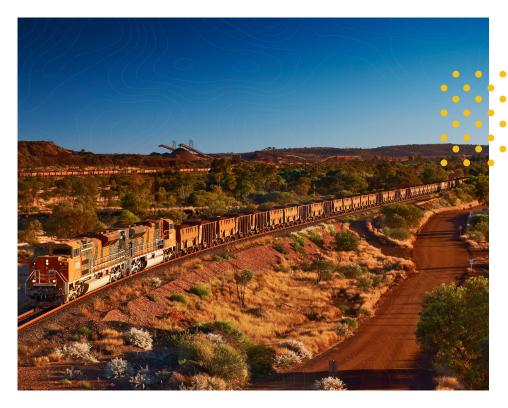
# **INVEST IN GREATER CERTAINTY**

Bid for a Cooperative Research Centre for Transformations in Mining Economies (CRC-TiME)



Greater certainty
Sustained prosperity
Social value

Mine closure is an integral phase of an active mining industry but is a global challenge with few examples of successful closure and relinquishment. Over the coming decade, a successful CRC-TiME will transform mining economies and support communities to deliver:

- increased certainty of relinquishment,
- reduced likelihood of abandonment,
- diversified post mine communities, and
- new Australian businesses supplying a global market.

It will continue to build trust between mining companies, regulators and communities and improve the business settings for closure and succession.

CRC-TiME will support the vision of the Australian Government's National Resources Statement:

"To have the world's most advanced, innovative and successful resources sector which delivers sustained prosperity and social development for all Australians".

### The Challenge

Transforming mining economies to enable Australian regions and their communities to build a successful post mine future is a growing challenge.

- The social and economic landscape for mining is changing in line with community expectations.
- Mechanisms for collaboratively building a shared vision of post mine options need improvement to secure a better future for investment in Australian jobs and resources, and to create a genuine and enduring partnership between regional businesses, communities, governments and mining companies.
- The broader community's expectations of the mining sector are high. Addressing them will ensure the mining sector continues to contribute strongly to the national economy and Australian society.



## A CRC supports industry-led collaborations

The Australian Government's Cooperative Research Centre (CRC) Program provides an ideal vehicle to improve collective approaches to mine closure through sustained industry, research and community collaboration.

The CRC Program seeks to:

- Improve the competitiveness, productivity and sustainability of Australian industries;
- Foster high quality research to solve industryidentified problems; and
- Encourage and facilitate SME participation in collaborative research.

The program can **match industry financial investment** up to 1:1 for a ten-year period.

#### A unique coalition with a unique value proposition

The CRC-TiME brings together 50 leading mining companies, the Minerals Council of Australia, mining equipment, technology and services (METS) companies, regional development organisations, local, State and Commonwealth governments and research partners.

This unique coalition will bring scale and coordinated investment in research that will deliver a better appraoch to mine closure.

Current partners have declared over \$100M financial support (\$30.4M cash/\$73.7M in-kind) to the proposed CRC for 10 years. Investment from the Australian Government's CRC Programme will bring a total investment of \$133.6M in CRC-TiME.

MINING COMPANIES	MINING EQUIPMENT, TECHNOLOGY AND SERVICE COMPANIES	GOVERNMENT AND COMMUNITY	RESEARCHERS	
Alcoa BHP Mining3 FMG Iluka Newmont Goldcorp Rio Tinto South32 MMG	3RZ Golder AgGrow Landloch Aurecon Ozius Decipher Phibion Deswik RIAWA Ecocene EciPlant Australia EIANZ	Geoscience Australia Supervising Scientist WA Government Qld Government NT Government Chemcentre WA Biodiversity Science Institute NRM: Rangelands, PHCC Regional Development: PDC SW RDA, Regional Implementation Committee (Pilbara)	University of Queensland University of Western Australia University of South Australia University of Adelaide Curtin University Murdoch University Flinders University Federation University University of Reading (UK) CSIRO AGRF	
Supported by leading Industry bodies: ICMM, MCA, CMEWA, AMEC, ACARP, AMIRA and Austmine				

## An integrated and multidisciplinary programme

CRC-TiME will deliver an innovative research agenda to address the complex challenges underpinning mine closure and relinquishment.

Social, environmental, economic and technical research will be conducted through three highly integrated programs that work directly with industry and communities.

In addition, the CRC will network a series of national demonstration sites to test solutions that are scalable and transferable and will implement shared data and systems integration policies to promote transparency across the sector.

CRC-TiME will drive capacity building, education and training to address key challenges for the industry and help prepare our workforce to capitalise on new opportunities.



# **Proposed programme structure**

Planning	Driving	Doing
Regional economic development	Valuation, economics and mine planning	Operational Solutions and METS development
New approaches and tools to guide community engagement and partnership	<ul> <li>Standardised national methodology for quantifying residual closure risks</li> </ul>	Quantitative methods for quantifying ecological impacts of mining
<ul> <li>Consultative mechanisms for stakeholder input to end land-use and completion criteria development</li> <li>Integration of regional land use planning and industry mine</li> </ul>	<ul> <li>Accurate and transparent rehabilitation and closure accounting framework</li> <li>New models of valuation</li> <li>Standard industry-wide</li> </ul>	<ul> <li>Definition of long-term ecological and biophysical restoration trajectories</li> <li>Development of new techniques for rehabilitation and closure monitoring</li> </ul>
<ul> <li>planning and closure processes</li> <li>Definition of global export opportunities driven by rapidly growing ESG investment</li> </ul>	monitoring and assessment frameworks  • Development of training curriculum and certification process for mine closure	<ul> <li>Contractor capacity building</li> <li>Commercialisation of METS rehabilitation and closure technology via scaled</li> </ul>
<ul> <li>Mechanisms to enable transitions to regional post closure economies</li> <li>Sustainable community development and job growth</li> </ul>	Process for filling closure professionals  A knowledge platform to address shared problems between miners and regulators, providing quicker access to relevant knowledge, tools and data	Accelerated development of technical solutions to intractable risk issues lie mine wastes, tailing and water

Building trust and transparency through systems and data integration

Building confidence through networked trial and demonstration sites



#### **Global Relevance**

The 2018 Ernst & Young annual "Ten Business Risks facing Mining and Metals" report identified social license as mining's number one risk factor, while the ICMM - a peak body comprising 28 of the largest global mining companies - identified mine closure as a priority area for the first time in 2018.

The growth in the global closure market place also presents a significant export opportunity for Australian METS companies.

## Opportunity for new partners to join

A limited opportunity exists for new partners to join the CRC with up to 1:1 matching of investment.

New partners will need to be confirmed by mid-October 2019.

The Stage 2 application development will refine CRC outputs and impact pathways and provides a valuable opportunity for partners to input into the CRC.

Contact the bid management team below to discuss further.



## A highly experienced bid management team

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"Mine closure remains a global challenge and unrealised opportunity that will only be resolved through industry, government, researchers and community working together.

I invite you to join this exciting partnership."

Dr Bruce Kelley - CRC-TiME Chair Designate and Past Global Practice Leader Environment, Rio Tinto and Chair of the International Network for Acid Prevention



