

Success story

# » **Animal tracking** and herd health management



# » Alpes-éco improves & secures animal herd tracking thanks to IoT

The global **animal tracking** market was valued at around \$3.83 billion in 2022, with projections indicating a **compound annual growth rate** (CAGR) of **9.50% between 2023 and 2030**. This growth highlights the need to integrate cutting-edge technologies into agriculture, particularly **pastoral livestock farming**. However, pastoral livestock farming, despite its advantages, faces growing challenges such as pressure on resources and the impacts of climate change. To support farmers in their day-to-day work, it is essential to provide them with technological tools to **monitor animal health**, as well as support adapted to the challenges of demographic growth and agricultural sustainability.

In response to these challenges, **Alpes-éco** has developed an **IoT solution** incorporating **Bluetooth Low Energy sensors from ELA Innovation**, enabling **real-time monitoring** of the position, activity and health of **herds in pastures**.

## » The key players



IoT sensor  
manufacturer



Integrator of  
IoT solutions



Provider of  
GPS trackers

« Following an incident with a hiker and our guard dog, I became more interested in data on what happens at night. This data has enabled us (and our shepherds) to understand some of the behavior of the dogs and even the ewes. We were able to see for ourselves where predators were stressing dogs and ewes, enabling us to anticipate either extreme fatigue in the dogs and thus avoid contact with tourists as much as possible, or additional fencing for the herd and increased vigilance on the part of the shepherds. I'm completely satisfied with all these possibilities. »

Véronique, breeder in Valais Switzerland

## » The client requirements

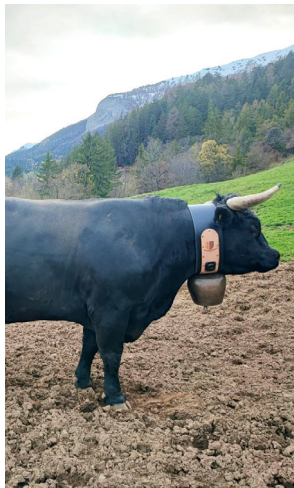
- ✓ Automated tracking and location of animals
- ✓ Enhanced safety and risk prevention
- ✓ Accurate behavioral data for improved herd management
- ✓ Adapting management to weather and climatic condition
- ✓ Using data to optimize animal health and well-being

## » The equipment

- ✓ Tag Med incorporating Blue PUCK MOV motion sensors (1)
- ✓ Alpes-éco IoT application (2)
- ✓ Digital Matter GPS tracker



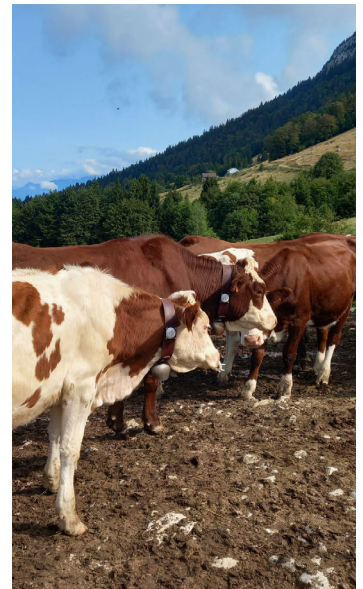
## » The operating mode



From a technical point of view, the innovation by **Alpes-éco Suisse SA** relies on a small number of **Bluetooth Low Energy Blue PUCK MOV** motion sensors, as well as a **GPS tracker** incorporating **Digital Matter technology** for collective surveillance. In a herd, it is sufficient to equip a few animals with **Tag Med** and a **Tracker Life** on their collars. Typically, 1 tracker with 3 Tag Meds is the minimum recommendation.

The tracker scans the BLE sensors within a **200-meter radius** and records their data, which can then be viewed by farmers on a mobile application. This system allows for the **cost-effective location** and **activity monitoring of the herd**, thereby reducing the digital and environmental footprint.

The Tag Med duo significantly enhances **daily herd management**, enabling daily assessment of energy expenditure. Other uses, such as detecting predation or other disturbances, are also possible. The solution goes even further by providing farmers with **meteorological information** like the Thermal Heat Index (THI), enabling the **optimization of natural resources**.



## » The results

- ✓ **Real-time tracking** enhancing herd management
- ✓ **Increased safety** and reduced risks
- ✓ **Significant time savings** in daily operations
- ✓ Improved understanding and **management of animal behavior**
- ✓ **Optimization of spontaneous natural resources**

## » The advantages

- ✓ Durable sensors with 15-year battery life
- ✓ Compact, non-intrusive solution for animals
- ✓ No need for additional equipment thanks to Bluetooth technology
- ✓ Location accuracy up to 500 meters, suitable for large herds