

# Carbon Steel Materials Performance and Prospects



8 May 2002

UBS Resources Conference

Stefano Giorgini – Vice President & CDO

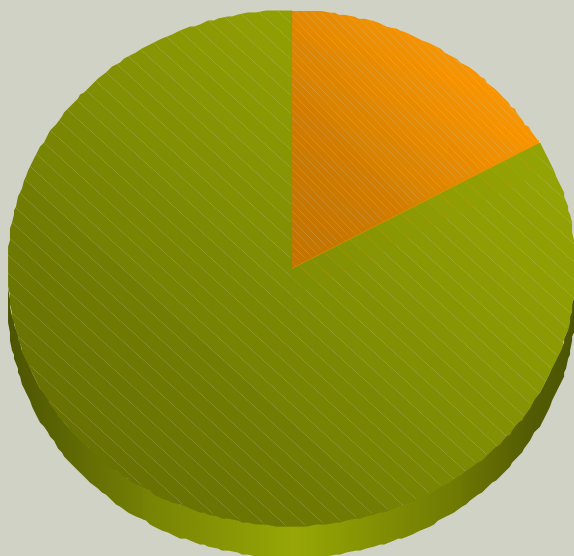
Carbon Steel Materials



**bhpbilliton**

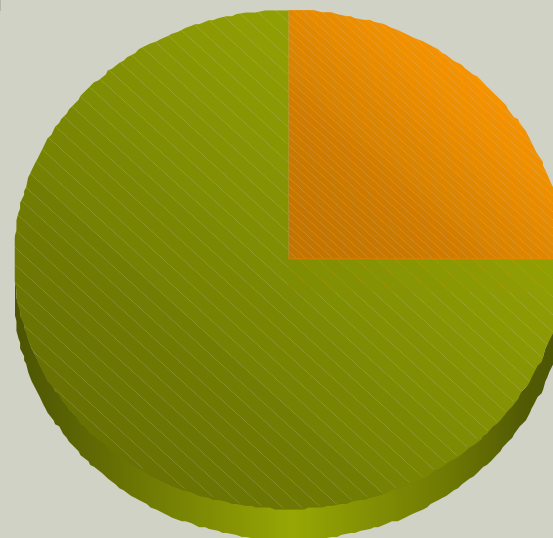
# Carbon Steel Materials Contribution 9 months to March 2002

