

# Responding to unprecedented global demand

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**AJM Global Iron Ore & Steel  
Forecast Conference**

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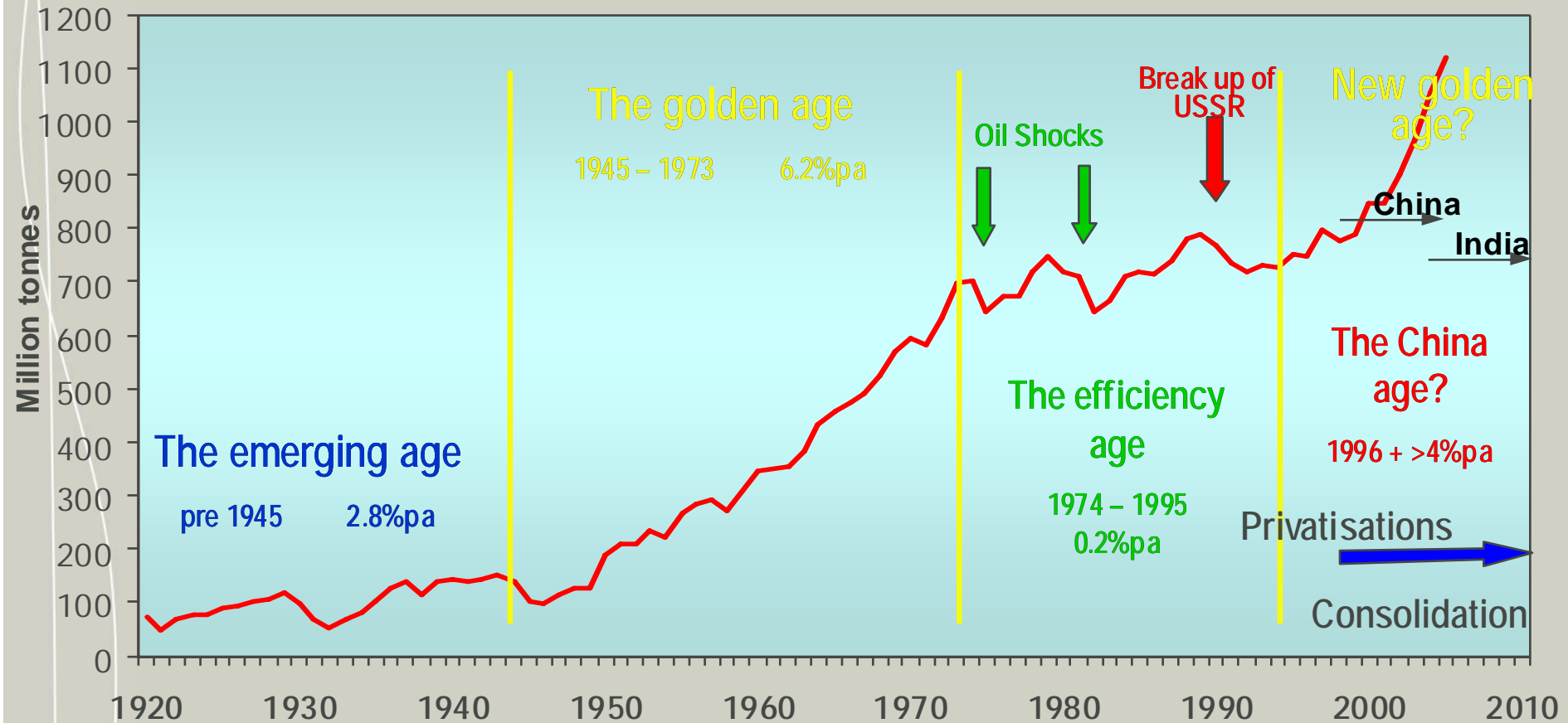
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# Global Steel –the new golden age

