

# Vision 2040



## Mining, Minerals and Innovation Building long term value for Australia

Presented by **Dr Damien Giurco** - Institute for Sustainable Futures, University of Technology, Sydney  
& co-authored by Leah Mason, Aleta Lederwasch, Jane Daly and Dr Tim Prior

AMEC Convention, Perth 30 June 2011

National Research  
**FLAGSHIPS**  
Minerals Down Under



 THE UNIVERSITY  
OF QUEENSLAND  
AUSTRALIA

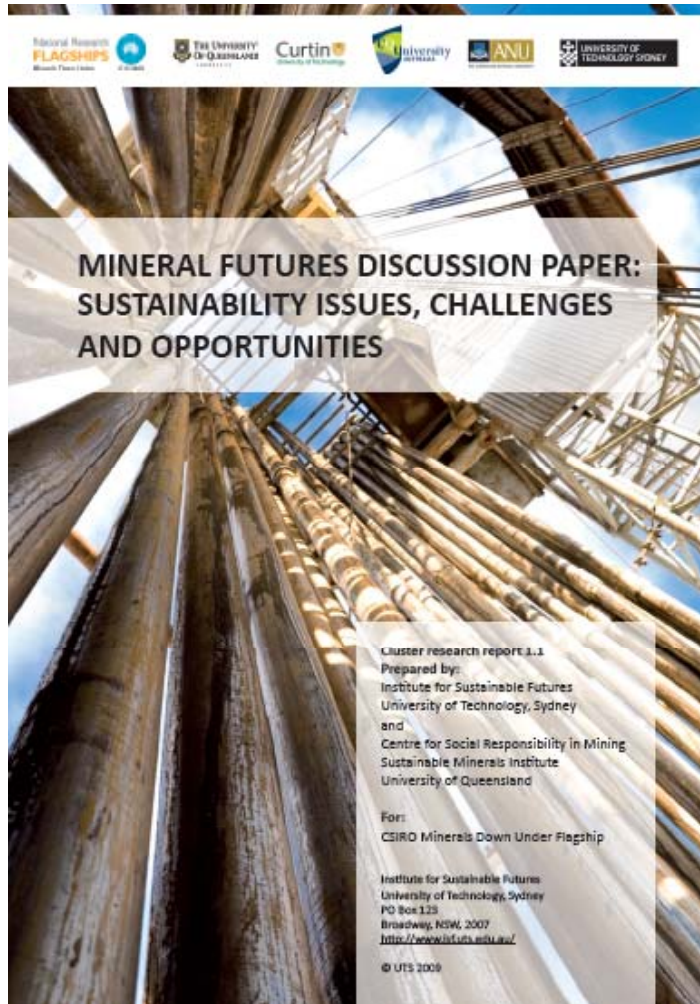
 Curtin  
University of Technology

 CQ  
university  
AUSTRALIA

 ANU  
THE AUSTRALIAN NATIONAL UNIVERSITY

 UNIVERSITY OF  
TECHNOLOGY SYDNEY

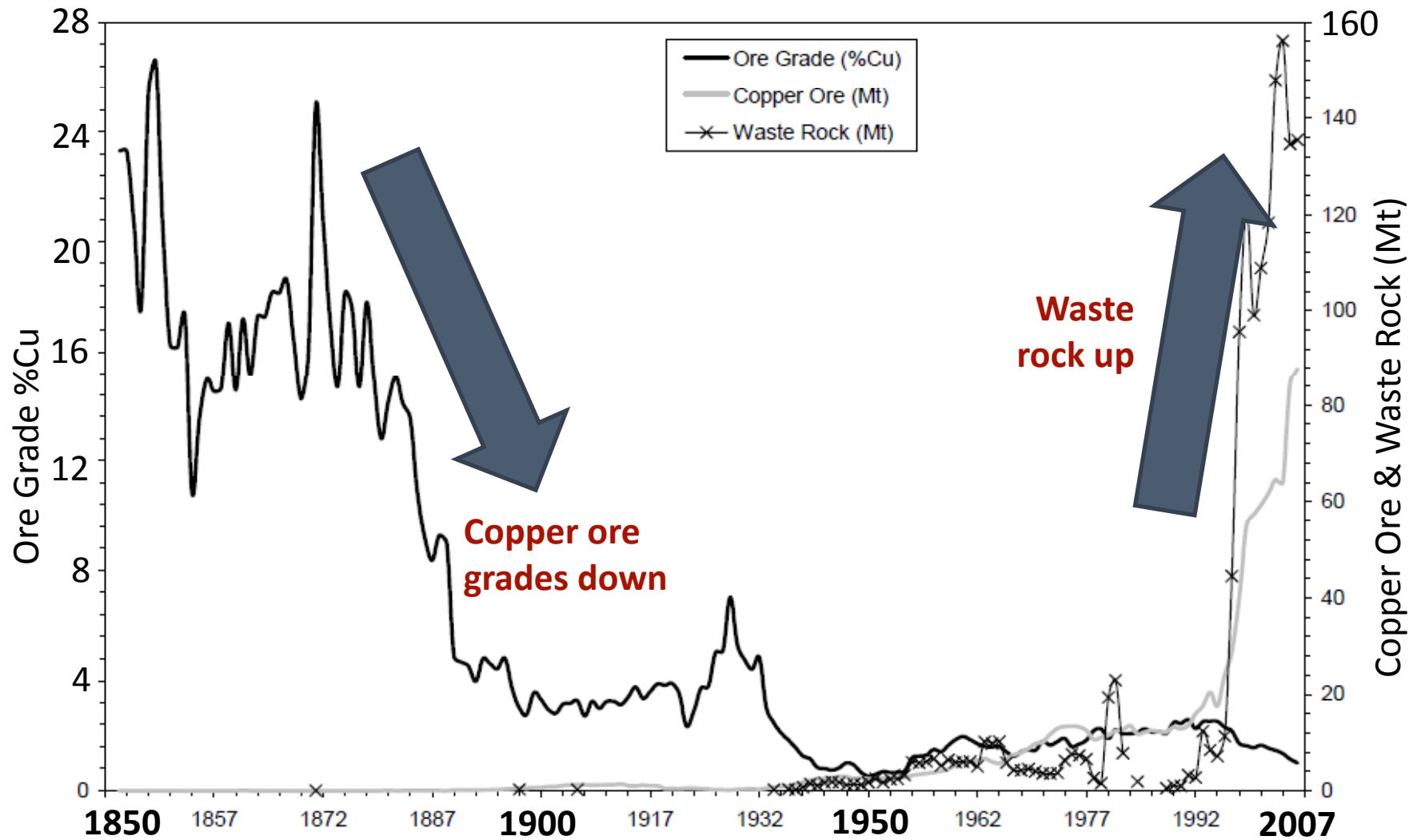
# + Mineral Futures Discussion Paper: Sustainability



