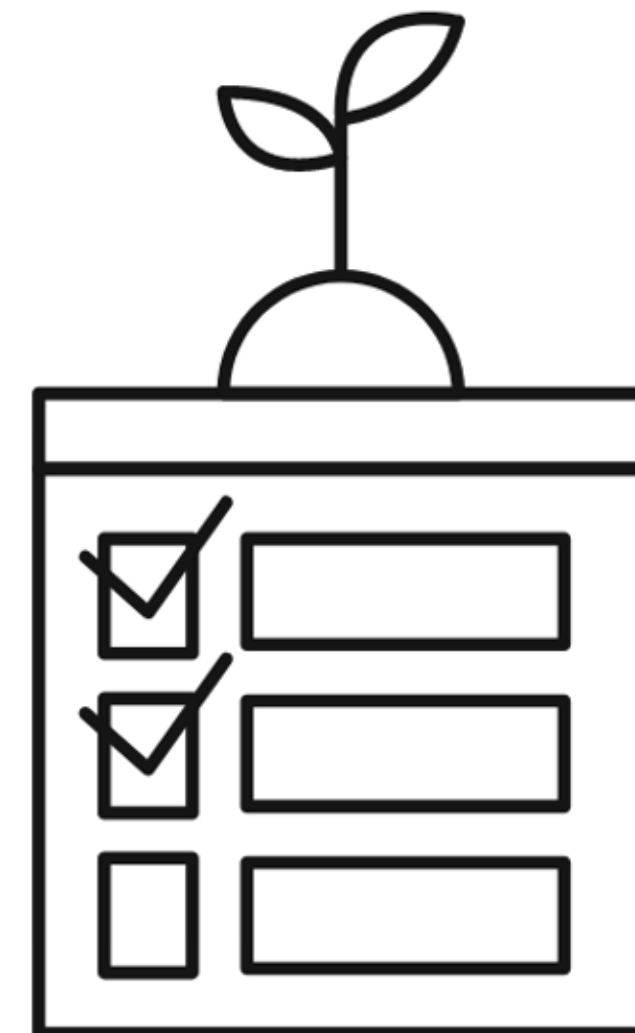
INTRODUCING THIS YEAR'S
CHALLENGES

#Agritechathon

The Challenges

In order to overcome the critical challenges that the UK agricultural industry faces and to ensure food security for an increasing population, companies and farmers, as well as their plants, need to be more innovative and resilient.
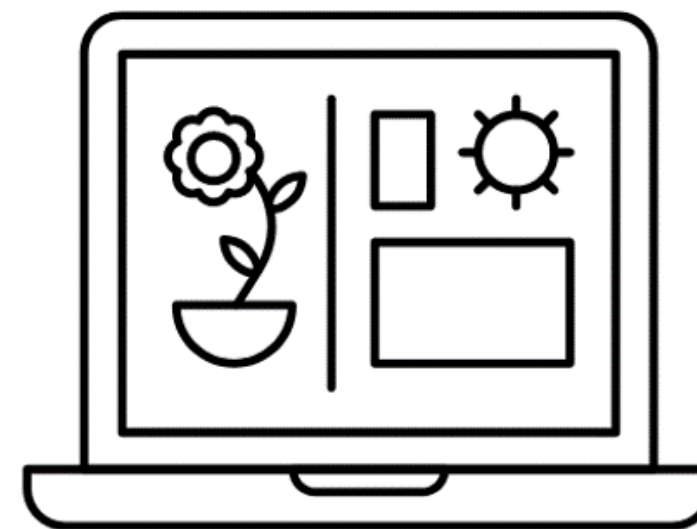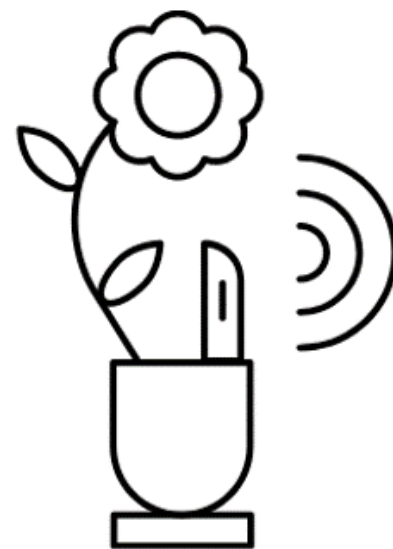
AgriTech Innovation On The Farm

Smart/Precision/Vertical Farming

3D Printing, AI, Automation, Data, Drones, IoT, Robotics & Satellites

Agri BioTech

Soil Productivity

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CHALLENGE 1

AgriTech Innovation - Redifining one of the world's oldest sector with great ideas.

Intro

Innovation within AgriTech is an essential pillar in the protection of the Earth's natural resources. Technology at the heart of the agricultural sector will change the dynamics of the industry. Disruptive ideas are the keys to an industry growth and adaptation to its time and future needs.

