LOCATION

Ireland

PARTNERS

4.3

Proactive Milk Quality Control

CHALLENGE

Traditional farming involved management systems based on direct observation of animals and intuitive decision making by the farmer. Larger animal numbers and reduced available time of the farmer have necessitated changes, potentially resulting in less available time to observe and detect welfare and health issues of individual animals. At the same time, societal expectations are increasing in terms of animal well-being and animal health. Thus, it is necessary to develop alternative mechanisms to predict welfare and health issues.

AIM

This pilot aims to integrate animal behaviour and physiological data into a welfare and health scoring framework with progression to a reference system to increase animal wellbeing standards on dairy cow farms.

HOW

The use of different indicators and technological sensors will enable a large number of measured variables to be recorded, the integration of which information will allow very strong robust prediction models to be established. Biochemical tests will also be conducted to confirm health status. Thus the IoT will be used in establishing a farming system that will (a) predict when an animal is not "functioning" properly; (b) establish a target that e.g. 95% of cows had no significant issue throughout their lactation; and (c) satisfy claims of the wellbeing of animals.

BENEFIT

The development of such a system using precision technologies will provide real benefits in profitability and an improved system by providing informed, real-time solutions to the farmer. Such solutions will be delivered in ways that are comprehensible to the farmer. The pilot will result in improved dairy cow health and well-being through an early warning system, meaning early intervention during health/welfare challenges. Documentation, enabled by data capture, analysis and record keeping developed in the pilot will allow transparency in animal health and welfare status and management on-farm. It will also help achieve national objectives around continuous quality assurance and better welfare standards for cattle.