

# Partnering for the future

## Oyu Tolgoi Underground Development

September 2016



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# Rio Tinto: who we are

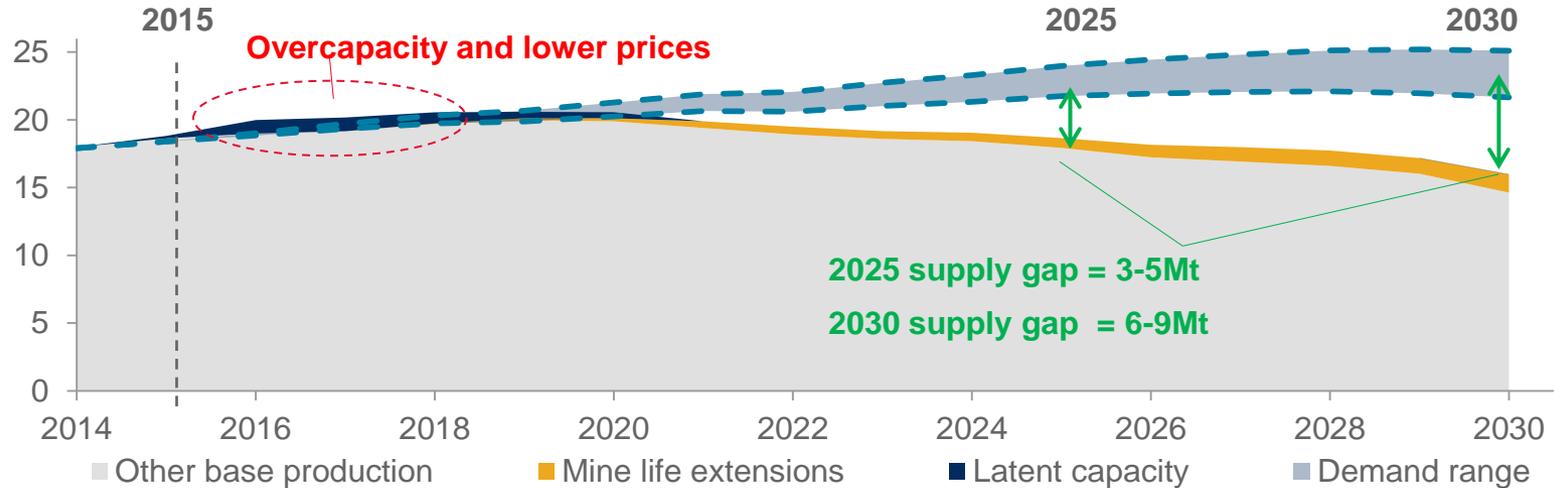
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- We are a leading global business with expertise in building and operating tier one world class mining assets
- We employ around 60,000 people in more than 40 countries
- We fulfil vital consumer needs and improve living standards
- Our commitment to safety is fundamental to the way we do business
- Sustainable development is at the heart of everything we do
- We are proud to partner with Mongolia in Oyu Tolgoi, one of the most exciting copper and gold mines in the world

