

# Lone working is a dangerous aspect of everyday farming life - how can we improve safety?

We have a duty to keep ourselves, our co-workers and the public safe at all times in and around our farms but serious, often tragic, accidents happen all too frequently, particularly to lone workers. Health and safety regulations bring a range of procedures and measures to bear on our industry – and lone worker rules feature in several guidelines such as INDG73 and Farmwise.

Knowing the location of lone workers, enabling them to raise the alarm if there is an accident, and being notified that a lone worker has returned safely 'to base' (or not) are key factors in ensuring their safety.

It is important to have systems that:

- Allow the alarm to be raised even when out of mobile phone coverage
- Provide the location of the worker to those who can assist
- Give assurance that workers and equipment have returned to base safely at the end of the day



In terms of risk management and health and safety, there are a number of regulations relating to agriculture that are imposed on the farmer.

LoRaWAN\* and sensors are not the silver bullet for any of these, because compliance is fundamentally about human behaviour and therefore requires training and supporting procedures.

What sensors and devices do is support several of these procedures, including machine maintenance monitoring, fall monitors, pressure systems instrumentation and lone worker personnel beacons.

SmartRural is developing an innovative and cost-effective system to support a farm's lone worker procedure, that will function effectively in areas of low, or even no, phone coverage. This will be achieved through a combination of devices on various items of plant and equipment, and a wearable device for the lone worker.

Effectively, this configuration of sensors and software will deliver the following:

- When a worker takes out a vehicle at the start of a shift, the device registers and logs its movement
- On arrival at a remote work site, the worker presses a button and receives visual confirmation (a flashing light) from software that the 'check in' signal has been received
- After that, the device is 'armed' and the next call will be in the case of emergency, notifying the farm manager and any other nominated parties, of the location and person involved. (The lone worker also gets confirmation that the software has received their call)
- The system resets overnight, ready for the next day



\*LoRaWAN is a radio communication system that receives data from simple, battery-powered devices, up to 15km away. The data is then fed back through the internet to where it can be used by software to help farmers make more informed decisions about a multitude of aspects of their businesses. SmartRural is working with farmers across the length and breadth of Scotland to deploy this technology, even in areas where there is no mobile or broadband coverage.