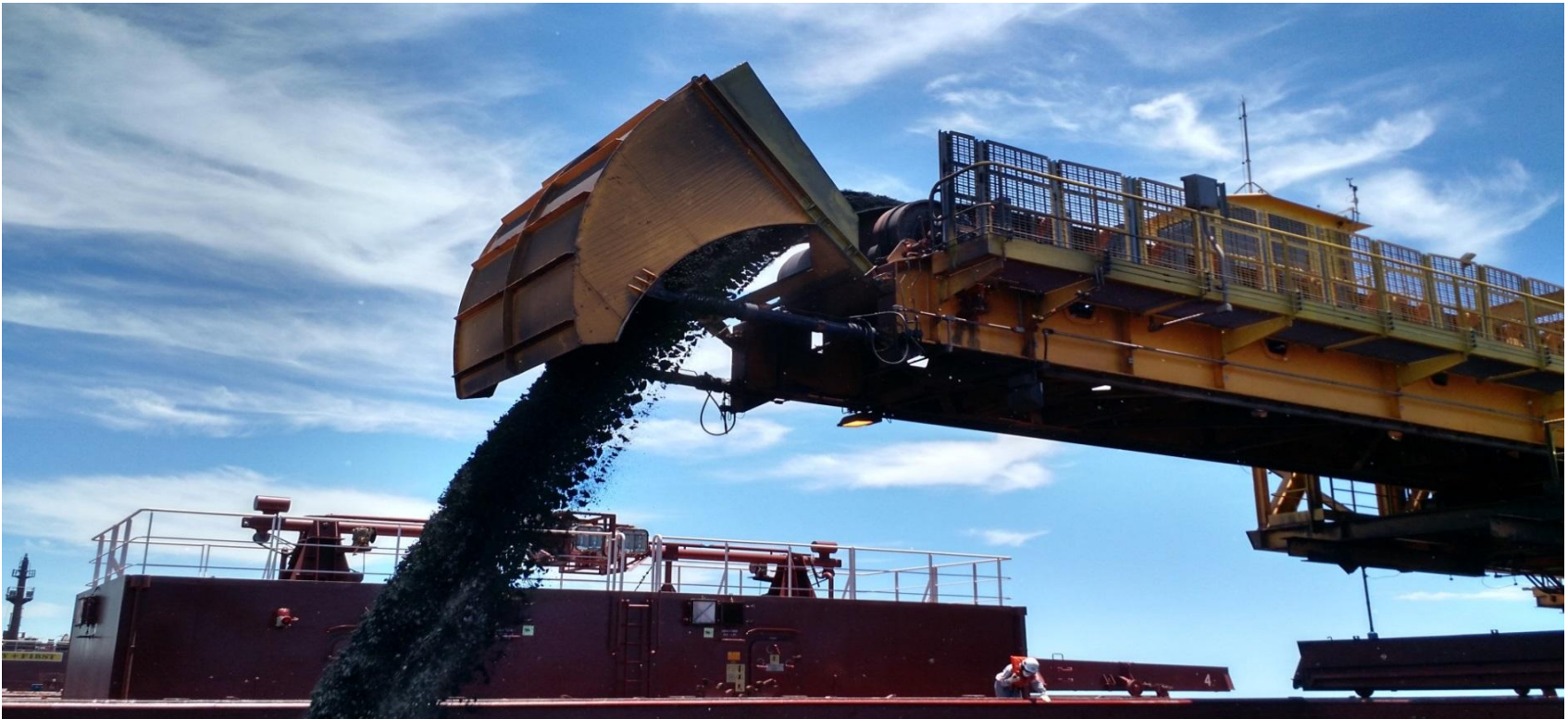


# **MINAS-RIO INTERNATIONAL MEDIA VISIT - 2015**

May, 2015



# ANGLO AMERICAN: THE DIVERSIFIED MINER

Diversified across 10 product groups that span the development cycle

Founded in  
1917

150,000 employees  
and contractors

## Key

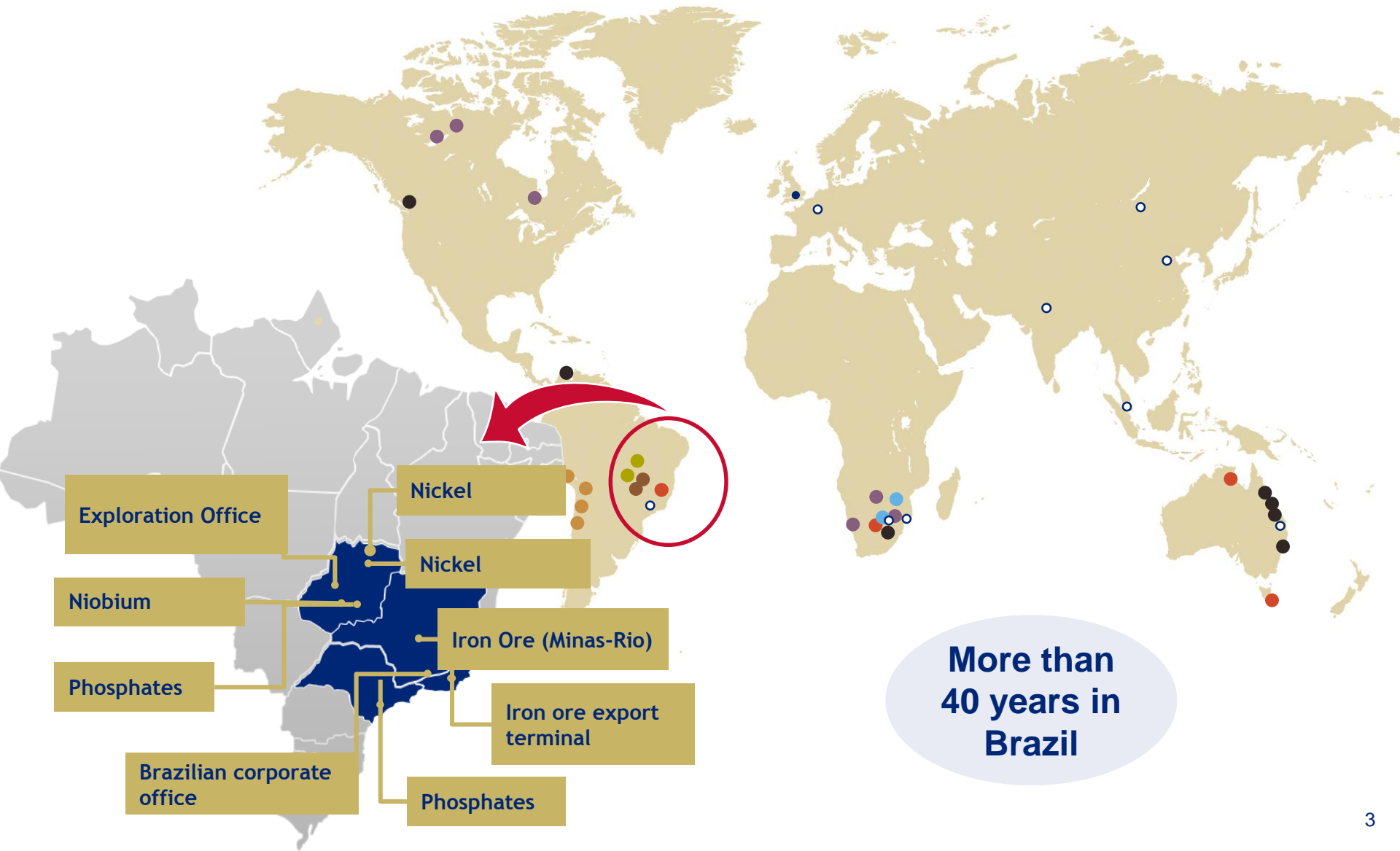
- Headquarters
- Corporate & representative offices
- Iron Ore and Manganese
- Met and Thermal Coal
- Copper
- Nickel
- Niobium and Phosphates
- Platinum
- Diamonds

Operating  
across 5  
continents

Recognised in Brazil and internationally as a responsible mining company

# ANGLO AMERICAN IN BRAZIL

A long and successful partnership



More than  
40 years in  
Brazil

# BRAZIL: ECONOMIC AND POLITICAL SCENARIO

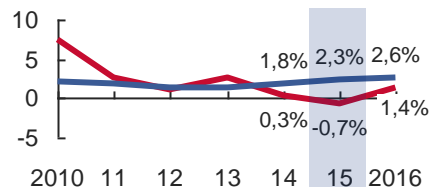
