Sensor-based Health Management in Cattle Farming

The smaXtec bolus technology is a herd and health management system. A bolus is inserted into the cow's reticulum. This measures and sends various values to a station in the barn. AIs and algorithms determine the cow's health status and send reports and recommendations for action back to the farmer. The data and recommendations for action, e.g. push-up notifications for fever events, can be accessed via app or computer.

The system provides information about:

- Health (febrile illnesses such as mastitis, metritis, respiratory illnesses or other infections or metabolic illnesses such as ketosis and milk fever)
- Drinking, eating behavior and activity in general
- Heat and calving (fertility, twin calves)

The first sensor was developed in 2006, from which smaXtec emerged as a research project in 2009. The commercial marketing of the system began in 2016. In the last four years, more and more international markets have been opened up (e.g. Great Britain, USA, Australia).

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