

# Maximising the commercial impact of agriculture research SmartHort 2019

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**Innovate UK**

Innovate UK is part of  
UK Research and Innovation



# Innovate UK

Innovate UK drives productivity and economic growth by supporting businesses to develop new ideas.

We connect businesses to the people that can help them, and fund businesses and research collaborations in all economic sectors, value chains and UK regions to accelerate innovation.

Innovate UK



Investment of  
**£2.5bn**

since 2007



Industry match funding  
taking  
the total value of  
projects above



**£4.3bn**

Up to

**£18bn**



in added value  
to the economy

Up to

**£6-7**

for every  
**£1** we've  
invested



We've funded around

**11,000**

projects



**8,500**

unique  
organisations  
involved



**9 jobs**

for each  
organisation  
involved

**70,000**

jobs created in total





# Global investment in R&D comparisons

Innovate UK



# 5 foundations of The Industrial Strategy



The Industrial Strategy is boosting productivity and earning power across the country by focusing on the 5 foundations of productivity, which support a vision for a transformed economy.



## Ideas

The world's most innovative economy

UK Research  
and Innovation



## People

Good jobs and greater earning power for all



## Infrastructure

A major upgrade to UK's infrastructure



## Business Environment

The best place to start and grow a business



## Places

Prosperous communities across the UK

# Industrial Strategy Challenge Fund: Grand Challenges



## AI and data economy

Putting the UK at the forefront of the artificial intelligence and data revolution



## Ageing society

Harnessing the power of innovation to help meet the needs of an ageing society



## Clean growth

Maximising the advantages for UK industry from the global shift to clean growth



## Future of mobility

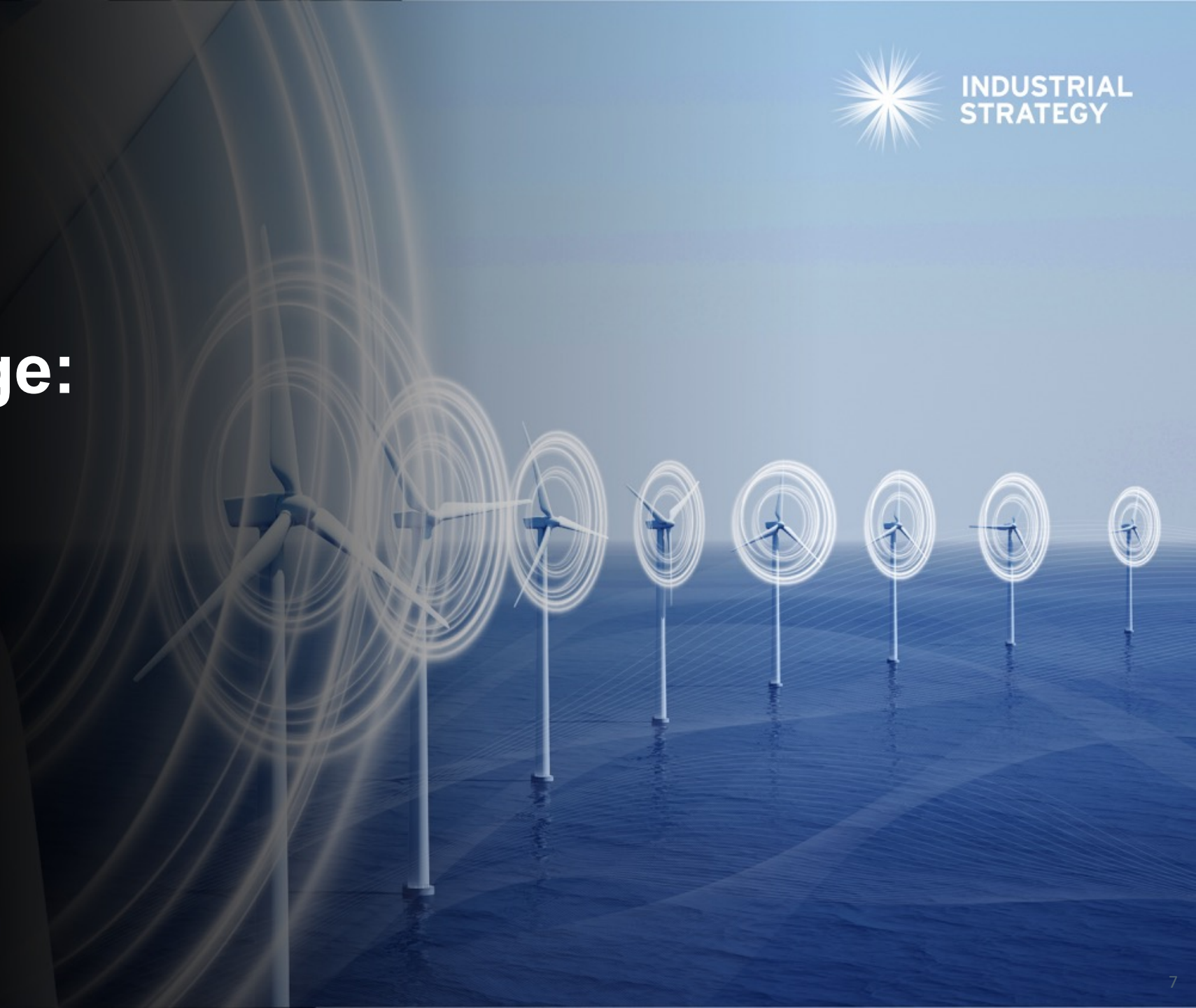
Becoming a world leader in shaping the future of mobility



