Innovation Summit

‘The Kaikōura earthquake: Brian Kirtlan shares his insights into the damage caused, the challenges overcome and the solutions delivered’

2 October 2019 at 18:00

Venue: NCTIR Office, 205 Annex Road, Middleton, Christchurch, 8024

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Synopsis

On 14 November 2016, a 7.8 magnitude earthquake hit in Kaikōura, New Zealand. The epic jolt resulted from the country’s strongest ground acceleration on record. There were 194 kilometres of road left damaged, with 85 landslides and 1,500 damaged sites across State Highway 1 (SH1) alone. On the Main North Line railway, 950 rail sites and 20 tunnels were damaged.

The earthquake left Kaikōura and neighbouring communities completely cut off. New Zealand-wide, road and rail movements were heavily impacted. Given the importance of these rail and road links to many communities, reconnection had to be done quickly and safely. The destruction occurred on a coast renowned for its significance to iwi; its natural scenery, ecosystems and tourism experiences. The recovery team had to preserve what was precious while rebuilding quickly and with care.

KiwiRail and the New Zealand Transport Agency, together with designers, constructors and suppliers from across New Zealand; formed the North Canterbury Infrastructure Rebuild (NCTIR) alliance, tasked with delivering the $1.3 billion rebuild. After a herculean effort, the rail line was open to freight trains just ten months after tracks had been thrown into the sea, with the harbour back in operation exactly a year after the earthquake. SH1 was open to motorists again after just one year, one month, and one day. This work reconnected communities isolated by the earthquake and restored fractured freight networks.

With the railway and road in operation, the team then moved to the completion of the repair work, improving the resilience of the transport network, and delivery of road safety improvements.

Brian Kirtlan lead the recovery and rebuild team as Construction Manager and then as Project Director. Brian will share his insights into the damage caused, the challenges overcome and the solutions delivered.

Brian Kirtlan

Brian was immersed in the Kaikoura community for two years - moving mountains to reconnect communities. After 12 months in Kaikoura with his boots on, leading the 1,300 strong work force to reconnect the railway, the state highway, and open the Kaikoura marina he was appointed project director across the entire programme. Leveraging strong connections with iwi, the local community, government agencies, and the New Zealand civil engineering industry, the NCTIR team achieved extraordinary outcomes for the people of Kaikoura and for the nation.

A qualified civil engineer, Brian also gained a post-graduate diploma in management. Through 33 years in the industry he has been involved in both project and general management, spanning the supply chain, maintenance and construction - across a broad range of civil engineering sectors.

Brian is delighted to represent the thousands of people who worked in the NCTIR team to build enduring connections.