

Make Innovation HAPPEN

**MIH Knowledge Article:
Cloud-based technology: the farmers friend**

Scotland
A LAND OF
food and drink

SCOTLAND
IT'S TIME TO INSPIRE

The logo consists of the word 'CAN' in white letters on a dark teal vertical bar, and the word 'DO' in white letters on a yellow vertical bar, positioned to the right of the 'CAN' bar.

Having easy access to data, through cloud technology, is helping improve day-to-day farming methods. And it's giving farmers crucial insight and increased control over their farms, their land and their animals.

There are two kinds of clouds. The white fluffy kind and the technological kind. The wizardry of the tech kind is helping farmers monitor land, crops and animals in real-time, allowing them to make quick decisions that can save money and improve yields.

Could cloud-based platforms help Scottish farmers stay up-to-date?

Grainsense: the grain monitoring device

To the market comes Grainsense, farming tech innovation out of Finland. This hand-held, grain-quality measuring device means farmers can instantly measure the levels of protein, moisture, oil and carbohydrates in grain, in a matter of seconds.

In doing so, they can make quick decisions about when to harvest the grain, which market the grain can be sold to, and which grain will yield a better price. Currently, to test grain, farmers have to send it away to a laboratory. Grainsense puts the 'laboratory in the hands of every farmer', allowing them to manage their farm by data.

Grainsense is currently sold in Finland, Sweden and the Baltic states. And the company is planning to expand across the European market and then globally. The device can also analyse rice, soy and peas, which could open up new markets for the product in Asia.

Flyer Eye drone technology

This is a Bulgarian cloud-based platform for aerial surveillance. Farmers can use drones to inspect large areas of land. In a single flight, 2,500 hectares can be observed, data collected and real-time reports created.

Flyer Eye gives farmers an easy way to oversee their crops, as well as offering instant security updates on agricultural land.

The inventors of Flyer Eye, claim the drones are easy to use, and with one click, the device is airborne and ready to collect data for better decision-making.

Smart collars for cows

Smart tech neck-collars for cows can improve animal husbandry significantly. These instant monitoring devices use cloud technology to feedback information on livestock.

This information helps improve reproduction, disease detection, stress management and optimises feed for each individual cow.

Two companies are currently producing this wearable tech: Pakistan's Cowlar and Israel's SCR Dairy.

Growth opportunities

Due to the world's growing population, it's estimated that in the next 30 years, we'll need to produce around 70% more food. Using the right technology, such as cloud services, could shape global food production in the future, making it an innovation that the Scottish farming industry should consider.

If you want to understand more about cloud technology in Scotland, get in touch. We can provide you with market intelligence reports and innovation support around people, processes and products. We can help you explore ideas, and develop them all the way through to market.

Innovation support for Scottish food and drink companies

Make Innovation Happen is a single source of innovation support for businesses involved in the Scottish food and drink supply chain.

Scotland Food & Drink, Scottish Enterprise and Highlands & Islands Enterprise work in partnership across academia, the public sector and the industry to deliver a comprehensive innovation support service.

Make Innovation Happen can help your business by providing:

- [Access to 'connectors'](#), who can offer support, advice and mentoring, as well as direction to appropriate support
- Ideas and insights on how to innovate through articles and events
- Funding through the [Collaborative Innovation Fund](#)
- Help to access other innovation services provided by Scottish Government, [Scottish Enterprise](#), Highlands & Islands Enterprise, Interface and others

To find out more about the support available, please get in touch with the Make Innovation Happen team:

www.makeinnovationhappen.scot
enquiries@makeinnovationhappen.scot
0300 013 3385

Scotland
A LAND OF
food and drink