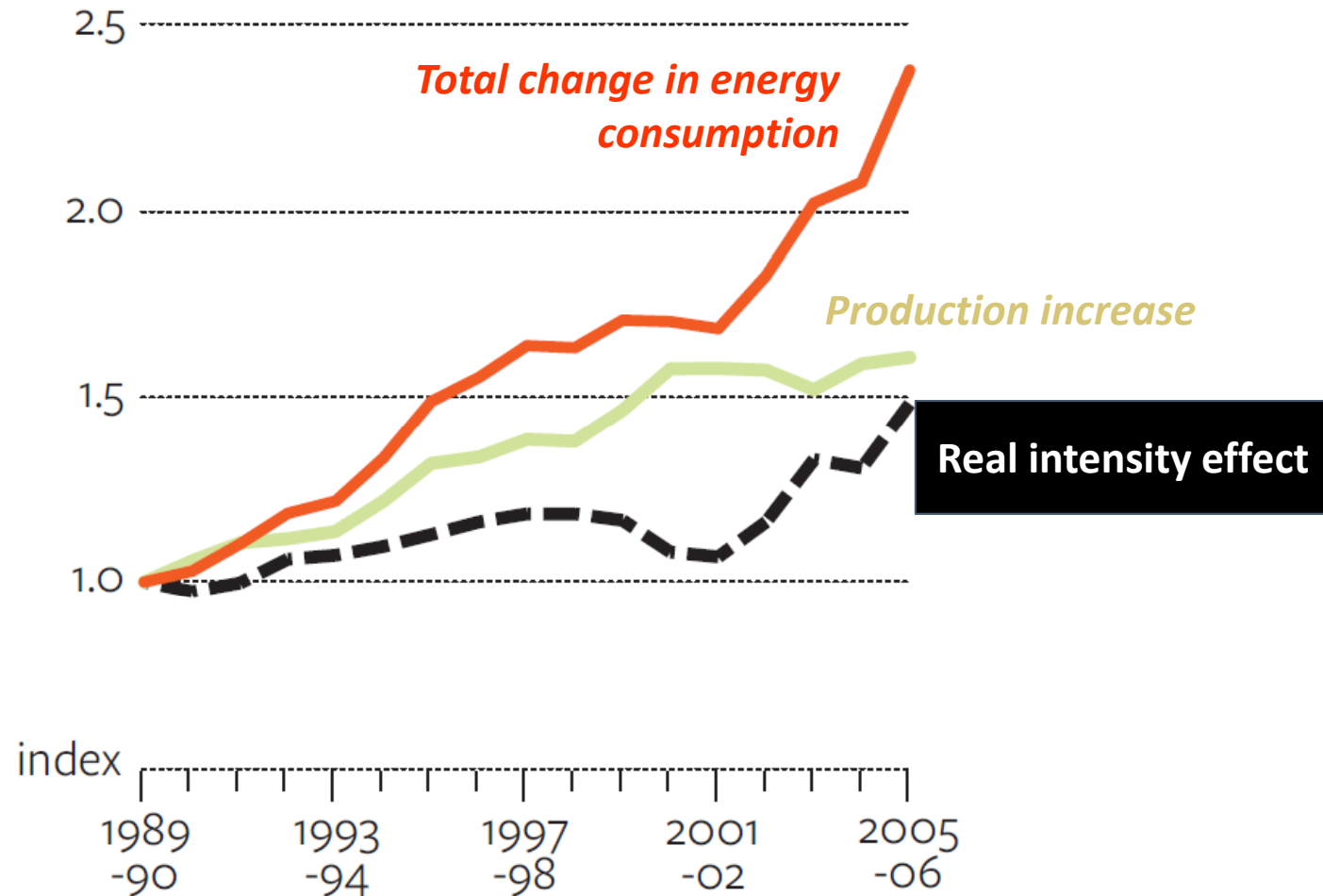
## Factors affecting :

- Sustainability drivers
- Future commodity outlooks
- New technology assessment
- Regions in transition

