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Brisbane Mining Club - 20 June 2019

Orica in Queensland



How do we prepare
for unpredictable change?



The largest urban transformation of the 21st century will be in India

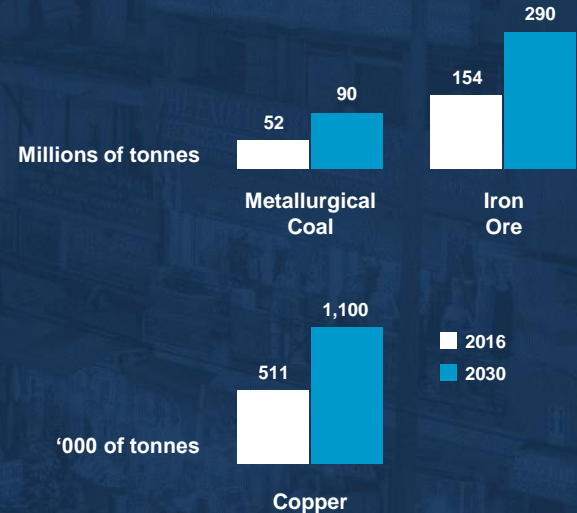
75%

of India's 1.2 billion total population live in rural areas

416M

people will move into urban areas by 2050

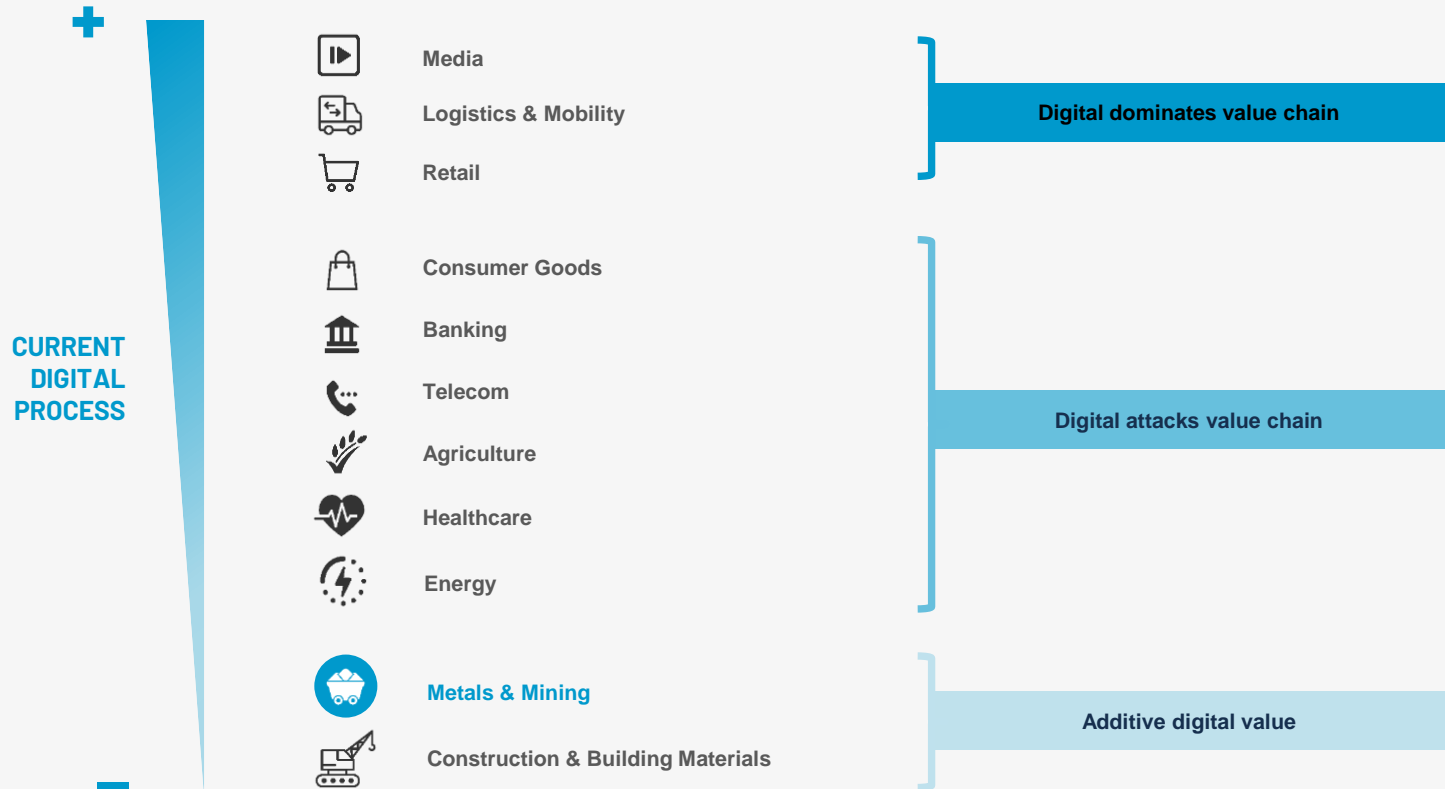
Resources demand to support India's urbanisation