Group Sales  
US\$13,176M



**CSM**  
**19% = US\$2,492M**  
**22% ex BHP**

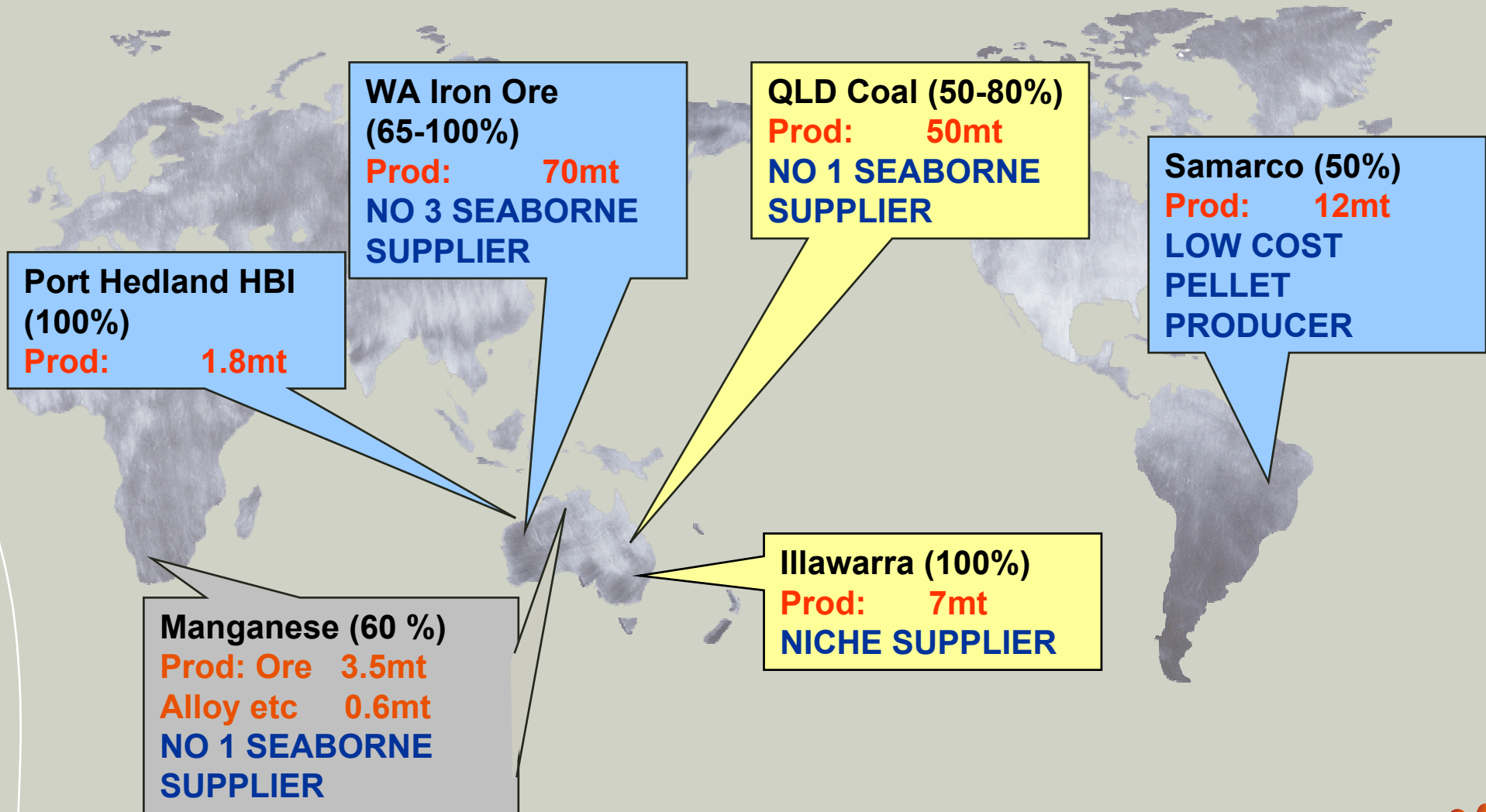
Group EBIT US\$2,412M



**CSM**  
**34% = US\$831M**  
**36% ex BHP**

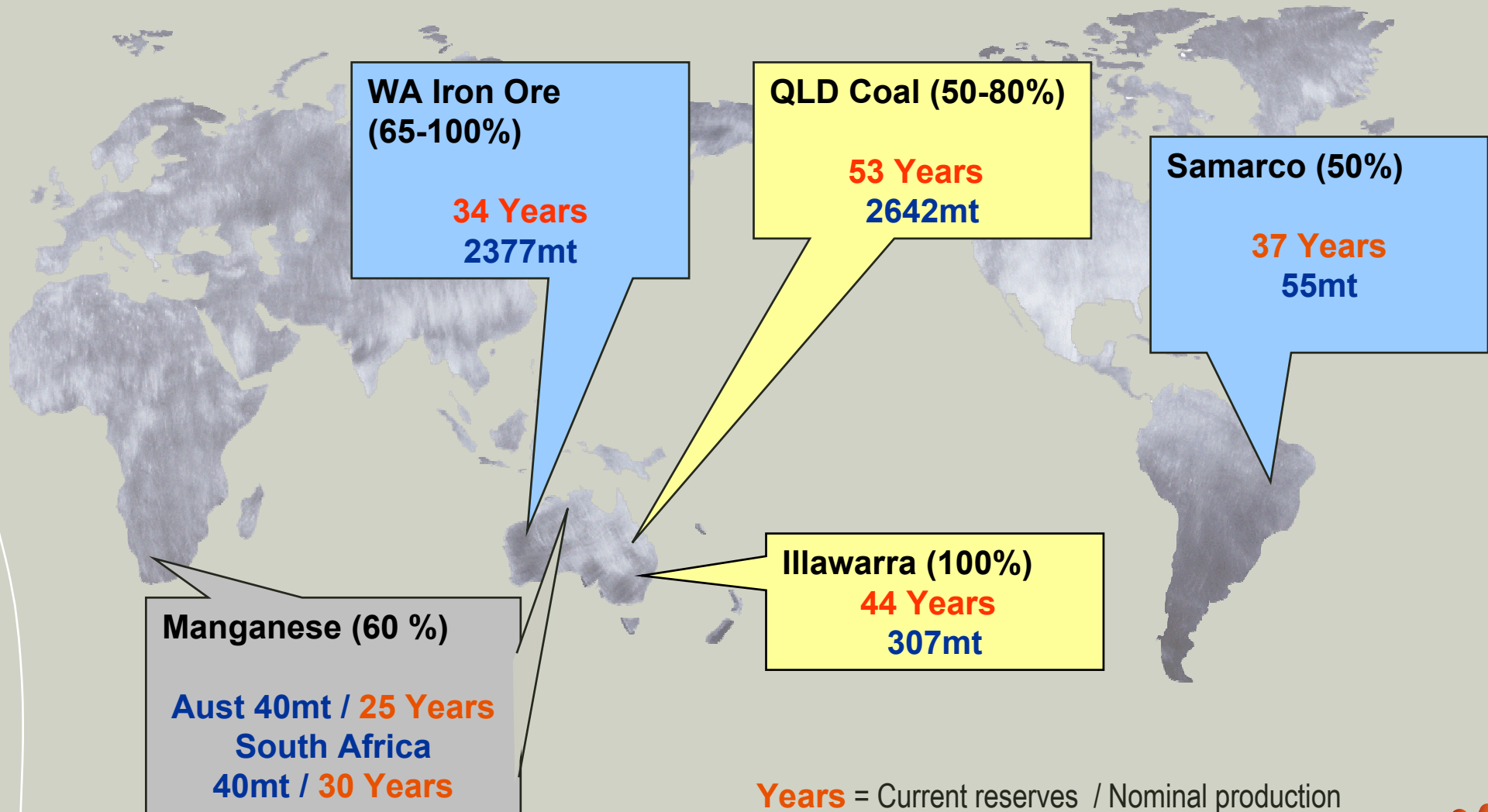
**CSM EBIT ROC = 44%**

# Carbon Steel Materials Assets



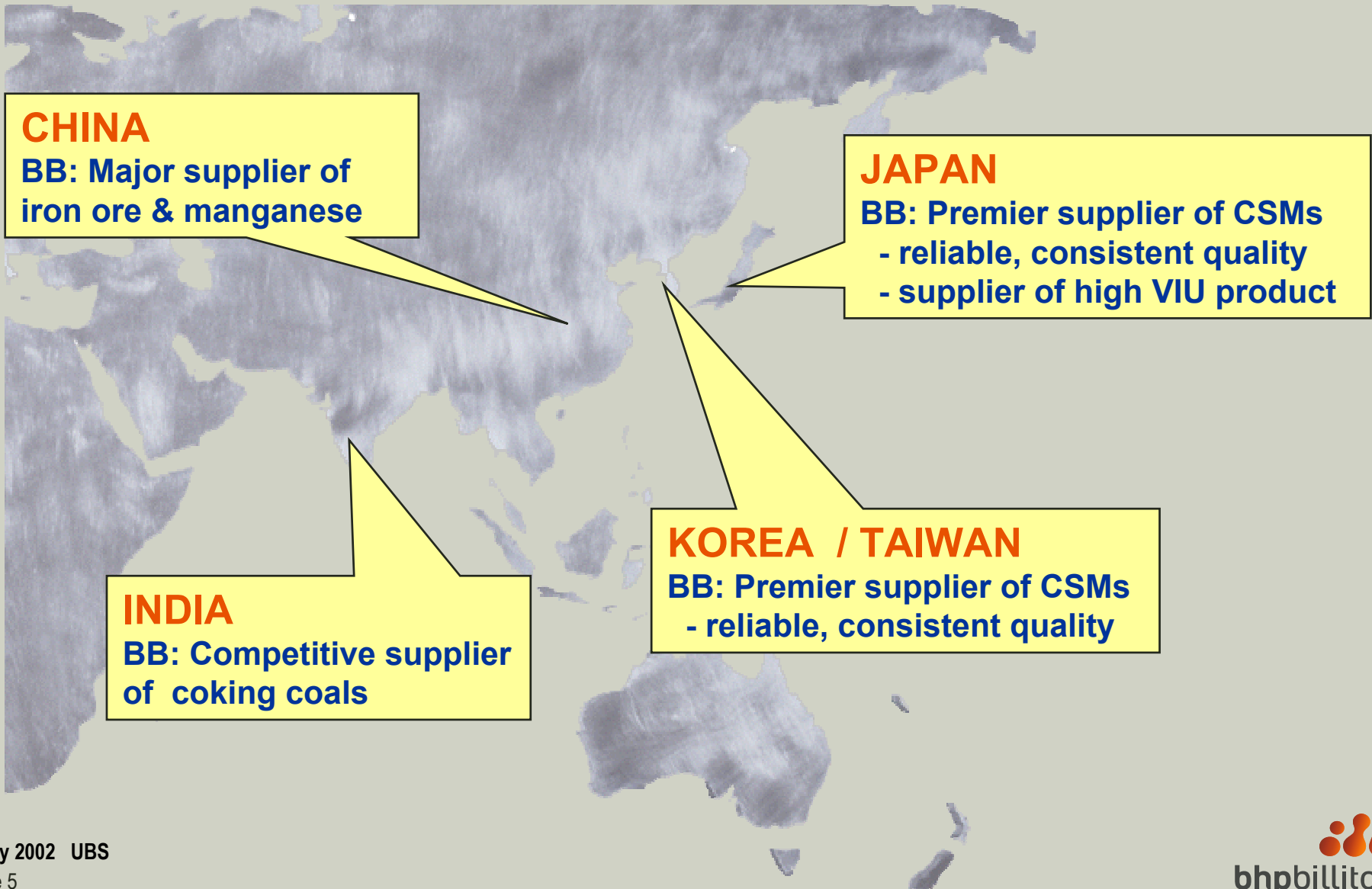
100% nominal production capacity