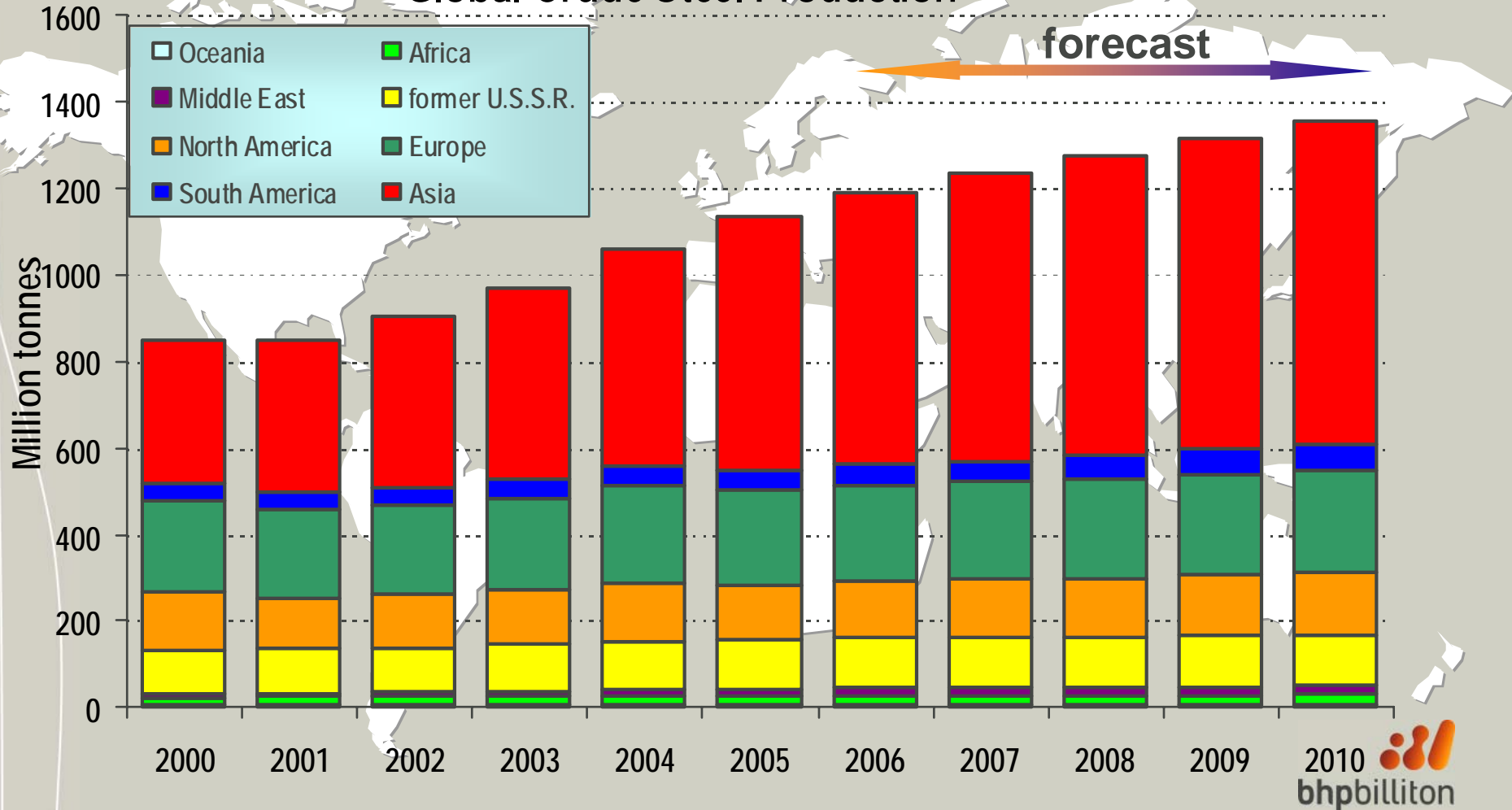
*China continues to show strong growth giving more credence to the belief that we have entered a new, prosperous age for steel. Steel companies have recorded record profits and will remain extremely profitable even in light of increased raw material costs.*



