



DATA FOR EFFICIENT MEAT PROCESSING

PARTNERS



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IN SHORT

This Food Agility CRC project combines digital twins, generative AI and workforce expertise to identify and resolve production issues across food manufacturing operations in real time.

“The real value is how the AI talks directly with our teams, in plain language they use every day and guides them straight to the fix. That's what turns a clever detection system into faster resolutions and fewer repeat problems.”

- Jiah Falcke, Kilcoy Global Foods

THE CHALLENGE

Kilcoy Global Foods (KGF) primary processing site in Kilcoy, Queensland, is one of the largest grain-fed beef processing facilities in Australia. The site is operational 24/7 which means identifying potential issues and anomalies usually only happens after production or once the issue has become critical. These major issues and anomalies can have a material impact on business efficiency and overall yield.

OUR APPROACH

The project team will create digital twins with generative AI agents that have genuine operational understanding. The agents can combine ontology, knowledge graph and retrieval-augmented generation techniques so that raw data signals arrive with the full context of the process, product and plant behind it. This ensures the AI agents can make informed decisions and alert team members as required. The layered technology provides early warning signs for anomalies, however, detecting a problem is only half the challenge. In a heavily instrumented plant, detecting everything can create a new problem entirely: alert fatigue. The pilot's defining innovation is the judgement applied at this point. A generative AI agent captures and triages every detected issue, then decides what genuinely needs human oversight.



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