## A challenging set-up in spite of favourable conditions

### Selected indicators<sup>1</sup> – %

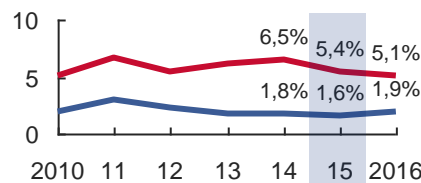
— Brazil — OECD

Modest growth due to tighter monetary and fiscal policies, weak external demand, low levels of investment and infrastructure bottlenecks;

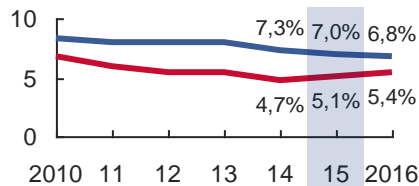
#### GDP Growth



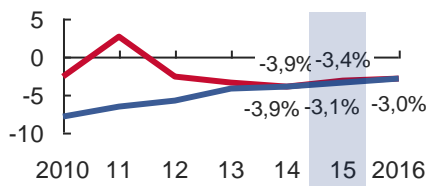
#### Inflation



#### Unemployment rate



#### Fiscal balance



Gross public debt currently at R\$1,38trillion – ~25% of GDP

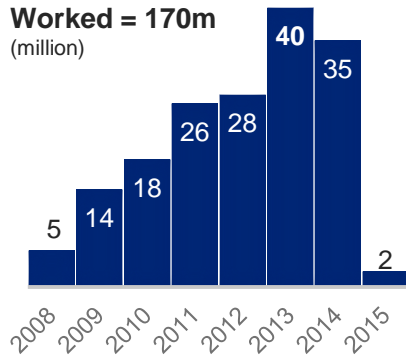
### Brazilian environment

- Democracy
- Quality, but scarce workforce
- Abundant mineral resources
  - Public demonstrations
  - Low government approval
  - Corruption scandals
  - Energy crisis
  - Water shortage