# Carbon Steel Materials Assets



**Years** = Current reserves / Nominal production  
**Reserves** = 100% Million tonnes

# BHPB Marketing Franchise Asia



# BHPB Marketing Franchise Europe and South America

## **EUROPE**

**BB: Premium supplier of HQCC**  
**Supplier of manganese**  
**Market for lump ores and pellets**

## **BRAZIL**

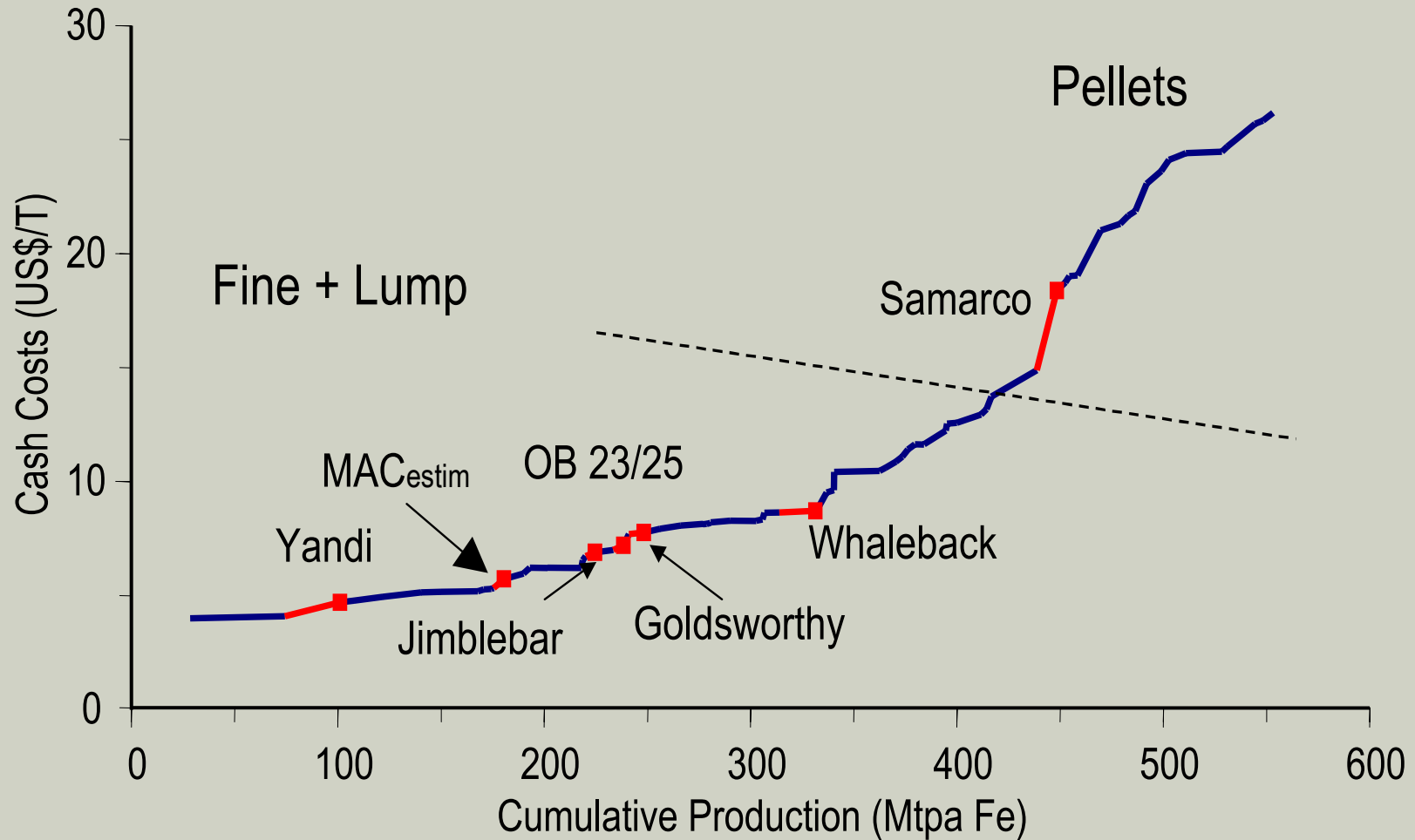
