Agri-Tech

Sector Proposition

June 2023



Department for Business & Trade



Table of Contents

Introduction	<u>03</u>
Why the UK?	<u>0</u> 5
Opportunities in Agri-Tech	<u>08</u>
Supportive Business Environment	<u>3´</u>
Regional Strengths	35

For further information:

Elizabeth Warham

Agri-Tech Sector Lead

Department for Business and Trade – Nations, Agri, Food and Drink Directorate

elizabeth.warham@trade.gov.uk Tel: +44 07825 420 019

Gabriel Robinson

Deputy Agri-Tech Sector Lead, Trade gabriel.robinson@trade.gov.uk Tel: +44 (0) 7514 724479

Introduction



Why Agri-Tech?

Agri-Tech improves productivity and sustainability of

Agriculture (arable/livestock) Horticulture Aquaculture Forestry

Including:

On-site storage and processing of food and non-food products Care / welfare of pets and horses



Big Data/Artificial Intelligence Cultivators/Soil Measurement UAV/Robotics/Automation/Data Systems/ Sensors/Management Systems Precision Engineering/Tractors

Why the UK?



There is a range of agricultural expertise across the UK

The following map gives a breakdown of each region's area of expertise within the wider agriculture sector.



Source: UK Government, Agricultural facts: England regional profiles (March 2021)

5 Reasons to partner with UK Agri-Tech

World-Class Science

The agri-tech sector is rich in talent with a proven ability to develop new products and successfully bring them to market with commercial partners.

Progressive Farming

The UK's food manufacturing and retail sectors are driving the farm supply chain to introduce innovation, technology and practices to increase productivity, meet customer demand and improve the environment.

A Dynamic Business Environment

As one of the easiest places to do business compared to other major countries in Europe, the UK has a competitive tax and tariff environment encouraging R&D and innovation and stable reliable supply chains.

Research & Development Ecosystem

UK scientists and engineers have vast R&D expertise across the agri-tech sector, including aquaculture, plant science, animal health and precision agriculture.

A World-Class Support System

The UK offers the very best legal, financial and regulatory advice to agri-tech projects at home and abroad.

Opportunities in Agri-Tech



Opportunities in Agri-Tech

There is an increasing demand for new technology to help farmers and businesses decarbonise the UK's agriculture sector, and ensure that its food supply chain becomes more efficient, profitable and sustainable.

Opportunities exist across all the different subsectors, but especially in these subsectors:



Agri-Tech UK Portal

Find

- **Company** (Exporter)
- Agri-Tech Innovation Centre
- Centre of Research Excellence
- University / College
- **Research Facility** for commercial research
- Capability Brochures
- Trade Events
- Regional Agri-Tech Offer by Local Enterprise Partner & Devolved Administration
- High Potential Investment Opportunity



Home to world class genetics, science and technology











www.agritech-uk.org

Companion Pets

Commercial Horticulture

🚰 🔤 UK capability in

livestock and genetics.



Opportunities

Aquaculture



Aquaculture in the UK

>

The UK's domestic aquaculture industry is worth an estimated £1.4 billion

>

The country is the world's eighthlargest producer of finfish



The UK presents a strong opportunity for companies to exploit the £139 billion aquaculture market Aquaculture is the intensive farming of fish, shellfish, aquatic plants and algae in freshwater, coastal waters and onshore.

Growth opportunities exist in a sustainable UK aquaculture supply chain by developing and deploying a diverse range of technologies (sensors, automation, engineering) for life support, nutritional feed, health and welfare, farming and processing fish for sale.

The UK's aquaculture industry is expected to grow at a rate that exceeds that of the overall UK economy as a whole over the next ten years. On a global scale, the average annual increase in fish consumption (3.2%) exceeds population growth rate (1.6%). With global seafood consumption more than doubling over the last 50 years, efforts to meet this growing demand can put a strain on the sustainability of fishing.

While seafood purchases in Great Britain are estimated to be worth £6.61bn, aquaculture represents 17% of this supply, with a large proportion of aquaculture output being exported. An opportunity exists for investors to meet this demand through growth in sustainable aquaculture.

Source: Europa.eu, 'How much fish do we consume'; Seafish.org, 'UK seafood supply chain overview'; SeafoodSource, 'Technavio report: Global aquaculture market's growth accelerating through 2022'; https://thefishsite.com/; https://www.seafoodsource.com

Aquaculture in the UK

Seafish

<u>Seafish</u> is the public body supporting the seafood industry within the UK. Sponsored by Defra, they also work with the devolved administrations of Scotland, Northern Ireland and Wales, with offices in Grimsby and Edinburgh and regional managers based near the main seafood hubs of the UK.

Defra has allocated £100 million to Seafish's UK Seafood Fund, UK-wide funding to support UK fisheries and seafood industries, with a focus on three areas:

- Science and innovation
- Infrastructure
- Skills and training

For more information on Seafish's funding initiatives, please click here.

Source: <u>www.seafish.org</u>; Altech, '8 digital technologies disrupting aquaculture'

Innovative aquaculture technologies that present opportunities for investors include:

Technology	Aquaculture opportunity
3D Printing	Hybrid aquaponic systems
Robotics	Examine and repair aquaculture farms remotely, inspect long-line seaweed and bivalve shellfish lines, reduce labour costs
Drones	Monitor/inspect offshore aquaculture farms
Sensors	Monitor oxygen levels, water temperature, heart rate and metabolism, environmental monitoring of algal blooms and micro-jellyfish
Artificial Intelligence	Improve decision-making
AR / VR	Analyse mortalities, health status and environmental parameters, stock monitoring
Blockchain	Verify sustainability across the supply chain

High Potential Opportunity: Sustainable Aquaculture in Dorset

Aquaculture is a key strategic foodproduction sector in the UK. Dorset in the South of England is ideally placed to exploit this emerging market and is the perfect location to develop new aquaculture technologies.

Opportunities exist in Dorset for truly sustainable aquaculture systems that have:

- No significant disruption to the ecosystem, or loss of biodiversity or substantial pollution impacts.
- Economic Value Provide a viable business model with good long-term prospects.
- Social Contribution Contribute to community well-being and are socially responsible.

Dorset is home to cutting-edge marine and aquaculture programmes, perfectly placed to address vital industry issues surrounding sustainability, efficient production and strengthening supply chain. The Southern England Region has three of the UK's four marine research and development centres at the University of Southampton, the University of Portsmouth and the University of Plymouth. Dorset also offers the opportunity to work alongside the Centre for Environment, Fisheries and Aquaculture Science (Cefas), which have extensive experience in regulating aquaculture systems and deploying innovative, cutting-edge technologies along with cost-effective data sources.

It is also England's largest rural region with rich, diverse natural resources, and a strong and growing network of over 200 innovative agri-tech companies, working with industry-leading academics and R&D institutions. Combined, this makes Dorset an ideal location to develop and deploy sustainable aquaculture technologies.

> Do you want to find out more about this high potential opportunity in Dorset?

Click here.





Opportunities

Animal Health



Animal Health in the UK

currently worth £36 billion

The global animal health market is

By 2028, the global animal health industry will be worth £78 million

It is likely that there will be 5.3 billion livestock animals and 46 billion chickens worldwide by 2050 Animal health is the development of products or services relating to animal health and welfare; including those related to the prevention, detection, characterisation, management and treatment of animal diseases.

With a steady-growing population, there is a need for sustainable solutions to address the increasing demand for animal products.

The increasing demand for livestock production will potentially have a significant adverse impact on both food sustainability and climate change.

Additionally, environmental pressures may lead to the emergence of new diseases, transmissible between animals and humans. This presents an opportunity for firms to develop and deploy agri-tech solutions to alleviate these threats, allowing for surveillance, disease detection and treatments for endemic diseases in livestock and pets.

In recognition of the importance of animal health and welfare, the <u>Animal Health and</u> <u>Welfare Pathway</u> launched in 2022, will support the gradual and continual improvement in farm animal health and welfare. The Pathway is a partnership with the Government working together on each step with farmers, vets, the wider industry and the supply chain to provide financial incentives for the production of healthier animals.

The UK has the capacity to find vaccines to prevent endemic disease in livestock, including the new <u>Animal Vaccine Manufacturing and</u> <u>Innovation Centre</u> being built at Pirbright.

Opportunities within Animal Health



High Potential Opportunity: Innovation in Animal Health in Surrey and Hampshire

The Enterprise M3 region has a thriving animal health industry that is highly competitive, offering expertise in areas such as surveillance, diagnostics, data and biotechnology. This ecosystem has resulted in the formation of the <u>Animal Health</u> <u>Innovation Network</u>.

EM3 has a healthy £55 billion economy, with the second largest work force in the UK. This work force offers a long-standing expertise in life sciences, where 12% of the workforce are employed, with 1,800 highly-skilled individuals employed in animal health. Animal health businesses in the area include Boehringer Ingelheim, 272BIO and Zoetis.

The Surrey and Hampshire area offers a steady flow of skilled graduates - home to 5 leading universities, this region generates 10,500 industry-ready graduates annually, specialising in veterinary medicine, biology, engineering, digital innovation and business.

Enterprise M3 offers opportunity for collaboration with research centres, such as:

- <u>vHive</u> The Veterinary Health Innovation Engine (vHive) is a unique multi-disciplinary research and innovation initiative for new digital technologies in animal health.
- <u>The Pirbright Institute</u>, a centre of excellence in virus research and vaccine development.
- <u>Animal and Plant Health Agency</u> APHA is the UK government's primary capability for animal health, with a £1.4 billion investment at its Weybridge site to upgrade its diagnostic laboratory facilities.

Do you want to find out more about this high potential opportunity in Surrey and Hampshire?

Click <u>here</u>.



