

Place-based investment in food and farming innovation: What works?

A report from Digital Dairy Chain and Growing Kent & Medway.



What is a place-based approach?

Place is rich in meaning and what it means to one person can differ significantly to another. At its simplest, place is a physical setting with a social context. Using place as an anchor for investing in innovation is effective because individuals, businesses, communities and leadership can identify with the concept – a place to live, a place to work, a place to do business, a place to grow.

Place-based investment in innovation capitalises on a place's unique characteristics to deliver positive impacts across economic and social dimensions. In food and farming, this includes improved productivity, reduced environmental impact, better food security, skilled job opportunities and increased resilience in rural communities.

This approach builds on existing capabilities and relationships, drawing on the knowledge and resources within businesses, research organisations, local government and communities. It requires collaborative working to break down organisational silos and bring different interests together around a shared ambition.

Growing Kent & Medway and Digital Dairy Chain are place-based investments that support innovation in farming and food. We are funded by the UKRI's *Strength in Places* programme which aims to address regional disparities in productivity and economic growth.

Our initiatives have identified five elements for successful place-based investment in food and farming innovation. They are:

1. A focus on regionally important challenges and opportunities in a particular sector
2. A flexible delivery model
3. Responsive funding
4. Deep and trusted innovation brokerage
5. Complementary and additional to existing initiatives

“A place to live, a place to work, a place to do business, a place to grow”



Developing a talent pipeline with SmartSTEMs. Over 19,000 pupils engaged, and 792 organisations involved across 115 event days including farm visits, career fairs, work-ready days, STEM workshops and agricultural shows.

Serious Gaming: An initiative between Growing Kent & Medway, Locate in Kent and Canterbury Christ Church University saw first-year BA Game Design Students design video game concepts to inspire young people to consider a career in horticulture.



“Think Dairy Careers”: Bridging the skills gap and addressing recruitment challenges in the dairy industry through showcasing dairy careers, partnership building to link industry and regional/national skills initiatives, facilitating new apprenticeship schemes.

The UK’s first centre of excellence in glasshouse growing launched in 2024. Devised to inspire and train the next generation of salad and vegetable crop growers. Growing Kent & Medway is a strategic partner in the Thanet Earth Centre of Excellence @ Hadlow College.



Focused on regionally significant challenges and opportunities in a particular sector

1.

Government policies emphasise the importance of research and innovation to increase productivity and prosperity. The UK's competitive advantage is driven by innovative regions and place-based cluster building.

Growing Kent & Medway and Digital Dairy Chain are unlocking growth opportunities by focusing on locally significant challenges and opportunities in the food and farming sectors. This strengthens regional economic growth.

Recognising the uniqueness of our regional business landscapes is important. We have shaped our support for businesses that are traditionally “under-served” such as farmers and poorly connected rural enterprises across Cumbria and Scotland, and the micro-business economy that characterises the Kent and Medway food sector.

Themes focus on regionally important environmental challenges such as water resource management and the development of circular economies. We facilitate the exploitation of regional opportunities, such as developing novel uses for grass in dairying, and supporting the development of new products for import substitution in fresh produce. Growing Kent & Medway has leveraged Kent's position as an international gateway, facilitating trade missions and international innovation funding agreements.

This focus on the regional needs of a sector has enabled us to develop joined-up approaches to key challenges in food and farming innovation, particularly around skills of the future. We have facilitated new apprenticeships in the dairy and horticultural supply chains; a new centre of excellence for glasshouse growing; and regionally focused digital skills platforms with leading stakeholders such as The Institute for Agriculture and Horticulture.

“Unlocking growth opportunities”

Cumbria and South and West Scotland

An estimated 1.95% of UK-produced milk is unusable because of primary production challenges, transfer losses, and rejections by processors. This adds burden to an already efficient supply chain which operates on tight financial margins from cow to consumer.

It is the responsibility of the whole supply chain to manage and reduce these losses to ensure efficiency across the board. Digital Dairy Chain has invested in 12 projects that address these issues.

A new collaborative R&D opportunity has been identified to extract casein from waste milk. Through a novel biorefining process, the aim is to create a fibrous material for the horticulture sector that will serve as a possible low-cost alternative to traditional peat and specific fertilisers.