**BB: Core supplier of HCC**



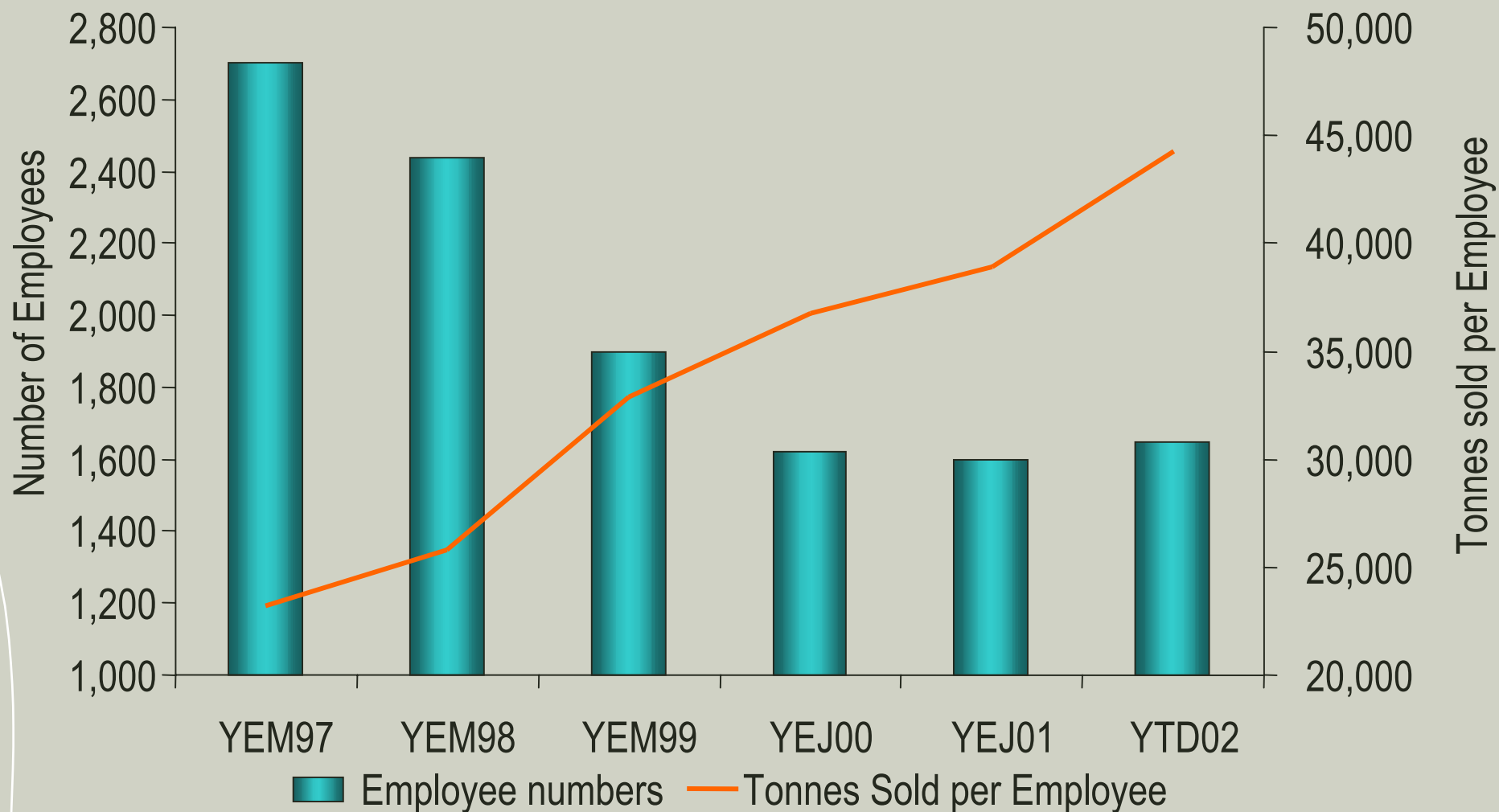
# Operating Excellence

## WA Iron Ore

# Seaborne Iron Ore Cost Curve

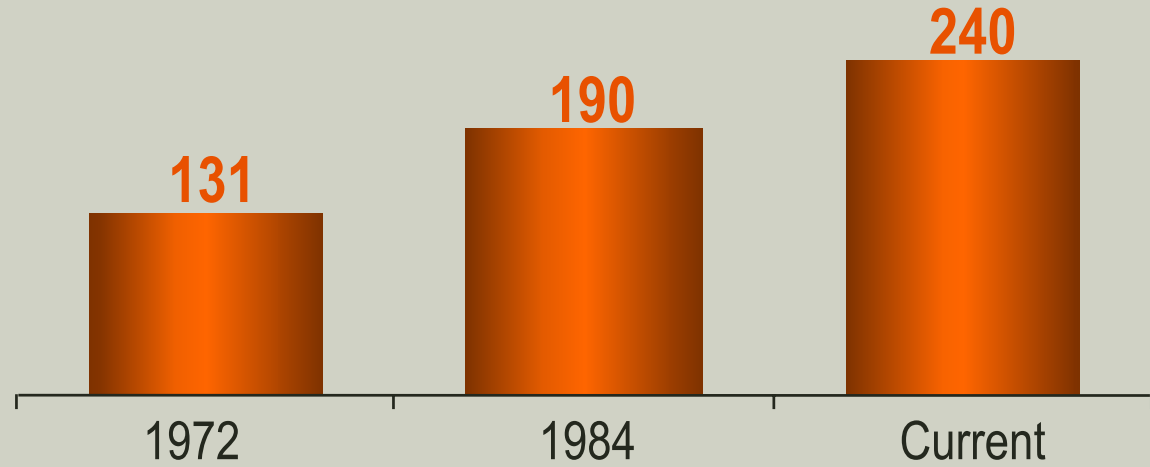


# WAIO Improved Productivity

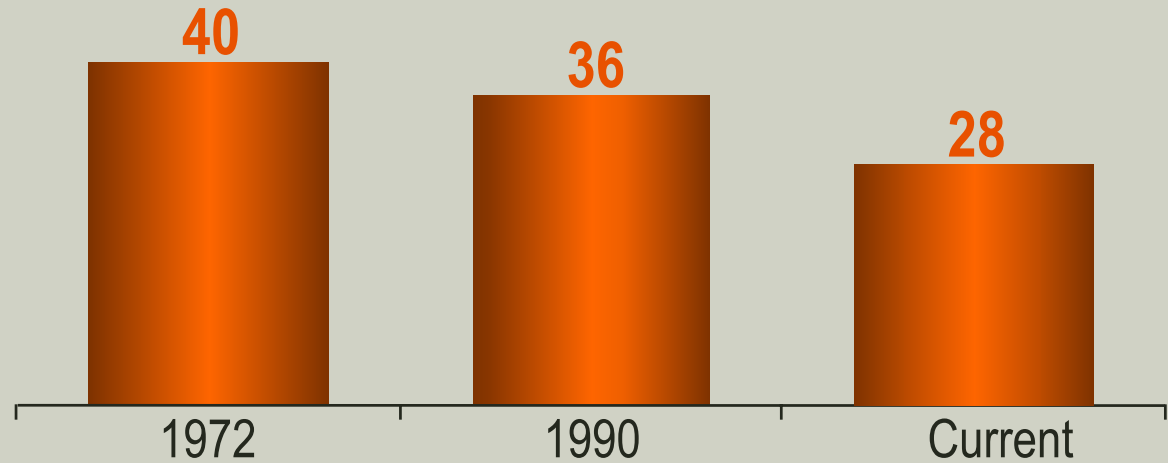


# Railroad Operating Improvements

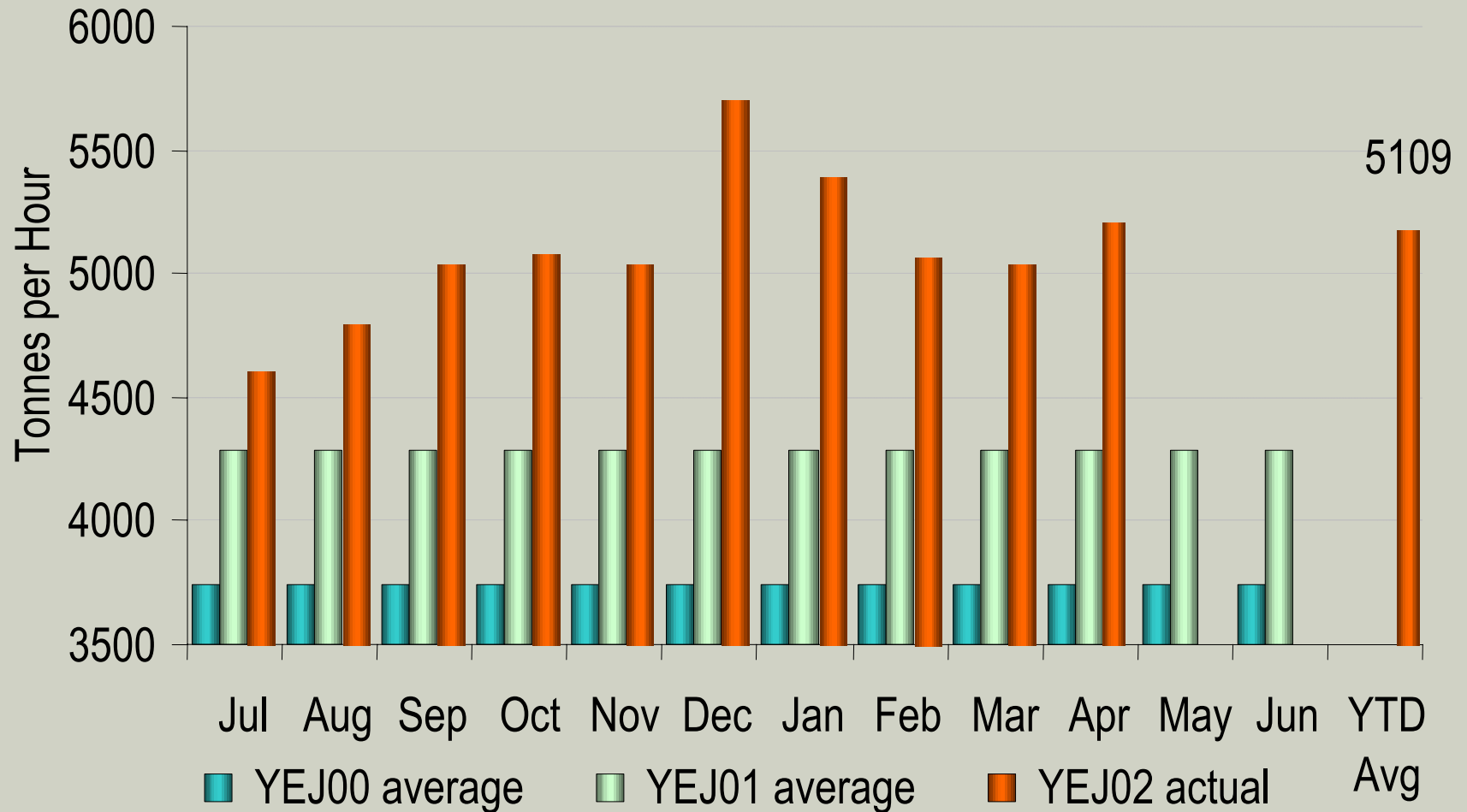
Train Length  
(no of cars)



Train Cycle Time  
(hours)



