

Welcome



Mr. Jonathan Loraine

CRC ORE
Chairman

crcore.org.au



Australian Government
Department of Industry,
Innovation and Science

Business
Cooperative Research
Centres Program

CRC ORE
Optimising Resource Extraction

CRC ORE'S PURPOSE

CRC ORE is a collaborative research centre focused on Optimising Resource Extraction to radically improving productivity, energy and water signatures of Australian mining operations.

Achieved
through

Collaboration between forward-thinking miners, METS and research participants and the Federal Government

Rapid development and maturing of technology from concept to implementation

Effective technology transfer – **the baton needs to be taken up by miners and METS**

Key
technology
developments:

Grade Engineering™ –the early separation of ore from waste material that’s reverses the trend of declining feed grade and quality.

Integrated Extraction Simulator- a cloud-based simulation and optimisation platform designed to predict and optimise mineral processing performance.

Key
technology
developments:

Sensor development and integration

Pushing the boundaries of existing sensor technology application (LIBS for mineralogy, MR Glass Bench).

Moving sensing from measurement mode (continuous improvement) to intervention mode (separation) to amplify value.

Driving uptake and sustaining change (Program 4)

Analysis of MSC and other Participants' approach to imbedding technology and managing change.

Providing an organisational Culture Assessment tool and a Process Model for managing Organisational Change (QUT).

2018 – A YEAR OF DELIVERY FOR CRC ORE



- 12 major implementation projects delivered
- Minera San Cristobal production trial commenced and early results look highly promising.
- Heterogeneity modelling embedded in the resource development and planning process at BHP's Escondida site
- CRC ORE leading development and analysis of sensor fusion trial at Anglo American sites
- Instrumenting-the-bench cocreation partnership between IMDEX, Orica, METS Ignited, Anglo and Teck underway.

2018 – A YEAR OF DELIVERY FOR CRC ORE



Mass simulation & Inline optimisation

- Allows us to quantify the Mine to Mill opportunity in every block across the whole of the deposit
- Gives visibility of where the opportunity is in the block model and when we will get to it.

New model development and multi-state calibration

- Enables us to look at a wide range of options for processing the deposit
- Assists with operational decision support

In use now

at Escondida (BHP) and Los Bronces (Anglo American)

2018 – A YEAR OF DELIVERY FOR CRC ORE

Research Program

- 28 active projects in 2018
- 88% of Commonwealth research milestones achieved or in progress.
- New collaborative projects developing around emerging industry themes



- Grade by Size testing program for GE response nearing completion
- Integrated screening and particle sorting study underway.

TECHNOLOGY TRANSFER AND COMMERCIALISATION

With under 3 years to go, CRC ORE is focus on delivering value to EP's and longer-term impact to industry.

Get involved now!

- Delivery of MSC Production trial
- Opportunities for METS in Grade Engineering studies leading to commercialisation opportunities.
- New technology co-creation partnerships
- Enhanced grade engineering opportunities
- End-of-term transition planning to ensure technologies are imbedded and sustained beyond the life of CRC ORE

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