# Copper market is in short term overcapacity

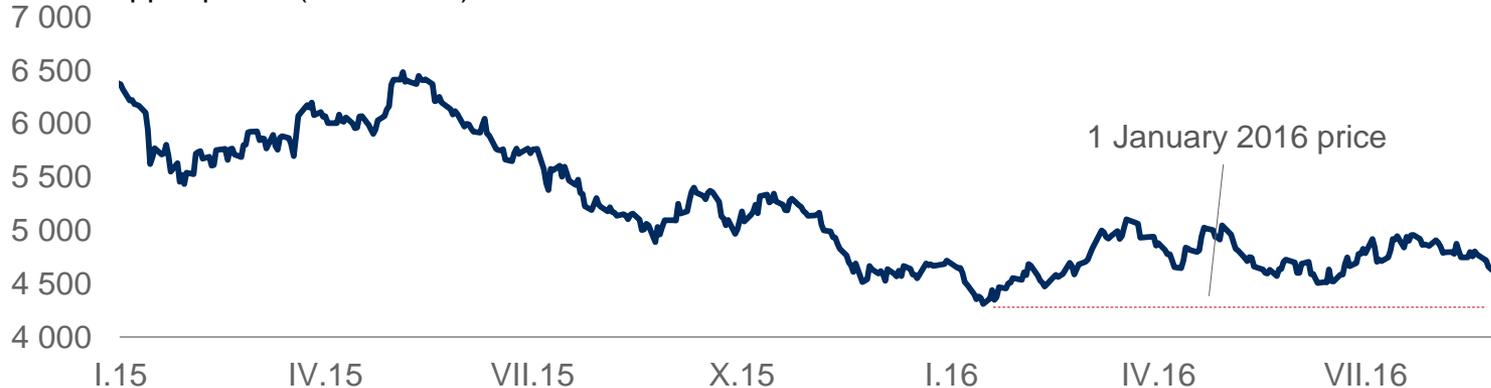
## Attractive long-term fundamentals

Copper supply/demand (million tonnes)



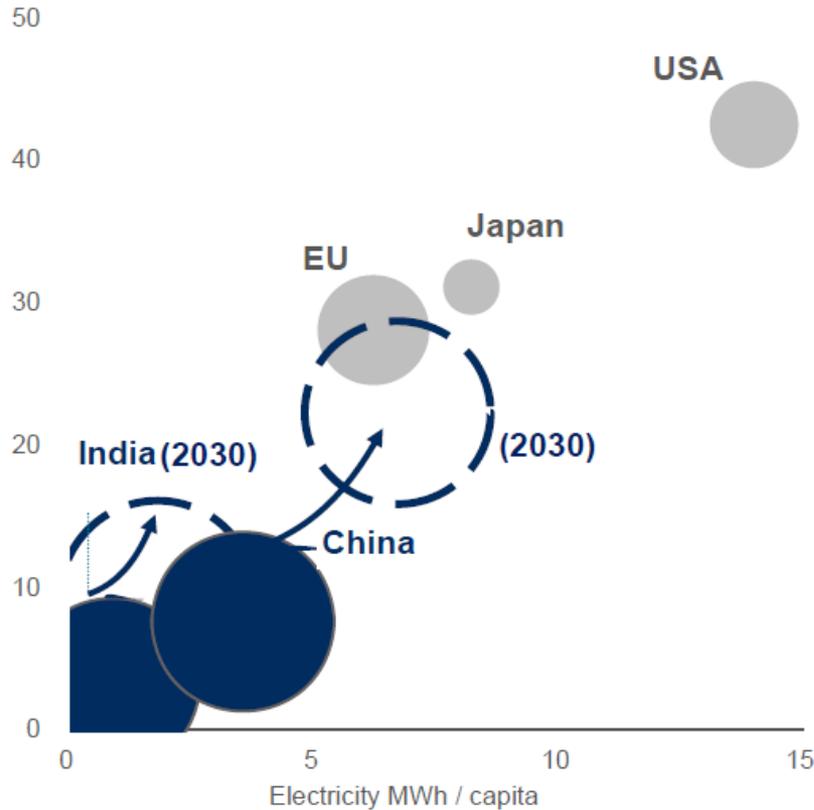
## Prices are recovering slightly from Q1 decline

LME copper prices (US\$/tonne)

