2.3 HERDSMAN

5/8

CURRENT TRL
& TARGET TRL

ANIMAL WELFARE

IMPROVED

PRODUCTION EFFICIENCY

INCREASED

ENGAGEMENT

GROWTH OF YOUNG FARMER ENGAGEMENT

This Use Case aims to implement, validate and showcase the use of real-time data primarily derived from a neck mounted collar together with other relevant data to create information of value to the dairy supply chain from 'grass to glass'. The impact will be more efficient use of resources and production of quality foods, combined with an enhanced animal health, welfare and environment implementation. The focus is on welfare and reproduction of cows through early warning systems and quality data that can be used for remote calibration and validation of sensors.

The platform has the potential to bring impact throughout the value chain. Integrated measurements of activity, feeding and rumination combined with other e.g. milk analysis gives a clear welfare indication. Information can be disseminated through the most appropriate channels to stakeholders providing services from on-farm to consumers; farming » processing » logistics » consumers. The information can also be used to optimise on-farm operations and provides consumers with provenance data on the products being purchased.

HOW IT WORKS

- Multiple log-in capability so that members of the supply chain can remotely access to the information e.g. vets, fertility and health service,
- Visualisation of the key conditions of individual animals,
- Data accumulation either at an on-farm PC or the Cloud,
- Sensor fusion to enhance outputs,
- Low power wireless connectivity.

Clockwise from top left:
Milking robot providing production, quality and health indicators, feed monitoring, collar sensors for monitoring behavior and health, view main barn at test site PARK

COUNTRY

PARTNERS

University of Strathclyde Glasgow

THE IMPACT

OUR OBJECTIVES

The integration and analysis of data from a number of measurement sources such as neck mounted accelerometer sensors, milk constituent sensors and feed to monitor animals and the production environment in order to generate actionable information and feedback that optimises welfare/production.

ON ECONOMY

- Increased production efficiency (herd fertility),
- Improved animal welfare, early intervention on illness (automated intervention),
- Increased adoption of IoT in dairy,
- Growth of young farmer engagement.

OTHER IMPACT

- Environmental benefits through reduced production losses,
- Reduced greenhouse gas output per unit of product,
- Reduced use of veterinary intervention/medication.

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