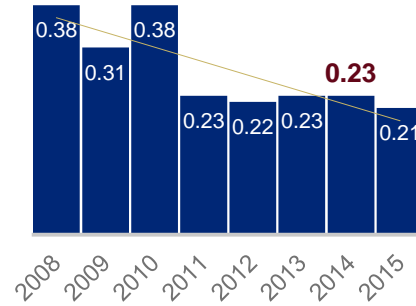
# MINAS-RIO: SAFETY AS A CORNERSTONE OF PERFORMANCE

Benchmark Safety Performance = Leadership, Ownership and Accountability

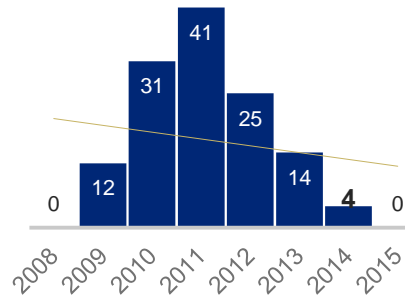
**Man-Hours  
Worked = 170m**  
(million)



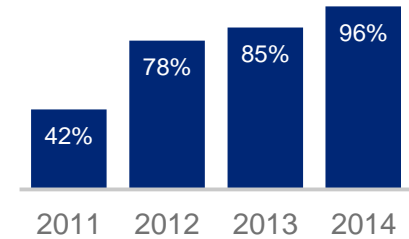
**Total Recordable Cases  
(TRCFR)**



**High Potential Incidents  
HPI = 127**



**Risk Change Management  
RCM = 96%**

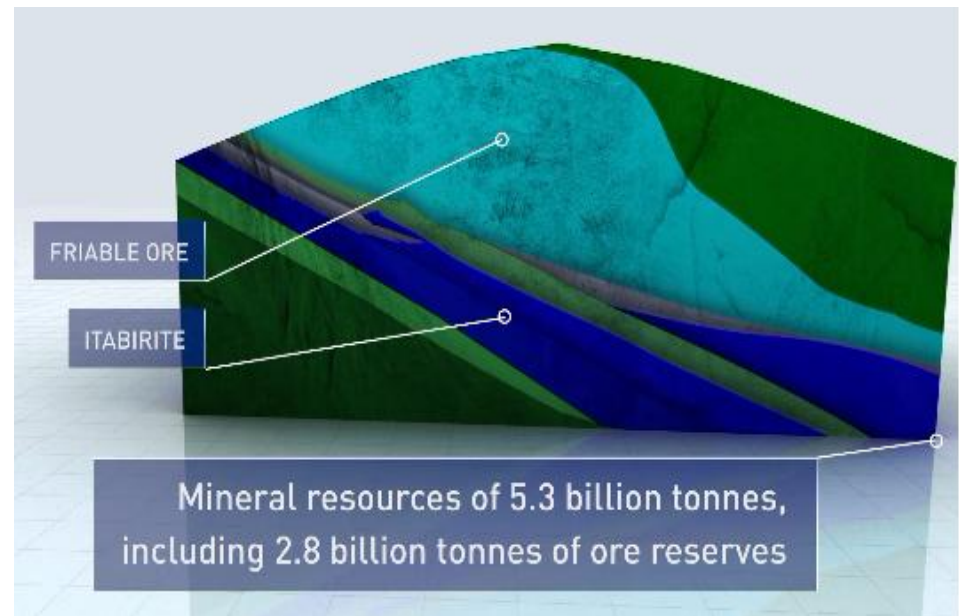




# MINAS-RIO: LARGE RESERVE & RESOURCE BASE

Long-term value from a Tier 1 deposit with a fully integrated logistics

- 2.8 Bt of Total Ore Reserves in addition to 2.6 Bt of Total Mineral Resources\*
- Easy to mine material due to geological formation
- Low strip ratio over LOM ~0.4:1 and easily liberates containments
- Reserve life of 45 years
- Upside reserve potential from an already large resource base



*\*2014 Annual Report: Serra do Sapo – Friable Itabirite, Hematite and Itabirite estimates: Total Ore Reserves 2.8Bt @ 34.4%Fe in addition to Total Mineral Resources of 2.6Bt @ 31.4%Fe*

# MINAS-RIO OVERVIEW

A fully integrated operational infrastructure – from mine to port



# MINAS-RIO PROCESS

A fully integrated operational infrastructure – from mine to ship

## MINE



- Life of mine is estimated at 45 years

- 30 trucks (230 t)