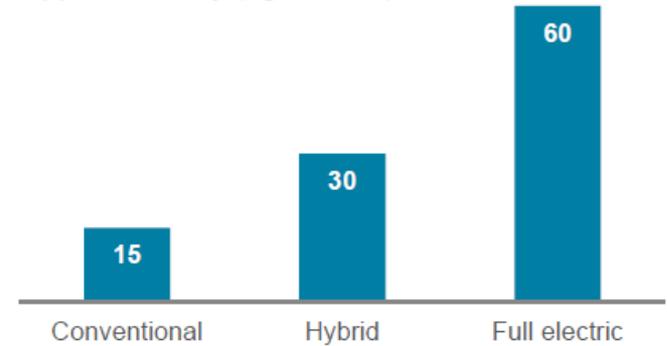


# Copper fundamentals remain strong

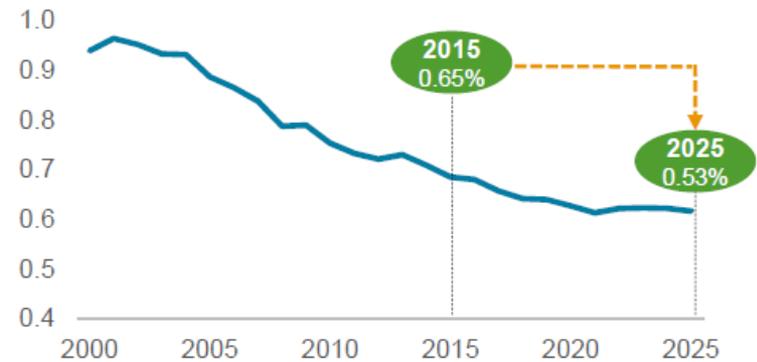
**Population, GDP and electricity**  
US\$ '000 GDP / capita



**Copper intensity by vehicle type**  
Copper intensity (kg/vehicle)



**Supply decreases due to grade declines**  
Copper head grade all mines<sup>1</sup>

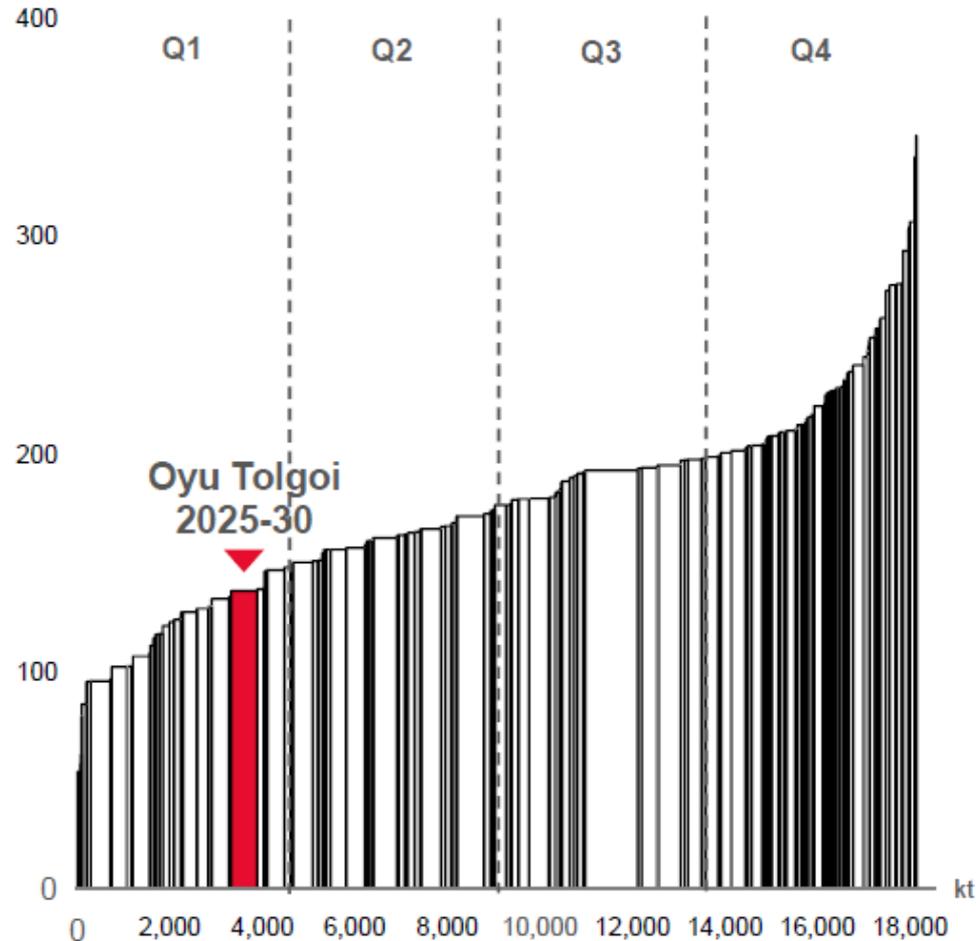


Source (left chart): Wood Mackenzie. Source (top right chart): International Copper Association. Source (bottom right chart): Wood Mackenzie Q1 2016. 1 Percentage copper weighted by ore processed.