INDUSTRIAL  
STRATEGY

# Grand Challenge:

## Clean growth





# Transforming Food Production

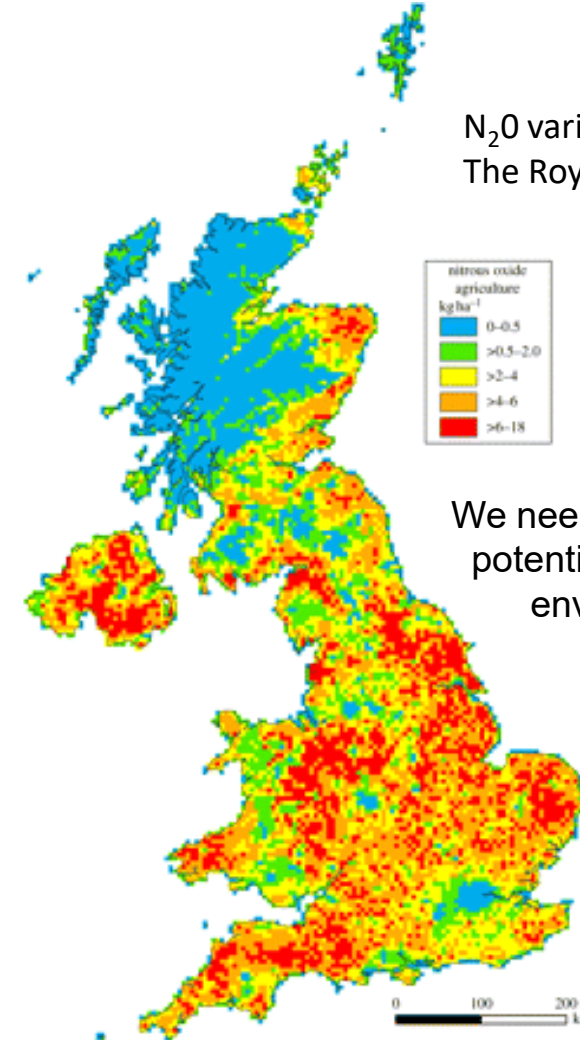


***Globally we need to produce food in ways that are significantly more efficient, resilient and sustainable***

## The UK Agriculture Sector

- Underpins 3.9m jobs, utilises 71% of land and has GVA of £112bn
- Productivity lags behind that of international competitors and varies significantly across the UK
- Innovation and productivity have been stifled by direct payments
- Innovation is key to ensure a competitive and prosperous sector

UK Research  
and Innovation



N<sub>2</sub>O variation - Source:  
The Royal Society , Jan 2018

We need to realise the biological  
potential while minimising our  
environmental footprint