+ Cheaper & easier → more complex & expensive

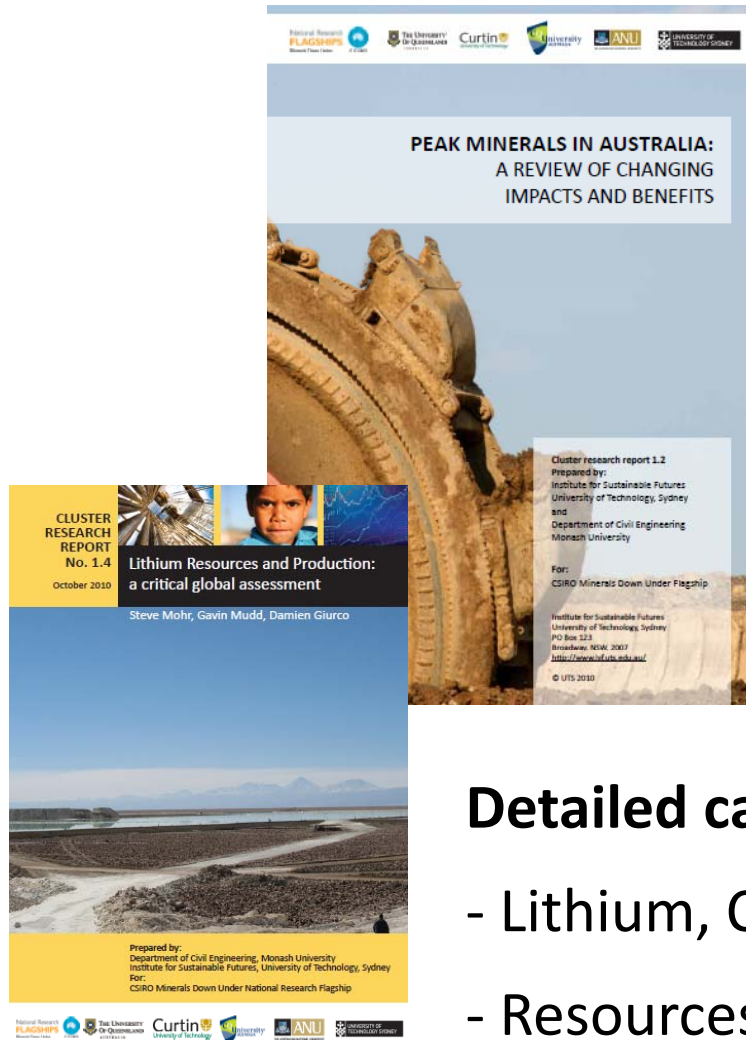


## + Energy intensity of mining up 50%



Source: ABARE, 2008 Trends in Energy Intensity in Australian Industry

# + Changing impacts, benefits & options



## Peak Minerals in Australia reviews:

- Life of resource economics
- Is technology keeping up?
- Social and environmental constraints on future production

## National Forum, 2010

## Detailed case studies – late 2011

- Lithium, Copper, Gold, Iron, Coal
- Resources and options

# + World Economic Forum Mining & Minerals Scenarios



**Resource Security**



**Rebased Globalism**



**Green Trade Alliance**

See: <http://www.weforum.org/reports/mining-metals-scenarios-2030?fo=1>  
and <http://resourcefutures.net.au/>

# + World Economic Forum Mining & Minerals Scenarios



**Resource Security**



**Rebased Globalism**



**Green Trade Alliance**

**Australian Workshop  
Melbourne, 2010**

- National Mining Strategy
- Sustainability Rating System for mining

See: <http://www.weforum.org/reports/mining-metals-scenarios-2030?fo=1>  
and <http://resourcefutures.net.au/>

## + Story 1: Don't kill the goose that lays the golden eggs



Source: istock

In this story, the problem is seen as a need to “protect” Australia’s ***natural resource industries*** so that they can remain Australia’s main economic engine.

## + Story 2: Don't sell the family silver too cheaply



Source: istock

In this story, the problem is seen as a need to “protect” Australia’s *natural resources* as an inheritance that should be maintained for future generations.

## + Never a bad tenant



Source: istock

**Mining practices cause environmental degradation, and the impacts of mining development in regional areas can have negative economic and social impacts.**

## + Always a welcome guest



Source: istock

Planning for a transition to a post-mining future is essential to creating a future in which mining delivers a net positive benefit.

