

Protect Grow Innovate

Xiot® Tag: Precision health and wellbeing insights for livestock

By Neree Martinez Cussons Media

Imagine receiving real time data about the health and wellbeing of livestock and making better management decisions from that powerful information.



Piglet with Xiot Tag (Source Xsights)

A chance discussion between Dean Phillips, co-founder of Xsights Digital, and the Sales and Marketing Manager from Craig Mostyn Group resulted in a collaboration to investigate exactly this.

Fast forward and the Xiot tag was developed, which primarily monitors the health and wellbeing of livestock and secondarily, the provenance and traceability of Agrifood at scale.



Xiot grower tag displaying red LED output alert (Source Xisights)

The Xiot tag is an encapsulated silicon processor which includes integrated sensing, security and processing, a Bluetooth® transmitter and an LED Output, which lights up allowing farmers to locate potentially unwell animals easily. Tags are recyclable, with 10 per cent biodegradable, the remaining 90 per cent classified as e-waste.

Placed on an animal's ear, tags collect 12 points of data every second in real time, continuously. This is unlike other prevailing solutions which only measure an individual point of data at a single moment.

"The Xiot tag collects a wealth of data sets—including Unique ID for each animal, location, temperature, movement, and more—offering a comprehensive view of each individual animal in real-time," explains Dean.

"This is delivered to decision makers as triggers, alerts, reports, API's through Xsights Livestock Management (XLM) mobile app and desktop platform.

"The tag uses a traffic light system of green, amber and red. If a pig has consistently shown green throughout its life, it might be better suited for selection as a breeder over others which have had red or amber alerts."

Farmers enter a three-year contract where fees are based on active tags only and this can be paid upfront or monthly.

With a small team, Xsights decided to concentrate on excelling in one area, so they chose to focus solely on intensive pig farming. This is because of the unique opportunity in that sector with an untapped market with significant global potential and substantial financial rewards.

Xsights is working with the Craig Mostyn Group in Western Australia. Additionally, they have expanded into Asia, where 60 per cent of the world's pork production comes from. They are optimistic the Xiot tag will aid with early detection, thereby reducing mortality rates and the spread of African swine fever in those markets.

Benefits of the Xiot tag include issue identification and outlier detection, proactive intervention and management, cost reduction, operational efficiencies, revenue growth and risk mitigation.

"We gained significant value out of the DPIRD-supported Harvest Agristart Program..."

Industry engagement has been beneficial for their success, an example of this was participating in the Harvest Agristart Program run by Innovation Cluster and supported by the Department of Primary Industry and Regional Development (DPIRD).

"We gained significant value out of the DPIRD-supported Harvest Agristart Program, and it was good to engage with other companies at the same stage in their business lifecycle," Dean says.

"I would recommend it to anyone at the early stages of a startup agtech business."

Dean successfully secured funding from DPIRD to hold an evoke^{AG.} side event in 2024.

"We organised a National Traceability Forum and Agtech Demo Day at Sandalford Winery Estate attracting 100 participants from across the sector, including international and interstate guests," explains Dean.

"This event helped us forge strong relationships with other agtech companies that complement our business.

"Our key interactions with DPIRD at industry events such as evoke^{AG.}, have provided opportunities to engage and build relationships with key industry stakeholders which has been invaluable," Dean says.

Xsights have a whole swag of awards to their name, including 2022 WA Innovator of the Year. They have also been accepted into and participated in trade missions for their target markets with the support of DPIRD, Department of Jobs, Tourism, Science and Innovation (JTSI) and AusTrade.

"Following involvement in those trade missions, we have gained traction in those target markets including Thailand, Vietnam and Korea, which has enabled us to secure additional funding support for our business," Dean says.

Their latest victory took them to Hong Kong for the Agriculture ICT Networks Award in 2023, where they were up against several international ICT companies.

"That was a big deal for us because the last Australian company to win was in 2016, so we were really proud of that achievement," Dean says.



Xsights Innovator of Year Award 2022 (Source JTSI)

As for the future, Xsights is focused on scaling their business across Asia.

"The more pigs we have tagged, the greater the data that's flowing and that will accelerate the development of other applications," explains Dean.

Xsights will seek opportunities in Europe to secure strategic funding partners for the next phase of their journey.

"In Europe, they have access to capital and they're a bit more advanced in the agtech space, so we want to explore some of the solutions they're looking at deploying. This will be key for us," explains Dean.

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