# OT well positioned for future with underground

## 2025 cost curve

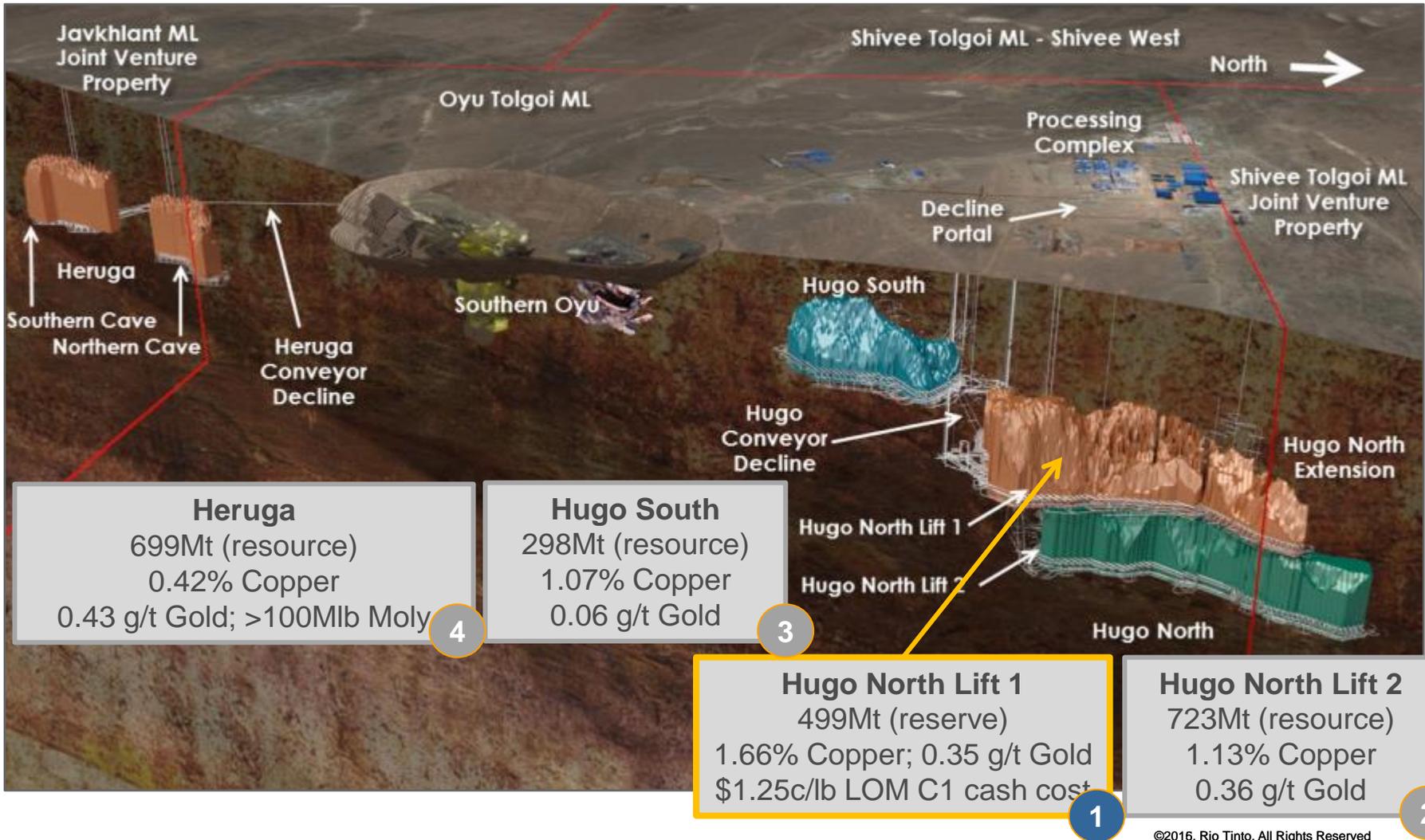
Copper equivalent unit cost<sup>1</sup>



- Market anticipates deficit towards end of decade
- With the underground mine, OT will be one of the most significant producers at very competitive costs
- First production from the underground expected in 2020
- Average production of ~560kt of copper 2025-30
- Existing infrastructure and supply chain/route to market

# Multi-generational asset

Up to 100 year mine life in current resource case

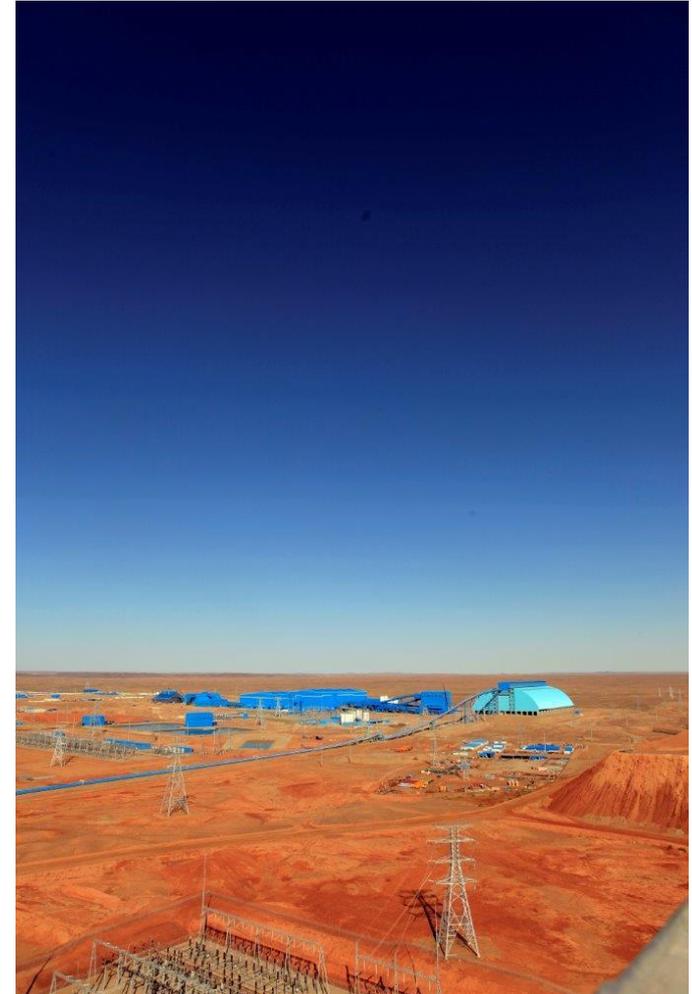


# Where we are today

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Oyu Tolgoi is already an example of a successful, world class Mongolian company:

- Safety *always* comes first – Oyu Tolgoi is one of the best safety performers across Rio Tinto
- Over 788,500 tonnes of concentrate produced in 2015
- Over US\$315mn in taxes, fees and other payments to Mongolian in 2015; ~US\$126mn in H1 2016 alone
- Approximately US\$5.5bn spend in Mongolia from 2010 through H1'16
- Employing a 93% Mongolian workforce, focused on training and capacity building



# Underground Development Plan marks a significant step forward with Oyu Tolgoi



Open pit, Hugo North (L1 & L2), Hugo South and Heruga



OT underground lateral development

- 80% of Oyu Tolgoi's value lies underground – potential to be one of the most significant copper producers worldwide
- The Underground Development Plan marks a major step forward in the partnership:
  - Clarifies the future tax and royalties framework and resolves shareholder issues
  - Provides a clear way forward for development of underground mine, unlocking value
- A significant amount will be spent in country including domestic operating cost expenditure, domestic capital cost expenditure, and direct payment to GoM over 5-7 years