# 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.

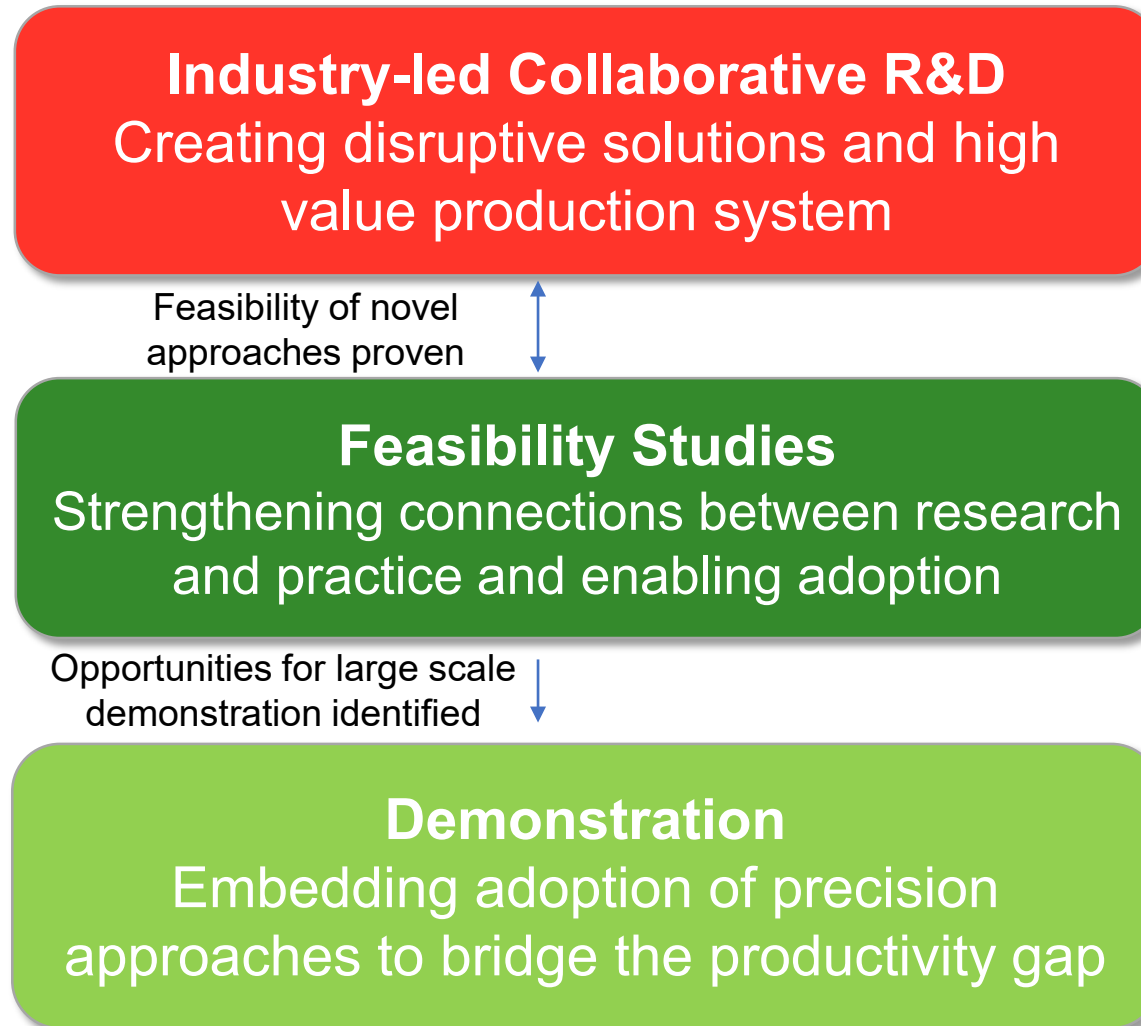
# Our Mission

Is to connect people, ideas and funding to catalyse the development and adoption of disruptive data-driven solutions across agri-food supply chain.