Animal Health R&D Innovation Landscape

Engine (vHive)



Opportunities

Plant Science



Plant science in the UK

The <u>Genetic Technology (Precision Breeding) Act</u> passed into law in March 2023 will unlock growth and innovation in new technologies, reinforcing food security in the face of climate change.

The Act will set in motion changes to allow farmers to grow crops which are drought and disease resistant, reduce use of fertilisers and pesticides.

Precision breeding involves using technologies such as gene editing to adapt the genetic code of organisms – creating beneficial traits in plants that through traditional, breeding would take decades to achieve.

These technologies will enable scientists to develop crops that are more nutritious and less reliant on pesticides and more resilient to climate change. The scientific study of plants, including their growth, structure, physiology, reproduction, ecology and pathology, as well as their economic use, fit for purpose and cultivation by humans.

The UK's plant science research strategy: a green roadmap for the next 10 years, sets out clear goals for research and innovation involving plants with six deliverables:

- landscapes that promote human health and wellbeing by sustainably balancing demands for agriculture, biodiversity, carbon sequestration, energy production and flood management;
- resilient agricultural systems to sustainably produce safe and nutritious food, accomplished by deployment of advanced plant breeding and crop management strategies;

- significant reductions in carbon emissions from the UK agricultural sector, through biological replacements for chemical inputs, better management of plant-soil interactions, use of perennial bioenergy crops and deployment of alternative farming systems;
- proactive mechanisms to monitor, contain and deter plant disease, accomplished with remote sensing, biological interventions and engineered durable plant immunity;
- completely new plant-based production systems for food and for the manufacture of novel products including vaccines, protein feedstocks and high-value chemicals.

Healthy plants, including crops and trees, are vital for our future and are central to our food supplies, environment, economy and social wellbeing.

Opportunities in Plant Science

Using energy harnessed from the sun, plants convert carbon dioxide in the atmosphere into the sugars and oxygen that sustain all life on Earth. Trees in woodlands and forests, crops across agricultural landscapes, and microscopic green algae in garden ponds all contribute to the world's biggest manufacturing process.

The silent machinery of photosynthesis produces food, fibre and fuel, and as part of the carbon cycle influences global weather patterns. In this way, plants underpin agricultural, ecological and climate systems. In order to live sustainably and protect our planet for future generations, we need to understand how plants function in the planet's wide range of environments.

Opportunities:

- Predictive simulation tools such as digital twins for farm and landscape management (where and when);
- High performing crop varieties for both traditional and novel farm systems;
- Algal platforms for bioengineered protein production (plant products).

Plant-Based Foods

Demand is growing in the UK and globally for plant-based foods that improve overall health or tackle specific health issues. This demand is driven by factors including a rise in diet-related illnesses such as obesity, diabetes and heart disease, rising numbers of vegan, vegetarian and flexitarian consumers, and growing mass market demand for healthier food products.

The UK is an ideal location for innovation in plant-based products, offering a strong market where these products are in hight demand – UK consumers purchase a third of all plant-based products sold in Europe, and major retailers such as ASDA and Tesco are making significant investments in meat-free, plant-based products.



The global functional food market is set to be worth £231 billion by 2025



76% of UK adults say health is a major motivation in their food choices



The UK's 'free-from' food market was worth £1 billion in 2021

Source: Statista, Size of the functional food market worldwide from 2019 to 2027 (currency changed to GBP on www.xe.com); National Food Strategy: The Plan, 2021; Quadram Institute, Personalised Nutrition; National Food Strategy: The Plan, 2021

High Potential Opportunity: Plant Science for Nutrition in Norfolk and Suffolk

Norfolk and Suffolk is at the forefront of pioneering, world-class plant science, nutrition and health research. They are responding to increased demand for food with a greater nutritional value, as well as conducting research into how foods interact with the human body.

93,000 people in Norfolk and Suffolk are employed within the region's thriving agrifood sector, supported by 8,800 businesses in the area.

At the centre of East Anglia's offer is the <u>Norwich Research Park</u>, the largest European single-site hub for research, education and enterprise focused on plant science, nutrition and health. This site houses four independent research institutes, 3,000 scientists and clinicians and 150 science and technology businesses. The centre has one of the highest concentrations of post-doctorates working on plant and food sciences in the world. The wider East of England region produces a steady stream of talent in life sciences, with 4,000 students undertaking courses in relevant subjects such as biotechnology, pharmacology, microbiology and nutrition.

The area boasts a number of research institutes specialising in plant and life sciences, including the <u>Quadram Institute</u>, leading innovation in gut health; the <u>John Innes Centre</u>, specialising in biofortification to enhance the nutritional value of foods; and the <u>University of East Anglia</u>, which has strong links with institutions and businesses based in Norwich Research Park, with specialisms in nutrition and health, as well as responses to climate change.

> Do you want to find out more about this high potential opportunity in Norfolk and Suffolk?

Click here.





Opportunities

Precision Agriculture



Precision agriculture in the UK

Precision agriculture is set to be worth £170 billion globally by 2050

The UK agri-tech sector is valued at £26 billion

Precision agriculture is the use of technologies to allow farmers and growers to make more informed decisions on cropped areas, animal husbandry and land management.

Precision agriculture will be instrumental in creating a more sustainable agri-sector in the future by ensuring profitability, sustainability and environmental protection.

Precision farming is the use of remote sensors to identify, measure or predict biological, physical and climatic parameters to collate information on what environments different crops thrive in.

Integrating sensory and imaging data with other data, empowers farmers to identify areas in need of treatment and determine the appropriate amount of water, fertilizers, and pesticides that need to be applied. This helps the farmer to avoid wasting resources and prevent evaporation, to ensure that the soil has the right balance of good health, costs are reduced and the farm's environmental impact is controlled by avoiding runoff of surplus application of pesticides and fertilizers in waterways.

In doing this, farmers can maximise the yield they gain from each crop, making their food production much more efficient, and reducing the risk of crop failure.

Precision agriculture is a practice that is becoming increasingly urgent following the rapid growth in the global population during recent decades. The number of people who will require food in 2050 is estimated at nine billion.

This presents an opportunity for suppliers of technological solutions such as drones, data capturing devices, on-farm automatic machinery and robotics to get involved in precision farming.

Opportunities in precision agriculture

Companies can contribute to technological advancements in precision agriculture with the development and deployment of:

Satellite positioning systems

Energy management systems

Remote sensing

Geomapping

Automated steering systems

Variable rate technologies

High Potential Opportunity: Precision Agriculture in Telford

Telford provides the perfect location to allow access to precision farming innovation, the area having strengths in agriculture, advanced engineering and technology development. Accounting for nearly 10% of England's farmland area, the West Midlands agriculture sector employs over 43,000 people, and is part of an end-to-end supply chain, with farmers supplying to 350 food and 120 beverage manufacturing firms in the region.

The West Midlands allows investors to tap into a highly-skilled labour force, with over 513,000 people employed in engineering, with one in four people being educated to degree standard. Locating in Telford means that investors are within close proximity to the <u>National Centre for Precision Farming</u> (NCPF), hosted by Harper Adams University. The NCPF researches and promotes innovations that allow farming to become more efficient and productive. In their ground-breaking research, they became the first centre in the world to plant, tend and harvest a crop solely through autonomous vehicles and drones.

The area is also home to the <u>Agricultural Engineering</u> <u>Precision Innovation Centre</u>, focused on the delivery of research and development on precision agriculture for the livestock, arable, horticulture and aquaculture sectors.

> Do you want to find out more about this high potential opportunity in Telford?

Click <u>here</u>.

Precision Agriculture R&D Innovation Landscape



Supportive Business Environment



Business support for UK agri-tech

A highly supportive business environment

The UK has one of the most competitive business environments in Europe, having ranked 8th out of 190 economies – the highest of any European economy, solidifying the country as Europe's top destination for attracting foreign direct investment.

The UK boasts great export capability, with the Department for Business and Trade refreshing its export strategy in late 2021, with ambitions to reach £1 trillion in exports annually before the mid-2030s outlined.

Corporation tax rate of 25% from April 2023 - lowest of the G7 nations

UK ambitions to reach £1 trillion in annual exports by the mid-2030s

Patent box regime

The <u>Patent Box regime</u> is a Corporation Tax relief which gives a reduced rate of tax (10%) on income deriving from the commercial exploitation of patents. Patents have a particularly strong link to on-going high-tech R&D and manufacturing activity which the Government sees as a priority to encourage in the UK.

R&D Tax Credits

R&D tax credits are the biggest single funding mechanism provided by Government for investment in business R&D. They work by reducing a company's tax bill by an amount equal to a percentage of the company's allowable R&D expenditure.

There are different types of R&D relief depending on the size of the company :

- Small and medium-sized enterprises (SME) R&D Relief
- Research and Development Expenditure Credit

UK Export Finance

<u>UK Export Finance</u> works to advance prosperity by ensuring no viable UK export fails for lack of finance or insurance, doing that sustainably and at no net cost to the taxpayer. They help UK companies to:

- win export contracts by providing attractive financing terms to their buyers
- fulfil contracts by supporting working capital loans
- get paid by insuring against buyer default

Industry Support: Association, Networks and Councils

The UK is home to a number of leading industry associations and networks that can provide support and guidance to investors in the agri-tech sector.