Maximum productivity:  
580 ton/h

- 2 Shovels (22 m³)

Productivity: 2100 ton/h

- 1 shovel (26 m³)

Productivity: 2500 ton/h

- 4 Front end loader:  
(15 m³)

Productivity: 1350 ton/h

### STRUCTURE

Open pit operation

## PLANT



- One 230kV transmission line

### DRY PROCESS STRUCTURES

- Primary crushing
- Secondary crushing
- HPGR

### Dry process capacity:

55 MTPY (Wet basis)  
4300 tons/h (wet basis)

### WET PROCESS STRUCTURE

- Primary grinding Flotation
- Regrinding
- Concentrate thickener
- Tailings dam

### Wet process capacity:

- Primary grinding: 55 MTPY (wet basis)
- Concentrate thickener: 26,5 MTPY (wet basis)
- Concentrate thickener productivity: 3240 tons/h (wet basis)

## PIPELINE



- The longest slurry pipeline in the world (529 Km)
- Crosses 33 municipalities in 2 states (States of Minas Gerais and Rio de Janeiro)
- 68% of solids in the slurry
- Approximately 4 days for the slurry to travel the pipeline at 6 km/h avg)

### STRUCTURES

- 3 surface stations:
- 2 pumps stations
- 1 valve station
- Terminal station

### Capacity:

- 26.5 MTPY (dry basis)
- 3000 tons/h (dry basis)

## FILTRATION



- Filtration plant located the Port
- One 138kV transmission line

### STRUCTURES

- Concentrate Thickener
- Clarifier – water recovery
- Filtration (12 ceramic filters)

### Capacity:

- 26.5 MTPY (dry basis)
- 3200 tons/h (dry basis)

## IRON ORE TERMINAL



- Dedicated iron ore terminal (50:50 JV with Prumo Logistics)

### STRUCTURES

- Stockpile
- Stockpile Loading
- Ship size (cape size)

### Capacity:

- Stockpile: 1 Million tons
- Stockpile Loading: 6,000 t/h
- Cape size – Capacity of ~180.000 tons\* (wet basis)

