

How innovative partnerships will grow minerals and mining in South Australia



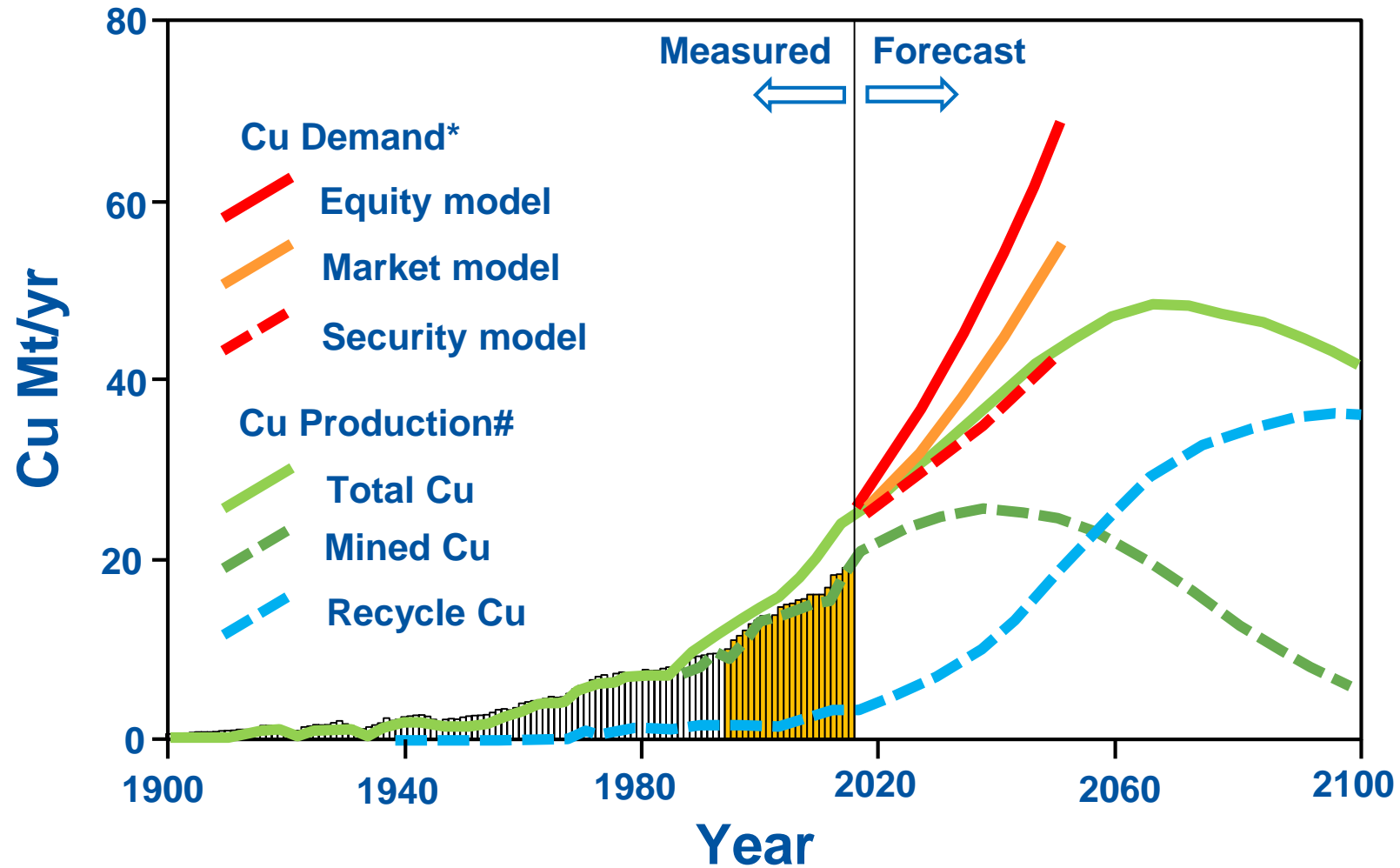
Prof. David Giles

Strand Leader and John Ralston Chair
in Minerals and Resources Engineering
Future Industries Institute
University of South Australia

