



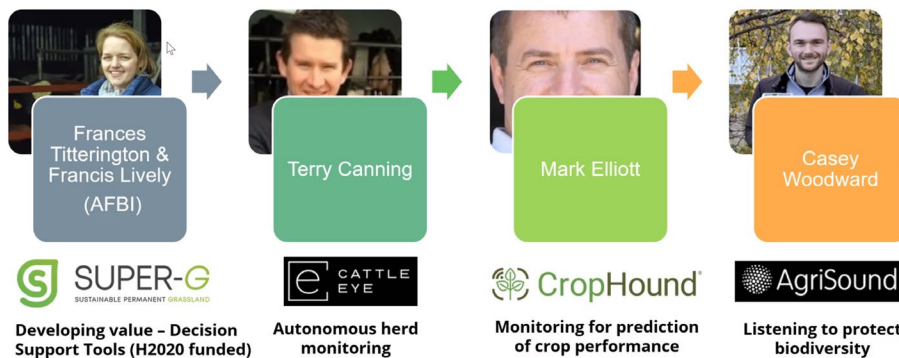
**AFBI Euragri Webinar #3**  
**on**  
**Growing Value from Data Entrepreneurship on Rural**  
**Northern Irish Farms.**

Northern Ireland's Agri-Food and Biosciences Institute (AFBI) director, Prof Elizabeth Magowan, opened the webinar. She noted that this was the third in the Euragri webinar series on rural entrepreneurship to deliver sustainable farming and food systems. The previous two were hosted by SRUC (<https://www.euragri.org/workshops/sruc-webinar/>) and Teagasc (<https://www.euragri.org/workshops/teagasc-webinar/>). A recording of this AFBI Webinar, "Growing Value from Data Entrepreneurship on Rural Northern Irish Farms," is available (<https://www.youtube.com/watch?v=OE1aEA011Kk>).

Prof Elizabeth Magowan opened the webinar by emphasising the role of entrepreneurs in terms of their innovative ideas, taking risks, and natural ability to organise and manage resources effectively. Their critical importance lies in bringing new approaches that contribute to sustainable farming systems, creating jobs and new services that add economic value while reducing environmental impact and increasing societal growth. Four entrepreneurs made presentations and provided inspiring stories.

Elaine Groom, AFBI, who hosted the webinar, said the objective was to inspire people to embark on their entrepreneurial journey, particularly during the early days. She also noted that Northern Ireland has data at the core of its vision for economic growth. The webinar will highlight how four individuals from agricultural backgrounds have combined agricultural data with their expertise in data management to create and grow businesses.

## Speakers



**Frances Titterington** described the recently completed EU Horizon 2020-funded project Super G project.

## SUPER-G project

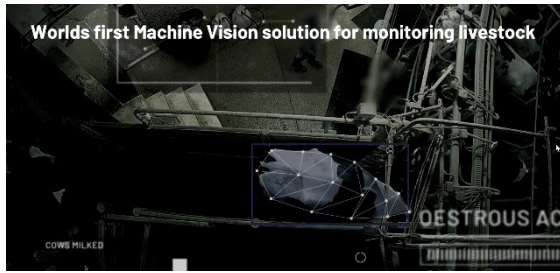


- Aimed to develop sustainable grassland systems
- Identify management options that are practical, cost effective and deliver a range of ecosystem services
- Multi-actor platform involving stakeholders from six biogeographic regions
- Decision support tools
  - Policy level
  - Farm level



The project identified the massive range of potential data sources that could be used to drive the grassland decision support tool (DST). They used an extensive feedback loop with the scientific advisers and end-users to ensure that the output was robust and met the farmer's needs around permanent grasslands, providing six ecosystem services -Food, Wool and Biomass; Water Quality; Biodiversity & Pollination; Climate regulation; Flood Erosion and control; Landscape Aesthetics & Recreation. The user interface has minimal input requirements and easy-to-read indicative outputs. It was not without challenges, including GDPR and providing a secure portal for users. The DST will be launched in June 2024.

**Terry Canning, Co-founder of CattleEye** (<https://cattleeye.com/>), has a farming background and has used his ten years of experience in the cloud industry to develop IT solutions to assist farmers in delivering sustainable systems. In the case of CattleEye,



Terry wanted to create an autonomous system to measure dairy cows' locomotion and body condition scores. He and his colleague Adam Askew explored machine vision technology used in human cancer detection to do this. They developed their

prototype, used it to seek fresh capital and had their system validated by the University of Liverpool. The results from CattleEye enabled farmers with large herds (1,000+) to identify lame cows, underfed or overfed cows, and take action to address the issue, thereby improving the production, environmental and economic efficiency of their operation. The system operates across the UK, the US, and Europe. The company is exploring significant development prospects.

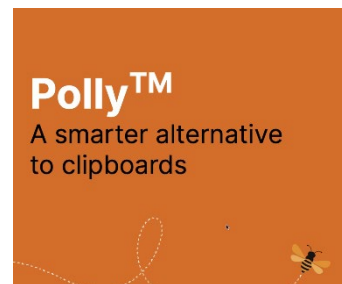
**Mark Elliot, founder of CropHound** (<https://www.crophound.tech/>), a service that provides real-time plant, soil and climate monitoring to assist farmers with measuring and managing their crops. He grew up on a farm and has been involved with ag-tech since 2004. Mark developed GasHound, a system to alert farmers of slurry gas, which is fatal at high concentrations. It was not a commercial success. However, like most entrepreneurs, Mark is resilient and focused on developing CropHound based on farmer demand for such a product.

It informs farmers about crop growth, disease, pest and weed outbreaks, and drought. The output facilitates pro-active rather than reactive responses, resulting in

better crop and environmental responses. It is used by farmers in Northern Ireland, Scotland and the Netherlands mainly for potato and carrot crops. Trials are being conducted on various crops, including grassland, to improve the robustness of the algorithms and expand CropHound's versatility across multiple crops (wheat, barley, grass and mixed species swards).



**Casey Woodward, founder and CEO of AgriSound** (<https://agrisound.io/>), a device that monitors pollinators in real-time and helps protect and enhance global insect biodiversity. Casey, from London, stumbled into agriculture through his background in science and academia. The AgriSound vision was to create the world's largest pollinator dataset that will be used to protect global food supply chains and biodiversity. Estimates indicate pollinators contribute half a trillion dollars to the global economy at no cost – a free service. The question of how pollinators can be effectively and efficiently monitored on farms to secure the continuation of their pollinating services arose. Drawing inspiration from smart listening devices (e.g., Amazon's Alexa), they developed a listening device (initially focused on bumblebees and honeybees) that could be powered by solar and transmit data in the field. They developed algorithms to turn the data collected into actionable data on bee activity in a given area. Engagement with farmers and data users was critical to the development to ensure simplicity.



As with the CattleEye and CropHound, there are ongoing product developments such as environmental sensors. The data outputs advise farmers and the broader non-farming communities on best practices to minimise the impact on bee populations. Using the data to create commercial value is now an increasing focus in development.

A wide-ranging question-and-answer session followed the presentations. Some of the critical points to learning points for new entrepreneurs were:

- Know what the market requires – you need to be solving a problem and creating value.
- Have good listening skills and keep an open mind.
- You will make mistakes but remain optimistic.
- Keep learning.
- Keep focus.