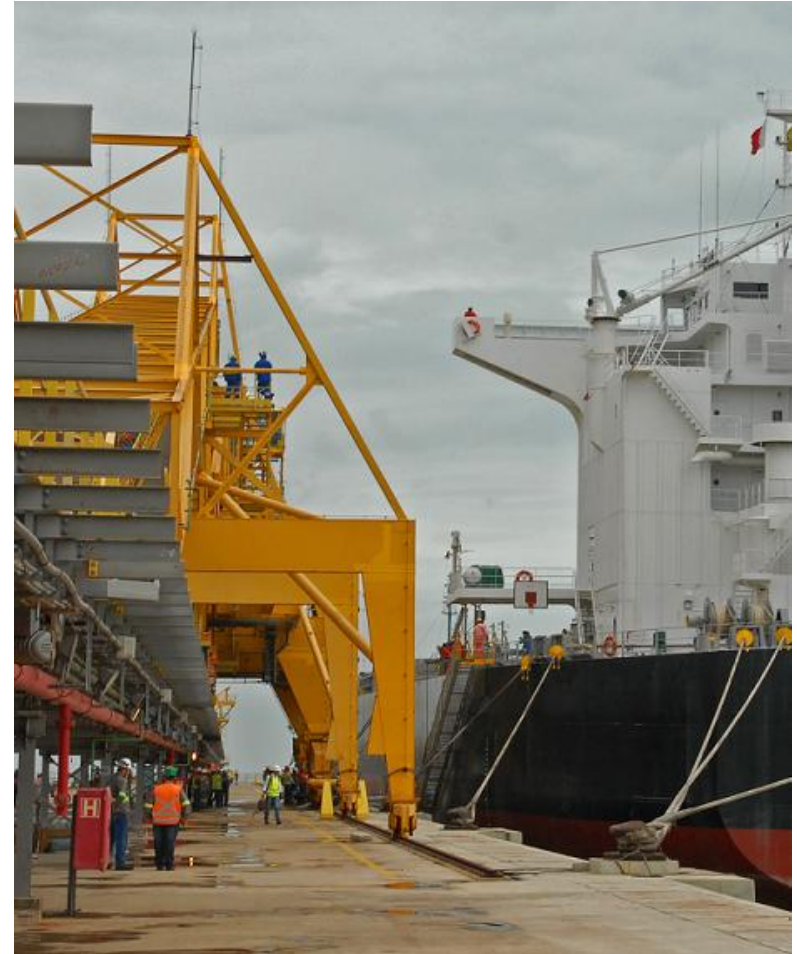


# SHIPPED FIRST ORE ON 25 OCTOBER 2014

FOOS delivered safely and responsibly within revised plan and budget

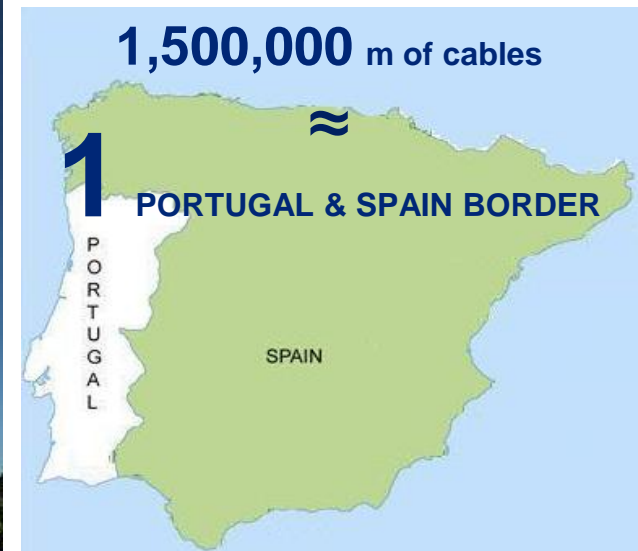
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- First Ore on Ship two months ahead of schedule
- Capital saving 0.4 billion - \$8.4 billion
- Ramp-up: 18 - 20 months post First Ore on Ship
- 13 shipments to customers in China, India, Middle East and Europe (by end March)
- Production of 1.2 million tonnes (Q1 2015)
- The team is well positioned to deliver ramp-up, safely, by Q2 2016
- ~4,000 employees (steady state)
- Diversified team with several years of mining experience
- Production guidance:  
**2015:** 11 – 14 million tones  
**2016:** 24 – 26 million tones



# A MAJOR ACHIEVEMENT

Engineering complexity in an evolving environment



# MINAS-RIO VIDEO

First Ore on Ship delivered in line with revised plan

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Minas-Rio

# COMPETITIVE OPERATING COST POSITION

## Lower Half of the Cost Curve

FOB Cash Cost (post ramp up)  
1st 18 yrs. Avg. (Real 2014 Terms wmt)

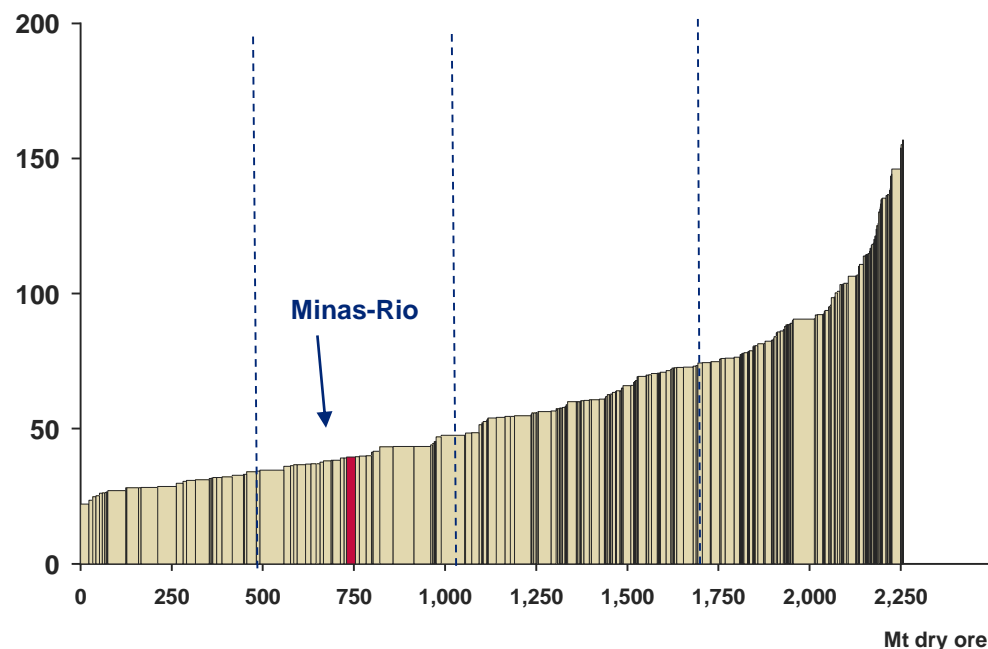
Mine	\$10/t - \$11/t	
Beneficiation	\$9/t	
Pipeline	\$2/t	
Filtration	\$1/t	
Net Port	\$5/t	
Other	\$6/t - \$7/t	

