

Autonomous tech in AUS prompts NZ talks

Georgia Quirke-Luping - Mon, 14 Jan 2019

Queensland's first autonomously-operated excavator began work on a long term roading project in the region's south east last week.

Noosaville-based earthmoving and construction company, Weier Group, received the Komatsu PC210LCi intelligent machine control excavator, and began to use the plant on Wednesday 9 January.



Weier Group owner Gareth Weier said that he will be looking to see whether the technology will impact efficiency for his company – particularly with large-scale contracts with Fulton Hogan, Lendlease and Seymour Whyte on the horizon.

"I wanted to see what the intelligent excavator could do. I had a go on it and found it was good."

Weier said he is particularly interested in how it will impact operator fatigue.

Coming to New Zealand?

The introduction of autonomous technology to Queensland has [prompted discussions](#) on whether it will reach New Zealand shores in the near future.

Komatsu New Zealand's managing director, Phil Pritchard, told *Inside Resources*: "Given concerns of health and safety, I'd say New Zealand will have quarry-scale autonomous technology within three to five years – it is just a case of commercialising the existing fully autonomous mining class product on a smaller scale".

Pritchard presented at an electrical and mechanical superintendent training workshop in Christchurch late last year.

In his presentation, he said he was confident that the technology will be adopted in New Zealand – though likely into manned vehicles first: "It comes down to safety and the intelligent tasks that we can programme the vehicles to do. They can carry out precision tasks within 10 millimetre accuracy without requiring people to be close to the machine.

"The vehicles will be able to pick up on the autonomous haul system's collision avoidance technology."

In addition to the benefits of health and safety of workers, Pritchard said that autonomous technology and intelligent machine control in manned vehicles would increase production.

"If there is something going wrong with the machine, the onboard computer will immediately communicate with the operator and the maintenance team before it becomes a real problem," he said.

MinEx in favour of semi-autonomous

MinEx CEO Wayne Scott said that the safest and most efficient way of introducing autonomous technology into New Zealand was to first install it in manned vehicles.

"It is really removing the 'what if' part of the equation. The truck will just stop moving if things are close to going wrong. It senses what humans just can't: it would be a semi-autonomous vehicle.

"But I don't think we are in a place to start using fully-automated, unmanned vehicles in New Zealand yet though. That is for bigger operations that will use the same load point and haulage route day in, day out."

He also states that safety technology has come a long way in the past few years: "I remember a time when massive trucks had 12 external cameras and four small computer screens that supposedly covered off all the blind spots. It was a disaster because drivers had to look at four screens, plus what they were doing and in the end it just didn't work.

"Then alarms were installed. An alarm for everything – think of it like the beeps that go off when you reverse a car, but more of them. When there are so many alarms it becomes white noise and none of them are listened to at all."

International competition

Volvo announced in November 2018 that it would be providing Norwegian mining company Bronnoy Kalk with its first commercial autonomous trucks.

Six Volvo FH heavy-haulage trucks will transport limestone from the opencast mine, through tunnels, to a dockside crusher, then onwards to a nearby port – located about five kilometres away from the mine.

As the project is a trial of the technology, Bronnoy Kalk will not own the six autonomous trucks, instead paying Volvo on a per-tonne-delivered basis.

The trial is expected to be fully operational by the end of 2019.

Volvo Trucks president Claes Nilsson said: "The global transport needs are continuously changing at a very high pace and the industry is demanding new solutions to stay ahead."