Digital Dairy Value Chain for South West Scotland & Cumbria

UKRI “Strength in Places” project
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

LOCAL ECONOMIC GROWTH
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