A continuously evolving land needs a new strong foundation to re-structure the way produce is grown currently. The aim is to implement agricultural technology in production to improve yield, efficiency, waste reduction and the maximisation of profitability.
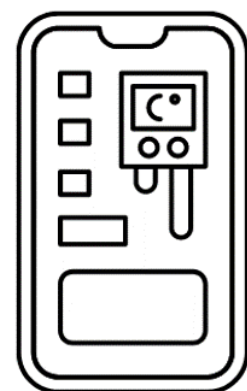
Challenge

How can we use and enhance technology with the aim of improving yield, efficiency, waste reduction and the maximisation of profitability?

What products, services or applications can be implemented to improve various processes on the farm and in the digitalisation of the supply chain?

How can we implement new techniques in the current agricultural sector in a sustainable way?

Solution Outcome

Create and plan a digital solution that is directed at providing a clear benefit for the agriculturalist, the crop or the consumer. This can take the form of a broad agricultural issue or a niche topic.
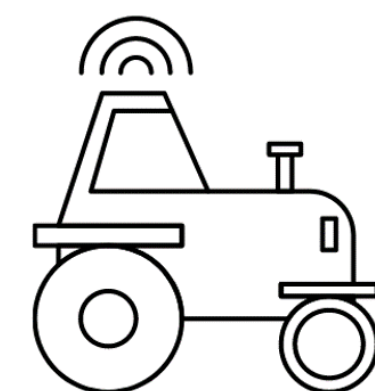
CHALLENGE 2

Agri BioTech - Disruptive ideas, combining biology and technology, to change our biodiversity

Intro

Biotechnology perfectly embodies the alliance between life science and the technologies from various other disciplines, such as Physics, Chemistry, and IT; and has created a significant impact in the agricultural industry over the years.

Its weight in the world economy doesn't cease to increase. By 2030, an estimated 50% of the world's agriculture would depend on it so... let's get hackin'!

Challenge

How can we further develop the scientific techniques used to improve plants, animals and microorganisms to provide farmers with the tools and disciplines that can increase production, make it cheaper and more manageable?

What can be done to continue using molecular science to build up natural resistances to certain diseases, whilst ensuring our safety?

Solution Outcome
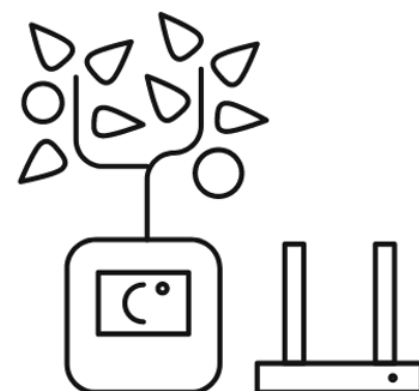
Create and develop a model of a Biotech innovation that meets industry standards and can help farms stay sustainable.
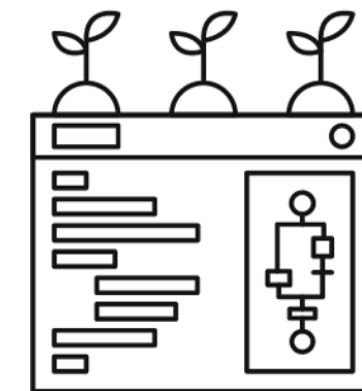
CHALLENGE 3

Smart/Precision/Vertical Farming – 3D Printing, AI, Automation, Data, Drones, IoT, Robotics and Satellites

Intro

Smart Farming is laying the foundation for a "third green revolution". Farmers have already begun employing some high tech farming techniques and technologies in order to improve the efficiency of their day-to-day work.

This type of high-tech farming is growing in importance due to the combination of the expanding global population, the increasing demand for higher crop yield, the need to use natural resources efficiently, the rising use and sophistication of technology and the increasing need for climate-smart agriculture. Smart agriculture and precision farming in the farming world are taking off and they need *you* to push the limits even further.
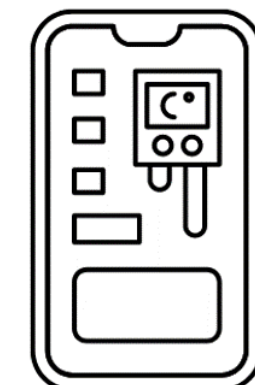
Challenge

As the digital and connected world continue to expand with new and ongoing technological innovations, such as leveraging the cloud, big data, satellites, the Internet of Things (IoT), drones, 3D printing, artificial intelligence (AI), robotics and automation solutions; how can the agricultural industry further adopt these new technological advances to increase productivity and efficiency whilst protecting the environment?

By applying a holistic approach to agricultural innovation through adopting and combining smart technologies, what can we do to elevate a new generation of Smart Farming?

Solution Outcome
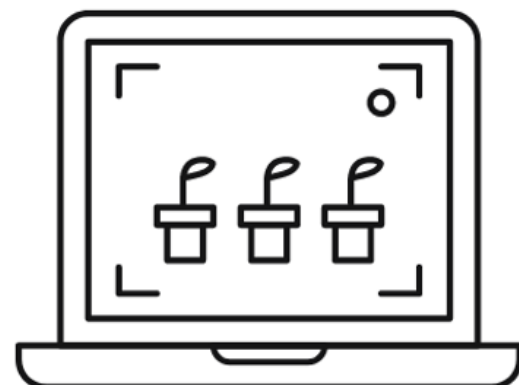
Using 3D Printing, AI, Automation, Data, Drones, IoT, Robotics and/or Satellites, plan and construct a way for farms to better manage and/or enhance their crops and yield.