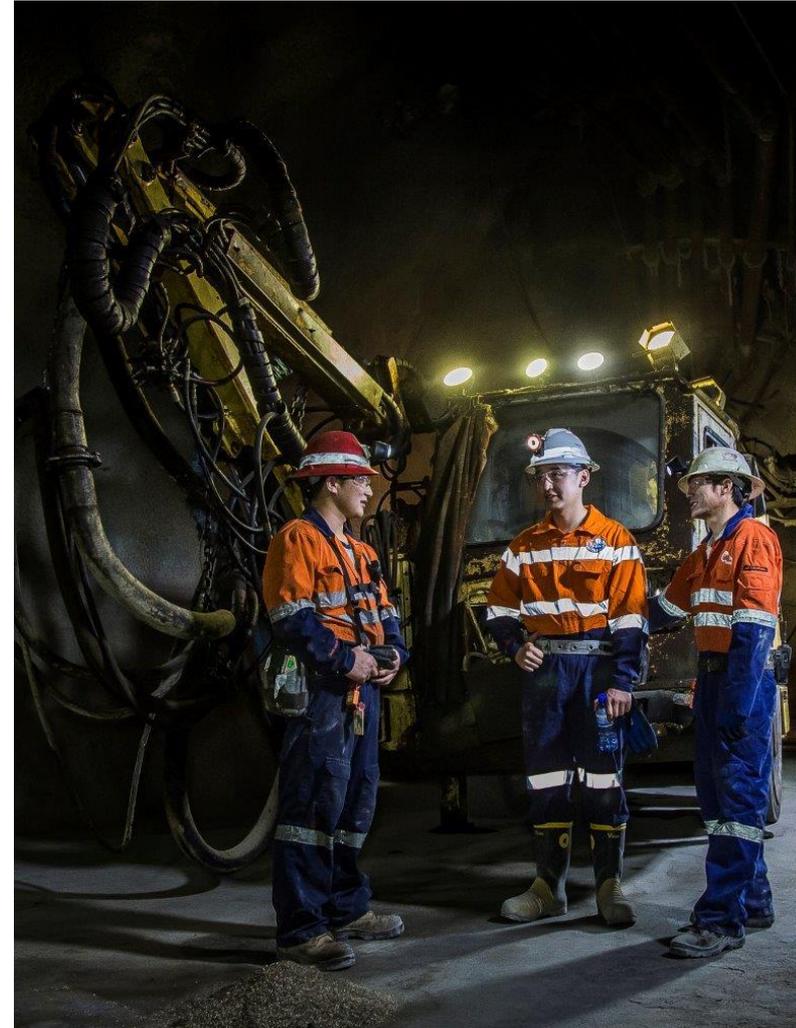
# Underground development: Focus on safety

- Requires sinking of five vertical shafts, totaling 6km of vertical development, and a decline with conveyor to surface
- Material handling systems to process this load – haul trucks, crushers, underground conveyors – all to be built 1.3km underground
- 200kms of underground lateral development
- Surface infrastructure – control rooms, offices, associated facilities to be built up
- Building and skilling up underground team – majority will be Mongolian
- Procurement will be managed from and based in Mongolia; commitment to maximizing impact in-country
- Construction project to take approximately five to seven years; *focus is to do it safely and do it right*