Organisation	Description
<u>AgriTech-UK</u>	The AgriTech-UK Directory features companies and products from across the UK. The user functionality on the directory has been developed to include a more complete experience for both producers and buyers alike. Key information is now featured on producer profiles including products, and services, searchable by sector, product and region.
<u>Agri-TechE</u>	Agri-TechE is a business-focused membership organisation, supporting the growth of a world-leading network of innovative farmers, producers, scientists, technologists and entrepreneurs who share a vision of increasing the productivity, profitability and sustainability of agriculture.
Agri-Tech Centres	The UK Agri-Tech Centres are a unique collaboration between Government, academia and industry to drive greater efficiency, resilience and wealth across the agri-food sector.
Innovation for Agriculture	Innovation for Agriculture connects farmers with farming research. They work with leading agricultural researchers, businesses, landowners, and farmers to develop the knowledge and technologies that will make modern farming more sustainable, resilient, and productive.
Agricultural Engineers Association	The AEA was established in 1875 to promote the technical, trade and commercial interests of British manufacturers and suppliers of agricultural machinery. They champion the cause of manufacturers of agricultural machinery and more recently outdoor power equipment.
<u>UK Urban Agritech</u>	The UK Urban AgriTech collective brings together the UK's key players in the world of Controlled Environment Agriculture (CEA). They are a cross-industry group comprising growers, researchers, equipment producers, architects, educators and enthusiastic individuals, all devoted to promoting CEA as a solution for food and environmental crises.
<u>CropLifeUK</u>	CropLife UK is the voice of the UK plant science industry, promoting the essential role of science and innovation in protecting food, parks, gardens, roads and railways, and advocating good stewardship, better regulation and best practice. Their members are involved in the development and manufacture of a wide range of crop solutions which are of crucial importance to the cultivation and protection of food crops, protecting our gardens, woodlands, infrastructure and public places. These include the formulation and manufacture of synthetic and biopesticides, seed and plant breeding, agricultural biotechnology and digital and precision agriculture.

Agricultural universities and colleges

The UK hosts many worldleading institutions offering courses in agriculture, forestry, rural enterprise, agricultural engineering, and many more.



Regional Strengths



There is extensive capability in agri-tech across all four of the UK's nations

The following slides will outline the agri-tech offers of 23 English LEPs, as well as the offers from the three devolved administrations of Scotland, Wales and Northern Ireland.



Cambridgeshire and Peterborough

Location overview

Cambridgeshire and Peterborough district is located within the East of England and is approximately 60 miles north of London. Eastern England is known as 'Britain's breadbasket', the country's main source of fresh and healthy foods and ripe with business and investment opportunities. The region grows almost a third of the UK's crops, including nearly half of all home-grown vegetables. It is also a major centre for food processing and has a historical record of innovative farming. The area is a powerhouse in agritech, science, R&D, food processing and has a track record of innovation. The area's outstanding expertise in agri-tech is supported by capabilities in enabling technologies such as machine learning and artificial intelligence, data analytics, robotics, and sensors.

Opportunity sub-sectors

Cambridgeshire and Peterborough boasts expertise in a wide range of agricultural sub-sectors:

- Machinery and technology
- Genetics
- Feed and nutrition
- Animal welfare
- Soil management
- Plant nutrition

Key assets and capabilities

- <u>The Cambridge Crop Science Centre</u> is a partnership between Cambridge University's Department of Plant Sciences and NIAB focusing on translational research in crops with real-world impact.
- <u>The EPSRC Centre for Doctoral Training for Agri-Food</u> <u>Robotics</u> is an advanced training centre in agri-food robotics aiming to create the worlds' largest cohort of Robotics and Autonomous Systems specialists in food and farming.
- <u>CERES</u> is an agri-tech translational partnership managed by the University of Cambridge and includes the Universities of East Anglia and Lincoln, NIAB, John Innes Centre, Rothamsted Research and UKRI. Its £4m translational investments from 2018-21 have already led to 12 Intellectual Property (IP) assets, 13 technology licences, 4 spinouts and 16 new research collaborations.
- <u>NIAB's Eastern Agri-tech Innovation Hub</u>, in Cambridgeshire, develops new products through recycling crop and food waste and improving resource use efficiency in the horticulture and fresh produce supply chains.

Investor case study – TeeJet

<u>Tee-Jet Technologies</u>, a US-based company, specialise in precision farming, helping farmers cover fields with maximum efficiency. Their GPS-based technologies offer a wide range of capabilities to fit exact requirements. They have opened a base in Wisbech in Cambridgeshire.



37

Contact details:

Cambridgeshire and Peterborough Combined Authority; Enquiry form

Cornwall and Isles of Scilly

Location overview

Cornwall and the Isles of Scilly are located in the southwest of the United Kingdom. 80% of the land mass of the region is farmed, and Cornwall's agri-food sector has a £1.5 billion turnover. 30% of the working is population employed in agri-food and food retail, compared to the UK average of 15%.

The region is becoming increasingly attractive to agritech businesses internationally, supported by a network of research and innovation partners, putting the region in a position to transform food production.

Opportunity sub-sectors

Cornwall and the Isles of Scilly boast expertise in a wide range of agricultural sub-sectors:

- Livestock production
- Horticulture
- Dairy farming
- Animal health
- Machinery and technology
- Nutrition and feed

Key assets and capabilities

- <u>Rothamsted Research's North Wyke Farm Platform</u> 'farm lab' is a large-scale research facility to study the complete flow of nutrients from soil to food, with the clear and distinct aim of making farming a more sustainable endeavour.
- <u>Rural Business School at Duchy College</u> is at the cutting edge of positive development in rural industry, combining education, training, business support and applied research for rural industries. The Rural Business School houses technical specialists in animal health and welfare, resource management, competitiveness, organic production systems and knowledge transfer.
- South West Centre of Excellence in Satellite <u>Applications</u> provides all of the resources needed to ensure precision farming applications are fit for purpose and market ready.



Cumbria

Location overview

Cumbria LEP is located in the north of England, just below the country's border with Scotland. Cumbria is a unique asset for the UK, where exceptional high-tech industry and innovation flourish in a renowned beautiful landscape. The region plays a crucial role in the UK's food supply with its significant land-based and farming activity, with 75% of the land area farmed for a variety of purposes. The sector employs 14,000 people – 5.8% of the local workforce – and contributes £163 million in Gross Value Added.

Cumbria has a growing, thriving agri-tech sector, supported by a network of research and innovation partners, putting Cumbria in a strong position to transform its food production capability. Agri-Tech related activities contribute an additional 2,500 jobs and 550 enterprises in Cumbria, in addition to farming activities.

Opportunity sub-sectors

Cumbria boasts expertise in a wide range of agricultural sub-sectors:

- Breeding livestock
- Feed and nutrition
- Tags and traceability
- Animal health
- Machinery and technology
- Water storage and management

Key assets and capabilities

- The Department for Digital, Culture, Media and Sport has selected Alston Moor in Cumbria to be a <u>5G Rural Integrated Testbed (5GRIT)</u>, in partnership with SMEs and universities building a 5G testbed which will develop and test innovative solutions for rural areas. Examples of activities undertaken include utilising drones and image recognition software to remotely manage livestock and check on livestock health, monitor the state of pasture and environmental conditions such as wall collapse, and address connectivity across farms to improve safety.
- Cumbria LEP has invested around £1 million in both <u>Carlisle College</u> and <u>Furness College</u> in order to develop their advanced manufacturing capabilities, creating an employer-led curriculum in engineering and manufacturing processes.

Investor case study - Nestle

Over the last 10 years <u>Nestle</u>, a Swiss multinational food and drink processing corporation, have invested over £70 million into their Dalston Carlisle site to develop new and innovative products and to fully upgrade the entire filling and packing hall. Employing over 300 people and producing a vast range of Nestle coffee products such as Nescafe Gold Frothy coffees and Nestle Azera Cappuccino.



Contact details: <u>Cumbria LEP, info@thecumbrialep.co.uk</u>

Derbyshire (D2N2)

Location overview

Derbyshire is located in the East Midlands of England, nestled between the major cities of Sheffield, Manchester, Nottingham and Birmingham. Derbyshire's rural landscape comprises hill farmland, livestock and arable farmland, as well as two-thirds of the world-famous Peak District National Park. Derby is the county's city, with other principal towns including Chesterfield, Matlock, Bakewell and Buxton. Over 6,000 people are employed on Derbyshire's farms, which generate over £250 million from the livestock, arable and horticulture industries.

Opportunity sub-sectors

Derbyshire boasts expertise in a wide range of agricultural sub-sectors:

- Fertilisers
- Breeding livestock
- Animal welfare
- Feed and nutrition
- Water storage and management
- Genetics

Key assets and capabilities

- <u>Derby College Group's Broomfield Hall campus</u> provides specialist courses on an extensive working estate in agriculture, arboriculture, animal care, conservation and countryside, equine and horticulture.
- <u>The Agricultural Business Centre</u>, located at Bakewell in the heart of Derbyshire, is one of the leading agricultural markets and agricultural business support centres in the UK.
- University of Nottingham Sutton Bonington Campus, located just south of Derbyshire, encompasses world-leading laboratories and specialist facilities for studying biosciences and veterinary medicine, allowing collaboration between industry, graduates and professionals.

Investor case study – Light Science Technologies

Light Science Technologies (LST) is an innovative agritech business headquartered in Hilton, Derbyshire specialising in delivering lighting, science and research-proven plant monitoring solutions that help farmers grow more through less. Since 2019, LST have partnered with world-leading university research teams, to create the perfect crop no matter what environment it is grown in – including vertical farming, containers, polytunnels and greenhouses.



D2N2 LEP, info@d2n2lep.org

Dorset

Location overview

Dorset is centrally placed on the south coast of England, comprising a mixed agricultural landscape within the temperate climate of South West. It is famous for its chalk streams, soft rolling hills and UNESCO World Heritage "Jurassic" coast. Dorchester is the county market town.

Dorset dairy farming is of national importance providing significant quantities of milk for London and the south east. Beef and sheep grazing maintain the landscape.

Dorset's Agri-Tech sector is worth £108 million, currently employing about 700 persons. It is an important contributor to the South West's Agri-Tech sector worth £1.03 billion, and is currently employing about 3,800 people with over 200 SMEs.

