

## Smart Cattle Tracking System

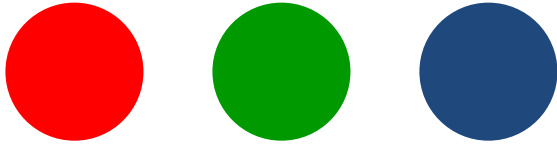


Infectious diseases affecting livestock have had a severe impact on the meat industry as well as creating a threat to human health. In order to prevent the spread of diseases, the government require cattle to be tracked and monitored to enable identification of infected livestock. There is a need to record livestock information from their cycle of birth through to the death of the livestock. The objective of the "Smart Cattle Tracking System ("SCTS") project is to build a solution to meet this requirement.

Counting and tracking information on each livestock has largely been a manual process that is prone to human error, which has resulted in inaccurate information (such as duplication information). The ability to keep track of a various details (pedigree, health history, birth date, ownership, production records, etc.) for multiple herds will increase the efficiency of decision making.

In relation to health-issues regarding livestock diseases, it is imperative that infected animals are tracked and monitored in order to assist the implementation of further preventive and control measures.





To identify an animal, the animal would be tagged with an RFID device which could be detected by stationary or mobile readers placed throughout the farm, on trucks, or in the slaughterhouse – in short, at every stage of the bovine's life cycle. This RFID device could be attached to the cattle's ear, swallowed, or injected.



Statutory and Regulatory requirements indicate that during a transfer of cattle, the receiver is responsible for recording the details of the transfer.

For example, if cattle are bought or sold through a saleyard, or sold to an abattoir, the saleyard or abattoir is responsible for updating the system. If cattle is sold privately, the buyer or the agent needs to record the transfer in the system. Deceased cattle should be identified in the system such that reports about cattle are accurate and relevant.

A property identification code ("PIC"), which is assigned by the government to identify land/property used for agricultural purposes, will be a required input to the system. The concern of food and health safety is a serious matter that concerns not only the meat industry but also society as a whole.

The system will cater to government requirements, such as the recording of property identification codes, which needs to be reported to the government within a restricted timeframe when land for the purpose of maintaining livestock has been acquired. Also, there may be cross-border legal requirements on the nature of information that is stored and transmitted. These legal requirements will affect the information that is used by the system.

Whilst SCTS will not prevent an outbreak, the ability to easily update and obtain accurate information will assist to reduce the financial and social impact of an outbreak. Such capabilities will prepare in meeting the ever-increasing demand from international customers for guaranteed food quality as customers around the world are becoming more health conscious.

