



# CRITICAL MINERALS

## Why beginning with the end in mind matters for Northern Australia

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CRC TiME acknowledges we are meeting on the lands of the Larrakia people.

We pay our respects to Elders past, present and emerging.

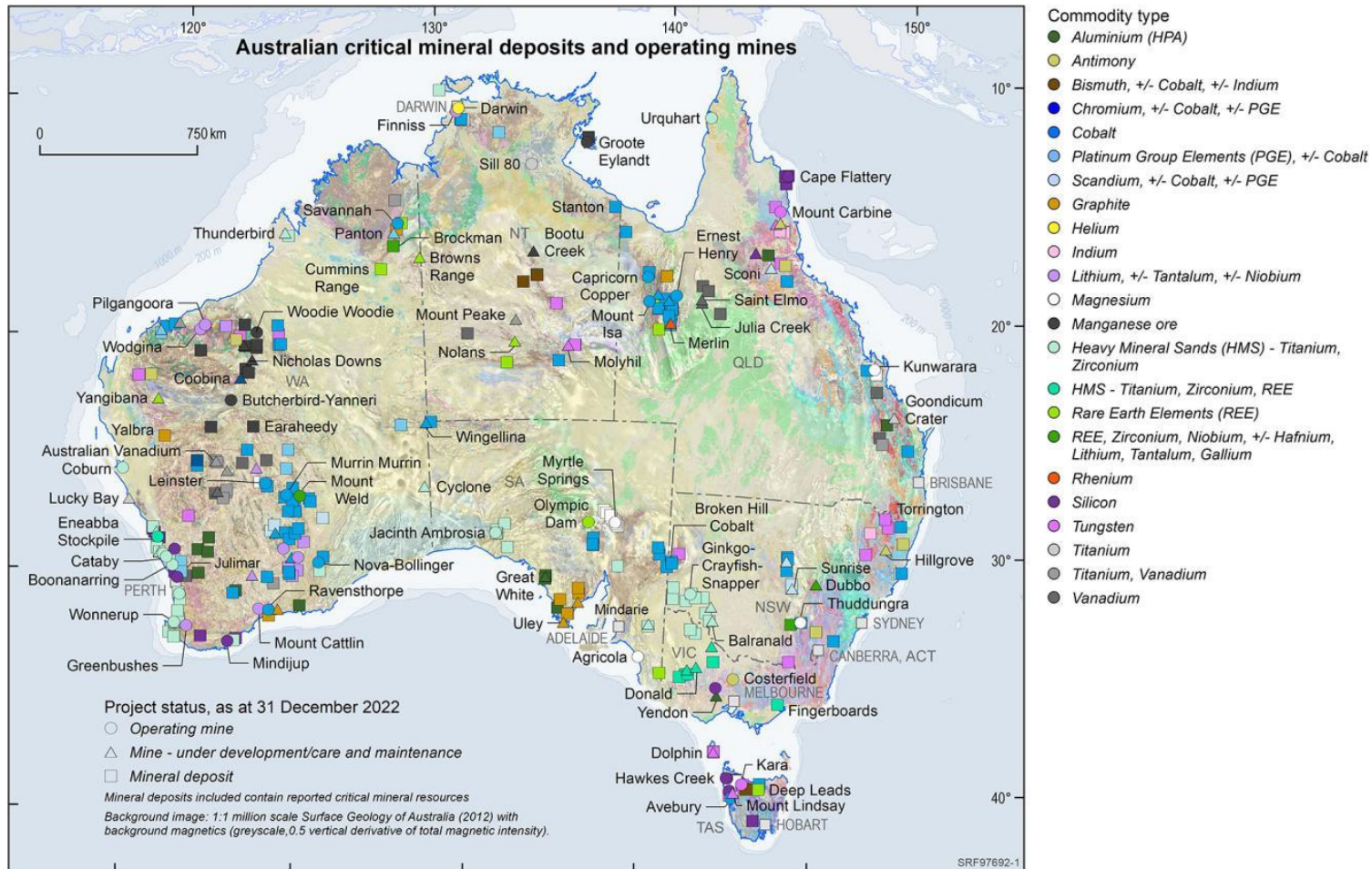
We also acknowledge other Aboriginal and Torres Strait Islander people here today.



## Who we are

- Part of Australia's flagship innovation program
- World's only dedicated research organisation examining mine closure and post-mine transitions
  - Economic
  - Social
  - Governance
  - Environmental
- Our mission is to bring together diverse partners to help reimagine and transform mine closure and transitions for the benefit of all Australians.