# + Seeds for innovative ideas and options



**Prof Göran Roos, VTT International, SA Thinker in Residence**

- Dig once and sell three times



**Mr Darryl Pearce, Lhere Artepe Aboriginal Corp**

- Indigenous Australians hold balance of power in 2040



**Dr Joe Herbertson, Crucible Group**

- Breakthrough technology for positive legacy

*“The world is a great place, and Australia is the reason...”*



# Vision 2040

by Aleta Lederwasch



Rebased Globalism

Green Trade Alliance

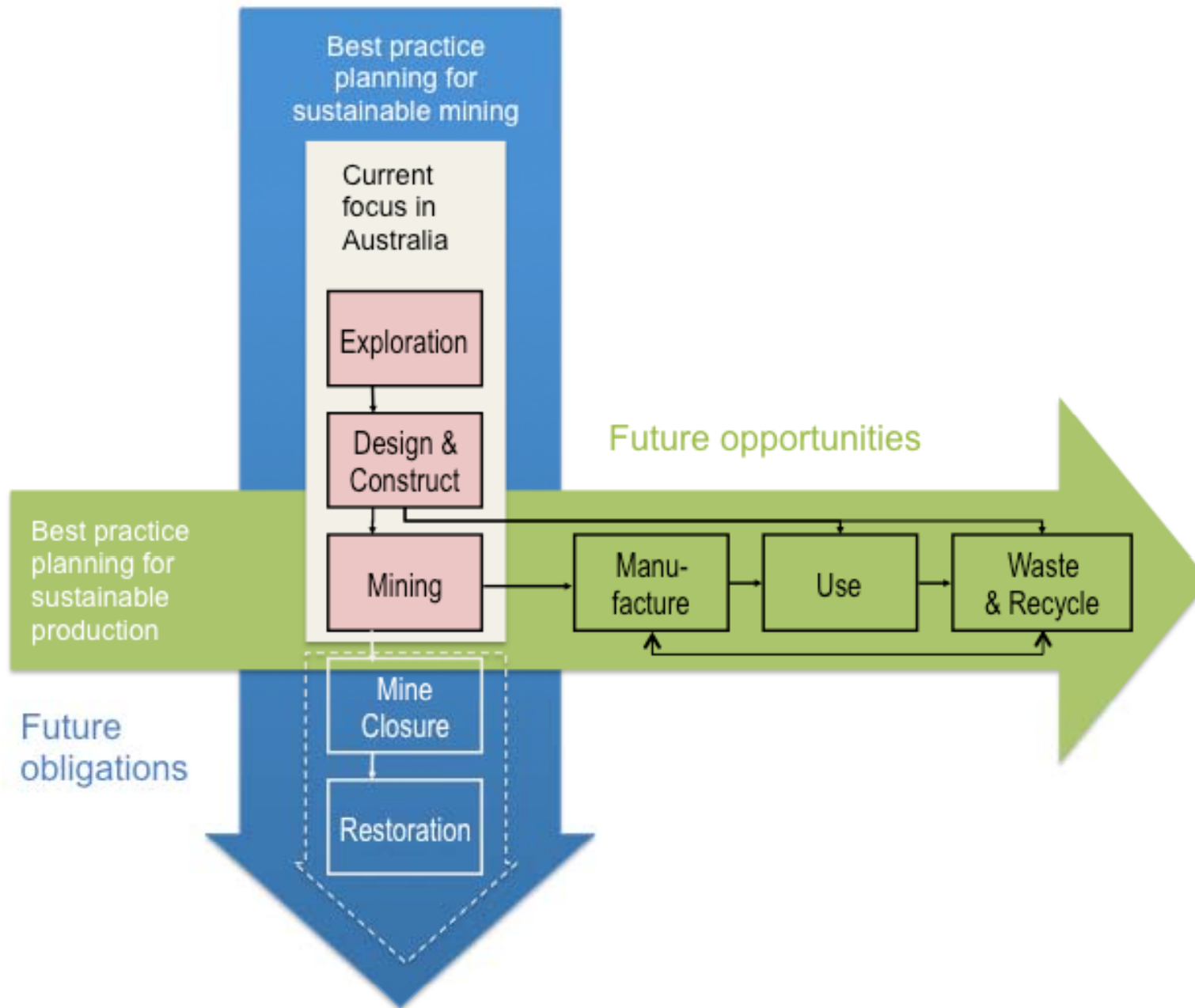


# + National Mining Strategy

*delivering long term benefit*



Source: istock



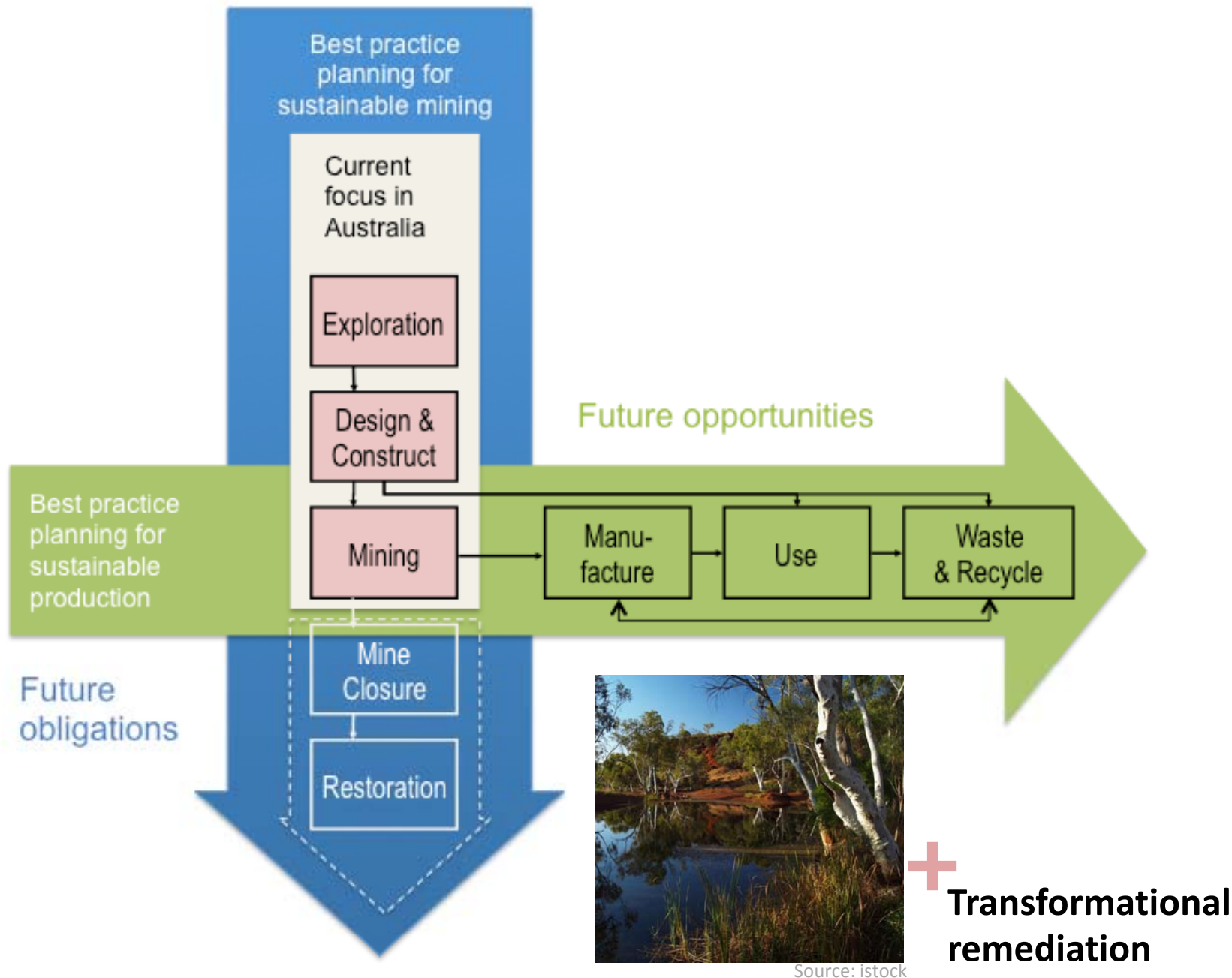


Photo: David Monniaux



Best practice planning for sustainable mining

Current focus in Australia

Exploration

Design & Construct

Mining

Best practice planning for sustainable production

Future opportunities

Manu-  
facture

Use

Waste  
& Recycle

Future obligations

Mine Closure

Restoration



+ Brand Australia: Responsible Minerals