CHIEF SCIENTIFIC OFFICER, MINEX CRC

Thursday 16th July, 2020

Copper: Meeting demand



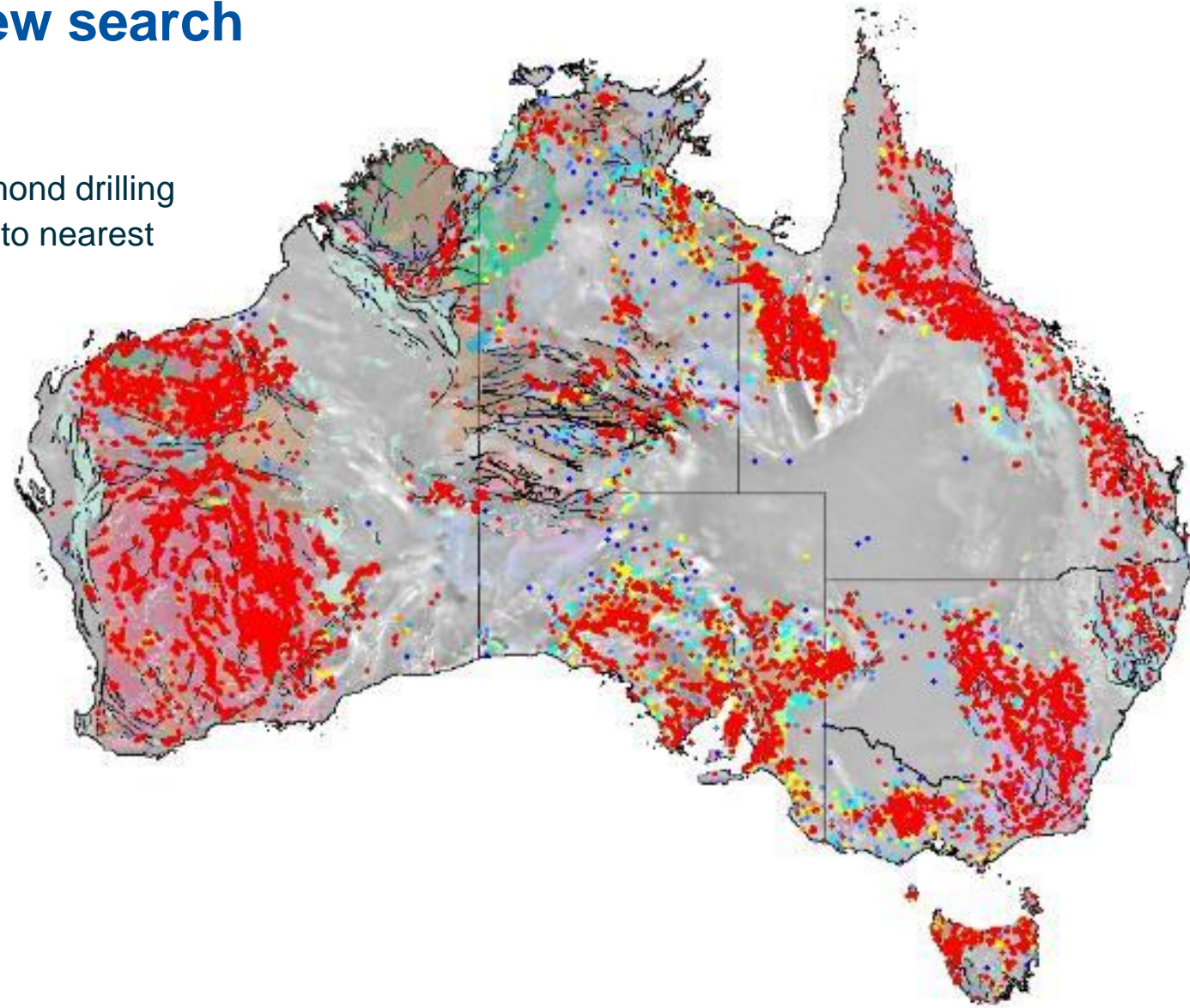
*Elshkaki et al (2016). Copper demand, supply and associated energy use to 2050. *Global Environmental Change*, 39, 305:315

#Saleem et al (2017). Mineral supply for sustainable development requires resource governance. *Nature*, 543, 367:372