# Global steel growth will continue to grow

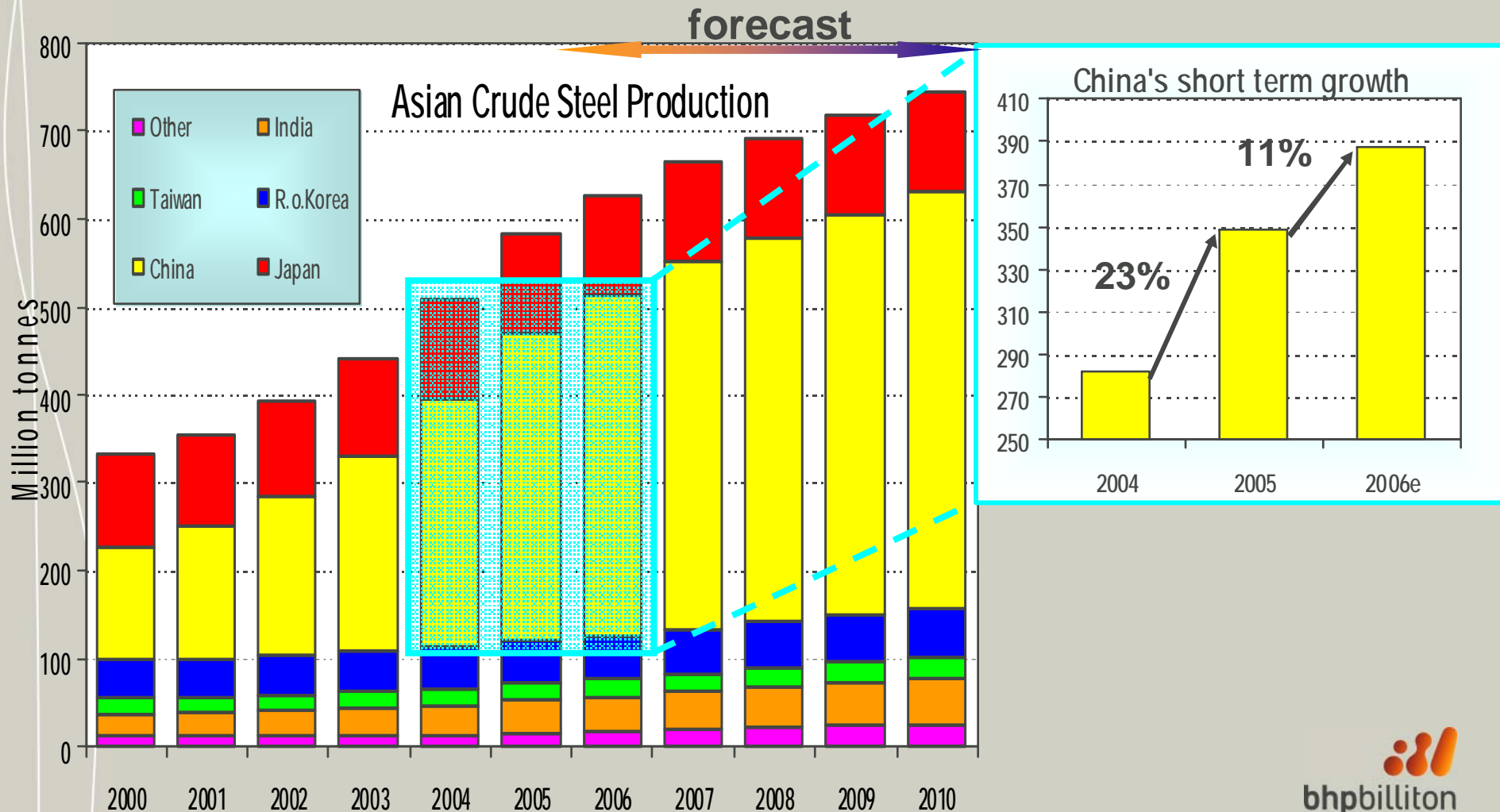
**Global crude steel production exceeded 1.1 Billion tonnes in 2005. The last five years have seen production grow approximately 33%. The next five years will still deliver 20% growth.**