monkeybusinessimages/iStock/Thinkstock©

# Transforming Food Production: Delivery

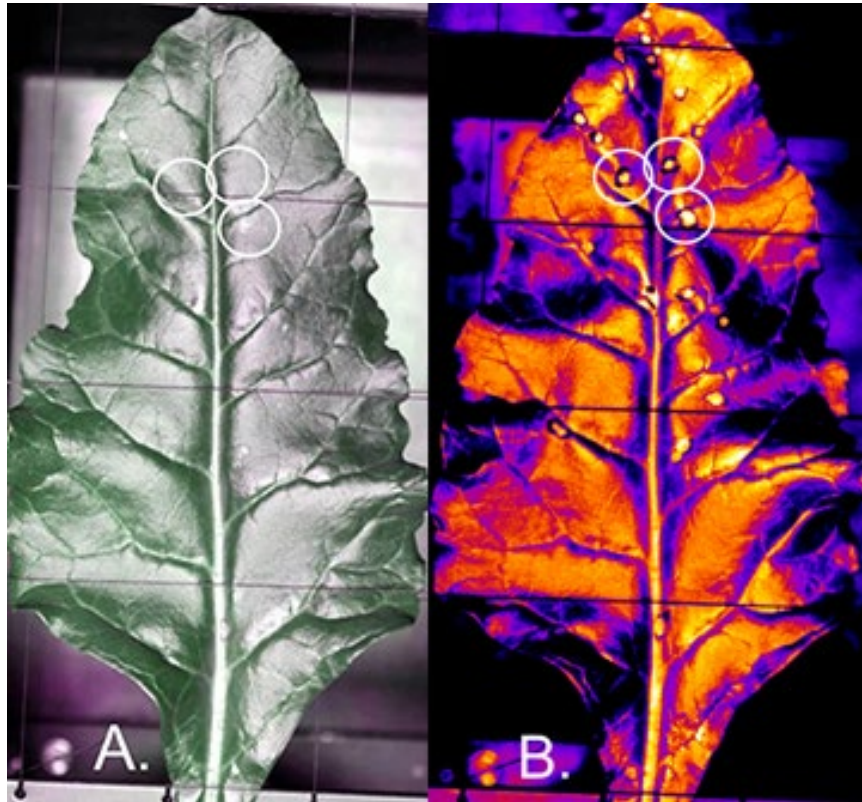


**International**  
Building opportunity in partnership and driving export growth

**Note: -**  
These Key elements are being redefined with revised delivery mechanism To be agreed Shortly.



# What will the Future of Farming Look Like?



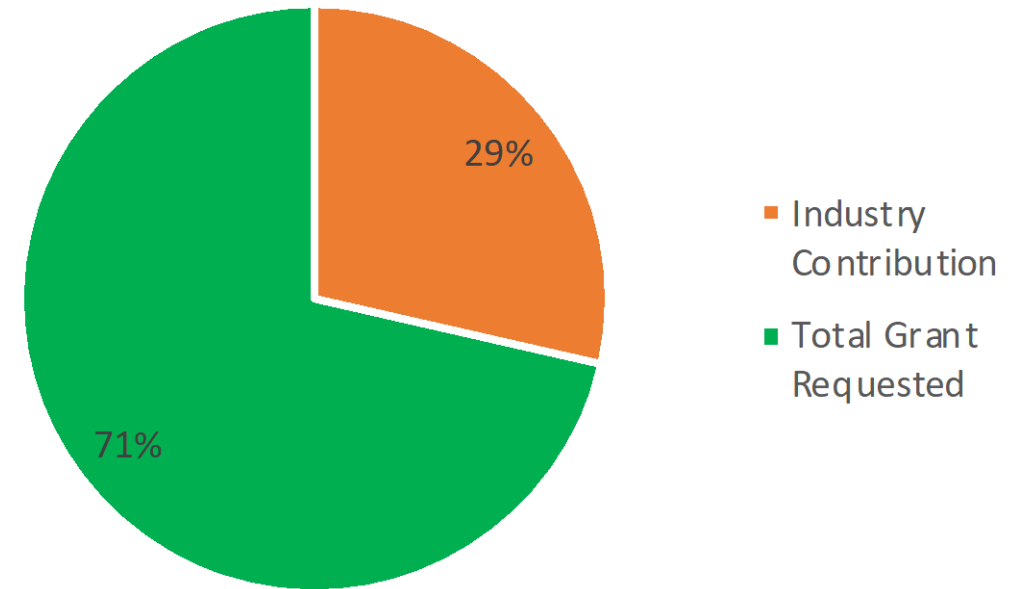
Computer scanning in different wavelengths Aspects of plant health, such as pest damage, that human eyes miss. Copyright: The University of Manchester/University of Bonn



