Stremodo stress detection (FBN): Sensor System to Detect Stress Vocalisations and Unusual Activity

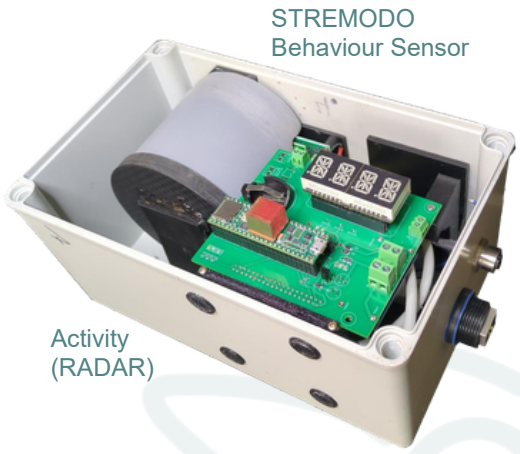
aWISH
ANIMAL WELFARE INDICATORS AT THE SLAUGHTERHOUSE

The Research Institute for Farm Animal Biology (FBN) conducts research into the physiological and ethological capabilities of farm animals, their interaction with the environment and the underlying regulatory and adaptive mechanisms.

The Stremodo behaviour sensor is an area specific sensor system that can capture movement activity, acoustic activity and distress vocalisationin pigs within a narrowly defined are under the sensor. This is achieved by using radar sensors whose viewing angle is limited by damping material and microphone arrays together with beam forming for acoustic signals.

In the slaughterhouse, Stremodo sensors can be used for quality control as well as process monitoring and optimisation. If it is required to perform group wise loading and unloading to avoid mixing stress, Stremodo can be used to identify events with unusual high stress behaviour. Such events would indicate that unfamiliar pigs ended up in the same group due to a management or handling error.

Besides, Stremodo sensors can give insight to fundamental changes in animal behaviour. Many species become restless and vocalise more in response to the upcoming birth of their offspring. Stremodo behaviour sensors can identify such an increase in movement and acoustic activity, marking the end of labour



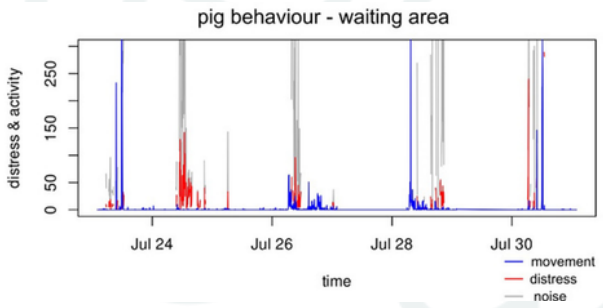


Fig.1 - Example data from an aWISH slaughterhouse

Research Institute for Farm Animal Biology

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