Opportunity sub-sectors

Dorset boasts expertise in a wide range of agricultural sub-sectors:

- Animal welfare
- Feed and nutrition
- Breeding
- Genetics
- Machinery and technology
- Fertilisers
- Fruit and vegetable production

Key assets and capabilities

- <u>Kingston Maurward College</u> near Dorchester hosts 2,000 students each year. 40 Apprenticeship courses are supported by the college with a particular emphasis on Agri-Tech and other associated land-based operations. The College also runs many other courses in veterinary nursing, agricultural science, veterinary science and animal behaviour and welfare.
- The <u>Rural Business Hub and University Centre</u> will enhance higher education opportunities for young people in rural Dorset and enable growth for rural businesses. The development will allow the delivery of both rural business support and growth potential alongside potential business incubation units focusing on agri-environment delivery.
- <u>The Royal Veterinary College</u>, <u>University of London</u> has its southern base at Kingston Maurward College.

Investor case study - Mowi/Dorset Cleaner Fish

<u>Dorset Cleanerfish Ltd</u> is a joint venture company between the largest salmon farming company in the world, Norwegian-headquartered <u>MOWI</u> and local company Native Marine Centre Ltd. The company was the first lumpfish producer in the UK and has been producing lumpfish since 2013. Today the company has production units in Portland Port and Castletown which employ 10 people and produce 1,000,000 fish/yr.



Dorset LEP, DorsetLEP@bournemouth.ac.uk

Enterprise M3 (Surrey and Hampshire)

Location overview

Enterprise M3, comprising the southern counties of Surrey and Hampshire, has a thriving animal health sector that is competitive, vibrant and viable; spanning surveillance, diagnostics, R&D, data and biotechnology. This rich ecosystem has catalysed the formation of the new Animal Health Innovation Network.

EM3 Animal Health cluster offers an opportunity to capitalise on a growing surveillance market driven by the rising incidence of zoonotic and foodborne diseases alongside improved animal welfare by providing innovative, data-driven solutions.

Opportunity sub-sectors

Surrey and Hampshire has capabilities in a wide range of agricultural sub-sectors:

- Breeding stock
- Animal health
- Virus monitoring
- Tags and traceabililty
- Laboratories and testing facilities

Key assets and capabilities

- <u>The Pirbright Institute</u> is a centre of excellence in virus research and vaccine development. It is establishing the UK as a world leader in the rapidly growing field of novel livestock vaccine development capability.
- <u>The University of Surrey's School of Veterinary</u> <u>Medicine</u>, including <u>Veterinary Biomechanics</u> <u>Laboratory</u> and <u>Veterinary Pathology Centre</u>
- The <u>Animal and Plant Health Agency (APHA)</u> offers laboratory testing and diagnostic services through its specialist high containment laboratories and animal facilities.
- The <u>Veterinary Health Innovation Engine (vHive)</u> comprises both academic and commercial experts who have the expertise necessary to carry out new, complex endeavours on behalf of their partners for academically verified output and bespoke business development.

Investor case study – Boehringer Ingelheim

Boehringer Ingelheim is the second largest animal health business in the world, with net sales of 4.1 billion euros in 2020, and a presence in more than 150 countries. Their animal health manufacturing site in Pirbright holds the industry's biggest portfolio of vaccines to help control infectious animal diseases, including rabies. They are also the leader in the development of antigen banks for many countries worldwide.



Gloucestershire

Location overview

Gloucestershire, located at a crossroads between Wales and London, the West Midlands and the South West, has the largest and fastest growing network of high-growth agri-tech SMEs in the UK.

The County also has one of the largest concentrations of agricultural education and training in the UK, including the Royal Agricultural University and Hartpury University & College, with over 600 academics supporting nearly 5000 students.

Start-ups and established companies can test and scale up their agri-tech propositions on demonstration and commercial farms and in business incubators, as well as the opportunity to join the National Digital Farming Network. There is a strong focus on bringing products to market.

Gloucestershire has particular expertise in digital technology, with the largest cyber cluster outside of London and home to GCHQ.

Opportunity sub-sectors

- New Product Development, Quality Management Systems, Global Regulatory
- Technology (Robotics, Sensors, Lighting, Irrigation)
- Food safety and farm hygiene
- Analytical testing and micro-biology
- Equine related services
- Cyber security services

Key assets and capabilities

- <u>The Royal Agricultural University</u> has been at the forefront of agricultural education since 1845 and is home to one of the UK's largest agri-tech incubators, Farm491, which supports innovative start-ups in the food and farming sector, both nationally and internationally.
- <u>Hartpury University and College</u> has created an industry leading digital farm, helping firms embrace innovation to scale up. This includes Tech Box Park, providing easy in, easy out flexible commercial space.
- <u>Countryside & Community Research Institute</u>, within the University of Gloucestershire; central research theme of innovation for sustainable agriculture and rural economies.
- <u>Campden BRI</u> is an international leader in food chain research and advisory services, covering analysis and testing for safety and product quality, operational support, knowledge management and research and innovation. Its 400 staff serve 3,000 member companies across 85 countries.

Investor case study – DronePrep

'The DronePep team have been working closely with the Hartpury Agri-Tech Centre to explore how farmers can use drones to create diversified income on farm estates. We're incredibly excited to join the Tech Box Park community to strengthen ties with Hartpury and the farming community' (*Gareth Whatmore, Co-founder & CEO of DronePrep*)



Greater Lincolnshire

Location overview

Greater Lincolnshire in the East Midlands is a large area adjacent to the North Sea with the UK's largest agri-food sector of any LEP area, with over 75,000 employees in agriculture, food processing and distribution. It is the national centre for vegetables and salads with 30% of UK output, has 20% of national ornamental crops and over 60% of fish processing with nearly 20% of the UK's poultry.

Opportunity sub-sectors

Greater Lincolnshire has a skilled labour force in a wide range of agricultural sub-sectors, including:

- Fruit and vegetable production
- Cereals, potatoes, oilseeds and pulses
- Poultry, feed and nutrition
- Soil and water management systems
- Seeds/plant varieties
- Harvesting, post-harvest technologies and earlystage processing
- Machine and automation technology

Key assets and capabilities

- <u>University of Lincoln</u> is a leading centre for food chain technology, including major programmes on automation, digitalisation, energy and new product development. Two specialist facilities at the University are national leaders in their field:
- <u>The National Centre for Food Manufacturing (NCFM)</u> sits at the heart of the UK vegetable, salad, fruit, potatoes and ornamental crop sector, working with industry to develop new production and storage solutions.
- Bishop Burton's Riseholme Campus is a new purpose-built campus which specialises in Further and Higher education in precision agriculture.
- The Lincoln Institute of Technology at the University of Lincoln specialises in increasing the recruitment of young people into the food chain and engineering.
- <u>The Lincoln Institute of Agri-Food Technology (LIAT)</u> is Europe's largest centre for robotics and digital technologies in agriculture, with over £60m of new projects launched in 5 years.

Investor case study – Saga Robotics

<u>Saga Robotics</u>, a Norwegian company, has been in Lincoln for 5 years and has completed a series of projects with the University to develop world leading robots. In 2020 it raised 9.5 million euros in a Series A funding round for their fleet of Thorvald agricultural robots, and has grown to 35 staff and customers both in the UK and internationally for its robots which are initially focused on automating the production and harvesting of fruit.



Contact details: Greater Lincolnshire LEP, greaterlincslep@lincolnshire.gov.uk

Heart of the South West

Location overview

The Heart of the South West (HotSW) covers Devon, Somerset, Plymouth and Torbay within South West England. The region has a huge variety of agricultural landscapes from fertile arable and dairy lowlands to the remote uplands of Dartmoor and Exmoor. The region is pre-eminent in the UK for its dairy and cider apple production, with over 25% of the UK's dairy cow population, and a highly diversified range of produce including cider brandy, cheeses and chillies, plus the UK's leading organic veg-box scheme.

Agri-Tech is a key theme in the LEP's Local Industrial Strategy linked to automation, digital and Artificial Intelligence and was worth £234 million in 2016. Regionally it is forecast to grow by over 25% by 2026, and forestry by 24%, by 2026. Agriculture, Agri-Tech and forestry together employ over 31,000 people in HotSW.

Opportunity sub-sectors

The Heart of the South West region has capability in a wide range of agricultural sub-sectors:

- Horticulture
- Animal Health
- Feed and nutrition
- Soil Science
- Aquaculture
- Water storage and management

Key assets and capabilities

- <u>Rothamsted Research Institute</u> uses cutting-edge laboratories and experimental farmland with over 500 staff to focus on future agri-food systems and farm productivity through post-graduate research.
- Bicton, Duchy and Bridgwater Colleges provide many courses including animal husbandry, modern veterinary nursing, cropping, horticulture and landbased engineering.
- <u>The University of Exeter</u> (a top 10 UK University) has environmental and bioscience specialisms.
- <u>Environmental Futures and Big Data Impact Lab</u> offers funded support for companies based in Devon to work collaboratively with scientists and technologists to develop new products, services or processes.

Investor case study - Breedr

<u>Breedr</u> is a productivity and marketing platform for the livestock industry, working with the Impact Lab and Rothamsted Research on a 'Field to Yield' trial to help farmers improve retail value. Breedr has developed a software system enabling overseas farmers to capture information about each individual animal, monitor growth and predict optimum cull dates based on processors' carcass quality specifications.



Hull and East Yorkshire

Location overview

The Hull and East Yorkshire (HEY) LEP consists of two local authority areas north of the Humber estuary – Kingston Upon Hull and the East Riding of Yorkshire. The region has an extremely diverse geographical make-up and includes rural, urban, coastal and market towns alongside heavy industrial developments and port infrastructure.