# Gross Loading Rate – Nelson Point





# Operating Excellence

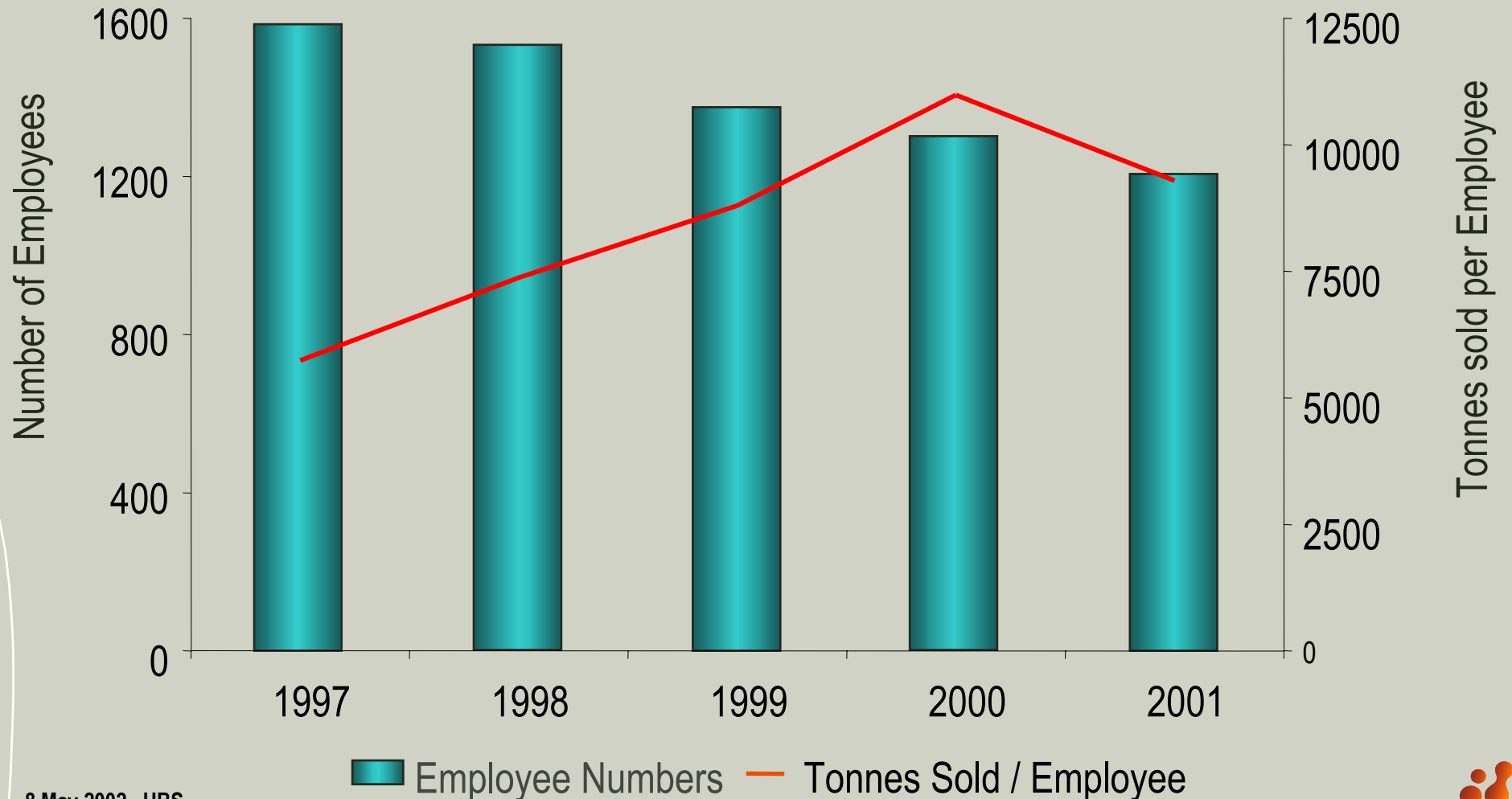
WA Iron Ore

Samarco

# Samarco



# Samarco Improving Productivity





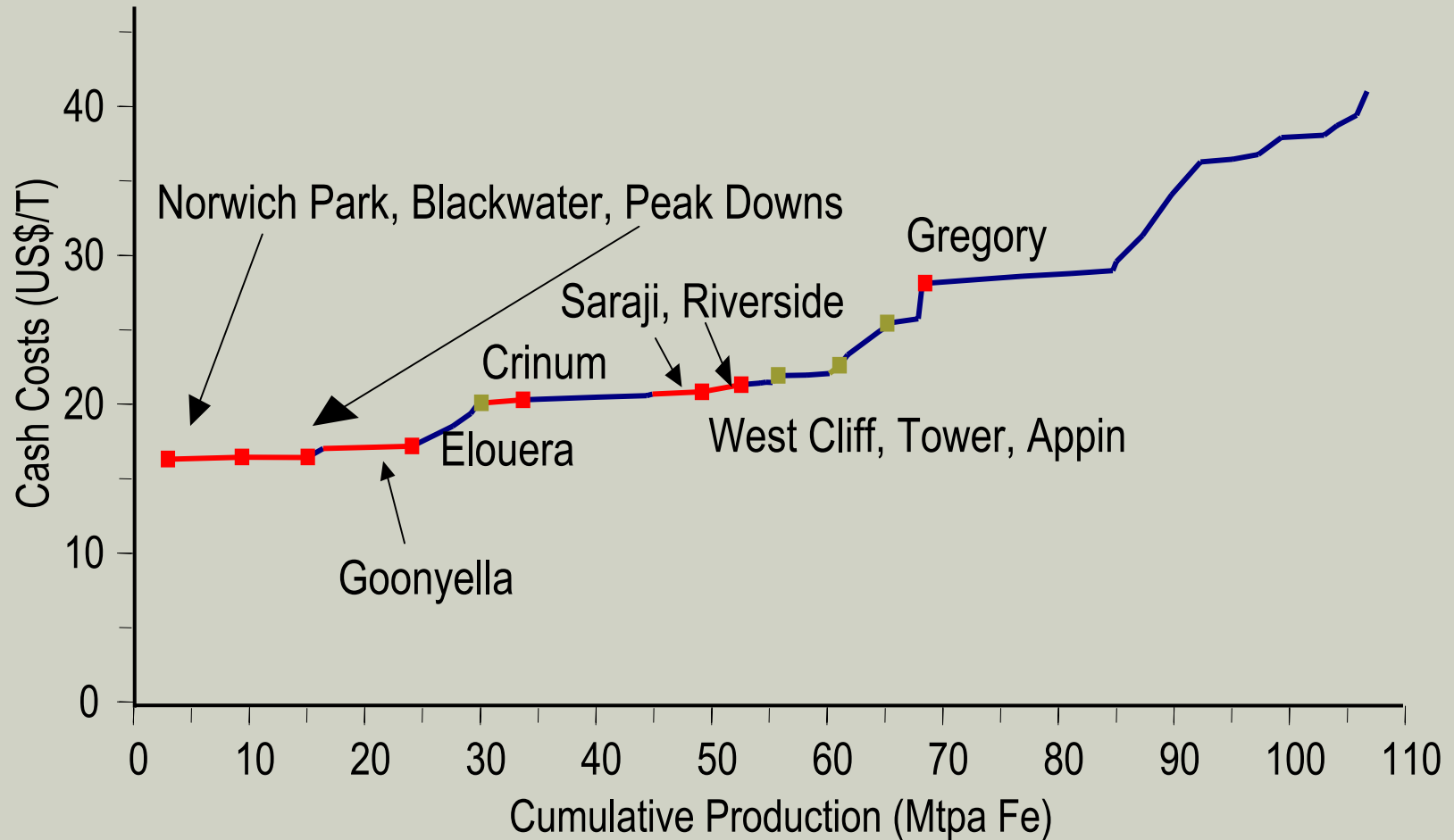
# Operating Excellence

WA Iron Ore

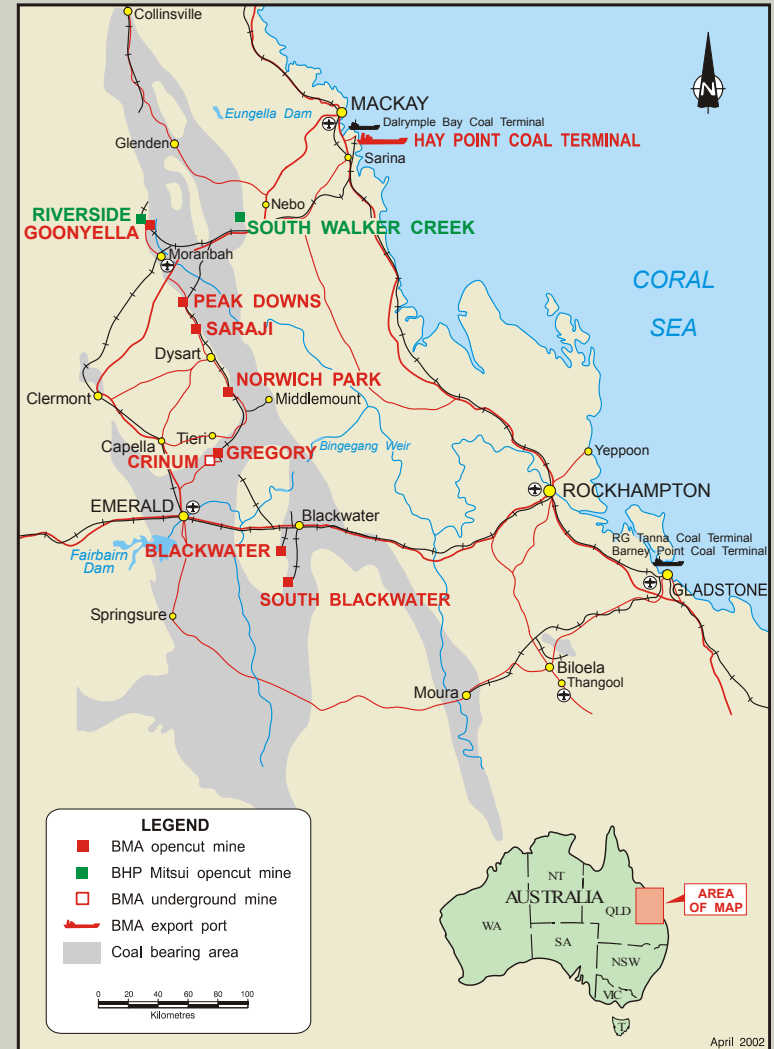
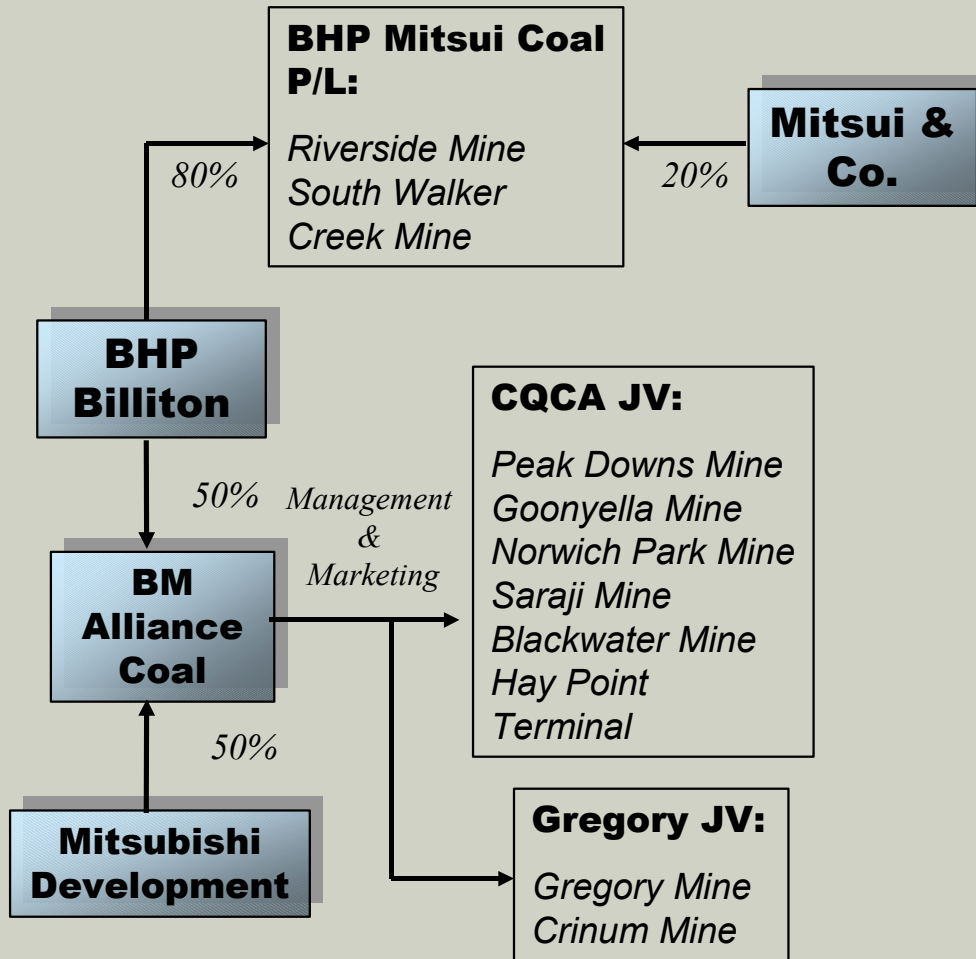
Samarco