China's urbanization has put it at the forefront of robotic automation and electrical vehicle consumption



In metals & mining, digitisation is just entering the scene



The digital transformation of mining is set to deliver massive value and safety improvements over the next decade



\$320bn
value annually



1k
lives saved

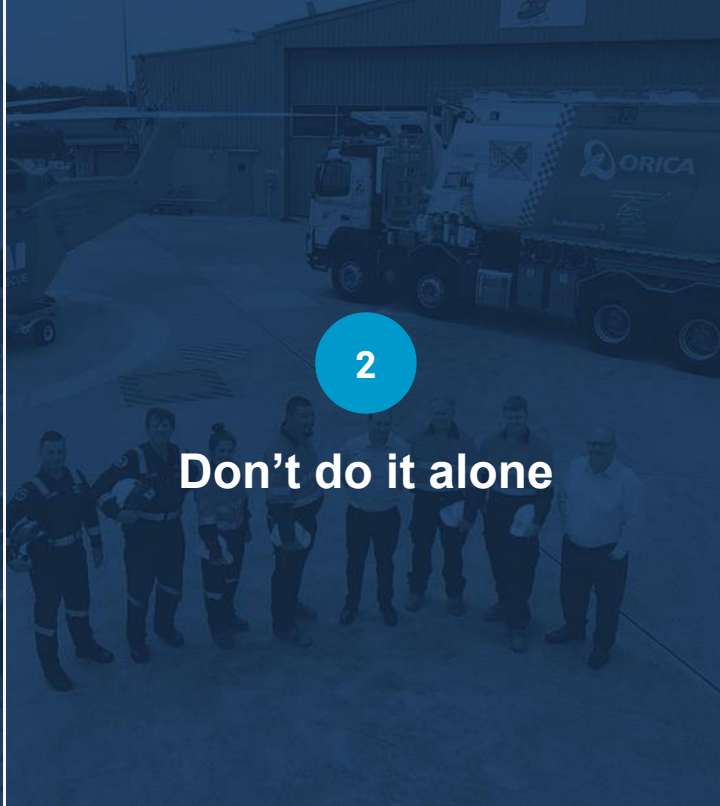
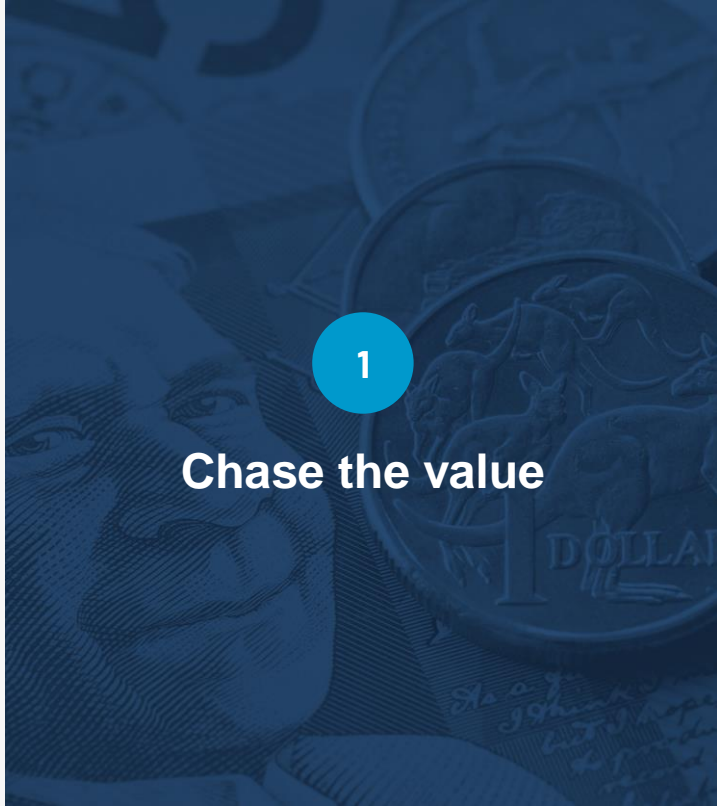