Accessing new search space

Open file RC and Diamond drilling
Coloured for proximity to nearest neighbour

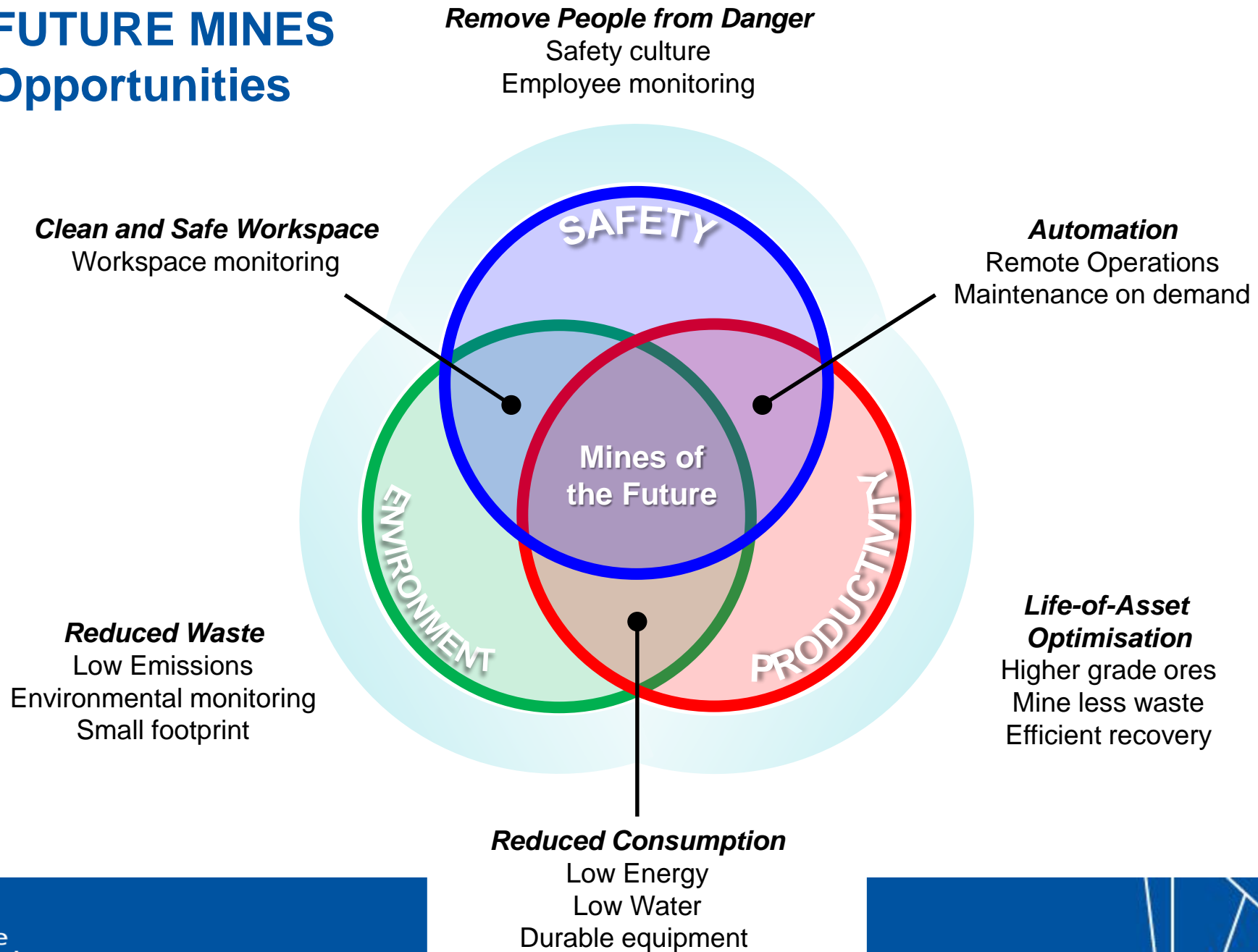