Queensland Coal

# Seaborne Hard Coking Coal Cost Curve



# Queensland Coal Ownership Structure



# Queensland Coal Improved Productivity





# Operating Excellence

WA Iron Ore

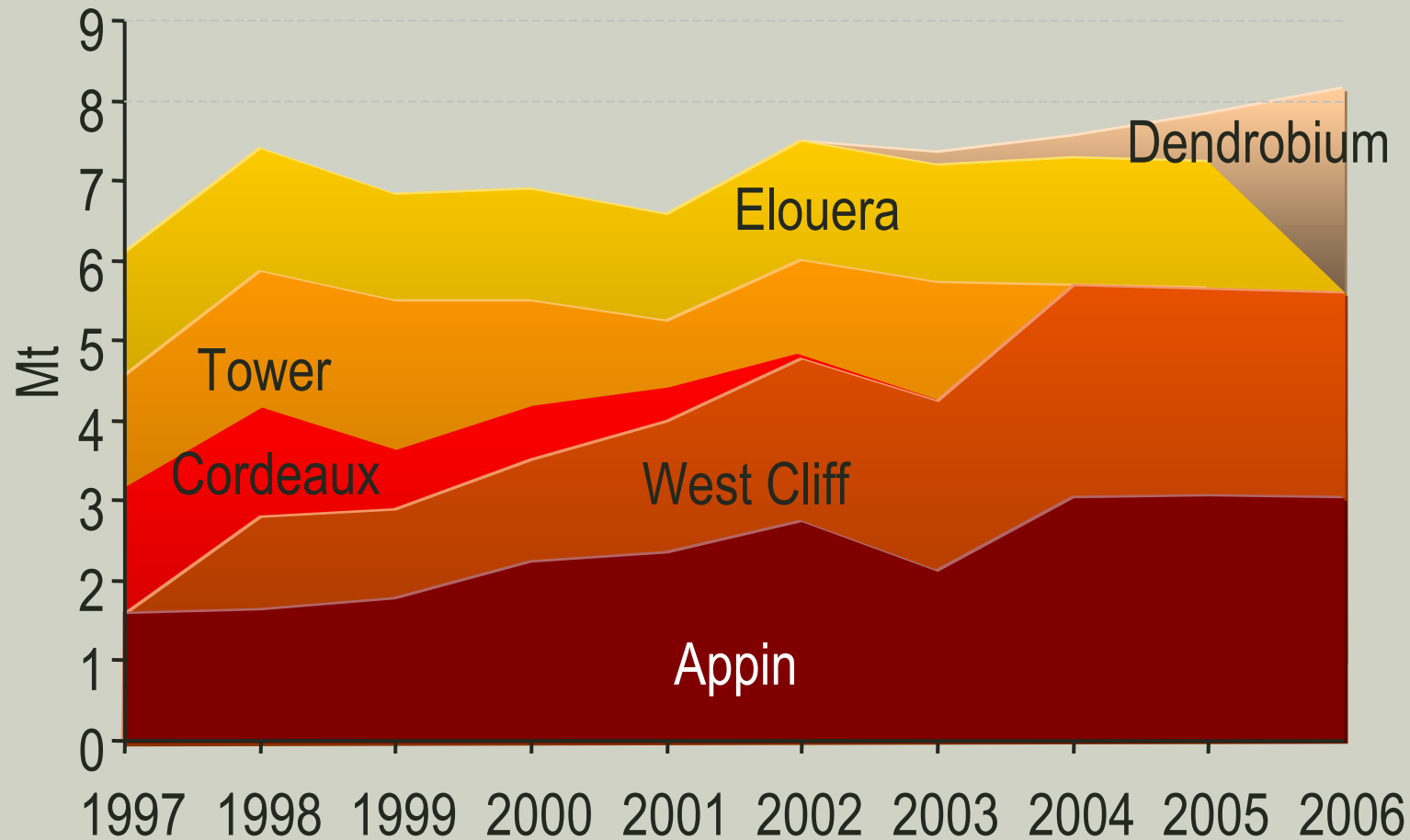
Samarco

Queensland Coal

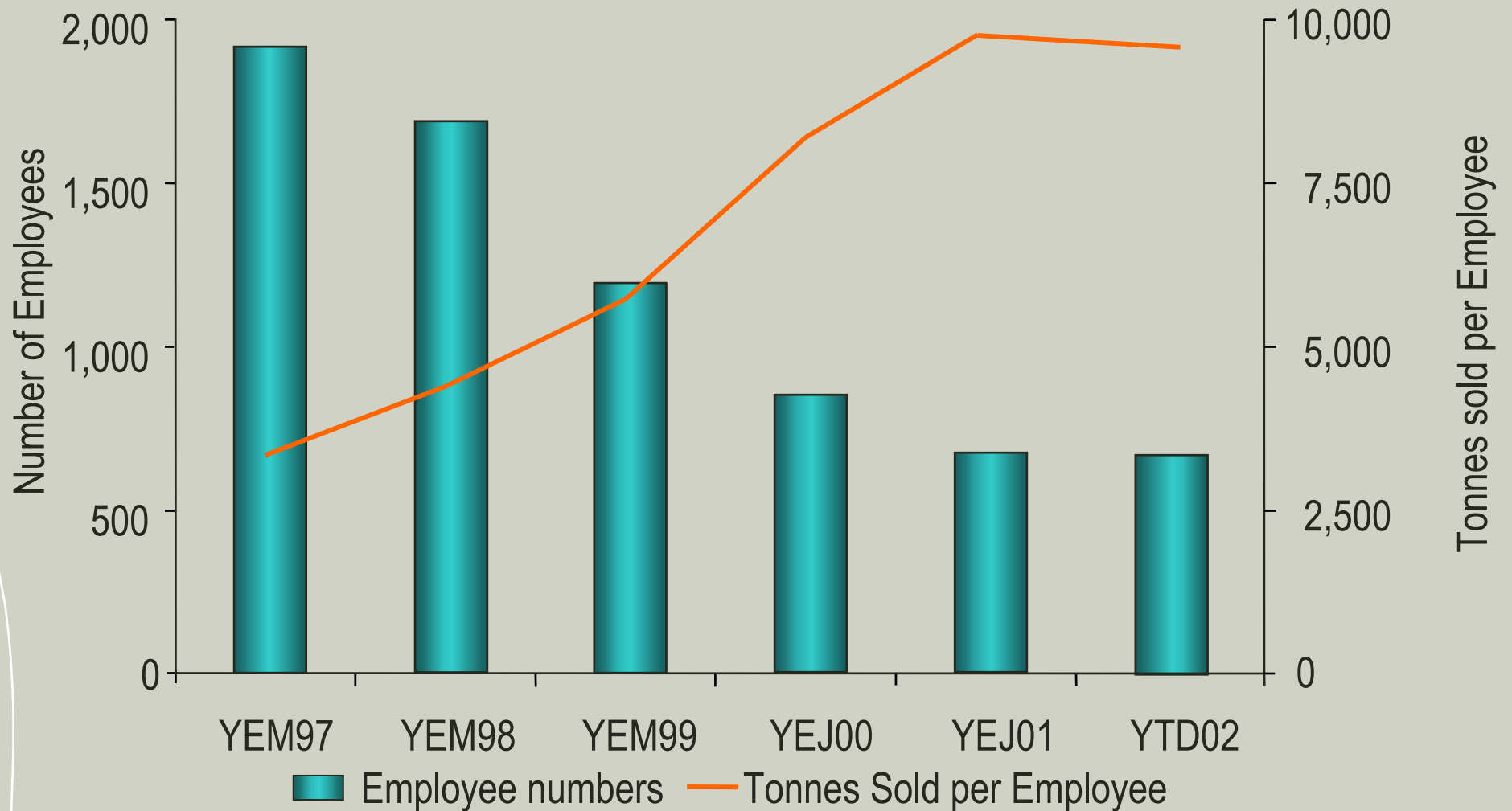
**Illawarra**

# Illawarra

## Increasing scale of operations



# Illawarra Improved Productivity





# Operating Excellence

WA Iron Ore

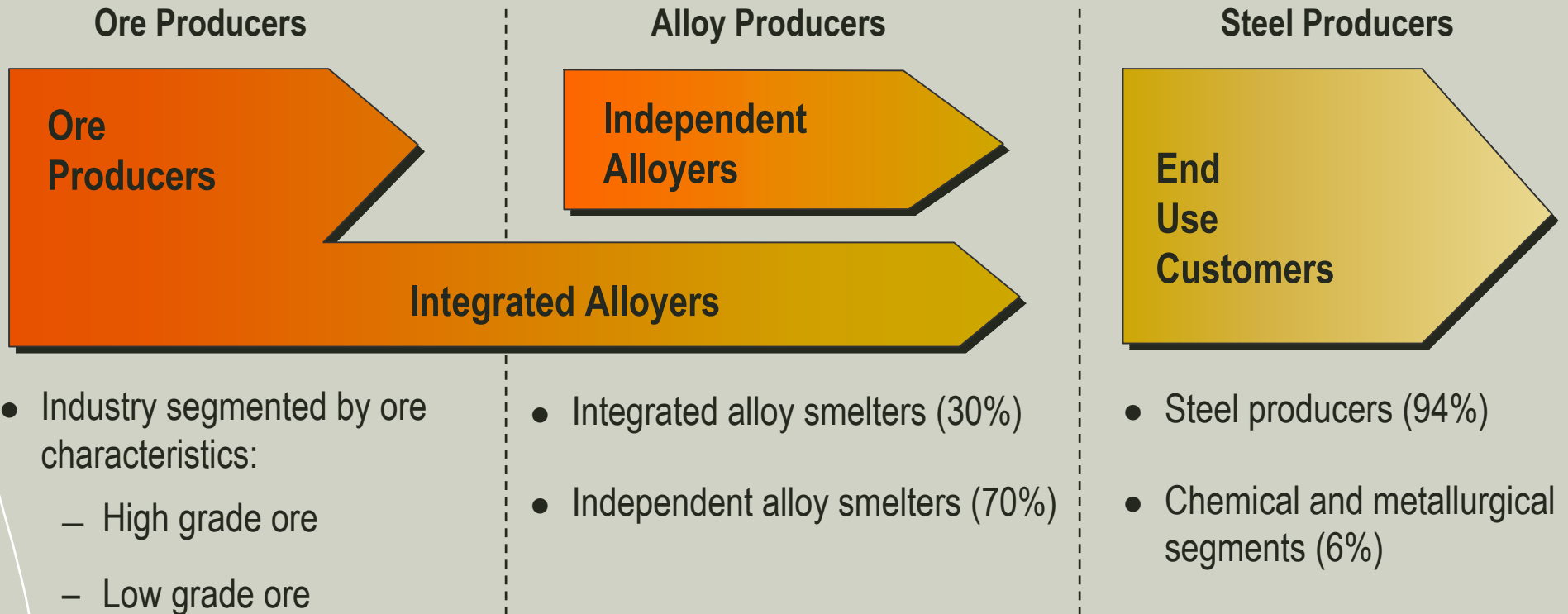
Samarco

Queensland Coal

Illawarra

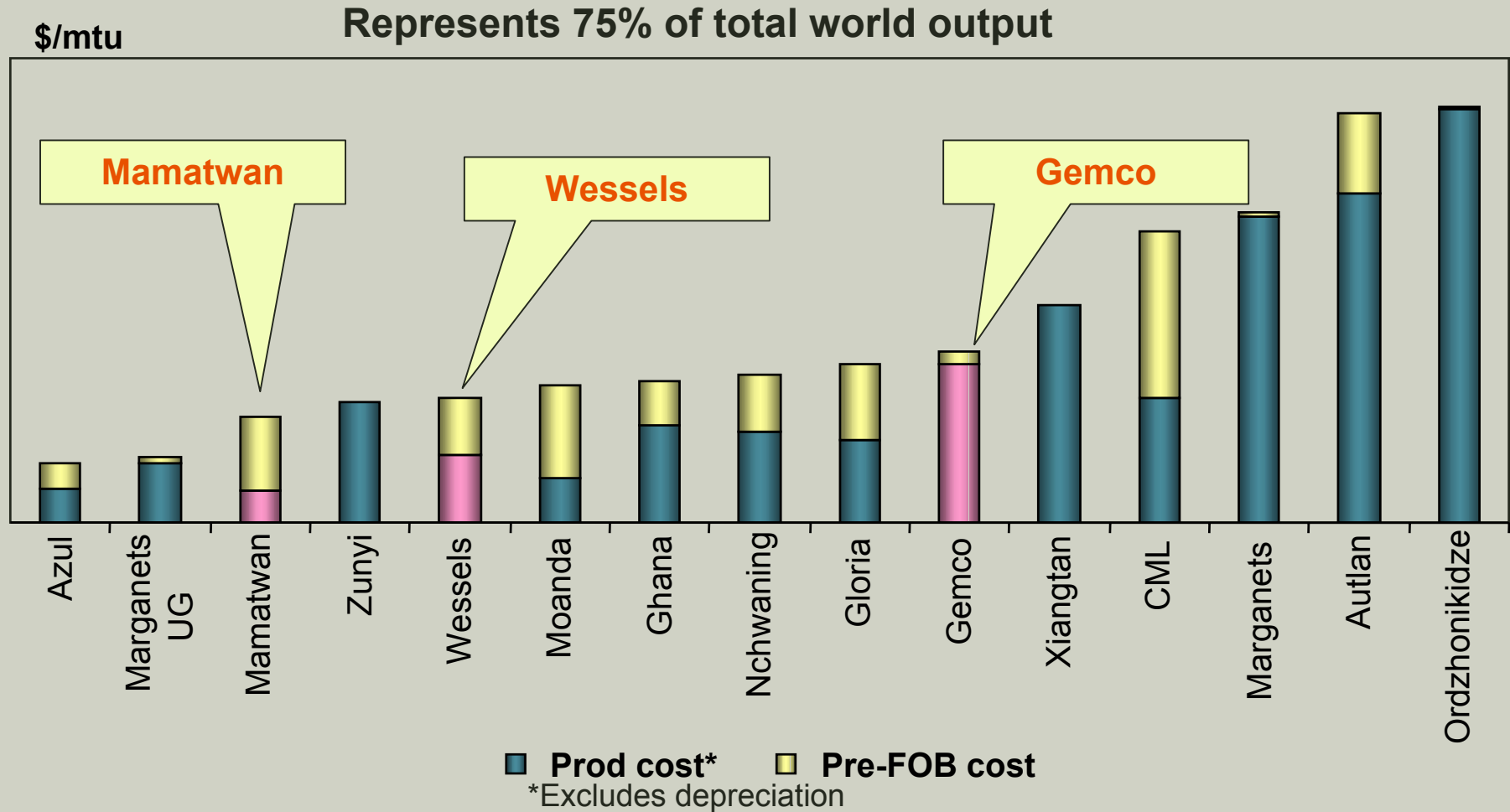