90% of the HEY LEP area is comprised of agricultural land. The region is at the centre of one of the UK's most important food producing areas in England with significant concentrations of agricultural, food manufacturing and agri-tech businesses.

Opportunity sub-sectors

Hull and East Yorkshire has expertise in a wide range of agricultural sub-sectors:

- Crop fertilisers and nutrition
- Seeds/plant varieties
- Ornamental plants and flowers
- Animal health
- Veterinary services
- Machinery and technology

Key assets and capabilities

- <u>The Centre for Precision Agriculture</u> at Bishop Burton College houses facilities and learning environments dedicated to the most forward-looking agricultural technologies and enables students to achieve highlevel technical qualifications, focusing on precision farming to transform food production and reduce emissions, pollution, waste and soil erosion.
- Food & Environment Research Agency (FERA), situated within the York Biotech Campus, offers stateof-the-art facilities to provide the tools to complete complex analysis activities across all agricultural business areas. They turn expertise and innovation into ways to support and develop a sustainable food chain, a healthy natural environment, and to protect the global community from biological and chemical risks.
- <u>National Centre for Food Manufacturing</u> is at the heart of the UK vegetable, salad, fruit, potatoes and ornamental crop sector, working with industry to develop new production and storage solutions.

Investor case study - Hughes Group

<u>Hughes Group</u> currently supplies 300 tonnes of mushrooms per week to the majority of the main UK retailers. In 2018, they opened a state-of-the-art 11acre site near Howden in East Yorkshire. The location was selected due to its existing agricultural heritage and close proximity to the major motorway networks. It features innovative automated harvesting techniques that are revolutionising the industry.



Hull and East Yorkshire LEP, info@heylep.com

Kent

Location overview

Kent is the centre of fresh food logistics for England. Over 75% of fresh food imported into the UK enters through Kent's ports at Dover and the Channel Tunnel. Every UK food retailer has major logistics bases in Kent within one hour of the ports to service London and the highly populated South East.

Kent's farms focus on growing fruit and salad. 80% of the fruit grown and consumed in the UK is grown in Kent, especially apples and strawberries. 70% of English Sparkling wine is grown and produced in Kent. With a thriving food and drink manufacturing sector, Kent is home to innovative consumer food brands.

Combining skills, research, access to market and renewable energy sources, Kent is a fast growing region for vertical farming investment.

Opportunity sub-sectors

The Kent boasts expertise in a wide range of food and agricultural sub-sectors:

- Protein alternatives
- Vertical farming
- Fruit and salad production
- Plant Breeding/Genetics
- Viticulture
- Food storage and logistics

Key assets and capabilities

- <u>NIAB EMR</u> is Europe's leading horticultural research and development centre working in the perennial and clonally-propagated crops sector. Their scientists are skilled in molecular genetics, genomics, pest and disease biology and management, crop and post-harvest physiology, agronomy and environmental science.
- <u>The Natural Resources Institute</u> at the University of Greenwich in Chatham undertakes research, teaching and training to address interrelated global food system challenges affecting everyone from local farmers and consumers, to the UK food industry, to smallholder communities in the developing world.
- <u>Growing Kent and Medway</u> is the UK's leading agricultural innovation programme. It is a collaboration between universities and colleges and locally based global food producers. It offers research grants, business support for relocation to the region and access to the latest innovations in areas such as protein alternatives and sustainable packaging.

Investor case study – Chapel Down Wine

Tenterden-based wine and beer producer <u>Chapel</u> <u>Down Wine</u> raised £4.35 million with an equity issue mainly through large investors and institutions. The proceeds enabled increased wine and beer production, as well as improving systems, winery equipment.



Contact details: Locate in Kent, enquiries@locateinkent.com

Lancashire

Location overview

Lancashire is in North-West England with a diverse mix of agriculture. The coastal plains of West Lancashire and the Fylde are fertile and contribute to 15% of the county's total land area being grade 1 or 2 for quality. West Lancashire has a high output of fresh produce including lettuce, carrots, parsnips, broccoli, leeks, celery, potatoes etc. Around 84% of the land area in Lancashire is grassland with dairy farming significant in the valleys and coastal areas that are not suited to crop production (due to rainfall and soil type). In the upland areas, farming is restricted to sheep and beef production.

Opportunity sub-sectors

Lancashire has capabilities in a wide range of agricultural sub-sectors, including:

- Soil management systems
- Fertilisers and nutrition
- Animal welfare
- Feed and nutrition
- Breeding stock and genetics
- Machinery and technology

Key assets and capabilities

- Myerscough College and University Centre Myerscough is a £30 million specialist land-based college based in Lancashire supporting agriculture in the region. It successfully completed a Lancashire Enterprise Partnership funded £5 million investment project in agri-tech in 2017 to help promote its use to agriculture students and the farming community.
- The Centre for Research in Sustainable Agriculture and Arboriculture and the Centre for Research in the Welfare of Managed Animals are both based at University Centre Myerscough. The University facilities include over 5 hectares of field trials, modern glasshouse facilities with automatic climate control, CO2 enrichment and LED lighting, and a range of modern analytic equipment including a met office weather station. Research to date has included: rhizobacteria to improve water use efficiency, fertiliser trials/treatments to improve nutrient recycling, soil tillage, sustainable crop science, urban forestry, animal welfare.
- <u>The Food</u>, Farming, <u>Innovation and Technology</u> (<u>FFIT</u>) centre provides facilities suitable for strategic research, industrial trials and product development, primarily for grassland and livestock production.



martine.winder@lancashirelep.co.uk

Leeds City Region

Location overview

Leeds City Region has a population of 2.3 million, and a further 4.5 million people within an hour's drive. Located centrally in the UK and at the heart of the Northern Powerhouse, the region contributes £57.9 billion GVA, to an economy larger than nine EU countries.

The region has a growing Agri-Tech sector, leading to a concentration of projects, start-ups and technology companies with several UK media articles highlighting the region's emerging cluster of plant-based food scale- ups.

Leeds City Region offers the full ecosystem for Agri-Tech investors, from field to fork, via its extensive agricultural land, world-leading research and development institutions, unrivalled tech landscape and access to major customers and end consumers, including two of the UK's top five supermarket retailers, Morrisons and ASDA which account for almost 25% of UK supermarket sales.

Opportunity sub-sectors

Leeds City Region has expertise in a wide range of agricultural sub-sectors:

- · Fertilisers and nutrition
- Pesticides
- Soil management systems
- Breeding/genetics
- Animal welfare
- Technology (robotics, sensors, irrigation)

Key assets and capabilities

- University of Leeds, Global Food and Environment Institute - interdisciplinary research community to address urgent problems in food security and sustainability and research into sustainable and more productive agricultural systems. Member of the N8 Research Partnership, a consortium in agri-food research across eight universities in the North of England.
- Leeds University Farm, a 317-hectare commercial 'Smart Farm' to develop Smart Agri Systems such as advanced monitoring and sensor technology, data capture, AI, robotic systems, and the Internet of Agri-Things. It also houses the <u>National Pig Centre</u> in partnership with CIEL, researching sustainability in the British pig industry and lowering the environmental footprint of pig farming whilst ensuring that high welfare standards are maintained.

Investor case study – Meatless Farm

<u>Meatless Farm</u> is a Danish alternative meat business. Since establishing its headquarters in Leeds, it has achieved 180% year on year growth in the UK, and undergone various fundraising rounds, including securing \$31 million to enable further expansion across the UK, Europe, the US and Asia, from a range of investors committed to sustainable investing, including locally headquartered Channel.



Leeds City Region LEP, invest@the-lep.com

49

Liverpool City Region

Location overview

The Liverpool City Region is an area in North West England which incorporates the local authority districts of Halton, Knowsley, Liverpool, Sefton, St Helens, and Wirral. The region excels in veterinary services. Within The University of Liverpool resides the first veterinary school in the United Kingdom to be incorporated into a university. The City Region's rural economy includes around 320 agriculture, forestry and fishing businesses and 1,250 associated jobs which produces £100m GVA per year. Although these figures do not indicate a high concentration of jobs, businesses or GVA, the City Region contains a notable amount of the best and most versatile agricultural land.

Opportunity sub-sectors

Liverpool City Region has extensive capability in a wide range of agricultural sub-sectors:

- Pesticides
- Animal welfare
- Feed and nutrition
- Animal health
- Technology (Robotics, Sensors, Irrigation)
- Fruit and vegetable production

Key assets and capabilities

- <u>The University of Liverpool</u> is unique amongst UK veterinary schools in owning two large working farms, located on the <u>Leahurst campus in Cheshire</u>. These offer a valuable teaching resource for veterinary students in all years of their undergraduate education, as well as for veterinary surgeons, farmers, and the general public.
- <u>The Liverpool School of Tropical Medicine</u> are home to <u>The Department of Vector Biology</u>, a world leader in studies of insecticide resistance with a particular focus on identifying the molecular mechanisms of insecticide resistance and developing diagnostic assays and tools to aid resistance management.
- <u>Myerscough College</u> has a site on the grounds of Croxteth Park offering courses in animal care, equine studies, landscaping, horticulture, foundation learning and arboriculture.

Investor case study - Cargill

<u>Cargill</u> has a number of operations in Liverpool, including a soybean crush and refinery, a rapeseed crush and refinery, an imported feed ingredient terminal, a cotton trading office, and a chocolate and compound production site. The crush products are developed for various implementations in animal feed. Cargill also owns and operates the imported feed ingredient terminal (S2) at Seaforth Dock.



Liverpool City Region LEP, info@liverpoollep.org

Norfolk and Suffolk (New Anglia)

Location overview

Norfolk and Suffolk are counties situated in the East of England. The region contributes £38 billion to the UK's economy and the main urban centres of Norwich and Ipswich are dynamic with a rich cultural heritage as is the region's agricultural history, which has seen much in the way of agri-innovation and now represents 11% of the UK's agricultural output.