# The critical minerals opportunity





## And challenge ...

- Will change regions
- There is no 'one' community – many communities make up an area
- Land access – consultation vs consent
- Benefits sharing with First Nations and regional communities
  - Equity and ownership
  - Wealth creation
- Regional cumulative effects
  - Site by site vs regional scale

# What can we learn from the past?

## What happens when a town's major industry shuts down?

The move away from coal-powered energy may be good for the environment, but a shift without planning could spell disaster for communities in the Latrobe Valley, where the soon-to-be shut Hazelwood Power Station and mine has employed generations of families.



## Diamonds are not forever: Indigenous communities grapple with end of the mining boom

Foreign Correspondent / By freelance journalist Michael West and Suzanne Smith

Posted Wed 28 Jun 2017 at 6:15am, updated Wed 28 Jun 2017 at 8:15am

## Leigh Creek mine closure end of an era for outback town's former workers

By Nicola Gage

Posted Sun 15 Nov 2015 at 11:38am, updated Sun 15 Nov 2015 at 12:14pm



ABC RURAL

## Australia's biggest open cut zinc mine to close

ABC Rural / By Virginia Tapp

Posted Thu 19 Sep 2013 at 5:09pm, updated Mon 28 Jul 2014 at 4:13pm

**We need to plan and act across mine life at a regional scale for what happens after mining ends.**

- Economically
- Socially
- Culturally
- Environmentally
- Institutionally.



## What we know

- Mine closure traditionally seen through lens of mining lifecycle – not a community or environmental context
- It is a shared responsibility – different groups have different roles, expectations and responsibilities
- Implementation of actions can begin during mine life
- Economic, social, environmental and cultural dimensions are interconnected
- Little shared understanding about what a ‘transition’ is – or how to envision
- Return to prior state is an important focus – but can create barriers for next use





## Looking closer ...

### Some of the challenges to positive post-mine transitions

- Economic transitions are difficult – even when planned
- Focus is on planning – not always action
- Information asymmetry prevents good engagement and decision-making
- Mine closure and regional development policy are disconnected – meaning assets and lands can be tied up
- Liability is seen as a cost to industry – not an opportunity
- Understanding of the personal grief/loss experienced when a mine closes is low.



## For Regions

- Encourage ongoing regional-scale and coordinated planning
  - Identify capacity drivers for transitions
  - Recognise different roles, rights and responsibilities
  - Bring together First Nations and broader communities
- Recognise mines and mine-related infrastructure as regional assets. Global post-mine and complementary land uses span:
  - Underground physics lab
  - Tourism
  - Biodiversity conservation
  - Agriculture
  - Renewable energy
- Recognise the social and cultural dimensions of mining
  - Cultural impacts and need for healing
  - Loss and grief when mines close.



## For governments

- Address disconnect between mine closure regulation and regional development policy
  - What level of risk is acceptable?
  - What is the opportunity cost of current approaches?
- Recognise whole-of-government responses are required
- Facilitate data accessibility and sharing
- Continue to invest in innovation and research to unlock opportunities:
  - Global METS expertise
  - Mine wastes
  - Asset repurposing
  - Skills development and transfer



## For First Nations communities

- Consider and plan early for what happens when mining ends
  - Agreement-making
  - Wealth generation and management
  - Long-term employment and business pathways
- Recognise different points when decisions are made
  - Project design and development
  - Operations including landform design
  - Business development and diversification
- Be part of coordinated regional planning processes.



## For industry

- Share data and information as early as possible
- Invest in regional resilience and inclusion
- Recognise individuals have relationships – not companies
- Keep track of commitments
- Recognise communities change over time – what matters may also change
- Recognise need for cultural healing and grief and loss when a mine closes
- Be part of coordinated regional planning processes.



# Signposting our research and capability development

## Enabling research, tools and resources

- Future economic development pathways for mining regions, including resilience factors and transition capacity drivers
- Understanding regional cumulative effects
- Understanding barriers and enablers to First Nations engagement in mine closure and post-mine transitions
- Mapping economic potential of the mine closure solutions industry and how to maximise (e.g rehabilitation, asset repurposing, mine waste reuse)
- Supporting education and training development to upskill.



## Key messages

- Plan and act early to strengthen regional resilience – even before mining begins
- Ensure agreements consider what happens after mining ends
- Recognise decisions made early and over mine life limit what is possible post mining
- Recognise different roles, responsibilities and expectations – and have seats at the table
- Positive transitions are essentially about values – what matters most to people.



**Thank you**  
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