**\$33/t – \$35/t <sup>(1)</sup>**

**SIB Capex ~\$5.5/t over 1st 18 years**

## Global Iron Ore Cost Curve - 2016 (\$/dmt, FOB)

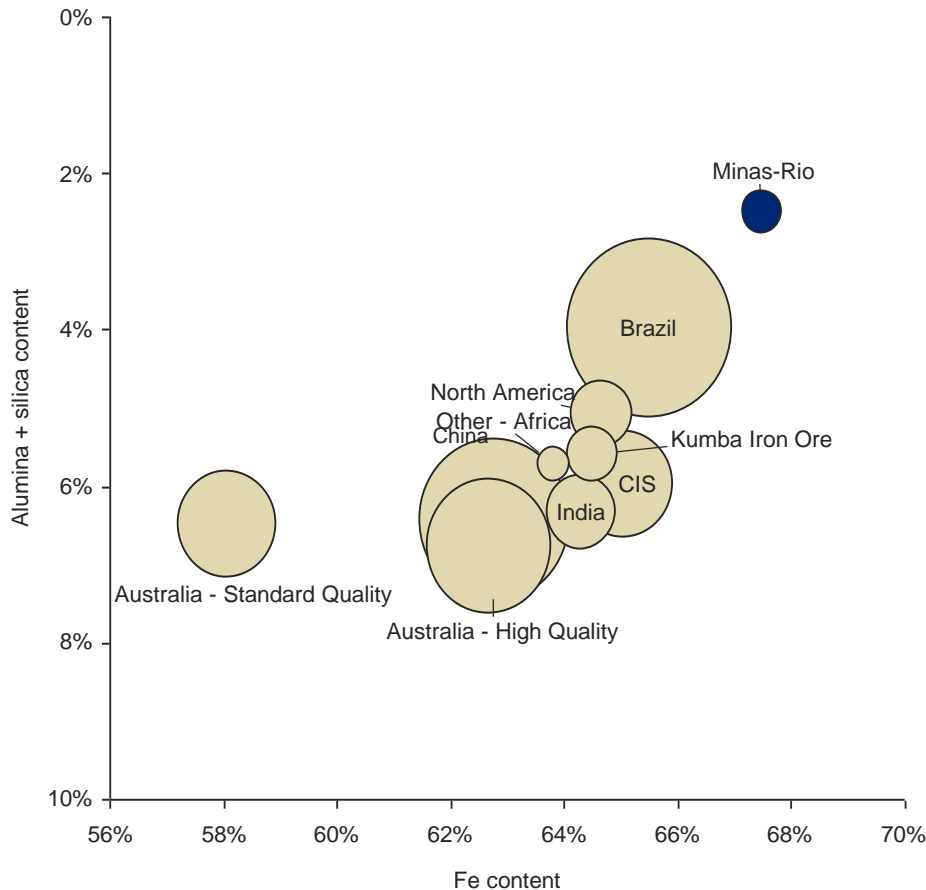
- Minas-Rio in the 2nd quartile of the cash cost curve



Source: CRU's estimate of FOB costs include mining, processing, transportation and general and admin.  
Minas-Rio shown at full production.

# HIGH QUALITY PELLET FEED PRODUCTS

With the perfect fit for the evolving iron ore consumer market



- Increased market demand for high quality ore = Minas-Rio
- Minas-Rio High quality pellet feed products
  - Direct Reduction – ~68% Fe
  - Blast Furnace – ~67% Fe
  - Low Silica and Alumina
- Minas-Rio products are priced on a basis fully reflecting the excellent physical and chemical specifications

1) Chinese production (rich ore equivalent) inferred from a small sample of mines