44k
injuries avoided

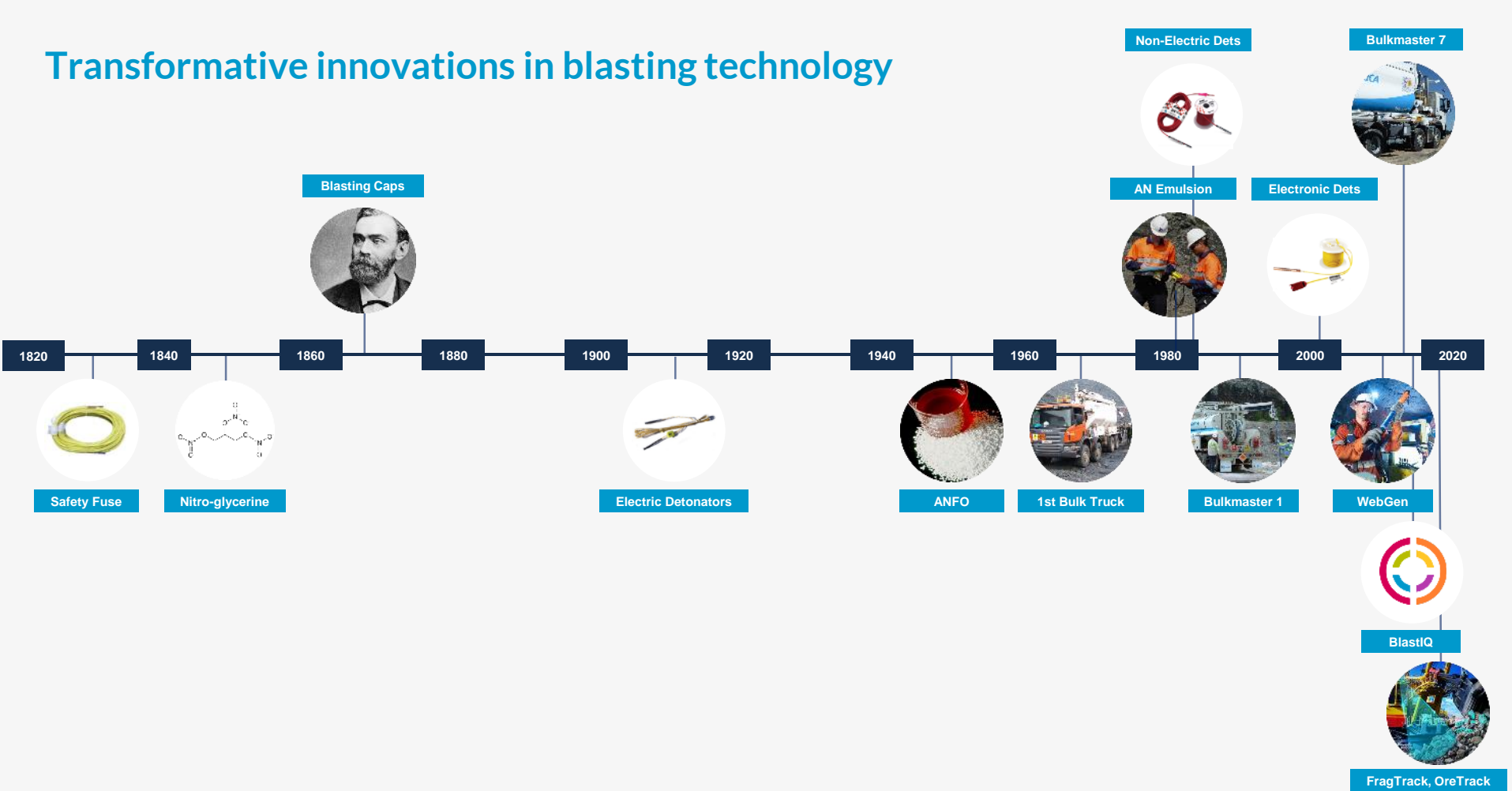


A\$40-80bn
EBITDA annually
(30 - 60% growth)