**Manganese**

# Manganese industry structure



# samancor

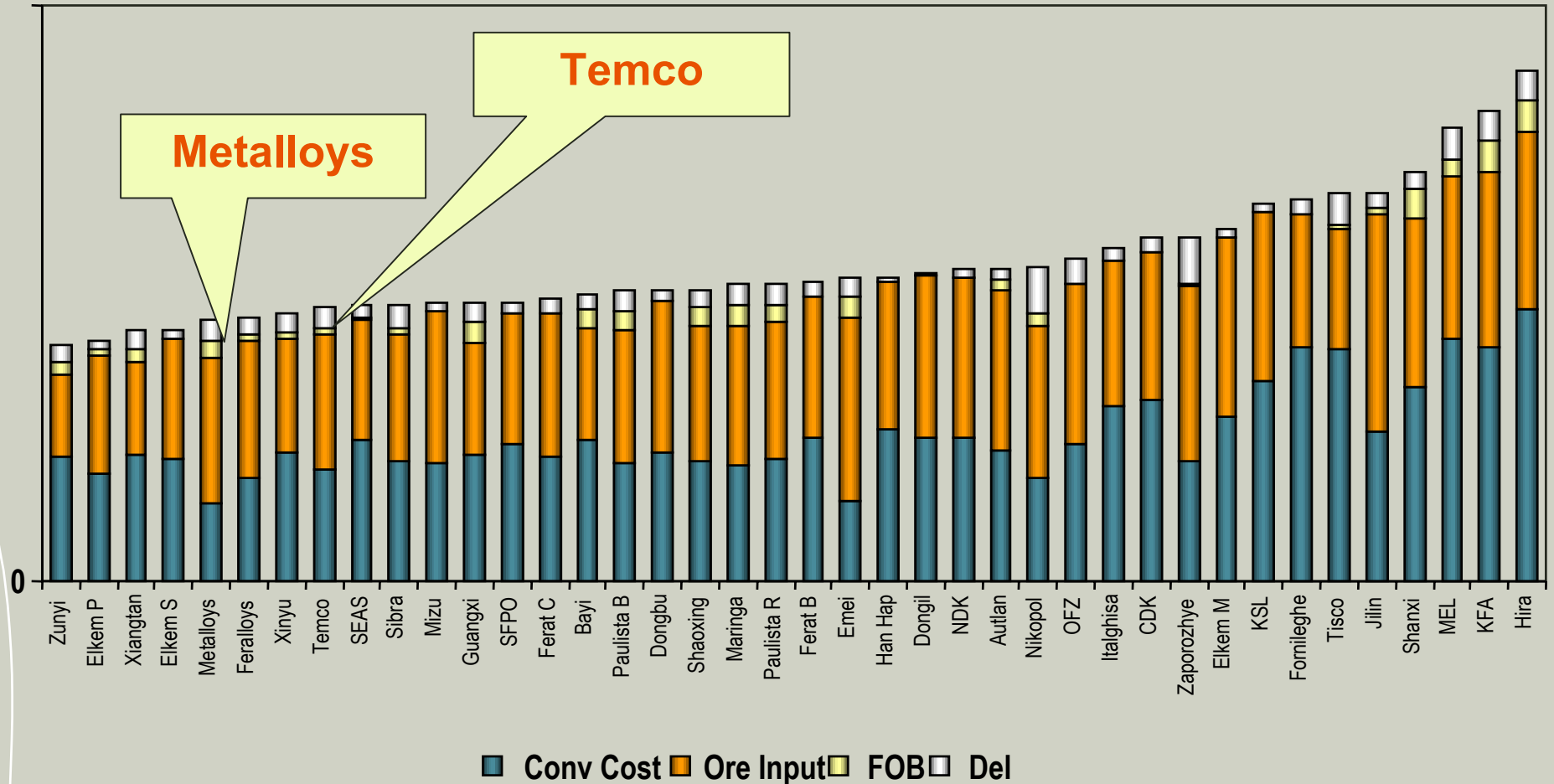
# Manganese Ore - Cash Cost Curve



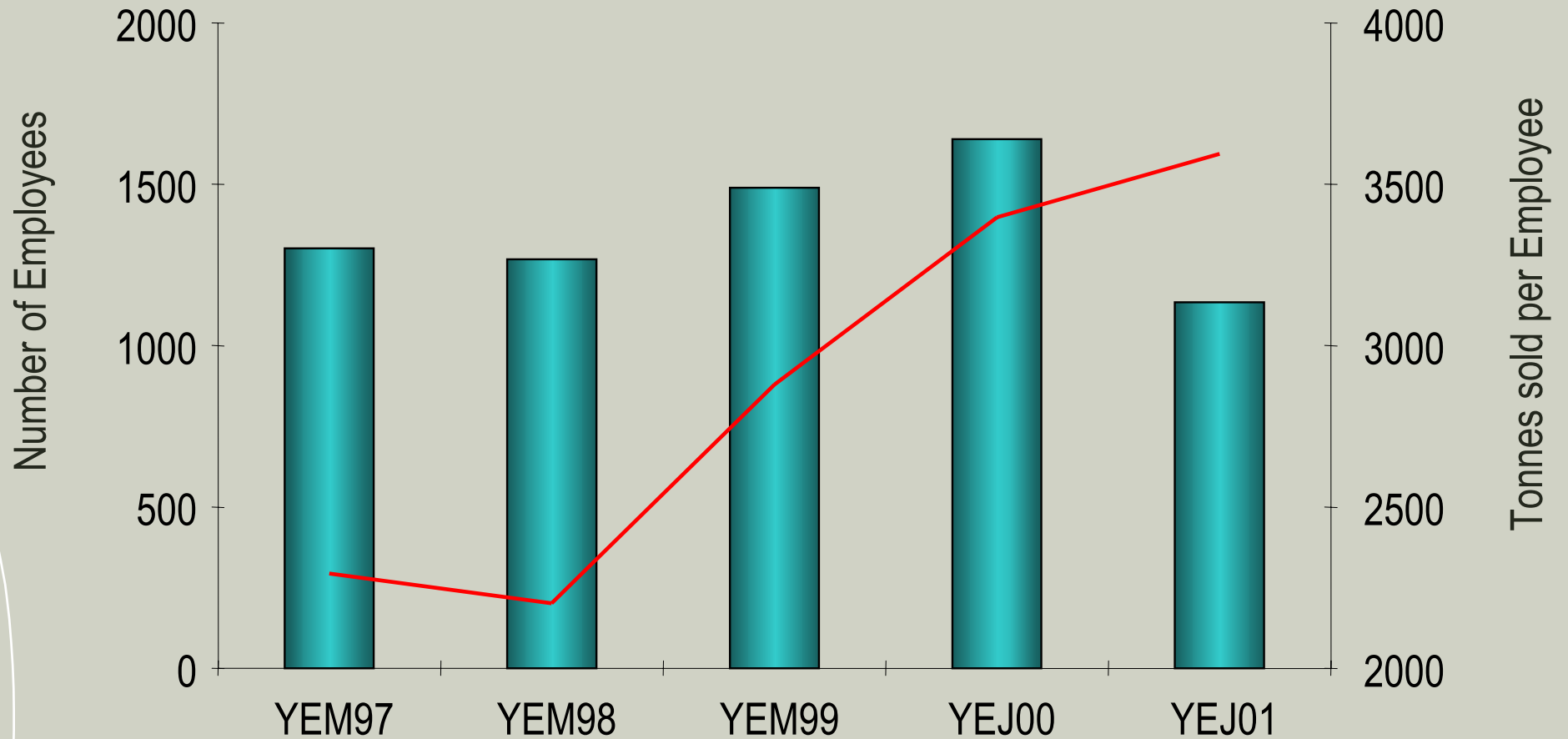
# Manganese Ferro Alloy - HCFeMn Cash Cost Curve

78% Mn Equivalent

\$/t



# Manganese Improved Productivity





# Business Growth & Product Development

# Project Pipeline

## ***PREFEASIBILITY***

Project

PACE Stage 2

Yandi Long Term  
Optimisation

Blackwater -Central  
processing

Westcliff Longwall

## ***FEASIBILITY***

Project

Universal  
Dragline

Goonyella  
Underground

## ***EXECUTION***

Project Tonnage(Mtpa)