In Norfolk and Suffolk, 102,360 people work across the agri-food sector, comprising 14.7% of the workforce, compared to a national average 12.6%.

Opportunity sub-sectors

New Anglia boasts expertise in a wide range of agricultural sub-sectors:

- Machinery and technology
- Animal health
- Feed and nutrition
- Fruit and vegetable production
- Soil management systems
- Fertilisers and nutrition
- Controlled environment agriculture

Key assets and capabilities

- <u>Norwich Research Park</u> is Europe's largest singlesite for plant science, food, and health. It comprises 3,000 researchers and clinicians and 150 businesses which collectively work to research, develop and commercialise new scientific products.
- There are game-changing capabilities for agri-food businesses on offer at <u>Adastral Park</u> through BT's global R&D headquarters and the Innovation Martlesham cluster. These range from 5G technologies and satellite applications to robotics and drones, demonstrating the breadth of opportunities for the sector.
- <u>Suffolk New College</u> and <u>Easton College</u> both offer a range of courses at post-16, apprenticeships, undergraduate degrees and professional development levels including land and wildlife management, crop technician, agribusiness management, animal science, ecology and conservation.

Investor case study - The Bom Group

Netherlands-owned <u>Bom Group</u> have built two of the largest greenhouses ever constructed in the UK. Between them, these state-of-the-art sites at the Crown Estate, Norfolk and Bury St Edmunds, Suffolk have the capacity to deliver 10 per cent of the UK's tomato crop using a hydroponic vertical growing system. This £120m project can deliver 20,000 tomatoes per day, 23 million peppers per year and creates nearly 500 jobs in peak season.



New Anglia LEP, info@newanglia.co.uk

North East

Location overview

The North East of England is located on the eastern seaboard, south of the Scottish border and is a mix of rural and urban areas including Northumberland, County Durham Tyne and Wear. The region has excellent connectivity with a superb road and rail network and access to global markets via an international airport and 4 deepsea ports.

It has a thriving agricultural livestock and arable sector and horticultural industries that sit alongside innovation and R&D in allied science and technology. The North East agricultural sector represents £303 million GVA and income from farming has increased 27% in recent years. The region has over 630,000 hectares of farmed area with opportunities for diversification and local farmers flexible in their approach to growing a wider range of crops.

Opportunity sub-sectors

The North East boasts expertise in a wide range of agricultural sub-sectors:

- Harvest and early-stage processing
- Breeding stock and genetics
- Soil management systems
- Feed and nutrition
- Woodland management
- Technology (robotics, sensors, irrigation)

Key assets and capabilities

- <u>National Innovation Centre for Rural Enterprise</u> -Unlocking the potential of Rural economies, the NICRE collaborates, researches and co-designs innovative solutions for the rural enterprise.
- Newcastle University is home to 2 research farms and is a member of Government Centres for Agricultural Innovation: <u>CIEL</u> and <u>CHAP</u>. It also leads the <u>Institute for Agri-Food Research and</u> <u>Innovation</u>, a joint venture between Newcastle University and Fera Science Ltd.
- The Durham Centre for Crop Improvement Technology (DCCIT) has a multidisciplinary research focus that integrates state-of-the-art knowhow in plant genetics, cell biology and biochemistry with expertise in chemistry, physics and mathematics. DCCIT engages with major agri-tech industry partners. The Centre has established a unique crop transformation and gene editing facility.

Investor case study - Vbites

<u>VBites</u> is a leading maker of meat-free, vegan meat substitutes and plant-based alternatives to fish and dairy. Originally creating a production and incubation facility in Northumberland it has recently secured investment to expand its production facility in Peterlee, County Durham and scale up to meet increased market demand.



North East LEP, michelle.duggan@inee.co.uk, guy.currey@inee.co.uk

Northern Ireland

Location overview

Northern Ireland is ideally situated between mainland Europe and the US. It has a population of 1.8 million and its capital city is Belfast. Northern Ireland has a strong agricultural and engineering heritage rooted in farming, having been at the forefront of agricultural innovation since local man Harry Ferguson was instrumental in the development of the modern tractor.

Today, Northern Ireland is recognised as a global leader in farming equipment manufacturing and Agri-Tech solutions that incorporate world leading food security and traceability expertise. Northern Ireland is a leading hub for software development with expertise in areas including cyber security, AI, and data analytics being utilised for Agri Tech solutions.

Opportunity sub-sectors

Northern Ireland boasts expertise in a wide range of agricultural sub-sectors:

- Soil management systems
- Breeding stocks/genetics
- Animal health and welfare
- Feed and nutrition
- Tags and traceability
- Machinery and technology

Key assets and capabilities

- <u>The College of Agriculture, Food and Rural</u> <u>Enterprise (CAFRE)</u> offers a range of undergraduate courses in agricultural technology, equine management, horticulture and food technology.
- <u>The Institute for Global Food Security at Queens</u> <u>University</u> is world renowned for addressing global challenges – environmental, food safety, animal health and nutritional – at each point of the food chain, from farm to fork.
- <u>The Agri-Food and Biosciences Institute (AFBI)</u> is a multi-disciplinary scientific facility which provides a range of world-class services to clients within the agri-food sector. AFBI performs specialist R&D, statutory, analytical and diagnostic testing, as well as consultancy work on a global scale. Facilities include highly equipped research farms, comprehensive animal health laboratories and a dedicated renewable energy centre.

Investor case study – Kingspan Group

Headquartered in the Republic of Ireland, <u>Kingspan</u> <u>Group</u> is a building materials company trading in over 70 countries worldwide. Northern Ireland is where they manufacture tanks like the TruckMaster, a high-quality portable fuel storage and dispensing system specifically designed for the safe transport of diesel fuel.



Invest Northern Ireland, Colin.Hassard@investni.com

Oxfordshire

Location overview

Oxfordshire is a landlocked county in the south east of England. Oxfordshire has 192,754 hectares of farmland, out of a total area of 260,500 hectares, equating to 74% being farmland. By farmed land, 56% is down to cereals, with the next biggest proportion being livestock grazing (roughly 30%).

Oxfordshire has important agri-tech assets and capability. The assets include the University of Oxford department of plant sciences which has spun out a number of agri-tech companies, and the Satellite Applications Catapult which is a leader in precision farming research. Precision farming using satellite position data, remote sensing devices and proximal data gathering technologies is also widely practiced in Oxfordshire. These systems can benefit from the use of robotics, drones and Al.

Opportunity sub-sectors

Oxfordshire boasts expertise in a wide range of agricultural sub-sectors:

- Pesticides
- Soil management systems
- Viticulture
- Breeding/genetics
- Animal welfare
- Technology (robotics, sensors)

Key assets and capabilities

- <u>The University of Oxford Department of Biology</u> is one of the leading UK university departments dedicated to research and teaching in plant biology, possessing world-class strengths across the breadth of modern plant science research.
- <u>The Abingdon & Witney College Livestock</u> <u>Technology Centre</u> is a £1.9 million facility at Common Leys Farm, funded through the Oxfordshire Local Enterprise Partnership (OxLEP). It is an innovative technology building for students developing the latest skills and knowledge and establishing a career in the agriculture industry.
- <u>The Satellite Applications Catapult</u> has worked with Cranfield University and the Agri-EPI Centre to exploit Earth observation (EO), weather and field data to support the precision management of grassland agriculture.
- <u>FAI Farms</u> is an agri-food research farm that has spun out of the University of Oxford and is now focusing on regenerative farming research.

Investor case study – Oxitec

<u>Oxitec</u> is an Oxfordshire-based, US-owned biotechnology company that develops genetically modified insects to assist in insect control. The genetically modified populations act as a "living insecticide". Destructive insects are controlled without the use of insecticides that may inflict unwanted side effects.



Oxfordshire LEP, info@oxfordshirelep.com

Scotland

Location overview

Scotland is committed to building a greener and fairer future for all, and has the perfect blend of talent, innovation, financial and renewable resources to help Agri-Tech businesses prosper.

With 80% of Scotland's land mass under agricultural production, Scotland's renowned food and drink sector is the lifeblood of the country's economy. Approximately 1 in 10 (or 360,000) of all Scottish jobs are dependent on agriculture, and 67,000 people are directly employed in agriculture.

Scotland is consistently named by EY as the most attractive location for FDI in the UK, outside London, demonstrating Scotland's ongoing appeal to global investors as an ideal location with huge market opportunities and a supportive business environment.

Opportunity sub-sectors

Scotland has a rich history of agricultural innovation, and boasts expertise in a wide range of agricultural sub-sectors:

- Machinery and technology
- Farming systems
- Animal welfare
- Breeding/genetics
- Animal health

Key assets and capabilities

- The <u>James Hutton Institute</u> produces highly trained specialists in crops, soils, land use and environmental research.
- <u>Scotland's Rural College (SRUC)</u> has 6 campuses offering qualifications in relevant subjects such as agricultural technology, animal sciences and engineering.
- <u>National Avian Research Centre</u> is the UK's Centre of Excellence to improve the productivity, health and welfare of poultry using data-driven innovation and other technologies.
- <u>SEFARI</u> the Scottish Environment, Food and Agriculture Research Institute is a leading centre for agri-environment research in the UK.

Investor case study – DSM

Dutch animal feed firm <u>DSM</u> announced a £100 million manufacturing deal to provide the first global manufacturing site for its new feed additive Bovaer at its dairy plant in Ayrshire. The revolutionary feed additive has the potential to reduce methane emissions from cattle, sheep and other ruminants by approximately 30%, playing a crucial role in agricultural emissions reductions.



