KTN is the UK’s innovation network. It brings together businesses, entrepreneurs, academics and funders to develop new products, processes and services.

We help business to grow the economy and improve people’s lives by capturing maximum value from innovative ideas, scientific research and creativity.
Find Solutions. Find Markets

90% of the collaborations facilitated by KTN are expected to lead to collaborative R&D activity and the progression of commercial opportunity.

Innovate UK
Knowledge Transfer Network
Not the usual suspects

Almost half of the collaborations KTN facilitate involve at least one partner from a different sector

Innovate UK
Knowledge Transfer Network
Connecting people to accelerate innovation

After working with KTN 42% of organisations reported faster outcomes (most commonly 1 to 2 years faster)

Innovate UK
Knowledge Transfer Network
What does that entail?

What KTN does in a nutshell...

- **Partnering** - Access to a network of industry & research partners, help to find *partners for projects*, consortia building, commercial partners
- **Funding** – Help with finding & obtaining funding
- **Organising events** – for knowledge transfer & collaboration
- **Strategic work** – Strategy Reports, Roadmaps, International Expert Missions, Special Interest Groups
- **Information & News** – in one place, up-to-date – newsletters, website, social media
Events

SUPPORTING EARLY ADOPTION OF AGRI-TECH INNOVATIONS
Pre-competitive vision booklet

- To align on the critical areas of Plant Science which could result in significant change / step-change in agriculture, horticulture, agronomy for food, fibre and fuel production...

- To ensure that innovations are utilised to the full potential, effective and well-funded translational research focusing on the key areas is needed
How the booklet has been used

• To guide investment priorities for KTN networking events, advise applicants for research funding and support young scientists in their career development
• Informing government funding such as Industrial Strategy Challenge Fund’s Transforming Food Production programme
The report looks at the current state of the crop protection market, emphasising the need for effective crop protection methods if we are to continue to improve agricultural production, balanced against identified issues with the current use of pesticides.

Crop protection solutions that are discussed in the report include:

- Extending the use of existing agrochemicals
- Biopesticides
- Biological solutions
- Peptide hormones
- RNAi
- Gene editing
- GM insects
KTN Agri-Tech Investment Showcase

• Ongoing need for private investment in Agri-Tech to further advance the sustained public investments and technical excellence within the UK

• To address this need, KTN established an Agri-Tech Investment Showcase programme, ran in 2017 and 2018

• Programme for 2019 has begun, partnering with Rabobank and Farm491

• Early stage Agri-Tech companies are provided with investment-readiness training, and the best companies selected to pitch to investors
UK R&D Spending

- Research Councils: c.£2.7bn
- Innovate UK: £560m
- Privately financed businesses: >£17bn

UK R&D Spending

CONCEPT

TRL 1

Innovate UK

£560m

COMMERCIALISATION

Privately financed businesses

>£17bn

TRL 10

Innovate UK Knowledge Transfer Network www.ktn-uk.org @KTNUK
Check out the Agri-food funding round up

The funding landscape can be complex, so KTN’s Agri-Food team have compiled a list of some of the latest funding calls of relevance for the agriculture and food & drink manufacturing sectors, bringing them together in one place – currently 19 different calls!!
• **Smart** is the new name for Innovate UK’s ‘Open grant funding’ programme
• Opportunity to apply for a share of up to £20 million, designed to support the **best game changing and/or disruptive ideas or concepts with a view to commercialisation** as soon as possible
• The competition is open to **any sector** of the economy and **any company size, universities or RTOs in any region of the UK.**
• Bids **must** be **business focused** and **must** be either:
  • between **6 and 18** months with total costs between **£25K and £500K** and **may** be **single** or **collaborative** applications
  • between **19 and 36** months with total costs between **£25K and £2M** and **must** be **collaborative** applications
Innovate UK Smart Grants: April 2019

Competition closes: 24.07.19 at 12:00pm.

Smart is the new name for Innovate UK’s ‘Open grant funding’ programme. Innovate UK, as part of UK Research and Innovation, will invest up to £25 million in the best game-changing or disruptive ideas with a view to commercialisation. All proposals must be business focused, rather than pure research. Applications can come from any area of technology (including arts, design, media or creative industries), science or engineering and be applied to any part of the economy.
Knowledge Transfer Partnerships

Succinctly.....

An opportunity for Businesses to access innovation from expertise in a UK ‘knowledge base’ and to embed it in their business for long term benefit.

Knowledge Transfer Partnerships
Help businesses to improve their **competitiveness, productivity and performance** through the better use of knowledge, technology and skills that are available within the UK knowledge base.