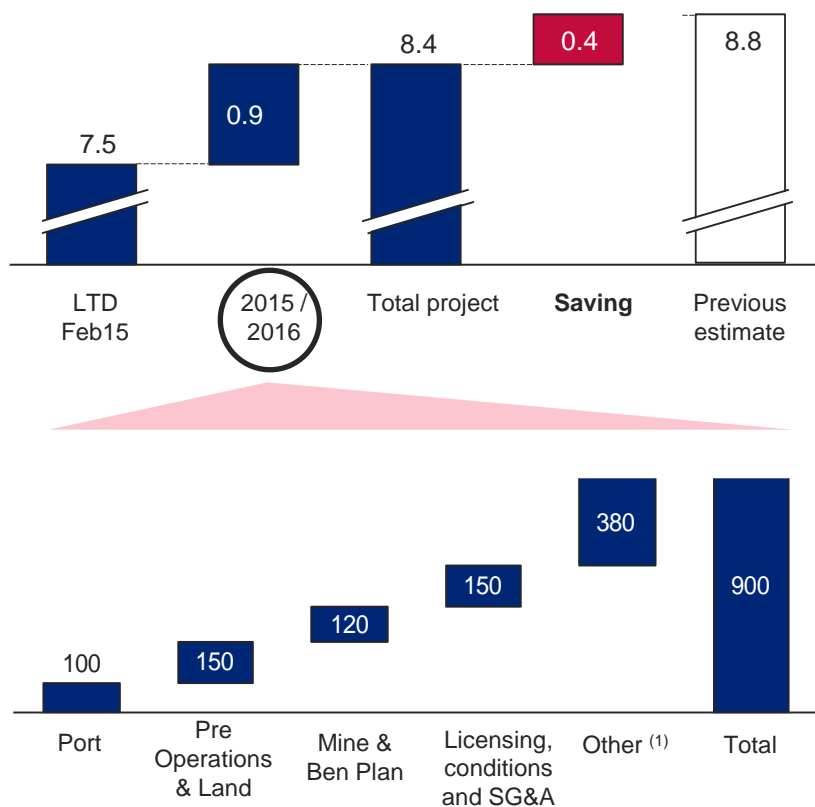
Source: CRU, AME, Anglo American



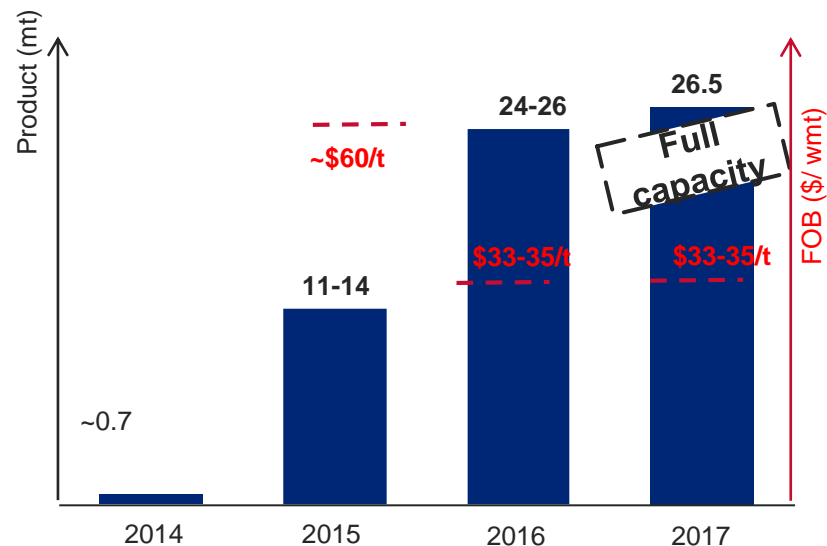
# THE FOCUS IS NOW ON SAFE RAMP-UP

World-class performance and strong risk management

## Delivered project at \$8.4 billion capex



## Product Ramp-up (Mtpa - wet basis) & FOB Cash Cost



1) Includes working capital payments, demobilisation costs & construction contract finalisation

# STAKEHOLDER SUPPORT: EARNING OUR SOCIAL LICENCE

Projects and initiatives focusing on the short, medium and long term requirements

## Education, Culture and Tourism



- Local labour programme
- Senai
- Tourism support

## Infrastructure and Access



- Pavement works
- Historical building renovation

## Health



- Professional Training
- NGO Partnerships
- Clinics Renovation

## Environmental Management



- Fauna and Flora Rescue
- Archaeological and cultural heritage preservation
- Conservation Units

## Global Programmes



- ARPA for Life
- UNGC

## Local Economic Development



- Local Supplier Development
- Entrepreneurship Programmes

# WORKING TOGETHER

There are no limits to what can be achieved if we truly work together

## OUR VALUES



Safety



Accountability



Innovation



Integrity



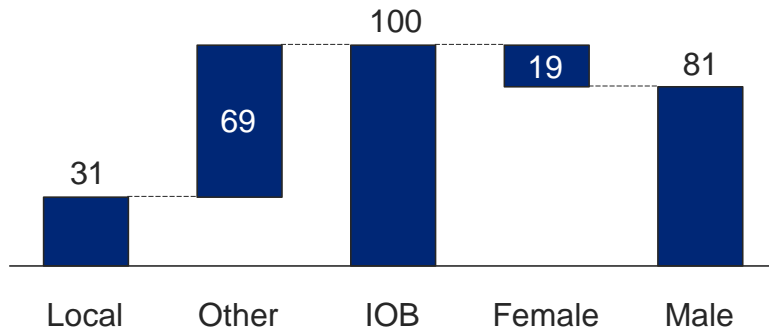
Collaboration



Care and respect

## CREATING THE RIGHT ENVIRONMENT

% of Total Workforce



1st

**Great Place to Work: #1 Large Company in Minas Gerais**



31

**Great Place to Work: #31 Large Company in Brazil**

## TOGETHER WITH THE COMMUNITY



- 474 students graduated to date
- All of them from local communities
- 347 (73%) hired by Anglo American
- Mechanic, Electrician, Mine Equipment Operators  
Welder, Operator, etc
- ✓ All of the Mine and Plant operations and maintenance employees have been hired from Senai



# **MINAS-RIO INTERNATIONAL MEDIA VISIT**



# **MINAS-RIO INTERNATIONAL MEDIA VISIT**

## **APPENDIX – Social Licence to Operate**





# COMMUNITY DEVELOPMENT PROGRAMS

## Local Supplier Development Program

PROMOVA

### Building Blocks



- Business development, financial support and professional qualification since 2012;
- 516 local suppliers supported, 130 companies participated in bidding processes;
- Anglo American performed purchase processes with more than 70 local businesses.

## Local Labour Development Program - *MOVER*



- Prepare the local population for entry into the labour market;
- Catalyst for local entrepreneurship;
- Prioritize local manpower;
- Contribute to local and regional economic development.

