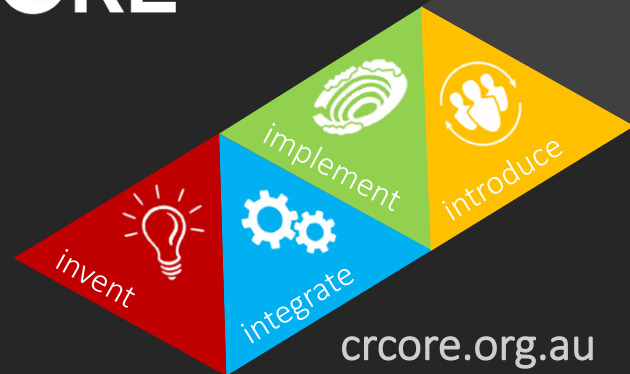


# FINAL PROJECT SUMMARY



## DEVELOPING BUSINESS AND ECO-SYSTEM MANAGEMENT TOOLS TO SUPPORT TECHNOLOGY DIFFUSION AND OVERCOME ORGANISATIONAL AND BEHAVIOURAL BARRIERS TO CHANGE

Project number: P4-008  
Program Coordinator: Greg Wilkie  
Project Leader: Anna Wiewiora  
Timing: September 2018 to May 2021  
Participants: QUT, CRC ORE



### PROJECT OUTCOMES

Three tools were developed to assist mining professionals to implement disruptive innovations:

- An innovation culture assessment tool (**iCAT**) and an organisational process model for technology adoption in mining (**OPM-4-TAM**). Together these tools raise awareness of the cultural factors and practices that support innovation and technology adoption.
- A strategic framework for Sustainable Community Development Programs (**SCDP**) that identifies the practices required for the co-creation of community development programs with sustainable positive impact.

### RESEARCH COLLABORATION

The project drew on both the theory and practice of innovation and technology adoption by integrating the latest academic knowledge in the fields of innovation and change management with the extensive expertise of mining industry professionals. These practitioners from mining firms included senior managers, heads of departments and middle level managers from Head Office, Operations, R&D and Community Development, as well as mining research collaborative entities and industry suppliers. The tools created from this fusion were validated with the practitioners.

### BACKGROUND TO THE PROJECT

Mining personnel have become extremely skilled at incremental, small-step innovations to improve productivity and lower costs despite the constraints of capital-intensive operations. However, the industry is facing numerous challenges, including decreasing ore grades, water and energy consumption, and social licence to operate, in addition to the usual market variations. To respond effectively to these challenges, mining companies have recognised the need to adopt radically different technologies and engage in disruptive innovation. Disruptive innovation involves developing and implementing new technologies that involve 'unknown unknowns' which make these high risk. The aim of this project was to develop tools for senior management to diagnose the strengths and areas for development in relation to their organisation's innovation culture and to develop strategies to accomplish disruptive innovation successfully.



The three innovation culture enablers and the six innovation culture factors in the iCAT tool