Contact details: Scottish Enterprise; 0300 013 3385

South East

Location overview

South East LEP area is comprised of three coastal county areas to the east of London. Working on a Federated Area model SELEP brings together the county councils of Essex, Kent and East Sussex and the unitary authorities of Southend-on-Sea, Thurrock and Medway.

There are 6,400 registered farm businesses in Kent, which is 6.0% of the England total. The county of Essex is mostly given over to cereal and other arable farming, with a stronger concentration of grassland and livestock farming in East Sussex. Kent as the Garden of England has a stronger focus on fruit and vegetables, with a thriving food and drink manufacturing sector, within a more balanced mix of arable and livestock farming.

Opportunity sub-sectors

The South East boasts expertise in a wide range of agricultural sub-sectors:

- Fertilisers and nutrition
- Pesticides
- Animal welfare
- Fruit and vegetable production
- Breeding/genetics
- Viticulture

Key assets and capabilities

- <u>Writtle University College</u> in Chelmsford is a specialist agriculture and veterinary HE provider with courses in agriculture, horticulture and animal science.
- <u>NIAB EMR</u> is the UK's largest horticultural research and development undertaking working in the perennial and clonally-propagated crops sector.
 NIAB EMR scientists have skills in molecular genetics, genomics, pest and disease biology and management, crop and post-harvest physiology, agronomy and environmental science
- Essex University hosts the <u>Essex Plant Innovation</u> <u>Centre</u> (EPIC) which brings together research skills, expertise and technologies across Life Sciences, Computer Science and Electronic Engineering and Analytics and Data Science to address the grand challenges facing farmers, technologists and all those in the agricultural and horticultural sectors.

Investor case study - New Holland

Global agricultural machinery <u>New Holland Agriculture</u> has a presence in Basildon, manufacturing tractors at the CNH Tractor Plant. New Holland Agriculture are heavily involved in digitisation products and services for farming communities, including clean-tech initiatives – for example, they have developed <u>tractors that are</u> powered by methane and hydrogen fuel cells.



South East LEP, hello@southeastlep.com

South East Midlands

Location overview

The South East Midlands region is made up of the counties of Bedfordshire, Northamptonshire and Milton Keynes. This area has significant capabilities in agriculture from soil science to factory gate. Agricultural land covers 72% of this fast-growing, diverse and highly innovative economic area. Its food manufacturing businesses, specifically agri-tech, generally benefit both from its strong connections into the Midlands' food and beverage sectors and its location at the heart of the UK's science and technology region, the Oxford-Cambridge Arc.

Total income from farming in the area was estimated at \pounds 101 million in 2019 (2020 prices) with employment in the agriculture, forestry and fishing sectors at around 9,000 people.

Opportunity sub-sectors

The South East Midlands region has expertise in a wide range of agricultural sub-sectors:

- Controlled environment farming
- Soil management systems
- Harvest and early-stage processing
- Seed and plant breeding
- Technology (robotics, sensors, irrigation)
- On-farm and cold chain storage and transport
- Water storage and management

Key assets and capabilities

- <u>Cranfield University</u> Environment and Agrifood is a significant research area for Cranfield University. Home to a large team of soil health, post-harvest management and precision farming experts who are dedicated to developing solutions for the agricultural sector from farm to fork. Cranfield was awarded a Queen's Anniversary Prize for research and education in large-scale soil and environmental data for the sustainable use of natural resources in the UK and worldwide.
- <u>Moulton College's Food and Drink Innovation Centre</u>, developed in conjunction with the region's businesses. It provides state-of-the-art facilities for students on further education in food production courses, food science and technology, food operations.
- <u>Crop Technology Southern Innovation Hub</u>, based at Cranfield University, offers state-of-the-art agri-tech research, development and commercial crop trialling facilities. Developing novel technology to optimise crop growth and health, new cultivation techniques, combat environmental stress, pests, disease and improve harvesting and storage.

Investor case study - In Farm

In Farm, Europe's largest Vertical Farm operator, have sited their UK operation in Bedford. The location benefits from proximity to consumers (London & Midlands) and Retailers' RDCs. The area's farming and processing capability were attractions. The flexibility of the site allows capacity to be developed as markets and product ranges expand.



South East Midlands LEP, info@semlep.com

South Yorkshire

Location overview

South Yorkshire is a county in north-central England. It consists of four boroughs – the City of Sheffield, and Barnsley, Doncaster and Rotherham.

There is specialist research at both the University of Sheffield and Sheffield Hallam University on innovative approaches to sustainable food and improving rice yields, working with Indian partners as described below.

Opportunity sub-sectors

South Yorkshire has capability in a wide range of agricultural sub-sectors:

- Fertilisers and nutrition
- Breeding/Genetics
- Animal welfare
- Feed and nutrition
- Husbandry
- Water storage and management



Stoke-on-Trent and Staffordshire

Location overview

Staffordshire is a diverse county, centrally located in the heart of the Midlands with good road, rail and air links to the rest of the UK. The county is 80% rural but has a number of urban areas including Stafford, Cannock, Rugeley, Lichfield, Tamworth, Burton, Uttoxeter and Leek.

There are 3,132 agricultural holdings in Staffordshire, covering 191,328 hectares. Just under 10,000 people are employed in the county's agricultural sector but it is estimated that over 51,000 people work in the agri-food economy as a whole, contributing over £1.1 billion to the county's Gross Value Added. The most predominant agricultural sub-sectors are dairy, cereals, beef, soft fruit and pigs, with poultry and potatoes also significant.

Opportunity sub-sectors

Staffordshire's workforce has expertise in a wide range of agricultural sub-sectors:

- Fruit and vegetable production
- Animal health and welfare
- Feed and nutrition
- Woodland management
- Machinery and technology

Key assets and capabilities

- Keele University in Staffordshire has partnered with Harper Adams University in Shropshire to establish the joint <u>Harper and Keele Veterinary School</u>, which welcomed its first intake of students in 2020. The veterinary school builds on the research specialisms in agriculture and animal sciences at Harper Adams University, complemented by Keele University's world-renowned expertise in the fields of life sciences and medicine.
- South Staffordshire College specialises in landbased training at its <u>Rodbaston campus</u>, offering courses covering agriculture, horticulture, animal care and veterinary care.
- Following a £5.4m investment, South Staffordshire opened its <u>AgriSTEM Academy</u> in 2017. The facility addresses the fundamental economic and food security issues facing the farming community and provides market-leading and innovative training opportunities for the agri-tech and advanced manufacturing and engineering industries.

Investor case study - Lely

Lely, a Dutch agricultural machinery manufacturer, produces innovative robotic milking machines and other dairy equipment, such as automated feeding, scrapers and cow hygiene products. They employ over 1,600 staff globally, and have annual sales of over £520m. Stafford is home to the Lely Midlands Centre, providing sales and aftercare/service support to Lely customers across a wide area of central England.



Contact details:

Stoke-on-Trent and Staffordshire LEP, contactus@stokestaffslep.org.uk

Thames Valley and Berkshire

Location overview

Berkshire is a county in the South East of England. Thames Valley Berkshire hosts some big players in the agri-tech space such as Syngenta, alongside numerous academic institutions like the University of Reading and Imperial College Silwood Park campus which help to form a strong skills base for agri-tech research. The industry accounted for circa £1 billion of Thames Valley Berkshire's GVA as per the latest 2019 figure. In 2021 there were 540 agricultural, forestry and fishing enterprises operating within the area.

Opportunity sub-sectors

Thames Valley and Berkshire boasts expertise in a wide range of agricultural sub-sectors:

- Fertilisers and plant nutrition
- Fruit and vegetable production
- Animal health and welfare
- Breeding/genetics
- Tags and traceability
- Machinery and technology

Key assets and capabilities

- The <u>University of Reading</u> has world-class expertise and facilities in agri-tech. This includes innovation in protected and vertical farming systems, precision agriculture, the use of remote sensing and on-farm sensors to manage and predict crop/livestock development as well as to assess and control key growth factors (such as disease), and methods for improving soil health.
- <u>Imperial College Silwood Park campus</u> is a leading international centre for research and teaching in ecology, evolution, and conservation. It was first famous as a centre for applied entomology before developing a worldwide reputation as a centre for excellence in pure and applied ecology.
- <u>Berkshire College of Agriculture</u> (BCA) offers landbased training through their extensive training programmes covering forestry, arboriculture, landscaping, estate management and turf management.

Investor case study – Syngenta

Headquartered in Basel, Switzerland, <u>Syngenta</u> specialises in agricultural science and technology. They aim to improve the sustainability, quality and safety of agriculture. Their site at Jealott's Hill in Berkshire is key in Syngenta's global R&D network. Employing over 800 people, key activities include research into the discovery of new active ingredients, new formulation technologies, product safety and seeds research.



The Marches

Location overview

The Marches LEP covers three local authority areas, Telford and Wrekin, Herefordshire and Shropshire. The region has a proud heritage in farming and agriculture remains an important sector with 20,634 farm workers and 460,000 hectares of farmed land, making up 77.2% of total land.

The ground breaking 'Hands Free Hectare' project run by Harper Adams University is the first in the world to plant, tend and harvest a crop with only autonomous vehicles and drones, without operators in the driving seats or agronomists on the ground. This project has now expanded to become a 35ha Hands Free Farm.

Opportunity sub-sectors

The Marches boasts expertise in a wide range of agricultural sub-sectors:

- Sustainable agricultural solutions
- Precision engineering
- Safer and happier food and nutrition
- Data science
- Smart livestock farming
- Genetics

Key assets and capabilities

- <u>Harper Adams University</u> offers undergraduate courses including agriculture with farm business management, mechanisation, crop management and animal science. The university is also a leading centre of research excellence and specialises in agricultural technologies, innovation in agricultural engineering, ground-breaking agri-research and food development.
- <u>North Shropshire College</u> offers apprenticeships and courses in agriculture, environmental science and land-based studies.
- <u>The Herefordshire and Ludlow College</u> works in partnership with such bodies as the National College, the National Farmers Union and the Anaerobic Digestion Trust in Ludlow, to position itself as a centre of innovation and facilitator of professional development activities for the agricultural industry.