# INVESTMENT IN EDUCATION

## Information Technology Program

- 30 information technology centres in Conceição do Mato Dentro, Alvorada de Minas, Dom Joaquin and Serro;
- More than 1600 people have benefited;
- Partners: Milplan, CMDNet, Enesa, ARG.



## Environment Education Programs

- 9100 pupils and 910 teachers in 49 schools across 5 municipalities have benefited;
- Qualification of municipal school teachers in ecological activities;
- Distribution of educational booklets and theatrical presentations.



## Qualification in Tourism

- Partnership with SENAC;
- 936 people qualified;
- Broadcasting tourist attractions in Conceição do Mato Dentro, Serro, Alvorada de Minas and Dom Joaquim in the TV show "Viação Cipó".



## Conceição do Mato Dentro

- Building of education complex in the region of Conceição do Mato Dentro, consisting of:
  - Open University of Brazil (UAB) unit;
  - Private school;
  - SENAI training centre.



# INVESTMENT IN CULTURE AND INFRASTRUCTURE



## Cultural tradition and Restorations

- Support cultural tradition and preservation in Conceição do Mato Dentro and Serro;
- Heritage education;
- Qualification and management of social initiatives;
- Restoration of two churches, Matriz (CMD) and Nossa Senhora do Rosario (Serro).



## Sanitation

- Recovery and extension of Sorting and Composting Unit in Dom Joaquim and Conceição do Mato Dentro;
- Building of UTC (Sorting and Composting Unit) in Alvorada de Minas;
- Landfill site for integrated management of residues in Alvorada de Minas, Conceição do Mato Dentro and Dom Joaquim;
- Water Treatment Station (ETA) for São Sebastião do Bom Sucesso and Itapanhoacanga.



## Public Infrastructure

- Donation of earthmoving equipment;
- Donation of heavy equipment such as motor-graders, trucks and shovels for maintenance of local roads;
- Maintenance and pavement of MG-010 highway.



## Health Care

- Health care infrastructure in 3 municipalities:
  - Contracting of health care professionals;
  - Provision of training and development;
  - Monitoring of Health Care Programs;
  - Epidemiology and population studies;
  - Purchase of vehicles, medical equipment and hospital furniture.
- Conceição do Mato Dentro
  - Expansion of clinic;
  - Renovation of the Health Basic Unit of São Sebastião do Bom Sucesso (Sapo);
  - Renovation of the Health Secretariat building;
  - Building of 9 clinics;
  - Support the health care public service in the region.
- Alvorada de Minas
  - Extension of Health Basic Unit of São José do Jassém;
  - Building of a new Health Basic Unit;
  - Building of a clinical analysis laboratory.
- Dom Joaquim
  - Building of a new Health Basic Unit in São José da Ilha;
  - Refurbishment of Nossa Senhora das Graças Hospital.

# INVESTMENT IN THE ENVIRONMENT



## Fauna Monitoring and Flora Rescue

- More than 950 fauna species were monitored;
- Production of more than 350,000 native seedlings from native species.



## Fire awareness and prevention

- Partnership with the State Forest Institute (IEF) aiming to reduce fire incidents in the Espinhaço region;
- On-going monitoring with automated fire monitoring equipment from a new fire control centre, creation of fire brigades and fire prevention awareness campaigns;
- Greater awareness of the toll free Fire Prevention number in case of fire incidents;
- Environmental education for local communities.



## Forest and Environmental Compensation

- More than 2,400 ha of forest compensation;
- More than 2,400 ha of legal reserve;
- More than 4,500 ha of Natural Heritage Private Reserve.



## Rescue and Reconstitution Program of Ferruginous Rupestrian Fields

- Strategic partnerships with renowned Brazilian universities to perform studies and support the work;
- Rescue of rare and endemic species of ferruginous rupestrian fields;
- 80% of successful introduction of native species.

## Anglo American Serra do Espinhaço Biosphere Reserve Science Centre

- Expected to become a regional hub for local environment and culture education, disseminating the biodiversity, speleology and archaeology studies conducted, in an interactive manner;
- 4,000 visitors in the first year;
- Includes exposition rooms, a nursery, a butterfly vivarium, a multifunctional area, a rupestrian field garden and a laboratory.

# ANGLO AMERICAN BRAZIL - PARTNER IN THE FUTURE

Four main initiatives with the objective of shared benefits

## IFC Best Practice Sharing

- Participation to IFC's Sustainability Exchange Forum



## ARPA For Life

- Investment of US\$5 million - disbursement from December 2014
- Unbundle social investments from operation and project footprint
- Anglo American to have a seat at the transition fund committee



## United Nations Global Compact

- Signing up to the UN Global Compact - Brazil Chapter



## UNDP Dialogue on the Extractives Sector

- Participation in the Dialogue on the Extractive sector and Sustainable Development
- Anglo American intends to join the Working Group with other sponsors