MAC 15

PACE 81

South Blackwater  
Integration 13.5

Yandi Lump 4

Dendrobium 5

Samarco Roller

Press 2

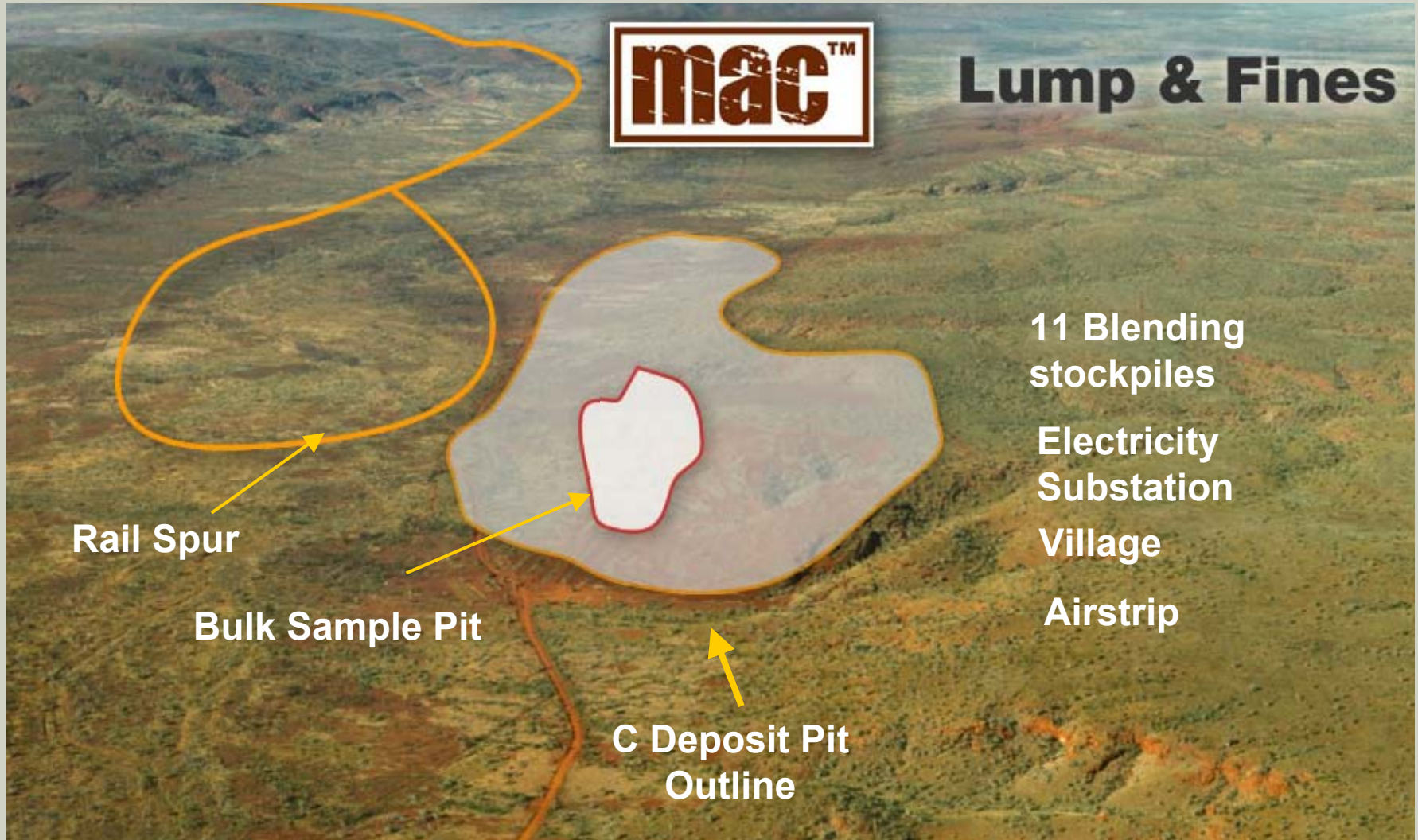
# Yandi Lump



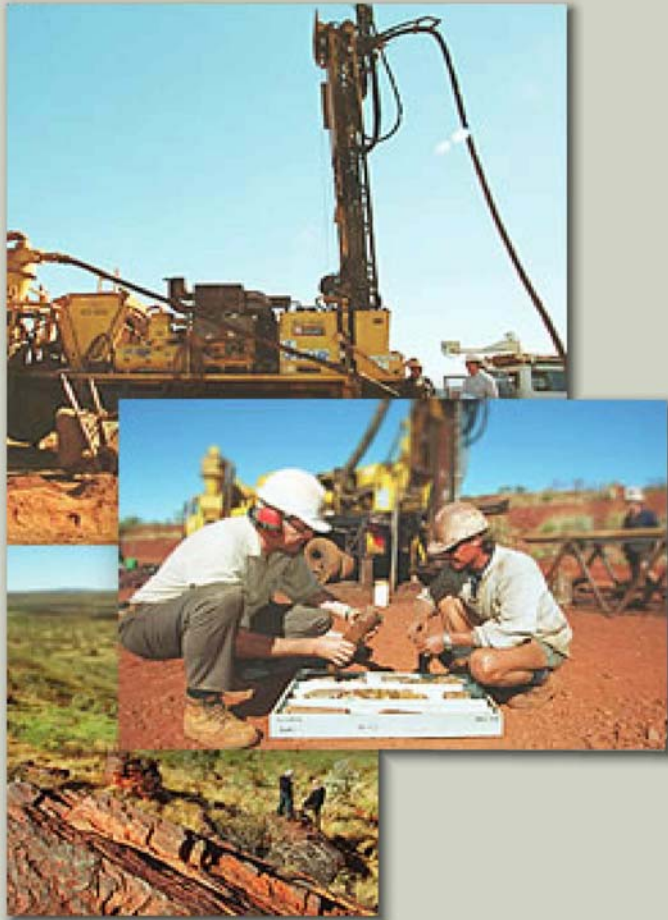
Iron Ore

- Low capital, high value project
- Modification of No. 2 Ore Handling Plant
- Additional 4Mtpa Lump Product
- Customer LOI's in place
- Commission July 2002

# Mining Area C



# Mining Area C



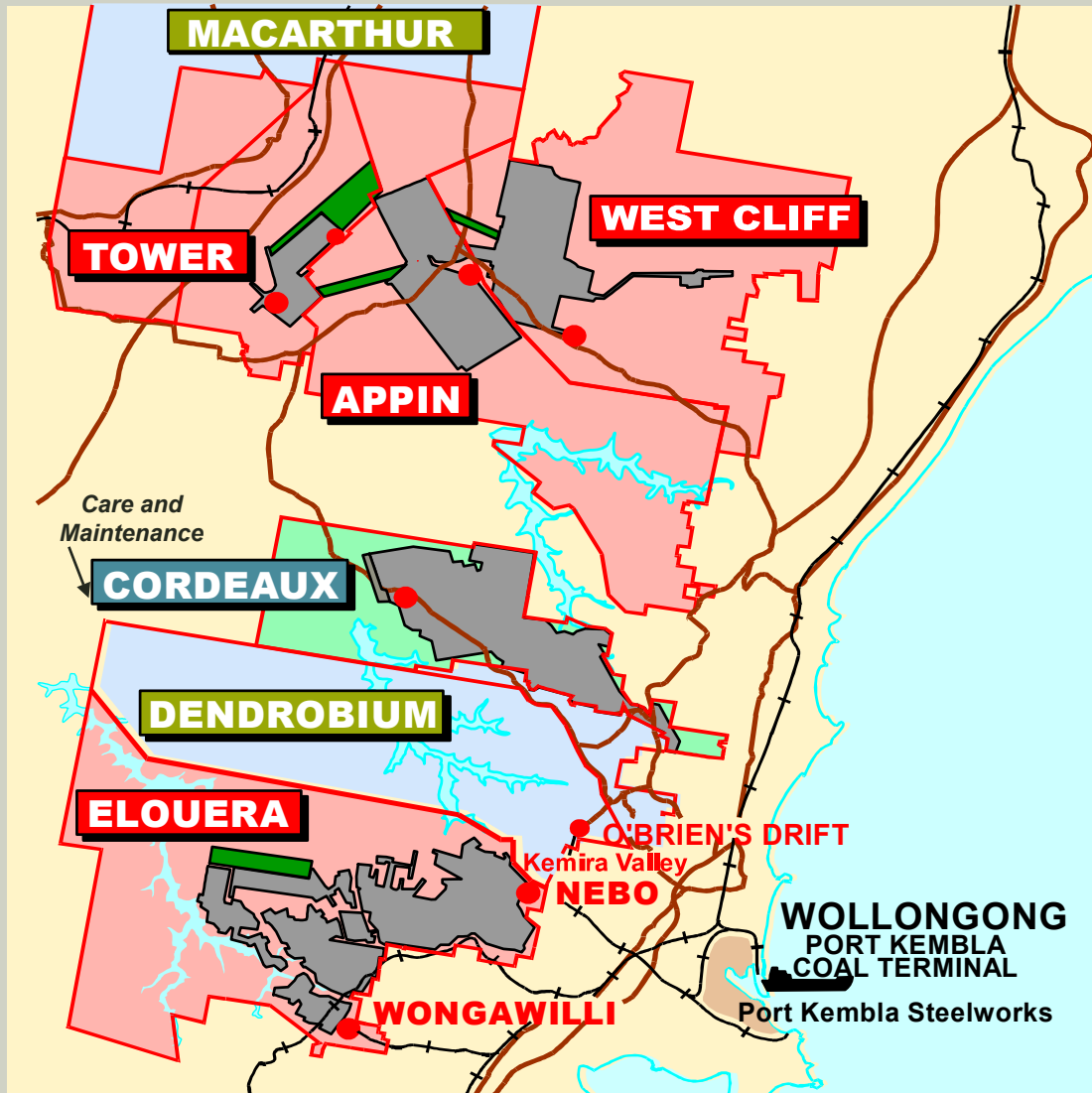
- More than 800 million tonnes of iron ore in seven separate deposits
- US\$213m (100%) capital expenditure (mine, processing & rail spur)
- 740,000 tonne bulk sample April 2002
- Bulk sample product railed and processed
- First shipment scheduled to POSCO
- Production target – late 2003
- Capacity to 15mtpa
- Ramp up in line with market demand
- POSMAC JV



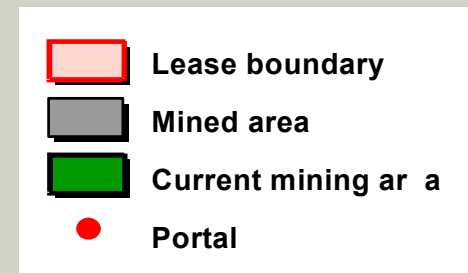
## Samarco Roller Press

- Capacity round out: increasing plant capacity at Ubu pellet plant by 2 mtpa (to 14 mtpa)
- Modest capex (US\$25M, 100%)
- Converts low margin concentrates to high margin pellets
- Commission May 2003

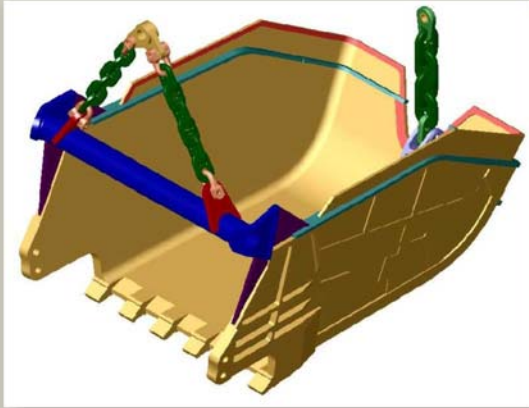
# Dendrobium



- Maintain high quality No.2 seam
- Drive next phase of cost productivity
- Expand production to > 8mtpa
- Long term supply to BHP steel



# Universal Dragline



- Universal Dragline (UDD) is a modified hoisting system that BMA is testing
- Productivity gains of **>20%** may be possible
- Gains in productivity are based on:
  - **Decrease in equipment weight.** Converted to payload
  - **Reduced cycle time.** Bucket can now be picked up when full.
  - **Improved physical characteristics.** Increase in dump height, boom length and dig depth.
  - Expected productivity benefits in new bench designs.
- Trials in progress.

# Goonyella Underground



- Development of low capital low risk punch longwall in Goonyella middle seam
- Equipment - low capex options
- Flexible production
- Gain experience in north Bowen Basin longwall mining

# Carbon Steel Materials – Value Add

- Operating excellence
  - Plans in place across all sites to achieve cost targets
- Customer focus
  - Marketing hubs established
- Knowledge based

# Carbon Steel Materials – Prospects

- Steady – prudent growth
- Attractive industry structure – but challenges
- China – opportunity & threat
- Pre-eminent resource base and assets
- Further efficiency and productivity opportunities
- Solid project pipeline