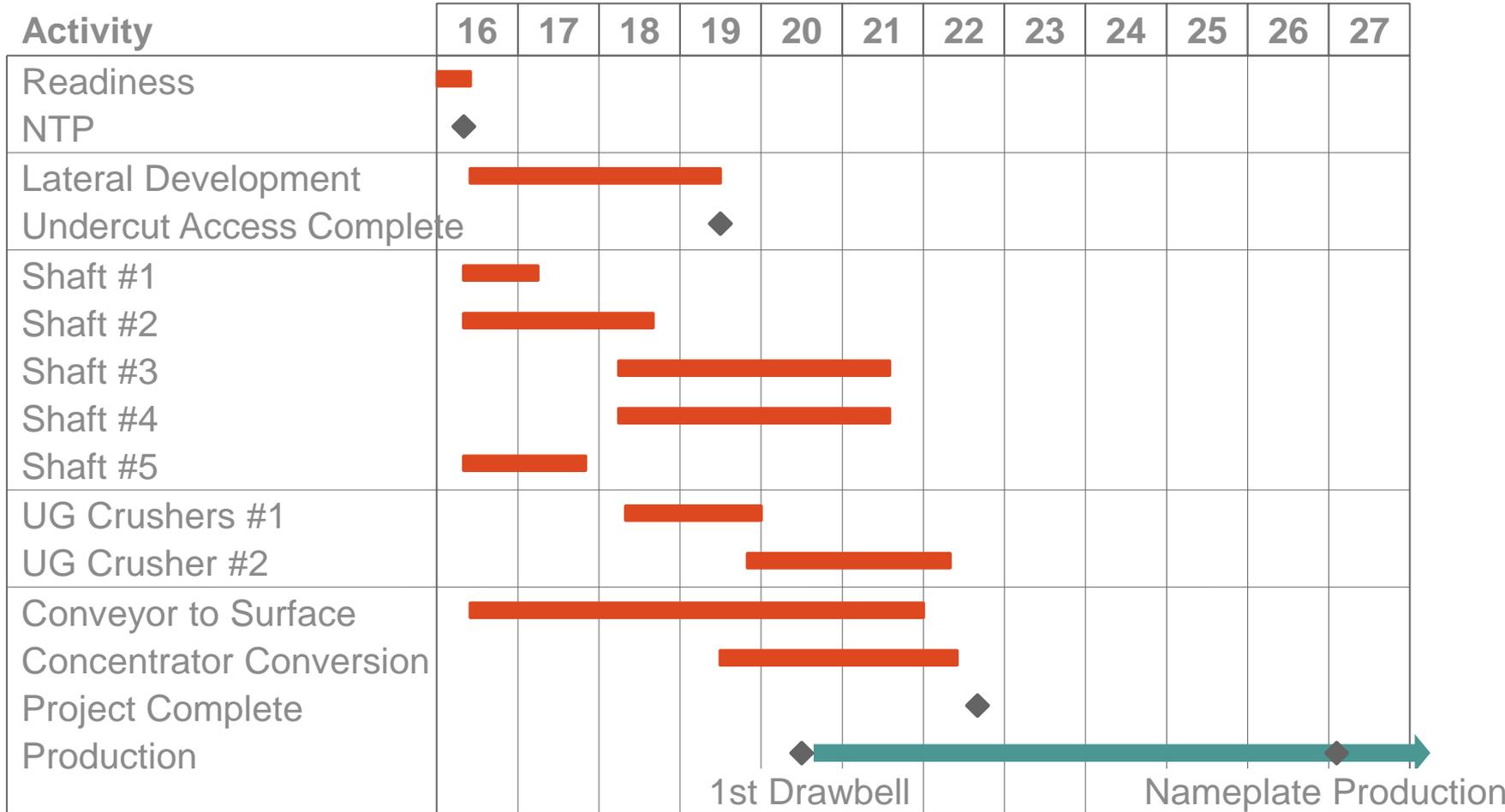
# Underground development: Commenced and gaining momentum

- Formal notice to proceed by the boards of TRQ, OT and RT
- 2016 OT Feasibility Study approved
- Drawdown of \$4.3bn of project finance
- EPCM services contract awarded to Jacobs Engineering
- Major contracts for the Underground Development Services, Mine Support Services, Shaft 2 and Shaft 5 Sinking awarded
- Over 1,000 personnel recruited (majority are Mongolian). The underground workforce is planned to reach 2,700 by end-2016