n= 714,876

n(WA) = 559,456

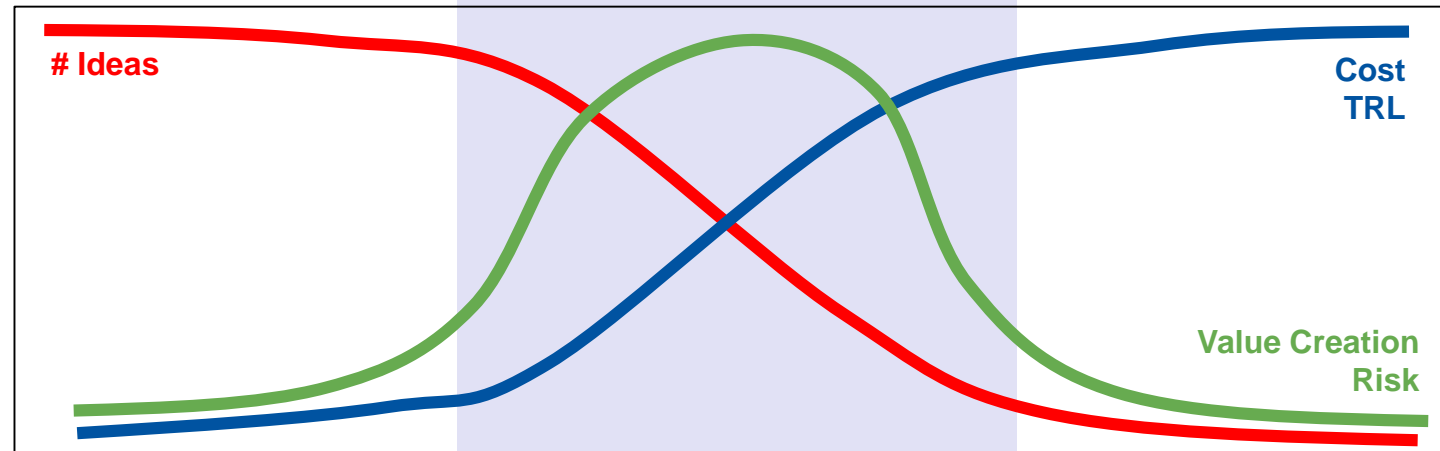
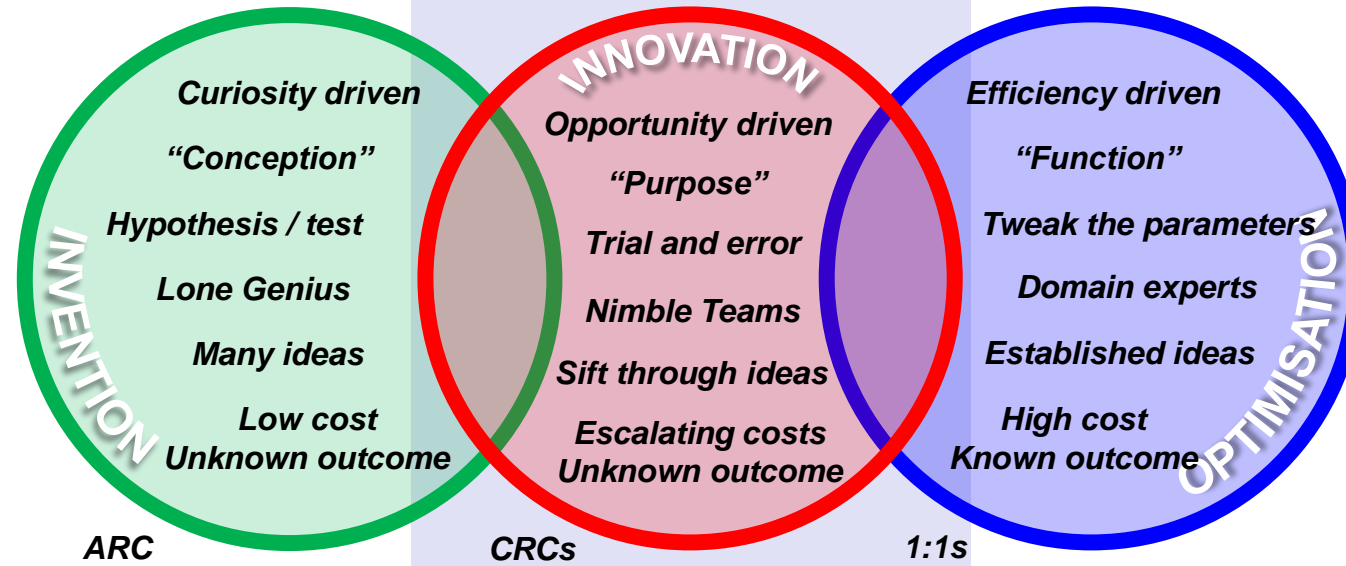