## Global Crude Steel Production



# Asian steel growth will be led by China

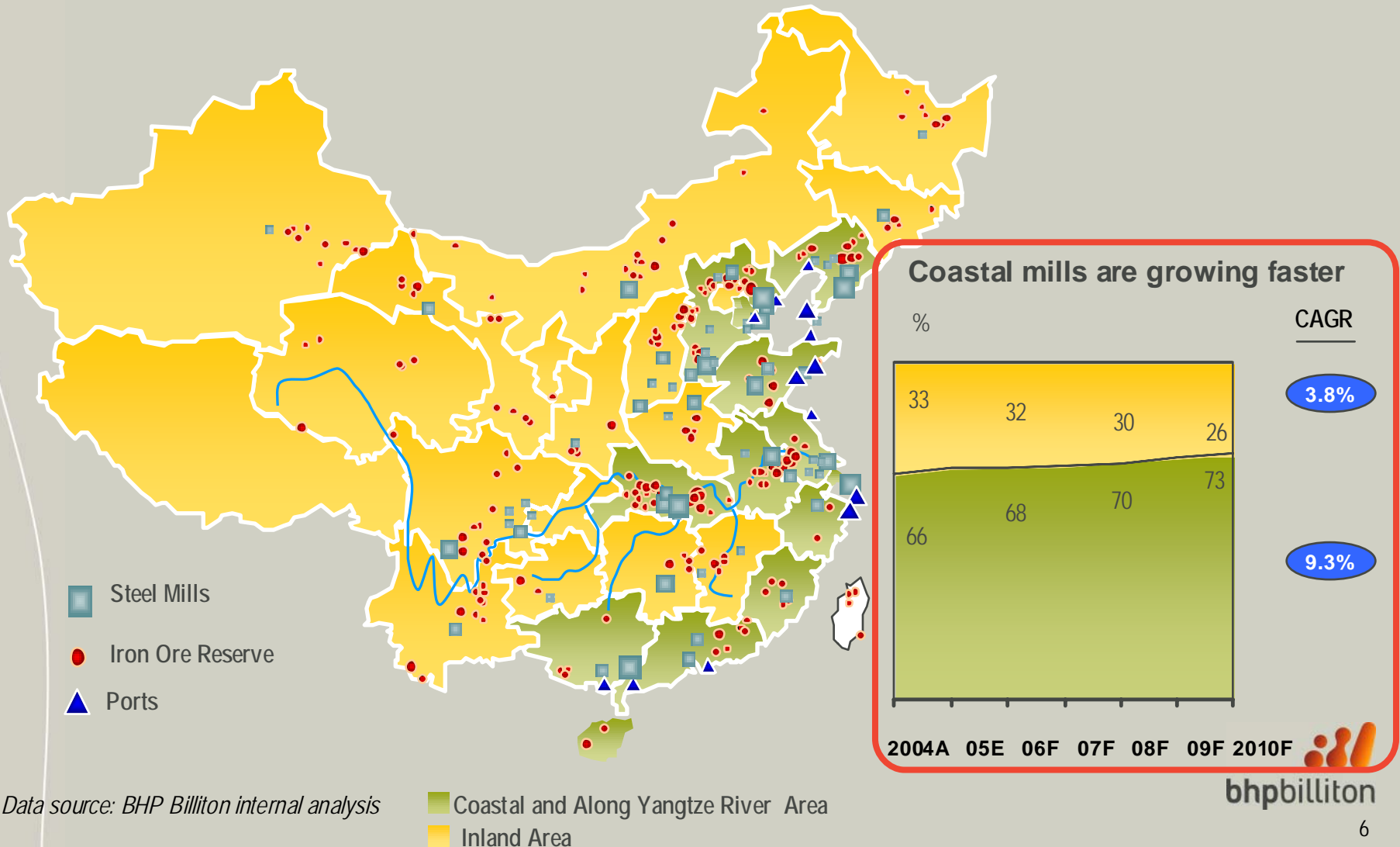
***China will however continue to be the growth engine for steel in the region and, consequently, the world. India will be the other market that shows substantial percentage growth.***



