# ClearFarm

# Real-time monitoring of animal welfare to help farmers better manage their livestock production

The Five-Domains Model for animal welfare assessment inspires the methodology of welfare assessment used in ClearFarm. This model is an **integrative approach for animal welfare assessment** based on the assumption that animal welfare is structured into five different domains including (1) **nutrition**, (2) **physical environment**, (3) **health**, (4) **behavioural interactions** and (5) **mental state**. Each of these domains can be assessed by a list of indicators that provide a quantitative outcome and that can be monitored continuously, 24 hours a day and 7 days a week.

For instance, the time a cow spends lying is an indicator that can be used to monitor her physical comfort, which pertains to the physical environment domain. ClearFarm will identify the existing **Precision Livestock Farming tools** (sensors) available on the market that can effectively monitor these indicators, in order to know the welfare status of an animal at any time.

Following on with the example of laying time and comfort, activity sensors may help monitoring the time a cow spends lying. With the data from sensors on the farm, **ClearFarm will develop a digital platform that will integrate the welfare indicators providing precise and continuous information.** Farmers will have continuous access to precise information about the welfare status of their animals with regard to different domains.
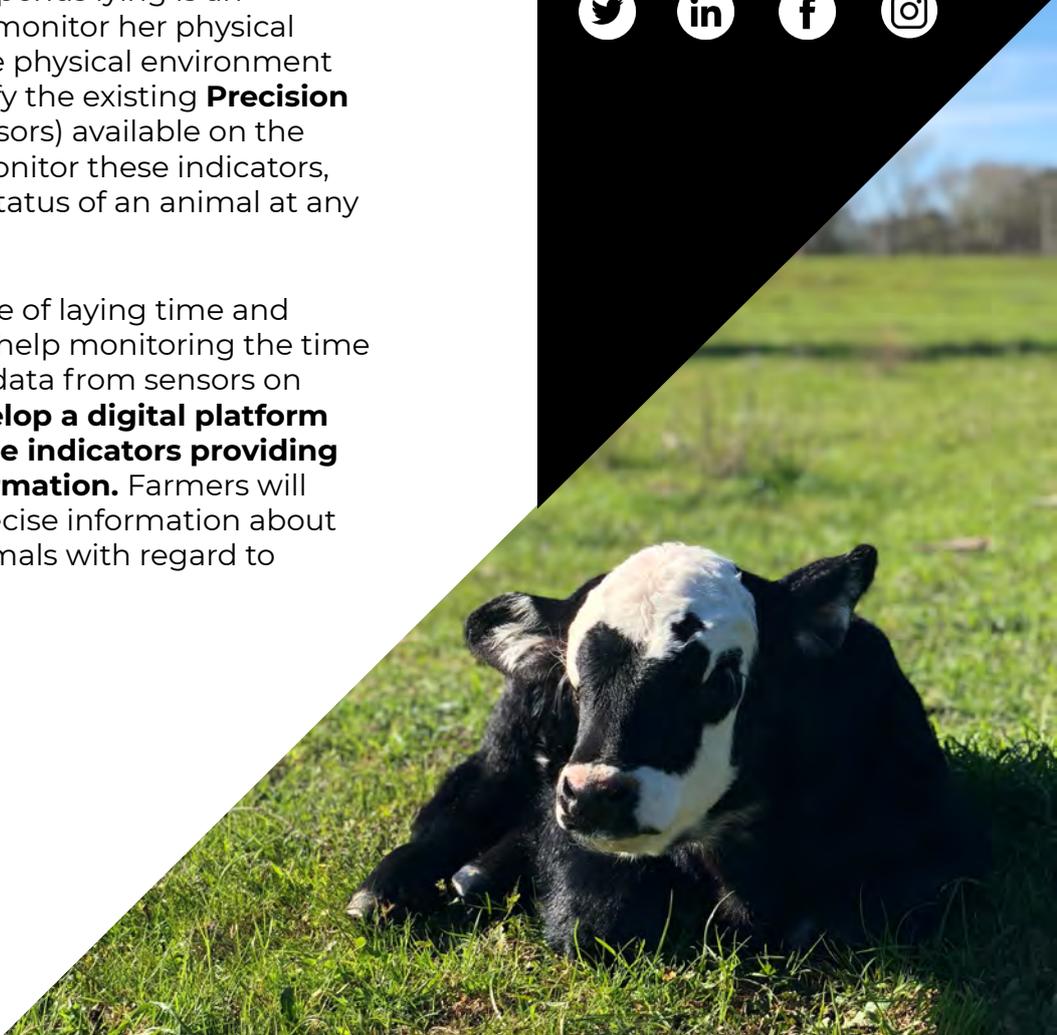
## Contact us

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ClearFarm will inform farmers when a cow is sick, and whether sickness has implications for other domains such as nutrition, comfort, or else. **Real-time monitoring will** not only **allow to identify the problem** (and to put in place the most appropriate remedy) but also **to monitor the recovery**, so treatments could be refined according to each animal's needs. This approach will **facilitate a comprehensive welfare assessment** and help farmers identify any critical aspect that compromises animal welfare at any time, which should be used to refine the corrective measures to improve the animal's quality of live.

Animal welfare is crucial to ensure the maximum efficiency of livestock production. So, the maximum profit will only be achieved if animals are in the finest conditions. Having the ability to **continuously control the status of animals on farm** will help farmers to refine livestock production and achieve the highest efficiency in their production system.

## FIVE DOMAINS FOR ANIMAL WELFARE ASSESSMENT: CLEARFARM INSPIRATION
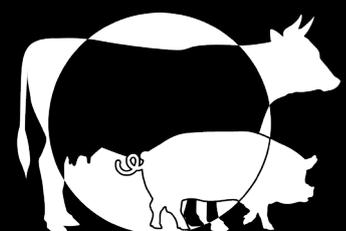
- Nutrition
- Behavioural interactions
- Physical environment
- Mental state
- Health

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