



# **Digital Dairy Value Chain for South West Scotland & Cumbria**

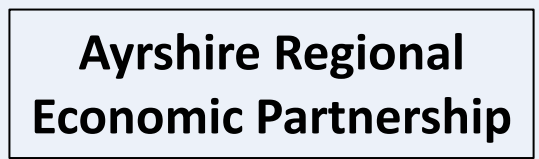
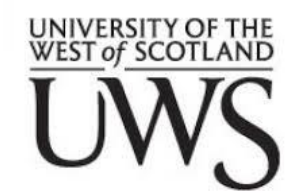
**UKRI “Strength in Places” project**

# Strength in Places Fund

A UKRI pathfinder programme that **boosts research and innovation capacity** in specific areas of the UK, in order to **drive economic growth** in those areas.

It funds **consortia** of research organisations, businesses and local leadership with the aim of:

- Supporting innovation-led relative economic growth, **closing the gap** between the rate of growth in the area and nationally.
- Enhancing **local collaborations** involving research and innovation.



# Our Geography



# Regional opportunity

- Dairy production is a significant economic activity in the region (c. 1.9 billion litres per annum ~£600M) with notable scope to grow milk processing activity.
- “Enabling technologies” (e.g. sensors, digitalisation, robotics, 5G, blockchain) can drive efficiency and growth and deliver wider benefits (e.g. carbon savings).
- Regional research strengths in dairy research and in digital, AI, 5G, engineering and advanced manufacturing technology.
- The region’s research & innovation landscape has some good building blocks in place, but more could be done to better exploit them in this sector.
- The region also has unique socio-economic challenges.....

# Regional inequalities

Source: UK Prosperity Index 2016, Legatum Institute

63%

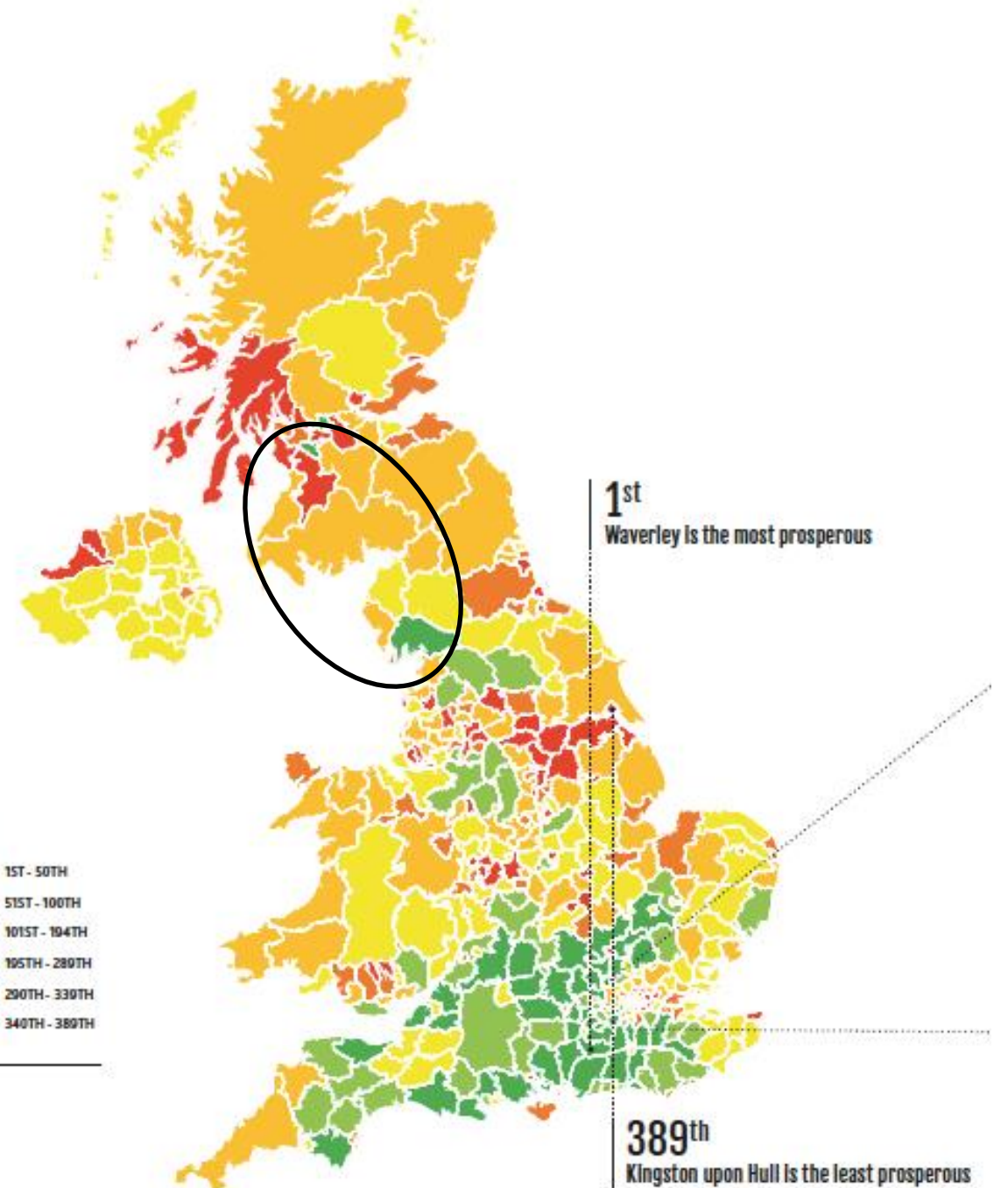
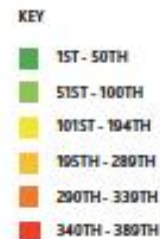
Negative prosperity gap

44%

Bottom quartile for overall PI rank

63%

Bottom quartile for business environment index



# Regional challenges

- Rural and remote with under-developed physical and digital connectivity.
- Thin innovation ecosystem which is geographically skewed.
- Limited knowledge-exchange between researchers and industry.
- Limited access for businesses to appropriate R&I facilities.
- Low population density, declining working-age population and out-migration.
- Lack of skills and high-quality employment opportunities.
- Risks around Brexit but now also COVID-19 recovery.

# Addressing the challenges

Enhance business growth ecosystem

Strengthen R&D collaboration

Facilitate and attract inward investment



Develop skills pipeline

Improve R&D infrastructure



# Addressing the challenges

## Centre for Supply Chain Digitalisation

- Develop the use of Digital Twinning (farm, logistics and milk processing) for process optimisation
- Digital demonstrator projects: connecting the milk processing supply chain – including a “Smart Factory” demonstrator for advanced manufacturing

## Enhanced R&D capacity for milk processing and data analytics

- Building on capital investments and other dairy expertise and resources at SRUC Barony campus
- Recruiting expertise for added-value milk processing research
- Recruiting data scientists

# Addressing the challenges



## Product Development - dairy-based “Maker Spaces”

- Pilot and scaling-up facilities based in Kilmarnock and Appleby
- Working with regional producers to develop and scale-up high-value production
- Linking to lab-scale capacity at Barony campus

## Encouraging research-led innovation

- Innovation brokers based in each of the academic partners linking to all relevant businesses in the region
- A £3 million locally administered grant fund, which industry can co-invest in

# Addressing the challenges

## Mentoring on digital technologies

- Enabling Technology Accelerator Programme

## Workforce for the Future

- Skills Forum and development of training at all levels
- Schools programme promoting career opportunities from STEM subjects, drawing on the expertise of all partners