# Collaborative R&D 1

- Focused on:
  1. Enhanced decision support precision
  2. Agriculture to drive productivity
  3. Sustainability in crop/ruminant systems and novel systems
- £26.9m funded 24 projects
  - £19.3M total grant requested
  - £7.6M industry contribution

Total Funding by Source (£m)

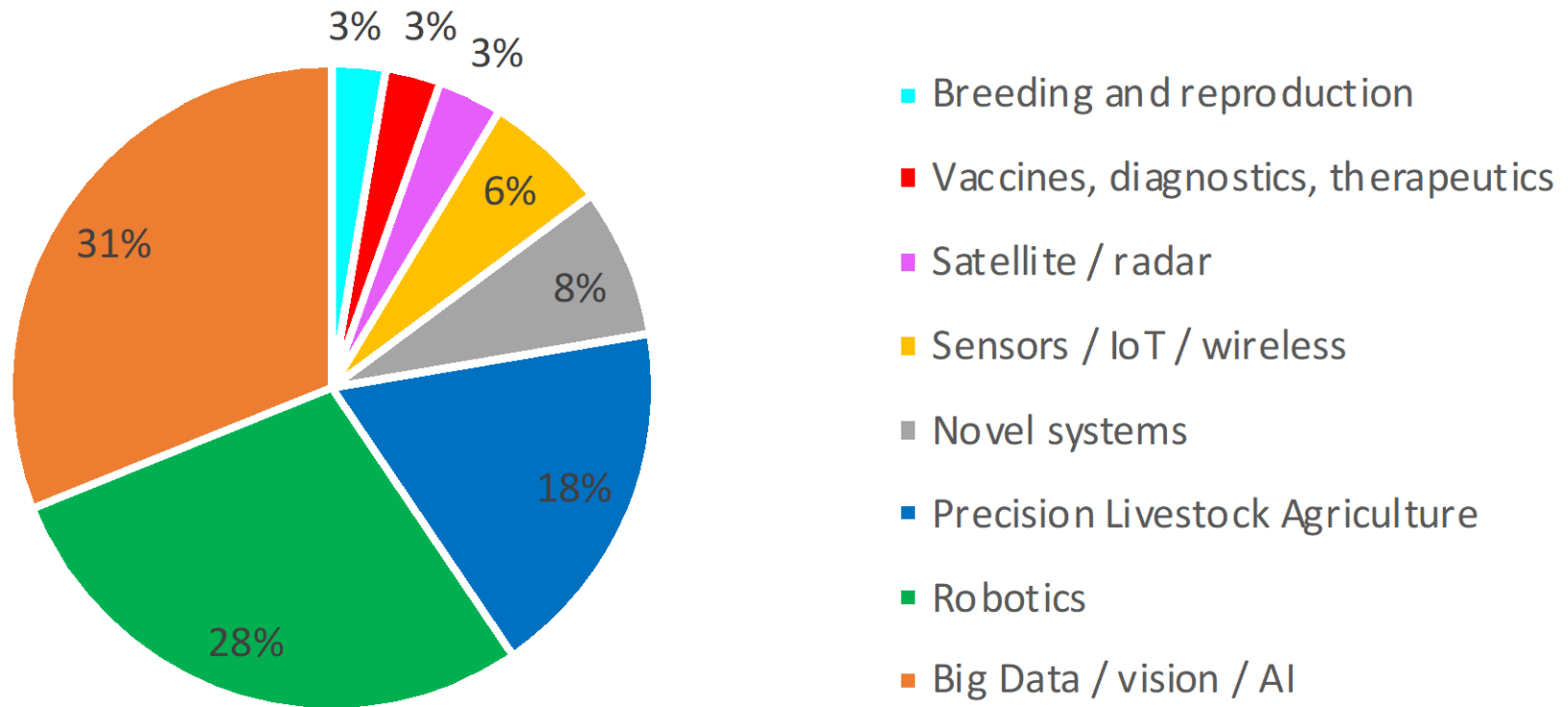


Data based on the 24 successful projects for CR&D1

# Big data / vision / AI, robotics and precision agriculture were the most common technologies



Value Share of Projects by Technology



Data based on the 24 successful projects for CR&D1

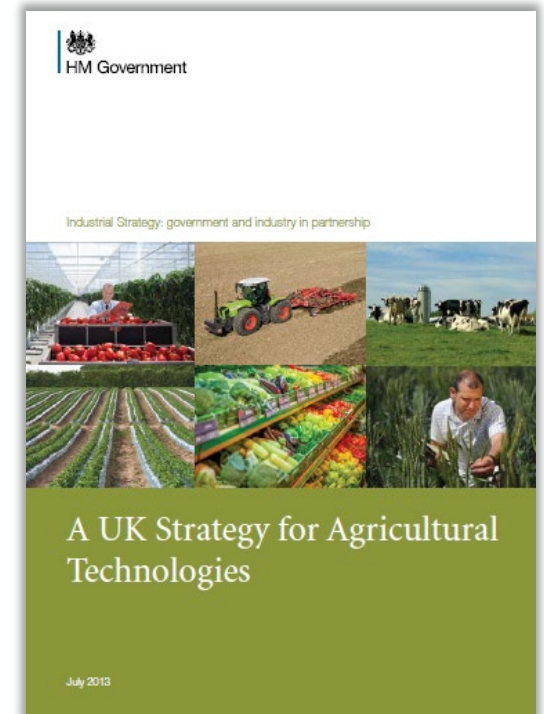


# Agritech Catalyst

Innovate UK

- Launched 22 July 2013
- Aims to improve the translation of research into practical application for agriculture and related industries in UK and overseas
- £160M government investment over 5yrs:
  - Agri-tech Catalyst (£70m)
  - Centres for Agricultural Innovation (£90m) - Agri-Tech Centres

**AgriTech**



# Agritech Catalyst, cont'd

Innovate UK

- £10m investment to support three further rounds
- Draft timeline for three rounds:
  - Round 7 – 28 August 2018 – 28 November 2018
  - Round 8 – 1 April 2019 – 5 June 2019
  - Round 9 – 5 August 2019 – 20 November 2019
- Additional c£26m from GCRF to be confirmed
  - Spend anticipated to run from 19/20 to 24/25 Financial Year



Department  
for International  
Development

- Ideas that have the potential to deliver impact for poor people through the uptake of agricultural and food systems technology and innovation
- Scope of the Catalyst includes:
  - primary crop and livestock production including aquaculture
  - non-food uses of crops, excluding ornamentals
  - challenges in downstream food processing, distribution or storage and value addition
  - Improving availability and accessibility of safe, healthy and nutritious foods





# Innovate UK Smart funding

For businesses in any sector

- enables businesses to apply for grant funding regardless of technical or industrial area of focus