Data source: IISI, AME, Tex, CRU, BHP Billiton forecasts

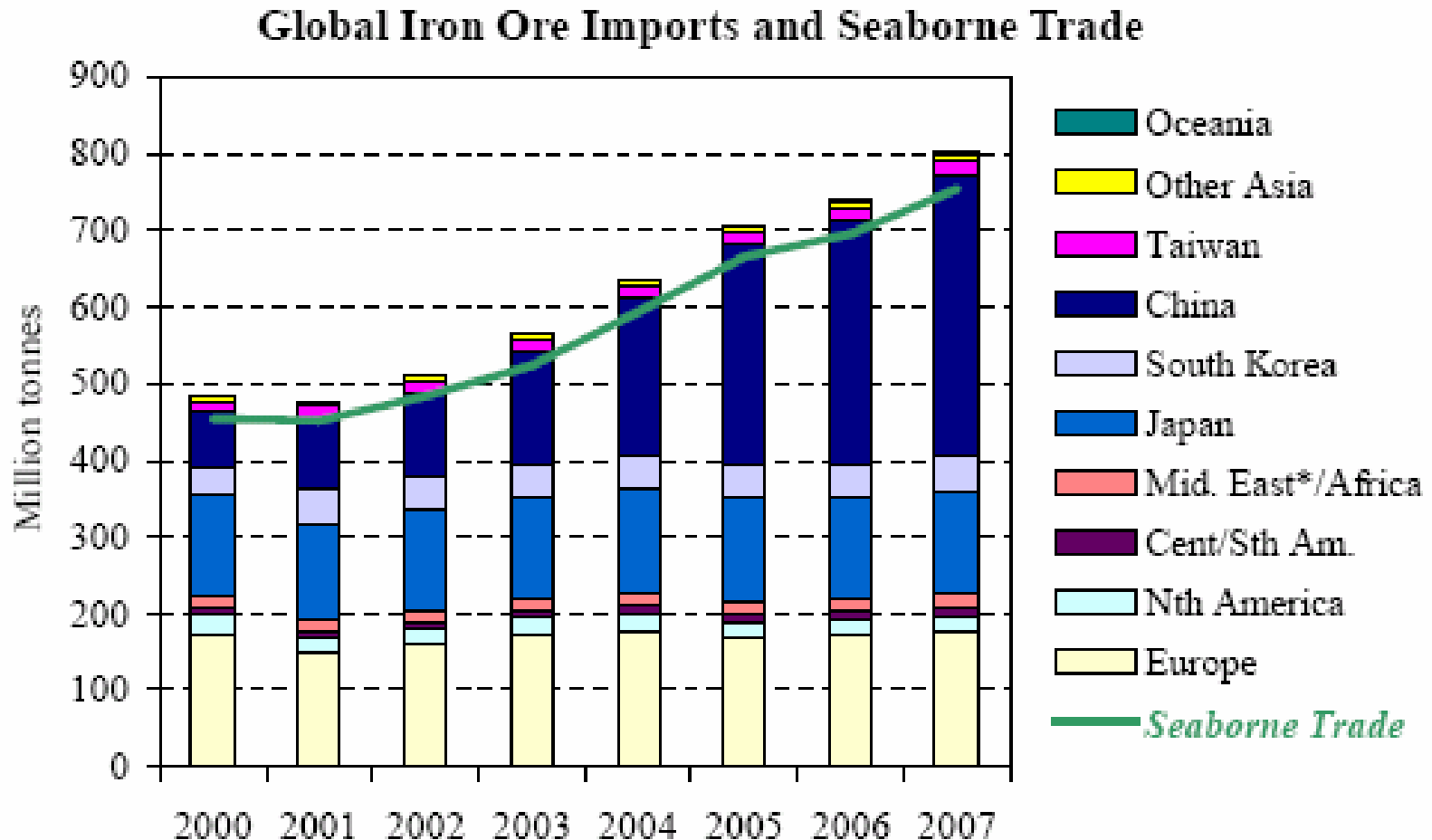
# Chinese steel industry evolution

**China's steel mills are shifting to coastal areas or along the Yangtze river. China's new 5 year steel policy will consolidate the industry and lead to higher usage of imported iron ores**