FUTURE MINES Opportunities



Role of Innovation

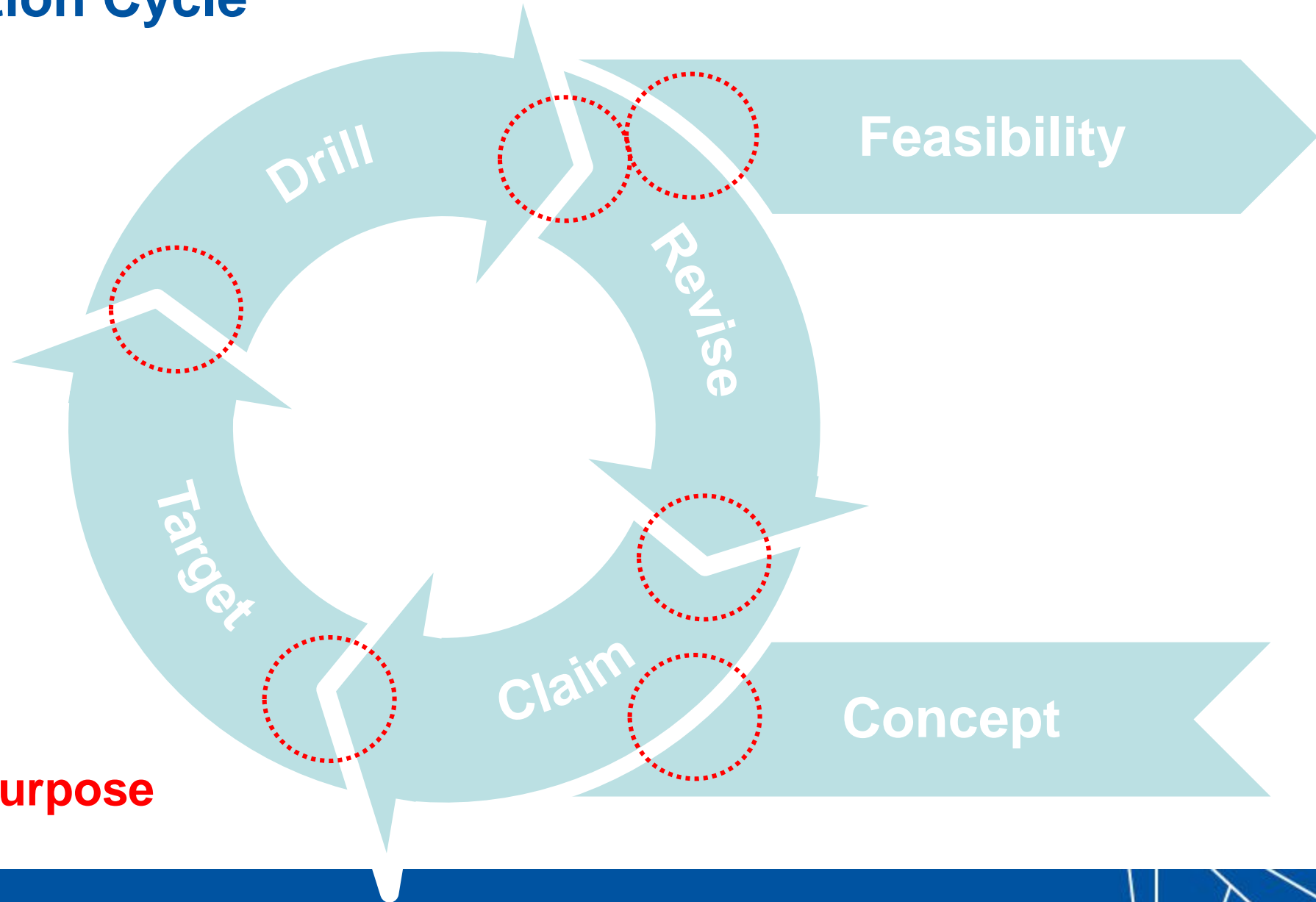
OPPORTUNITY



The Exploration Cycle

**Decisions,
Decisions,
Decisions**

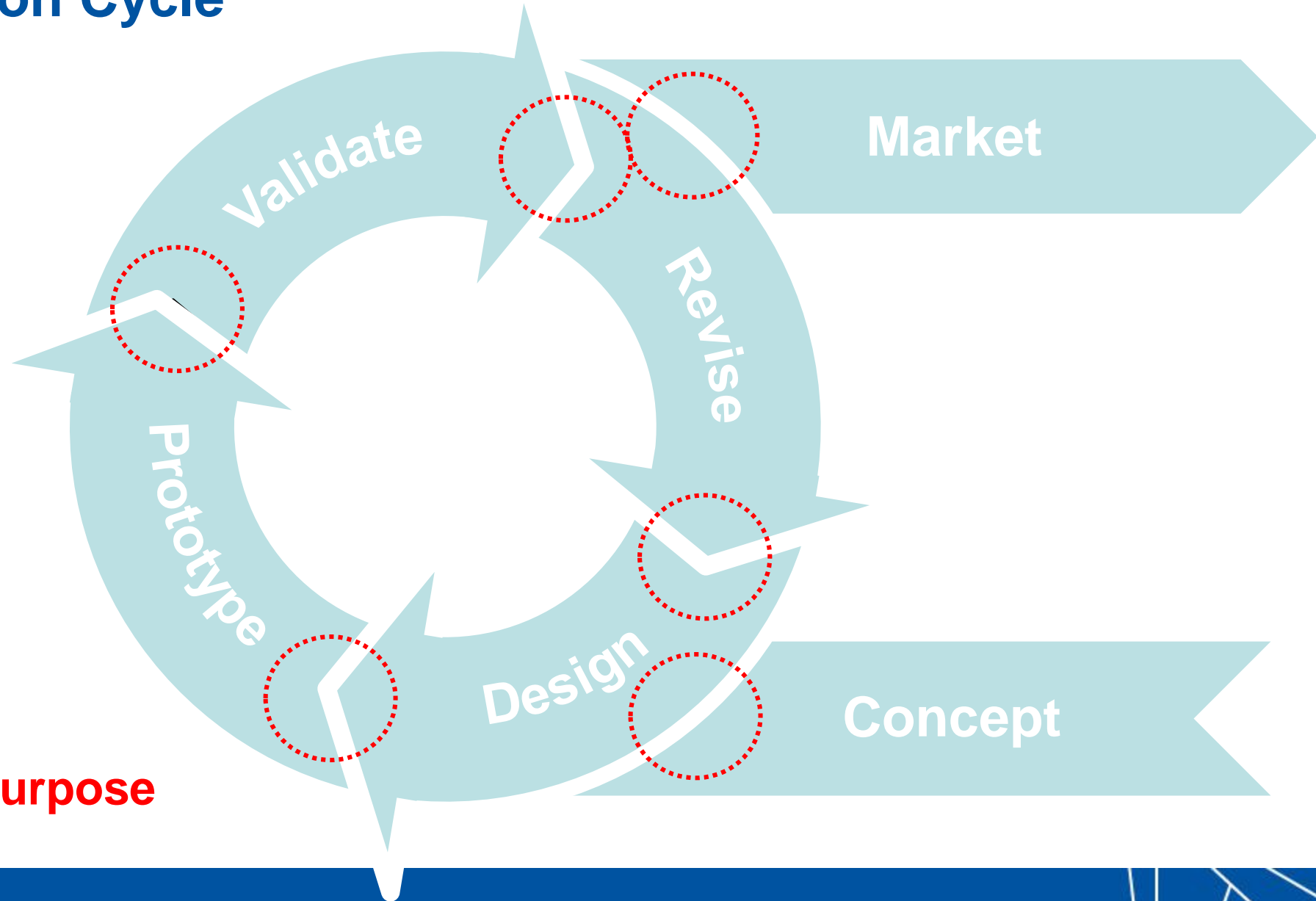
**Informed,
Timely,
Clarity of Purpose**



The Innovation Cycle

**Decisions,
Decisions,
Decisions**

**Informed,
Timely,
Clarity of Purpose**



Encouraging a culture of Innovation

- **Change perception of failure**
- **Embrace trial and error methodology**
- **Promote diversity of ideas and perspectives**
- **Provide venues for sharing information and ideas**
- **Create pathways to market (engage METS)**
- **Cycle quickly through the process, but...**
- **...allow time for multiple cycles**
- **Share financial risk through the “valley of death”**
- **Don’t try to back winners – support the process**