- funding for the best proposals in a competitive application process
- 5 open competitions run in 2018/19, each offering £20 million funding

Innovate UK

Paul Holt, founder, Photocentric

- Smart is the new name for Innovate UK's 'Open grant funding' programme
- 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.
- <https://apply-for-innovation-funding.service.gov.uk/competition/324/overview>
  - 18 February 2019 Competition opens
  - 27 February 2
  - 4 April 2019 12:00pm Competition closes
  - 5 July 2019 Applicants notified

# Innovation loans

Innovate UK

A pilot programme of competitions to the end of 2019 aiming to ensure that businesses can access funding at all stages of innovation.

Up to **£50 million**  
available

Competitions  
for UK SMEs wanting  
to scale up

Can be used for late-  
stage  
R&D projects

Delivered by  
Innovate UK  
Loans Ltd.





# Global Business Innovation

Innovate UK

To grow and scale up successfully, UK companies need to access knowledge and develop new partnerships globally. We are expanding our support available to businesses through:

- Connecting companies opportunities via the Enterprise Europe Network (EEN)
- Fact finding and networking missions
- Engagement in the EU's Horizon 2020 programme through the work of our National Contact Points (NCPs), the KTN and our Brussels Office
- UK Chairmanship of EUREKA framework
- Official Development Assistance (ODA)-funded innovation collaboration programmes (GCRF and Newton Fund)



# Knowledge Transfer Network (KTN)

Find markets.  
Find solutions.  
Find funding.

KTN is a network partner of Innovate UK. It helps businesses get the best out of creativity, ideas and the latest discoveries to strengthen the UK economy and improve people's lives.

KTN links new ideas and opportunities from all sectors with expertise, markets and finance through a network of businesses, universities, funders and investors.

Innovate UK  
Knowledge Transfer Network



KTN supported clean-tech company FeTu



Thank you

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