DATAMOLE CASE STUDY

Data-driven decision making for calf management process

Calf2Cow system helps farmers make informed, data-driven decisions in calf selection management and increase profitability of their farms.

ABOUT THE PROJECT

Calf2Cow

Calf2Cow is a project that provides recommendations for breeding calves based on monitoring growth of individual animals. It provides farmers with an objective all-in-one system able to predict the potential of individual calves as well as the overall business potential of the farm.

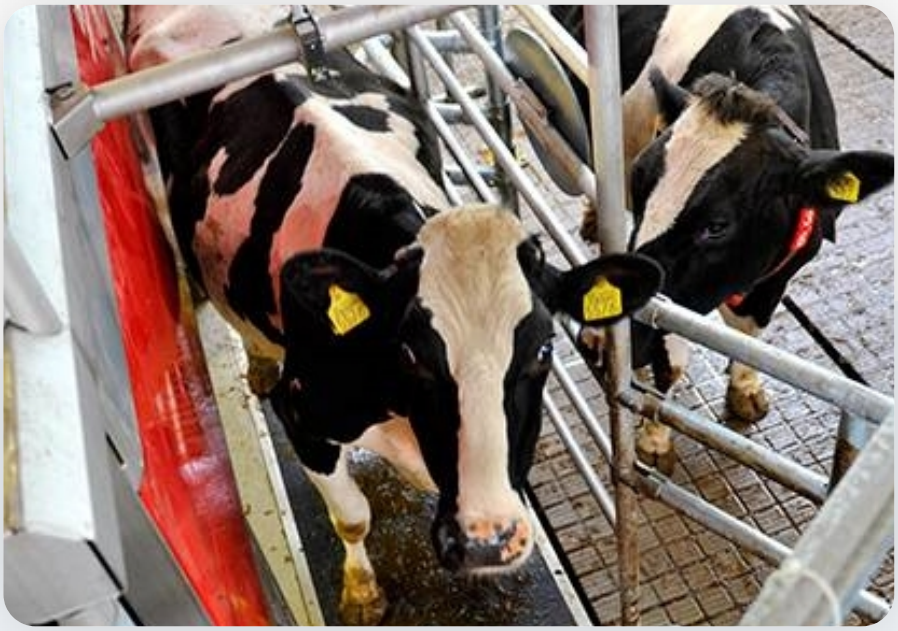
The project Calf2Cow 7D18003 has received funding from the Eurostars-2 joint programme with co-funding from the European Union Horizon 2020 research and innovation programme.

CHALLENGE

How to streamline calf management process

Monitoring systems for cows as such are not new to the industry. Many farmers use paper logs and naked eye or rely on a weighing scale built into the feeding station to estimate the growth of a heifer.

The project Calf2Cow aims to outsource the decision-making burden from farmers to a smart advisory system. To predict the potential of individual calves, the system considers more indicators than just weight. It provides objective data-driven insights so that farms won't have to heavily depend on individual expertise of their farmers.



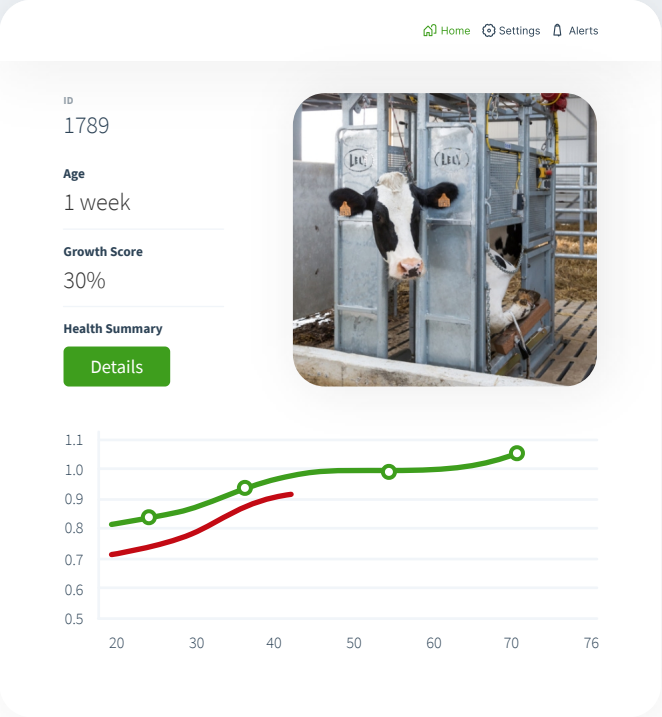
SOLUTION

Calf2Cow for data-driven decision making

The project Calf2Cow provides farmers with an advisory all-in-one solution for calf selection management. It considers a number of objective indicators to help farmers make informed decisions about the individual animals.

It gives them advice on calf breeding as it reliably predicts future potential of an animal as well as optimal insemination time.

Farmers get a comprehensive overview of the herd health status and get alerts regarding potential deviations much earlier than when relying on a naked eye.



SOLUTION

Workflow overview

A 3D camera and other sensors monitor calves at farms. We collect and store the sensory data and build models that learn from the data. The farmers get an overview and advice based on the data through a user interface.

Data Collection

a 3D camera and other sensors monitor calves at farms. We collect and store the sensory data.

Data Processing & Predictive Model

Using the sensory data, we build predictive models that learn from the collected data.

User Interface

The farmers get an overview and advice based on the data through a user interface.

The Calf2Cow project is a joint initiative of 3 partners: Triodor, Datamole and Lely. Triodor delivers user interface, Datamole the IoT platform and predictive calf models, and Lely provides a 3D camera and other hardware.

DATAMOLE LELY Triodor software

SOLUTION

Datamole predictive models

We've developed a predictive model which determines the future potential of a calf. The prediction model is based on a combination of different models, including weight growth and height growth prediction, animal scoring and heifer insemination advice.

Image — Depth Picture — Animal Height & Width — Animal Comparison

BENEFITS

Calf selection process made easy

Calf2Cow provides farmers with a digital all-in-one system that helps them better manage the growth of their calves. It creates synergy between farmers' experience, effective data processing and an accurate prediction model making it easier to take informed decisions.

Calf2Cow helps farmers:

- Have a comprehensive overview of the heard health status
- Get advice on how to achieve optimal calf growth
- Reduce the risk of falsely selecting a calf for culling
- Shorten the calf selection process

Interested to discuss how AI and data science can help your business thrive?

CONTACT US

About Datamole

Datamole is a Prague-based data science and artificial intelligence company. As experts in the industrial Internet of Things, we help companies worldwide leverage data from their devices and turn them into actionable insights and profitable business decisions. We lead customers through the entire journey of their digital transformation: from collecting and analyzing data from their devices to applying tailored AI techniques. Our key fields include agritech, machinery, manufacturing, biotech, and foodtech industries.

www.datamole.ai

info@datamole.cz