DIGITIZING THE HATCHERY PROCESS

Operational efficiency through real-time monitoring

Helping Egg Producers Replace Legacy Processes and Digitize Operations to Reduce Costs and Increase Profitability.

This large poultry farmer needed to ensure they had full visibility in every step of the poultry value chain.
The breeding, hatchery, and broiler processes are very sensitive and have to maintain certain temperatures, humidity, and air quality conditions during the entire process. A minor variation of even 1°C can put the entire production, operations, and most importantly, the eggs at risk. This also prevents the eggs from completing their 21-day incubation cycle during the hatchery process, also affecting animal welfare throughout the process. This means any deviation could have a potential loss of 95,000 eggs in just one incubator and a productivity loss as the entire production cycle is then delayed.
The client also needs to comply with very strict government regulations which demand hourly reports of temperature and humidity. This paper-based control often fails due to changes in personnel, shift changes, and overall human errors.

KEY RESULTS

ELIMINATE PAPER & MANUAL PROCESSES

MONITOR TEMPERATURE & HUMIDITY IN REAL TIME

OBTAIN VISIBILITY ACROSS THE ENTIRE FARM/HATCHERY

REDUCE IMPLEMENTATION COSTS AND TIME

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One more step towards production excellence

Understanding temperature and humidity conditions in real-time in egg incubators and broiler farms allow them to identify variations that could affect egg incubation.
The client's main focus is to provide the best quality product to their consumers with a state-of-the-art process that guarantees the freshness of its product.
The customer needed to have full visibility of the temperature and humidity in 160 of their egg incubators (95,000 eggs per machine and incubation room), and during the hatching, breeding, broiler, and reproduction processes.
Their existing sophisticated system controls every step of the process, but as it is a time-sensitive and dynamic process with many human checkpoints they needed to obtain real-time visibility that guarantees conditions every step of the way.

To the point

The client needed to come up with a cost-effective solution that reduces operational costs guarantees a strong ROI by providing the information needed in real-time and is flexible enough to show the value each step of the way.

They also needed to add additional check-points and monitoring applications that can assist them with eliminating human errors all while controlling the very sensitive process and helping them comply with government regulations

The solution

A combination of easy-to-install gateways, sensors, and software that allow for full control of each egg-incubator, powered by the LoRaWAN network, guarantees robust connectivity in farms that are sometimes located in remote locations with scarce connectivity.

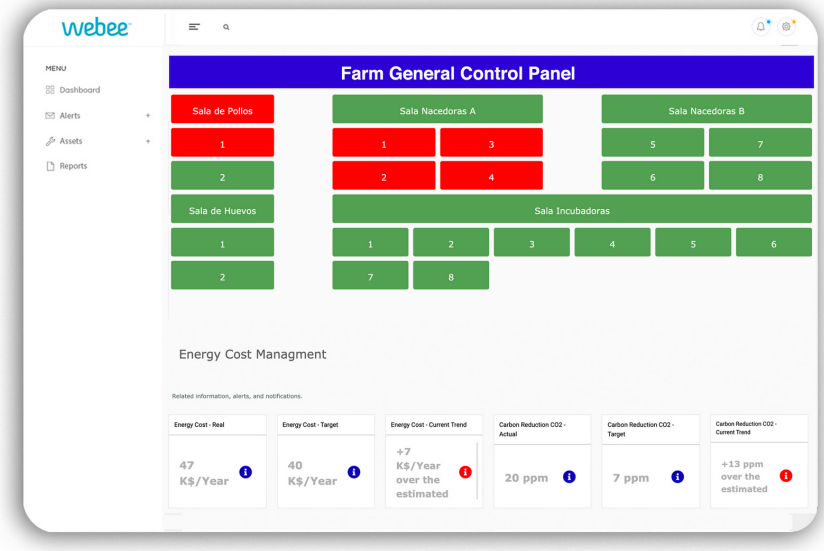
The data from the sensors and gateway is sent to Webee's visual designer software where the client can create and customize its own applications to meet their operational goals. This digital IIoT infrastructure can be easily deployed, implemented and stood up within days.

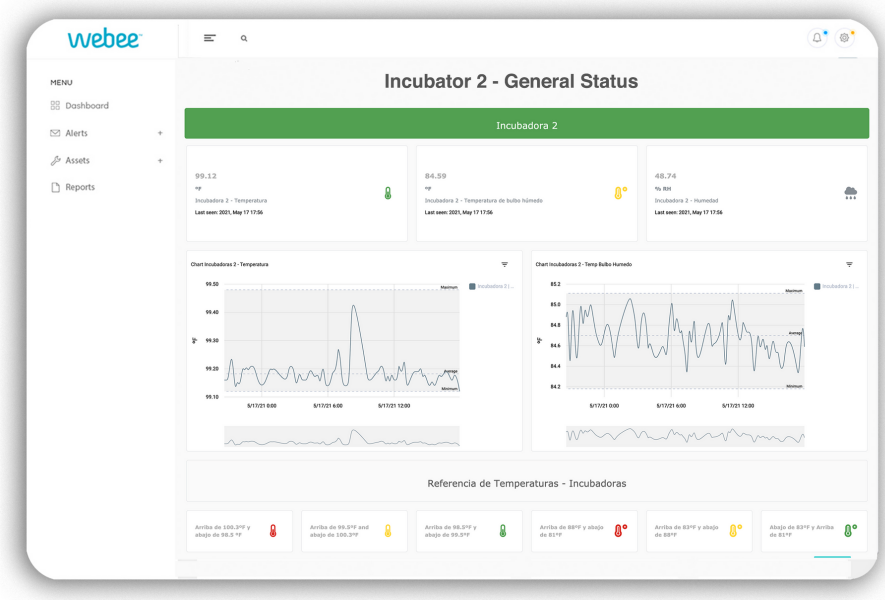
85% PRODUCTIVITY IN HATCHERY AND BREEDING
15% REDUCTION ON OPERATIONAL COSTS

The solution

The client also has the ability to access historical reports to be in compliance with the governmental regulations and ensure animal wellness and wellbeing. Webee's robust and industry leading toolset designed the application and dashboard that met and exceeded all the client specific needs. The full installation was done remotely in days instead of months!

General Control Panel with color-coding for easy visualization.





R718A - temp & humidity incubators

Gemtek/Browan Micro outdoor gateway

A VERY FITING SOLUTION

Webee's professional IoT team came in with an easy plug-in-play solution that enabled real-time temperature, humidity and air quality monitoring sensors and pre-configured LoRaWAN gateway. The solution allowed the client to receive instant alerts and notifications when there was a slight change in the egg-incubators, and leveraged artificial intelligence to learn the normal behaviors of their processes. When any abnormal event or deviation occurred, the instant alert was then sent to a team/resource to immediately check to avoid any critical loss to their egg production.