10 year program

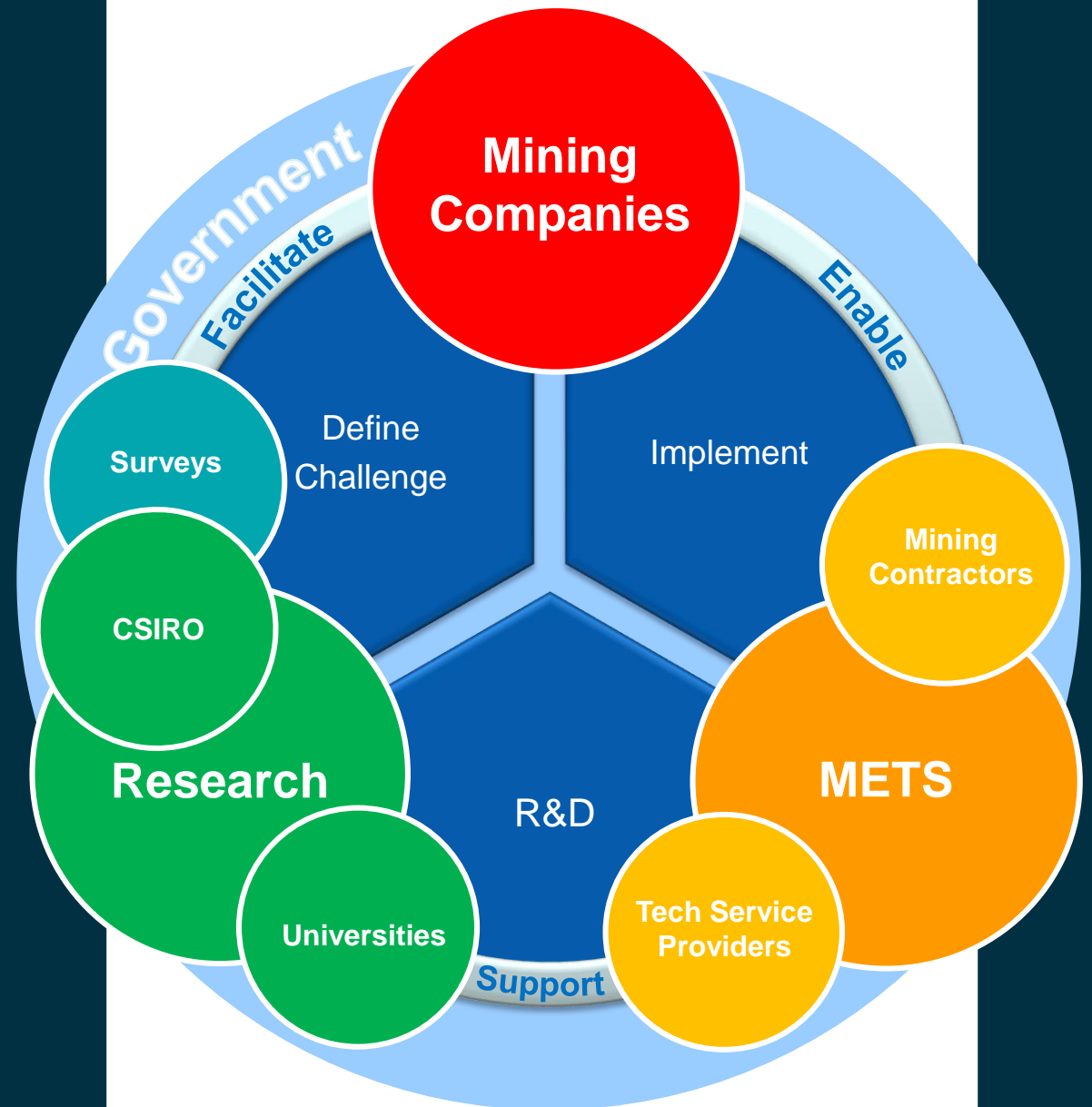
\$218M cash / in-kind

60 PhD and MSc

HQ @ UniSA and CSIRO

Key partnerships with Geological Survey of South Australia, Adelaide University and UniSA

Consortium of Major Miners, METS, Government, Research Orgs (36 and counting)



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