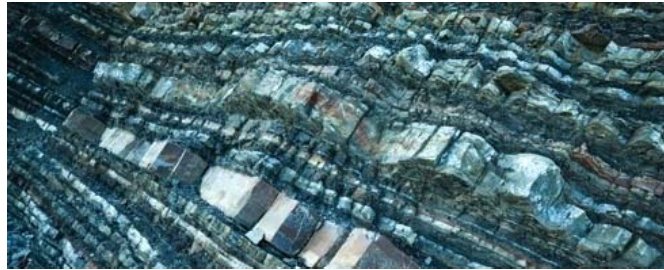


+ Transformational remediation

## + Building long term benefit for Australia



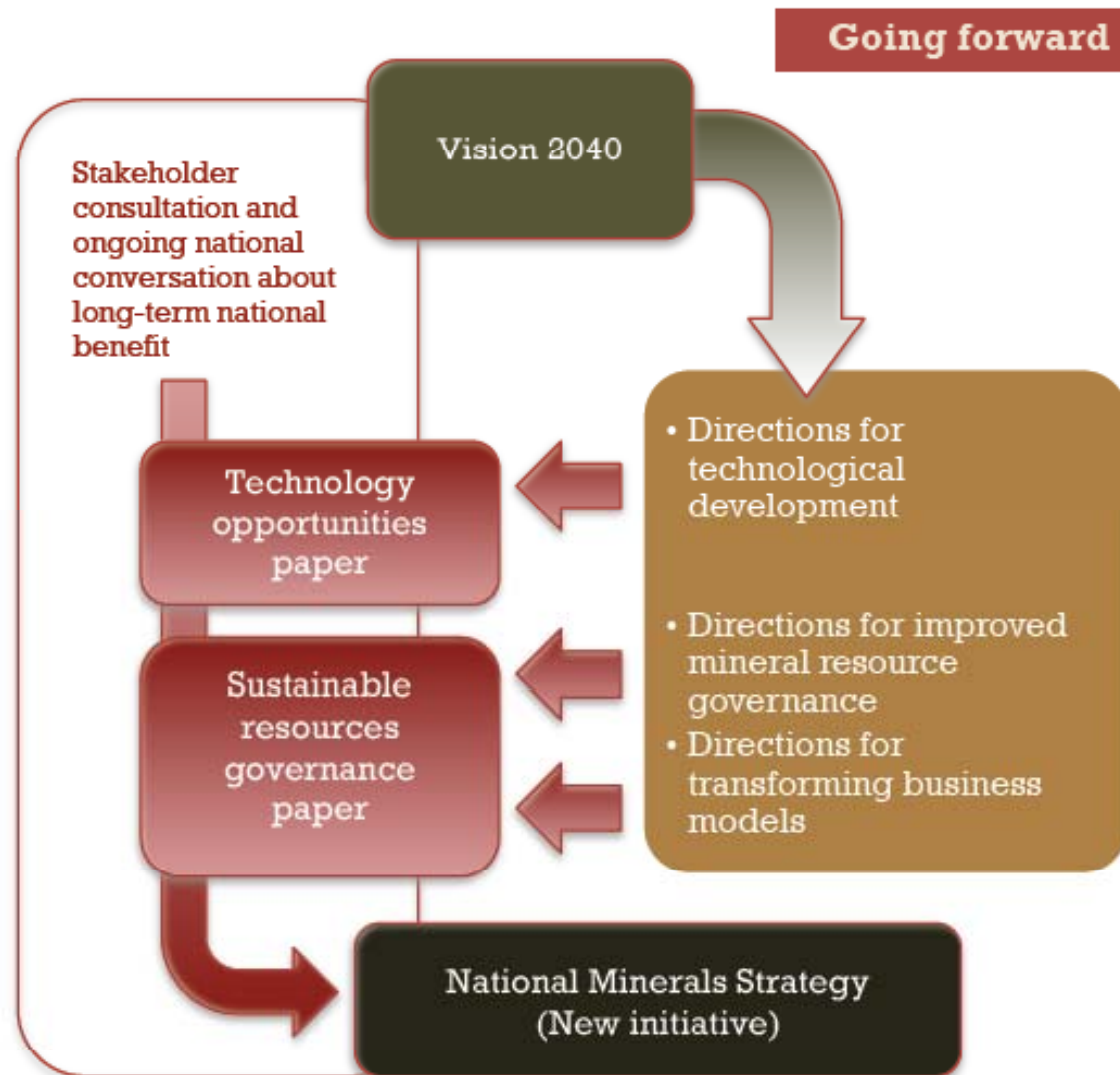
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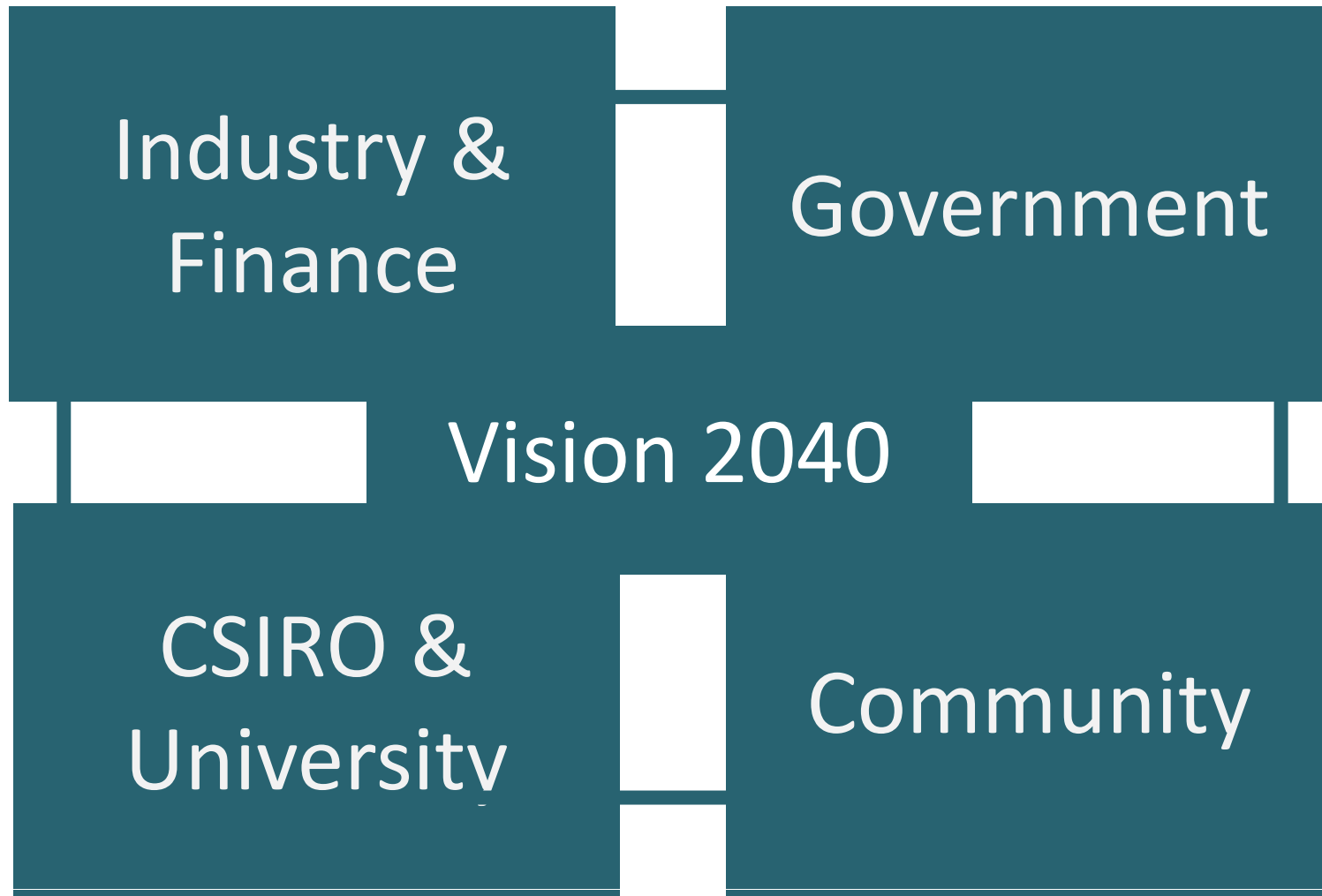
## **+ Vision 2040 – Key Themes**

- A National Mining Strategy**
- Transformational innovation & remediation**
- Brand Australia: responsible minerals**
- Building long-term benefit for Australia:  
Sovereign Wealth Funds**

## + Future stages...



## + Creating change



## + Contact

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Institute for  
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## + Publications

Mineral Futures Collaboration Cluster  
[www.csiro.au/partnerships/mineral-futures-collaboration-cluster.html](http://www.csiro.au/partnerships/mineral-futures-collaboration-cluster.html)  
Commodity Futures at UTS  
[www.resourcefutures.net.au](http://www.resourcefutures.net.au)

## + Acknowledgement