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CHALLENGE 4

Soil Productivity - Pushing innovative ideas into the ground... literally.

Intro

If our current farming techniques stay the same, 30 years from now, the UK will experience a "fundamental eradication of soil fertility". Needless to say, healthy soil is essential and is now at the heart of the UK's agricultural strategy.

From Soil Mitigation Techniques to Soil Data Analytics, soil management and its productivity are the key to save, protect, maintain and build our most vital asset - soil.

Challenge

Being one of the core essences of the Earth's fertility, how can we protect, improve and enhance our current usage of soil management?

What technology and processes can aide decisions and management regarding tillage, fertilization, crop rotation, plant disease, irrigation, and drainage, as well as exploring the development and evolution of hydroponics?

Solution Outcome
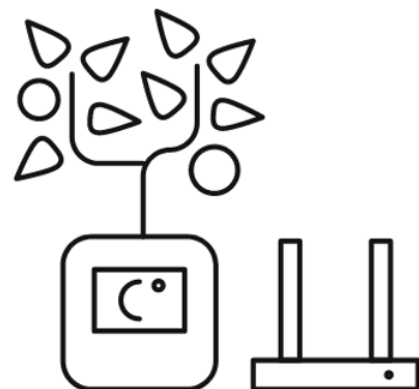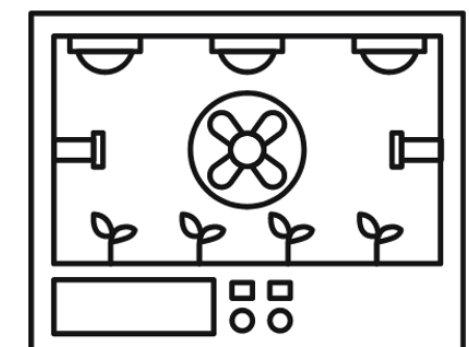
Being one of the core essences of the Earth's fertility, how can we protect, improve and enhance our current usage of soil management?

PRIZES

TH.0 is supporting and offering the opportunity to empower agriculture. Each category will have its winning team with access to a variety of additional prizes to help support their project.

The overall top three all-category winners will receive a cash prize from our TH.0 incubator fund to develop your projects of:

£5,000

£3,000

£1,000

All teams and participants will receive an event pack and goody bags to promote their involvement in TH.0's AgriTech 2020 virtual hackathon.

Each category will have its winning team with access to a variety of additional prizes to help support their project. The additional prizes consist of:

- Guaranteed entry into next year's SHAKE Climate Change Entrepreneurship Programme - donated from **Rothamsted Research.**
- Free hot desk space in our new Russell Innovation building for 3 months - donated from **Rothamsted Research**.
- Farmers Weekly Web Plus Subscription for each winning member for a full year - donated from **Farmers Weekly**
- Three month membership of Barn4 including two free desks within the new building, our full business support package, networking opportunities, access at members' rates to the laboratory and specialist facilities on our Park Farm site - donated from **NIAB.**

*Currecntly being finalised

JUDGES

Sarah Landry

Managing Director
TH.0 UK

Dr Juno McKee

Director
NIAB Ventures

Prof Angela Karp

Director & CEO
Rothamsted Enterprises &
Research

Helen Dundas

Sector Lead for AgriTech
The University of Edinburgh
& The Roslin Institute

Damian Malins

Venturing Projects Director
Fera Science

Karl Schneider

Editor & Publishing Director
Farmers Weekly

Tom Jenkins

Deputy Director
ISCF Transforming Food
Production Programme -
UK Research and Innovation

Dr Kate Pressland

Programme Manager
Innovative Farmers -
Soil Association

JUDGES

TBC

Position Reserved For AIC (Agricultural Industries Confederation)

Steve McLean

Head of Agriculture Sourcing M&S Food Group

Robert Ward

CEO & Founder ForwardFood.Tech

Dr Louise Sutherland

Director of Ceres Agri-Tech Knowledge Exchange Partnership & University of Cambridge Enterprise

TBC

To be confirmed

TBC

To be confirmed

TBC

To be confirmed

TBC

To be confirmed

KEYNOTE SPEAKERS

Dr Helen Ferrier

Chief Science & Regulatory
Affairs Adviser
National Farmers Union

Prof Angela Karp

Director & CEO
Rothamsted Enterprises &
Research

TBC

To be confirmed

TBC

To be confirmed

TBC

To be confirmed

TBC

To be confirmed

TBC

To be confirmed

TBC

To be confirmed

CLIENTS

SUPPORTERS

PARTNERS

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Contact & Details

LinkedIn

https://www.linkedin.com/company/th.o

Slack

https://app.slack.com/client/T014AE9EWF3/browse-channels

Telegram

https://t.me/THVirtualHackathon

For Full Details
https://www.thpoint0.io/rules/

To learn more
https://www.thpoint0.io/faqs/

**Live Youtube and Zoom streams to be added

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