

Proposed WA Goldfields Mining Innovation Delivery Hub

Proposal:

CRC ORE and WA School of Mines has undertaken an initial study to assess the potential for creating an industry-led technology innovation hub in Kalgoorlie to deliver value to Australian producers and METS in the Western Australian mining industry.

Key objectives:

To address some of the mining industry challenges in the Goldfields region including:

1. Difficulties in linking applied research with industrial application through demonstration.
2. Limited technical resources in the region.
3. Limited knowledge sharing among sites in the region.
4. Continuing professional development.



Image: Kalgoorlie super-pit gold mine, Western Australia. Photo sourced from abc.net.au news online

Research & industry collaboration

The Western Australian School of Mines (WASM) has a long history of involvement with the mining industry, particularly through its Kalgoorlie campus and facilities. This includes state-of-the-art research laboratory facilities and experienced research academics in both mining and metallurgical engineering.

The Minerals Research Institute of Western Australia (MRIWA) is a statutory body that supports and encourages research for the Western Australian minerals industry. It is actively supporting a number of research projects via CRC ORE and other direct channels.

CRC ORE, a government and mining industry funded collaborative research centre, has a number of technologies it would seed into the hub, including Grade Engineering® technical capability. It also has a strong engagement model with the Mining and METS companies that would be embedded in the hub.

METS Ignited, an Industry Growth Centre funded by the Australian Government, supports the hub concept, which aligns closely with its Living Labs initiative to foster innovation and collaboration.

Initial industry engagement has been undertaken via a detailed consultation process with a range of regional Mining and METS companies. Overwhelmingly all parties supported the initial concept.

Other interested core collaborators include the Chamber of Mines and Energy, Central Regional TAFE and the City of Kalgoorlie-Boulder.



Value to industry

The hub provides an environment for focused collaboration between Researchers, METS and Miners. Possibilities exist to unlock significant additional value through technology to improve current operations, extend mine life and re-evaluate mothballed or undeveloped deposits. Projects can capitalise on opportunities identified in recent Grade Engineering® studies on mining operations across the world by CRC ORE. This work has identified significant economic benefits (ΔNPV) in existing operations and greenfield projects.

Why Kalgoorlie?

- Well positioned to several operating mines, allowing linkage of technologies to operating sites.
- Proximity to a diverse range of geological and mineralisation styles for technology development and application.
- Existing WASM campus with close industry links.
- Strong SME capability and a culture of regional innovation.
- Opportunity to train industry professionals to further grow capability and capacity within Western Australia and Australia as a whole.

Future vision

- A solid pipeline of technology development that delivers real value to current operations.
- A recognised centre for METS and Researchers to embed their technologies with a clear pathway for utilisation in region, in Australia, and internationally.
- A centre of excellence for technical knowledge transfer