Kent and Medway

Hops, quintessentially Kentish but now an industry which has largely moved offshore. The decline in UK production has been attributed to reduced demand from brewers, change in beer tastes, cheaper overseas production and difficulty with pests and diseases in the UK. Growing Kent & Medway investment is helping to change this.

Investment in facilities, staff, and pump-priming, industry-led research is now beginning to deliver results both scientifically and with follow-on funding. Researchers at the University of Kent are isolating hop genes to develop climate and pest-resilient varieties for use by the £10bn UK brewing industry. Collaboration with brewers and consumers is also helping to develop new varieties more suited to modern palates.

A pivot into R&D around new cancer-preventative agents from hop extracts may also open further opportunities for this interesting crop.



Understanding, responding to, and leveraging the technologies and imperatives that drive innovation are key to effective investment. Technology drivers in food and farming include Digital and Artificial Intelligence; and policy developments include net zero, the UK's exit from the European Union, and environmental protection.

The UKRI Strength in Places (SIPF) funding model has given the Digital Dairy Chain and Growing Kent & Medway the flexibility to develop a variety of initiatives that respond to and leverage these changing technologies and policy priorities.

Each project supports business innovation and growth according to regional and sectoral needs under a single umbrella. We have created rich ecosystems of support meaning a range of businesses (type, scale and commercial maturity) are helped to build resilience in the food and farming sectors.

The flexible SIPF funding model allows us to deliver a range of interventions including grant funding, innovation brokerage, business accelerators, Maker Spaces, state-of-the art research facilities and mentoring provision. We adapt these as needs change and as we identify what works best for our sectors and regions.

As a result, Growing Kent & Medway and Digital Dairy Chain provide wrap-around support with multiple entry points, helping businesses that haven't accessed innovation support before to engage in a range of programmes. Our flexibility has helped facilitate ongoing innovation journeys for many of our beneficiary businesses.

“Wrap-around support with multiple entry points”

Fermenti is a gut health snack startup making probiotic fermented fruit macarons. They started their innovation journey with Growing Kent & Medway in 2022 when they joined our Food Accelerator programme. They have recently won a UK Catapult grant to collaborate with Camden BRI and have secured a listing with the health food retailers, Whole Foods and Planet Organic.

fermenti

Accelerator

Technical and business support, networking.

Business Innovation Voucher

Grants for technical research to improve their production processes.

Mentoring

One-to-one support with founder of local food manufacturer, Nim's Naturally.

Investment Ready

Pitching to UK retailers
Winner of Innovation Award at Nourish Awards 2022
Launch two new products and takes on new employee
Winner of World Food Innovation Award 2023.

Business Sustainability Challenge

Collaborative grant with mentor Nimisha Raja, owner of Nim's Naturally, to develop a fermented snack using ingredients from food manufacturing waste.



"Supporting sustainable innovation in the horticultural and plant-based food and drink sector"

Kent and Medway is home to some of the most exciting and innovative food and drink businesses in the UK and internationally. From growers of fresh fruit and vegetables to food processors and makers, through to engineers and robotics specialists automating our supply chains. We bring together industry, scientists, technologies and entrepreneurs to stimulate innovation.

Our partners



APS Group, Geku Automation, Gusbourne, RH Group, Smurfit Kappa, Thanet Earth, The Kent and Medway Economic Partnership, Worldwide Fruit.

- Providing grants for sustainable innovation and R&D
- Investing in cutting-edge facilities and expertise to support research and innovation
- Offering free support to help launch, scale up, and grow local businesses
- Building a community to connect, promote, network and grow regional businesses



35

new food and drink
products and processes
brought to
market with our support

Unique businesses
supported with
12 hours or more of support,
or more than £1,000 of
funding, across all our
programmes

224



£8.6M

invested in 4 new state-of-the-
art research infrastructure
hubs with specialist technical
support and skills



Visit us: growingkentandmedway.com



About Digital Dairy Chain



“Transforming the dairy supply chain through innovation, collaboration & growth”

We offer any business or individual involved in the dairy supply chain across Cumbria, South and West Scotland a range of services to support innovation, improve productivity and stimulate job creation.

