USE CASE

Livestock Monitoring and Management System

AT A GLANCE
• animal identification & server-based location tracking
• weight monitoring to manage feed rations
• activity monitoring to separate and treat sick or underdeveloped animals
PROBLEM DEFINITION
The demand for meat is growing every year, while the requirements for quality and food safety are constantly rising as well. With the livestock industry continuously evolving, farms face the challenge of constantly making production more efficient, effective and sustainable. The care and management of individual animals as well as the management of their productivity are becoming more and more demanding.

SOLUTION
A tracking system helps livestock producers overcome the challenges of scale increases while ensuring their animals' well-being. Instead of relying solely on farmers' senses and knowledge, on-site tracking sensors can provide reliable data about the location and physical condition of the animals. Whether the farmer is concerned with automatic feeding, sorting and separating, or weighing – all of the information needed for managing the animals individually is available in real time.

The solution supports optimal livestock performance by providing the exact amount of feed for each animal based on its body weight and activity level. Implementing this system enables having the control to help the animals maintain optimal body condition. In cases of anomalous development (e.g. loss of weight, decreasing activity level), affected animals can be isolated in order to be treated and fed individually. Quarantining animals that have been in contact with sick animals helps to minimize the cases of illness and medication expenses.

TECHNICAL IMPLEMENTATION
Each animal is equipped with a BLE beacon in the form of an ear chip, for example. Throughout the stable, infsoft Locator Nodes are installed. The Locator Nodes receive the beacon's signals and transmit them to the infsoft LocAware platform®. Here, the data is processed and the positions of the animals are provided via web services. Farmers get access to the data via app or browser application and see the location of the animals including condition information (e.g. weight, activity level) on a map.

Individually customizable reports allow a quick assessment of the farm's productivity. Via infsoft's Analytics Engine, historical data can be retrieved, evaluated and compared with real-time data at any time.