Investor case study - Nofence

Norwegian firm Nofence opened its first UK base at the Agri-EPI Centre located on the Harper Adams University campus, in 2021.

Its product has the potential to revolutionise farming by driving greater efficiency and reducing environmental impact. The technology plays audio sounds to control animals' movements, resulting in a multitude of benefits – from improved soil health to lower maintenance costs.



The Marches LEP, enquiries@marcheslep.org.uk

Wales

Location overview

Wales is a country that forms part of the United Kingdom. The population is three million and the land area is twenty thousand km2. Wales has its own government making policies and laws to tackle the challenges that Wales faces and improve the lives of the population. Wales has a strong agricultural heritage with a national average of 4.07% employment within the agri-sectors, greater than the national average of 1.42%, providing a knowledgeable and committed workforce.

The majority of farmland in Wales is used for livestock farming due to its climate and landscape. The dairy and red meat sectors are the two biggest agricultural sectors. In 2020/21 it is estimated that Welsh farmers supplied 2.0 billion litres of milk and 115k tonnes of red meat.

Opportunity sub-sectors

Wales has expertise in a wide range of agricultural sub-sectors:

- Fertilisers and plant nutrition
- Soil management systems
- Pesticides
- Animal health and welfare
- Technology (robotics, sensors, irrigation)
- Water storage and management

Key assets and capabilities

- <u>The Institute of Biological, Environmental and Rural</u> <u>Sciences (IBERS)</u> at Aberystwyth University - their <u>National Plant Phenomics Centre</u> contains one of the most advanced controlled greenhouse environments in the world. IBERS is also home to the <u>Seed Bio-Bank</u>, a fully documented plant genetic resource, integral to both the UK and the European Plant Genetic Resource Groups.
- <u>The Advanced Manufacturing Research Centre</u> <u>Cymru</u> is a cutting-edge R&D facility with the aim to reduce R&D investment risk in innovation to drive step-change improvements in productivity, quality and sustainability in order to accelerate the adoption of technologies.
- <u>Horticulture Wales</u> is a training programme aiming to shorten supply chains, reduce waste and promote collaborative working.

Investor case study – S&A Produce

Springfield Nursery South Wales (part of <u>S&A</u> <u>Produce</u>) has integrated high-power LED lighting into their glasshouse system to extend the production season of strawberries. This higher technology approach has led to near year-round production, higher yields, accelerated growth, and increased sugar levels.



Welsh Government, Fuling.li@gov.wales

West of England

Location overview

The West of England covers Bath, North and North East Somerset, Bristol and South Gloucestershire with over 35,000 hectares of farmable land and a yearly economy worth over £33 billion. The West of England Agricultural sector contributed £845 million to local GVA.

The region is home to two internationally-renowned agricultural institutions: the Royal Agricultural University and Hartpury University. It's also home to the Rural Enterprise Centre and the Food Security and Land Research Alliance.

With over 4,800 higher education students and more than 600 sector-specific academics working on agricultural studies in the region, the West of England is a place where innovation meets business.

Opportunity sub-sectors

The West of England region boasts expertise in a wide range of agricultural sub-sectors:

- Animal health and welfare
- Breeding/genetics
- Feed and nutrition
- Water storage, management and irrigation
- Fertilisers and plant nutrition
- Soil management systems
- Autonomous Robotics
- Controlled Environmental Agriculture

Key assets and capabilities

- <u>Centre for Innovation Excellence in Livestock</u> (University of Bristol) - research into livestock welfare and behaviour in both basic and applied fields.
- Bristol Centre for Agriculture Innovation (University of Bristol) support agricultural science through research, innovation, application, and promotion.
- <u>Centre for Autonomous Robotics (University of Bath)</u> develop automation, drones and autonomous systems for use in precision farming technologies
- <u>Cabot Institute for the Environment (Bristol</u> <u>University</u>) - a diverse community of 600 experts, conducting research into protecting the environment and sustainability.
- BrisSynBio University of Bristol is a multidisciplinary research centre that focuses on the biomolecular design and engineering aspects of synthetic biology.
- <u>Food WorksSW</u> food and drink innovation centre provides facilities and support at a central hub that brings together expertise ranging from biotechnology to food engineering, design, striving to excel in food research, production, manufacturing and resource efficiency.



West of England LEP, info@westofengland-ca.gov.uk

Worcestershire

Location overview

Worcestershire is a county in the West Midlands of England and is one of the most important agricultural and horticultural centres in the UK. Representing 7.1% of all businesses in the county, Worcestershire's Agri sector forms a larger share of the business population than the national average (5.4%). This sector has a diverse and important presence across the county from the Vale of Evesham to the Malvern Hills and North from Worcestershire, where 'farm to shelf' is possible nationally within 24 hours.

Opportunity sub-sectors

Worcestershire has expertise in the following agricultural sub-sectors:

- Fertiliser and plant nutrition
- Pesticides
- Animal Welfare
- Breeding/Genetics
- Feed
- On-farm and cold chain storage

Key assets and capabilities

- <u>Pershore College</u> is a national centre for horticulture situated on a 60-hectare site near Evesham, which offers the very best in land-based learning and has specialisms in the following areas: animal care and management, countryside management and gamekeeping, forestry and arboriculture, horticulture, landscaping, sports turf and land-based engineering.
- <u>The Agri-Tech Research Centre</u> at Pershore College combines state-of-the-art equipment, laboratories, teaching facilities and a brand new STEM Centre. This combination of facilities with industry expertise enables an expanded provision of courses, as well as engagement with young people from schools and colleges across the county and provides support for businesses in the Agri-Tech sector.
- The University of Worcester is home to the <u>National</u> <u>Pollen and Aerobiology Unit</u> which has been producing pollen forecasts since 1995.



Worcestershire LEP, enquiries@wlep.co.uk

York and North Yorkshire

Location overview

York and North Yorkshire sit centrally in the UK, within North-East England. In large areas of North Yorkshire, agriculture is the primary source of employment; with 85% of the county considered to be rural.

A key opportunity in the region is Controlled Environment Agriculture, which aims to create the optimum crop growth conditions, allowing year-round cropping of a wide range of high value, fresh produce closer to the point of consumption. Such techniques for vertical farming include aquaponics, aeroponics and hydroponics. Other opportunities also lie in rearing insects as a source of protein, potentially reducing the environmental impact of other proteins in animal feed and in the bioeconomy.

Opportunity sub-sectors

York and North Yorkshire has capability in a wide range of agricultural sub-sectors:

- Fertilisers and plant nutrition
- Soil management systems
- Breeding/genetics
- Fruit and vegetable production
- Animal welfare
- Machinery and technology

Key assets and capabilities

- <u>Crop Health and Protection (CHAP</u>) brings together leading scientists, farmers, advisors, innovators and businesses to understand industry challenges, drive research and innovation and develop and trial solutions that transform crop systems
- <u>Centre for Novel Agricultural Production</u>, University of York aims to realise the potential of plant, microbial and algal-based renewable resources through gene discovery. From developing sustainable food crops and biofuels to advancing plants for land decontamination, they maximise the value of plants without compromising food security.
- <u>Askham Bryan College</u> is one of the leading agriculture colleges in the UK and is the largest provider of specialist land-based further education in England.
- <u>Bishop Burton College and University Centre</u> is one of the UK's leading agriculture educational institutions. They specialise in Agriculture, Animal Management, Equine and Sport.

Investor case study - Agrisound

<u>Agrisound</u> aim to create the world's largest database on insect biodiversity that can support strategies to enhance or reduce insect levels, map the impact of agrochemicals and support national governments with data-led policymaking. M&S have confirmed a threeyear collaboration with the firm, designed to help farmers better manage pollinators and increase crop yields.



Contact details: York and North Yorkshire LEP, sarah.thomas@ynylep.com



Department for Business and Trade

The UK's Department for Business and Trade (DBT) has overall responsibility for promoting UK trade across the world and attracting foreign investment to our economy. We are a specialised government body with responsibility for negotiating international trade policy, supporting business, as well as delivering an outward-looking trade diplomacy strategy.

Disclaimer

This information has been prepared by the Department for Business and Trade (DBT), and suppliers of DBT, for general informational purposes only. This information is not intended to amount to advice on which you should rely. Although DBT and its suppliers makes reasonable efforts to ensure the accuracy of any information provided, neither DBT nor any of its suppliers makes any representations, warranties or guarantees, whether express or implied, that any information supplied is accurate, complete or up-to-date. Accordingly, you must obtain professional or specialist advice before taking, or refraining from, any action on the basis of this information. Neither DBT nor any of its suppliers accepts any responsibility for updating this information in light of subsequent events or for any other reason. This information does not constitute a recommendation or endorsement by DBT or any of its suppliers.

To the fullest extent permitted by law, neither DBT nor any of its suppliers accepts or assumes any responsibility or liability to any reader of this information for any loss or damage, whether in contract, tort (including negligence), breach of statutory duty, or otherwise, even if foreseeable, arising under or in connection with the use of or reliance on this information including, but not limited to, loss of profits, sales, business, or revenue, business interruption, loss of business opportunity, goodwill or reputation, or any indirect or consequential loss or damage. Should any such reader choose to rely on this information, then they do so at their own risk.

DBT is the owner, or the licensee, of all intellectual property rights in this information and DBT reserves all rights in this information.

great.gov.uk



Published June 2023