Innovate UK
Knowledge Transfer Network

www.ktn-uk.org  @KTNUK
Knowledge Transfer Partnerships

Collaboration between a business and academic, with Knowledge Transfer via a recent graduate who moves to the business partner, and is supervised by the academic:
https://www.gov.uk/guidance/knowledge-transfer-partnerships-what-they-are-and-how-to-apply

KTPs can last between 12 and 36 months. The amount businesses need to contribute is different for SMEs and larger companies, and ranges from £20-30k/annum.

£25m additional funding: Chancellor Philip Hammond announced on 29th October 2018 an additional £25m to boost business productivity through KTPs

The KTP programme 2019 to 2020 is run continuously throughout the year.
Agri-tech Catalyst Round 8

Agri-tech Catalyst round 8: agriculture and food systems innovation

Registration closes: 29:05.19 at 12:00pm. Competition closes: 05.06.19 at 12:00pm.

UK businesses and research organisations can apply for a share of up to £3 million from the Department for International Development (DFID) for early stage feasibility studies, mid stage industrial research and late stage experimental development projects with partners in eligible African countries. Projects must work on agri-tech and food chain innovations with partners in eligible African countries.
£10m investment from DFID to support three further rounds

Draft timeline for three rounds:

- Round 7 – Opened August 2018 – closed November 2018 – funded 10 projects
- Round 8 – April 2019 – June 2019 – funding £3m
- Round 9 – August 2019 – November 2019 – funding tbc
Industrial Strategy Challenge Fund

Builds on the UK’s world-class research base and delivers the science that business needs to **transform existing industries** and **create new ones**

**Accelerates commercial exploitation** of the most exciting technologies the UK has to offer the world to ensure that scientific investment truly **delivers economic impact, jobs and growth right across the country**

Programmes delivered by the fund will be **industry-led** and powered by **multi-disciplinary research and business-academic collaboration**

Delivered by Innovate UK and Research Councils UK and eventually UK Research and Innovation.
Wave 2 Challenges (up to £729.5m)

- Audience of the future (up to £33m)
- Data to early diagnosis and precision medicine (up to £196m)
- Prospering from the energy revolution (up to £102.5m)
- Healthy ageing (up to £98m)
- Next generation services (up to £20m)
- Quantum technology (up to £20m)
- Transforming construction (up to £170m)
- Transforming food production (up to £90m)
Transforming Food Production

Challenge: To transform food production systems so that by 2030 UK agricultural productivity is market leading and environmental impacts have reduced by 40%, waste across food supply chains is minimised and the UK is a leading exporter of data-driven solutions supporting food production.
TFP: Objectives

• Create disruptive data-driven solutions to drive primary agricultural productivity and reduce environmental impacts
• Embed adoption of precision approaches to bridge the productivity gap
• Establish novel high value production systems
• Strengthen connections between researchers and practitioners
• Drive Growth in UK Companies and develop export opportunities

IoT device installation in Agriculture is forecast to increase at the rate of 20% compound annual growth by 2024
What will the Future of Farming Look Like?

Real time monitoring will be standard, enabling highly automated production systems that:

• optimise energy, water, nutrients, crop protection products and labour
• enable dual cropping and inter-row production to increase output
• enhance soil quality, biodiversity and natural capital

Supply chains will be connected, minimising waste, building resilience & maximising saleable yield

Advanced breeding technologies used to achieve sustainability, quality and production goals

Computer scanning in different wavelengths Aspects of plant health, such as pest damage, that human eyes miss. Copyright: The University of Manchester/University of Bonn
What will the Future of Farming Look Like?

**Novel food production systems**, including urban and peri-urban systems, will be producing high value crops, securing increased market share through:

- Widespread use of hydro, aqua aero-ponics, underground and point of sale production
- Protected environments will be highly efficient, minimising energy use, capturing and re-using water and co-located with distribution hubs
- Diversification of farmed species and cultured foods
Expanding Markets - Precision Technology
Creating disruptive solutions and high value production systems (incl. CR&D)

Feasibility of novel approaches proven

Science and Tech. into Practice
Embedding adoption of precision approaches to bridge the productivity gap (Large-scale Demonstration)

Opportunities for large scale demonstration identified

Market research

International
Building opportunity in partnership and driving export growth

£50 million
£10 million
£20 million
£10 million

TFP Funding: Timescale 2018-2022

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Thank you for your attention

To keep up to date with funding, events and other activity, register for KTN newsletters: https://ktn-uk.co.uk/newsletter

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