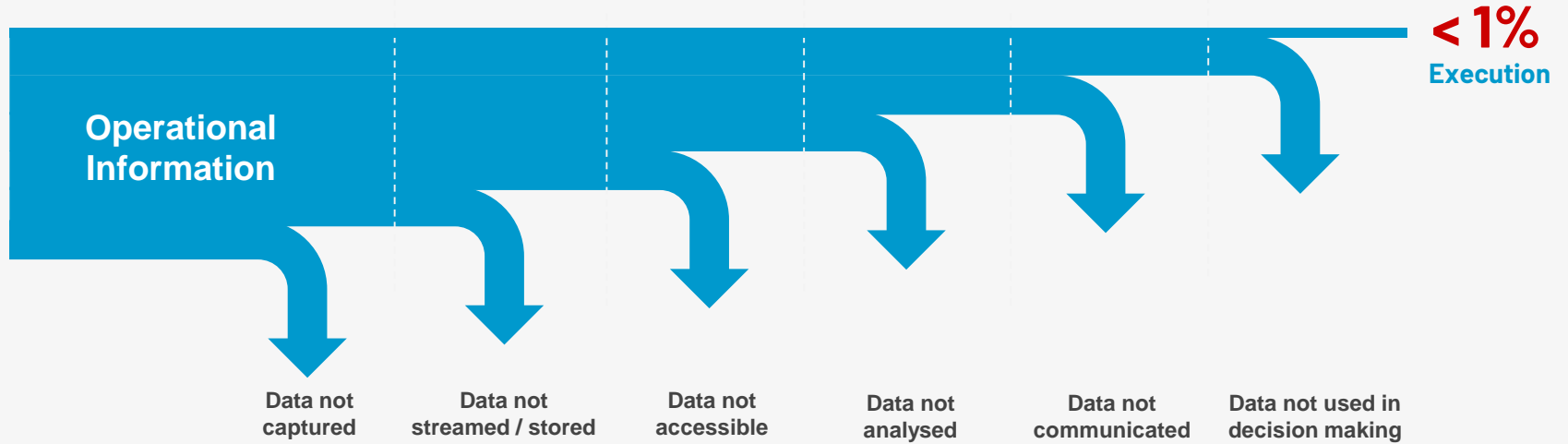
Research keeps identifying two key success factors in digital transformation



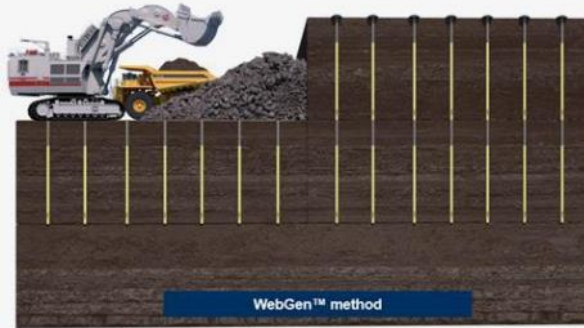
Transformative innovations in blasting technology



Mining companies are capturing data, but less than 1% is used in decision making

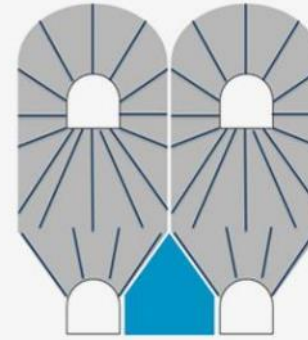


Wireless detonators – a transformative technology



Change in open cut extraction methodology:

- Safer
- Significantly more efficient (less constraints)
- More flexibility



In-cycle A pillar recovery

Change in underground extraction methodology:

- Safer
- More resource recovery



- Rate of change will increase and exponentially so
- We can't plan based upon being able to reliably predict the future
- We can learn from other sectors as they have gone through technological based disruption
- Orica has invested heavily in transformational technologies which are coming into play now
- Orica now has partnership agreements in place with 30% of our customer base in Australia to encourage focus and urgency

WebGen - Bulkmaster - BlastIQ - FragTrak - OreTrak - GroundProbe