Our partners



- Utilising advanced technology and research to add value and digitally connect the sector in the region
- Providing the infrastructure and expertise to enable collaborative R&D projects
- Providing support for new ventures and growing businesses to undertake new product development and process improvement
- Showcasing the industry and create opportunities for new talent to discover the range of roles within modern dairying



1790

volunteering days
delivered through STEM
engagement

74

collaborations with 4
research organisations



£10.4m



additional R&D funding
leveraged by the
partners



Visit us: digitaldairychain.co.uk



There has long been a consensus across the UK political spectrum to increase investment in R&D as a mechanism for improving national wealth. R&D drives breakthroughs, and innovation develops new ideas, technologies, products and processes. At a regional level, this helps to create new jobs, support business growth and deliver competitive advantage.

Growing Kent & Medway and Digital Dairy Chain facilitate industry-focused, collaborative R&D and innovation by providing grant funding. The funding schemes are responsive and designed to encourage businesses to undertake and invest in R&D.

We deliver a range of grant schemes that are designed to support different types of businesses and different scales of R&D and innovation. Some have generated significant co-investment, and some have been oversubscribed, attracting businesses who have never accessed innovation funding before. Outputs include new food and drink products, new IP and innovative technologies including IoT sensor systems and novel fresh fruit packaging.

Key characteristics of our responsive place-based grants are:

Locally driven. Co-designed to address challenges and opportunities specific to regional industries.

Joined-up. Cohesive package of funding schemes that are accessible and suited to the characteristics of our regional economies.

Collaborative. Fostering local B2B collaborations and strengthening links between industry and regional research organisations. Strong networks are key to effective knowledge exchange and cluster building.

Reactive. Funding schemes are adapted based on previous experience as to what works well and what doesn't work so well. Reflecting changes in regional, sector and policy priorities.

“Facilitating industry-focused collaborative R&D”

Established by the Scudamore family 40 years ago, Galebreaker remains a family-owned business based in rural Herefordshire with significant business activity in South and West Scotland and Cumbria. They are specialists in ventilation, weather protection and performance improvement for agriculture.



In collaboration with SRUC and other partners, Galebreaker has won funding from Digital Dairy Chain, independently managed and awarded by Innovate UK.



CEVEC shed

Collaborative R&D, Round 1

Cost Effective Ventilated Environment for Calves (CEVEC)

The CEVEC project (£270k grant funding) will design and deliver a low-cost purpose-built calf rearing building, with real-time monitoring, and automated environmental control to ensure high health, welfare, and productivity of calves, whilst reducing labour costs associated with calf management.

Collaborative R&D, Round 2

Analysis of Scottish Housed Environments for Dairy (A-SHED)

The A-SHED project (£249k grant funding) will develop two key tools: a real-time app that assesses heat stress risk for dairy herds using live temperature-humidity data, and a digital tool to improve or modify farm buildings for better heat resilience.

Both projects are collaborative, with SRUC and other industry partners - J.Stewart Vance and Son (High Skeog Farm) and Cambridge Animal Technologies. Development of these collaborations were facilitated by the DDC Innovation Brokerage team.



Calves inside CEVEC

“ Without the DDC funding, Galebreaker would not have embarked on such a project of this scale and ambition because of the finance-related and market-failure risk. Their funding as well as in-region knowledge and contacts have been instrumental in de-risking our drive for innovation in the sector.

Andrew Gardner, Technical Director, Galebreaker

Deep and trusted innovation brokerage

4.

In 2024, there were almost 5.5 million small businesses making up over 99% of all businesses in the UK. They account for 47% of employment and 36% of turnover. They are a cornerstone of regional economies.

Many of the food and farming enterprises that Digital Dairy Chain and Growing Kent & Medway support are small and micro-businesses; often hidden from official statistics, poorly connected, and hard to reach.

A critical component to our success is deep and trusted innovation brokerage. This is delivered across our regions by co-ordinated teams that understand their region well. Because of this coverage, Innovation Brokers are readily accessible providing face-to-face and online support, acting as critical gateways into the programmes we offer.

In both projects the Innovation Brokers are embedded in different research organisations (RO) across the region. All ROs have 'skin in the game' which encourages a culture of trust and collaboration. Siloes have been broken down meaning that support can be better matched to a business's needs. With our brokers deeply embedded in the region they are trusted and can feedback effectively, ensuring our programmes are responsive to changing demands.

Our brokers have a breadth and depth of backgrounds with technical and sector-based expertise. They can 'speak your language' which helps with effective engagement and accessibility.

Together this leads to a cohesive support package with effective diagnostics and signposting. Trust has been built across businesses and research communities facilitating connections and collaborations.



