



Big data for animal health

► 5G for animal monitoring

Academics: *Professor Klaus Moessner, Professor Alasdair Cook*

Bringing together data on animal health could improve animal welfare and productivity in farmed livestock. 5G – the next generation of mobile communications – has the potential to enable intelligent animal-health surveillance.

In the same way that eHealth offers enormous opportunities to improve healthcare across the world, it also heralds a new era for veterinary science. With new diseases in animals emerging constantly, learning more about the health of animal populations has never been more important. The collection and analysis of big data will be crucial in enabling effective animal-health surveillance.

Academics from Surrey's School of Veterinary Medicine and its 5G Innovation Centre are collaborating with vets from Westpoint

Veterinary Group to develop a database system to monitor calf health. Using the system, private vets visiting individual farms will record their observations and submit them to a database, enabling them to monitor health trends within each farm. The full dataset will enable a better understanding of calf health across all participating farms.

Professor Cook says, "On an individual level, the farmer and the vet can compare results with the previous observations and can see what might need to be improved or altered.

However, that small amount of data feeds into all the information we receive from the other farms which enables us to evaluate what factors contribute to good calf health."

The project is being enabled by Surrey's leading expertise in both veterinary medicine and 5G communications, building on its development of Pathpal, an app created for recording post mortem findings that is being used to deliver a project for the Department for Environment, Food & Rural Affairs (DEFRA).