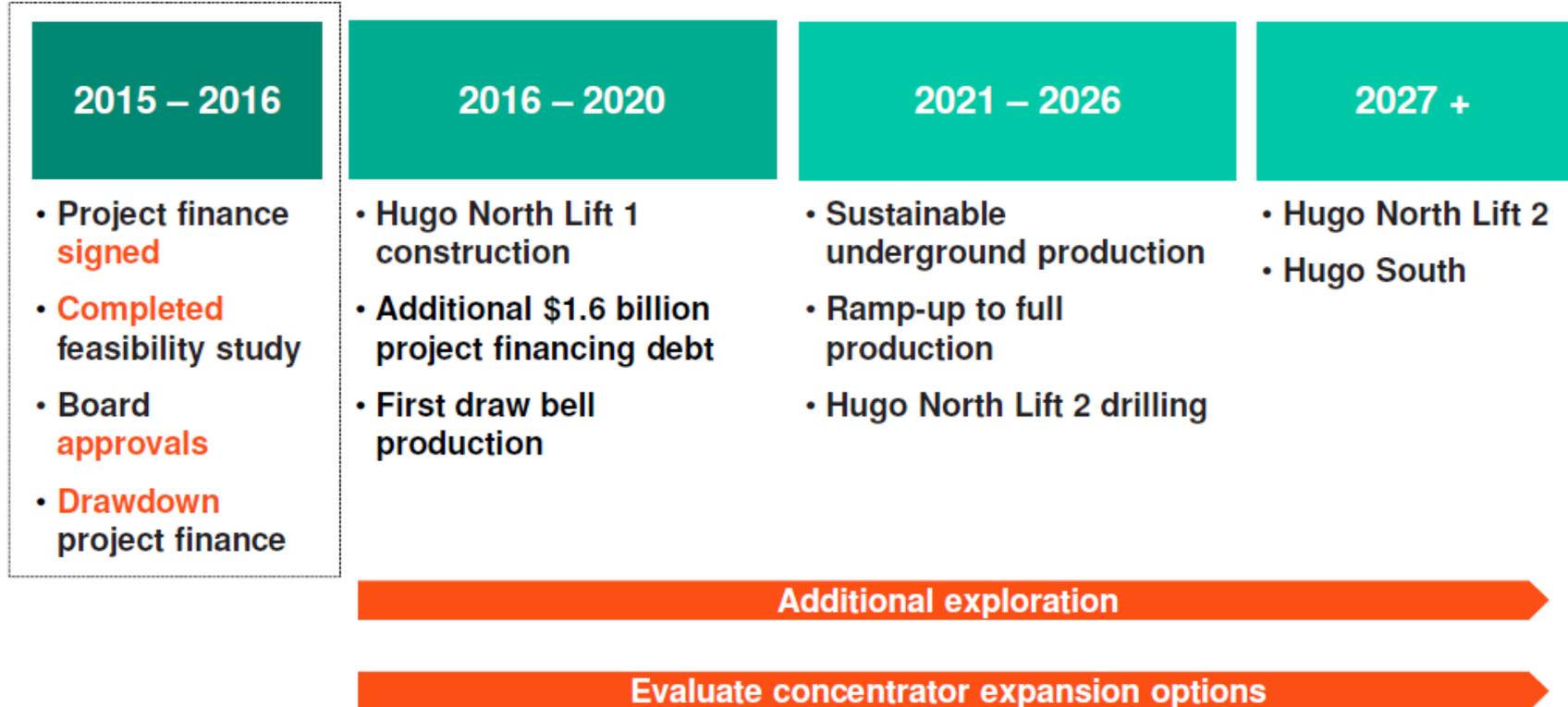


# Project schedule

Five year construction period followed by production ramp-up over 7 years



# Medium-term timeline



# Rio Tinto is committed to Mongolia

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- Oyu Tolgoi is one of the most important new copper developments in the world
- The benefits will be shared by generations of Mongolians for years to come
- Rio Tinto is a committed partner: with technical expertise and operating experience
- To quote Oyu Tolgoi's mission, we will **together deliver a safe and globally competitive copper business that contributes to the prosperity of Mongolia**



Thank you