“Support is well matched to a business’s needs”



Canterbury Brewers & Distillers are a family-owned business with a bar, restaurant, brewery and distillery. Growing Kent & Medway Innovation Brokers have helped Jodie and Jon Mills to secure a Business Sustainability Challenge grant and access mentoring support.

The project

Test the production of speciality mushrooms, using the waste grain, water, CO₂, and energy generated by whiskey production.



The support

“ —

“They provided the resources needed to invest in key areas such as infrastructure, research, marketing, expansion, training, and partnerships. This acceleration has enabled us to further develop our sustainable initiatives and enhance our overall business operations”

Jon Mills, Owner, Canterbury Brewers and Distillers

The outcomes

- New food product (Blue Oyster and Black Pearl mushrooms)
- New income stream using waste materials
- Growing 160kg mushrooms each week. Selling in restaurant and seeking other markets
- Jodie Mills - Winner of ‘Growth Award’ at Kent Women in Business 2024



Complementary and additional to existing initiatives

5.

A place-based approach to investment in food and farming innovation requires joint working that recognises the unique blend of characteristics that exist in every place. Collaborative buy-in is critical to identifying key challenges and opportunities and maximising positive impacts. It's not about reinventing the wheel but more about building on existing capabilities and relationships to benefit businesses and communities.

Growing Kent & Medway and Digital Dairy Chain build on regional strengths including the business economy, business support landscape, research capabilities and human capital. Although these elements were already present in our areas, they were being under-exploited.

Our programmes act as a “glue” bringing together diverse initiatives from across our regions. This has delivered greater cross-sector and cross-partner collaboration. It has strengthened and broadened the existing business landscape by encouraging ‘deep’ B2B interactions.

By drawing together traditional ‘siloes’ we have been able to elaborate areas of complementarity. This catalyses a culture of collaboration and has enabled anchor institutions to offer a more complete package of expertise and support. By building critical mass and exploiting shared specialisms, such as digitalised manufacturing and alternative proteins, we have attracted external funding from programmes like the Bezos Earth Fund.

We serve as a focal point for discussion and push forward new initiatives at a regional level. This has been particularly important with our skills of the future work. As a regional focus for food and farming innovation we also shine a light on our regions’ strengths and capabilities nationally and internationally.

“Greater cross-sector and cross-partner collaboration”

Appleby Creamery is an award-winning artisan cheesemaker in Cumbria's Eden Valley.

Like many creameries of its scale, it can be challenging to understand where manufacturing efficiencies can be gained without compromising product quality and output.



The project



Working with Digital Dairy Chain partner, CENSIS (innovation specialists in advanced digital technologies), through the Milk Round Accelerator programme, Appleby has installed a network of battery-powered, IoT-enabled sensors to their equipment.

The sensors measure temperature, humidity, energy usage and hot water. Data is sent to a web platform for the Appleby operational team to interrogate. This information can be used to drive operational change and make investment decisions.



Maurice Walton, Owner of Appleby Creamery showing new sensor equipment

The impacts

Benefits of retrofitting IoT-enabled sensors are:

- Saves time on manual tasks such as checks, logging and compliance reporting
- Identifies where operational improvements would be most impactful
- Delivers economic benefits in time and resources
- Flexible system – sensors can be relocated with ease
- Enables incremental improvements in manufacturing processes

Strength in Places Fund

Growing Kent & Medway and Digital Dairy Chain are both funded through UK Research and Innovation (UKRI) via the Strength in Places Fund (SIPF). The SIPF programme aims to help areas of the UK build on existing strengths in research and innovation to deliver benefits for their local economy.

The SIPF aims to:

- support innovation-led regional growth
- enhance local collaborations involving research and innovation.

All SIPF-funded projects are collaborative, being led by consortiums that include research organisations and private sector businesses. Consortiums also have strong engagement with local leadership partners. The projects focus on a self-defined economic geography anywhere in the UK.

SIPF is funded from the Strategic Programmes budget (formerly the National Productivity Investment Fund).

Across two waves of highly competitive bidding there were two stages of funding:

- £2 million seed corn funding for 40 projects
- £314 million allocated to 12 full-stage projects.

Growing Kent & Medway is funded from wave one and is led by Niab with grant funding of £18 million. The project started in October 2020 and ends in September 2025.

Digital Dairy Chain is funded from wave two and is led by SRUC with grant funding of £21 million. The project started in February 2022 and ends in January 2027.

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