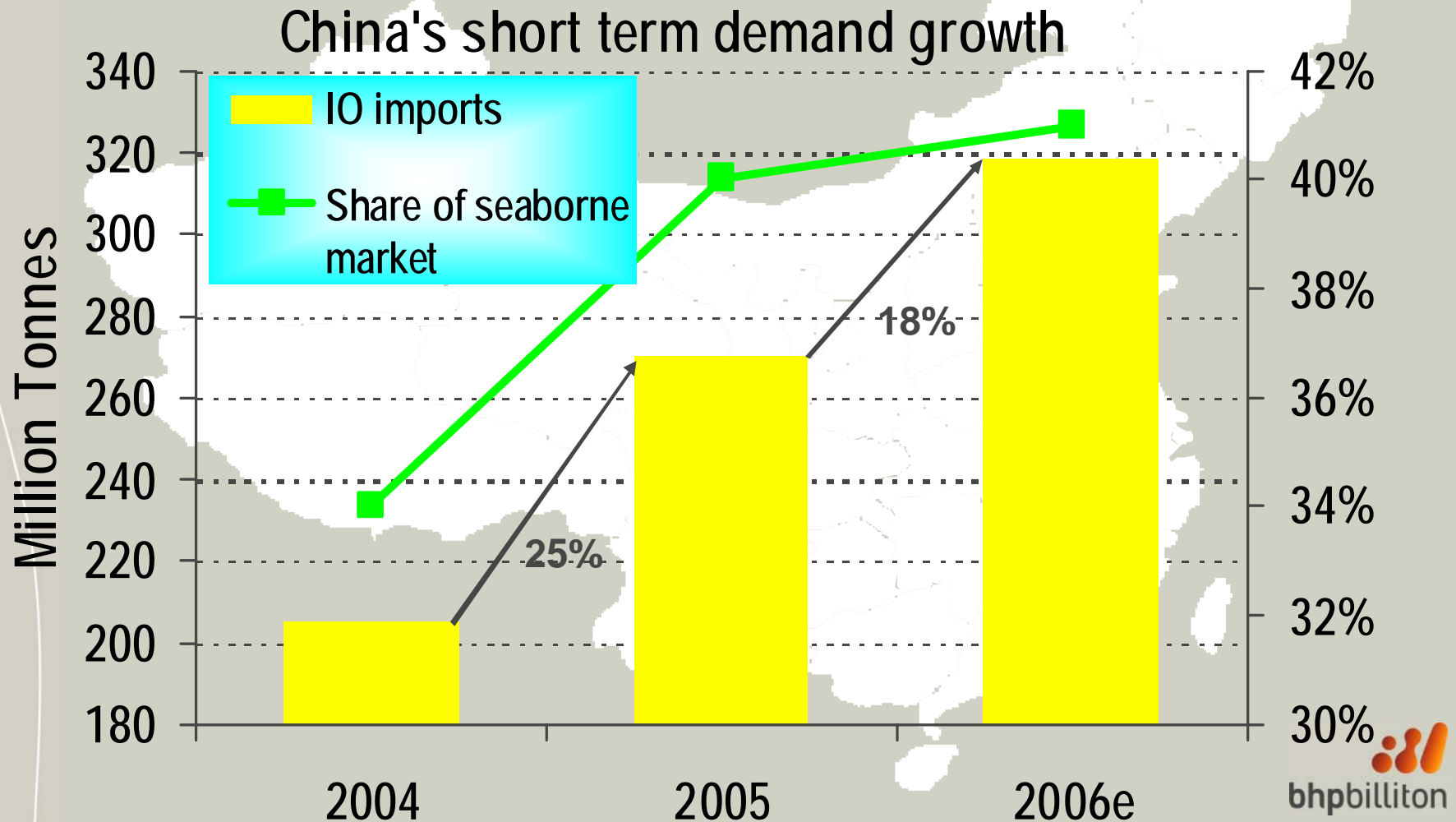
# Global seaborne iron ore demand

*Driven by increasing global crude steel capacity growth seaborne iron ore demand will continue to grow at a rapid rate. Demand is expected to reach around 800 million tonnes by 2007.*



# Demand from Chinese steel sector will lead the way

*China will make up the bulk of the future growth in seaborne iron ore demand, consequently China's share of the seaborne iron ore market is also increasing, from 34% in 2004 to ~40% in 2005.*

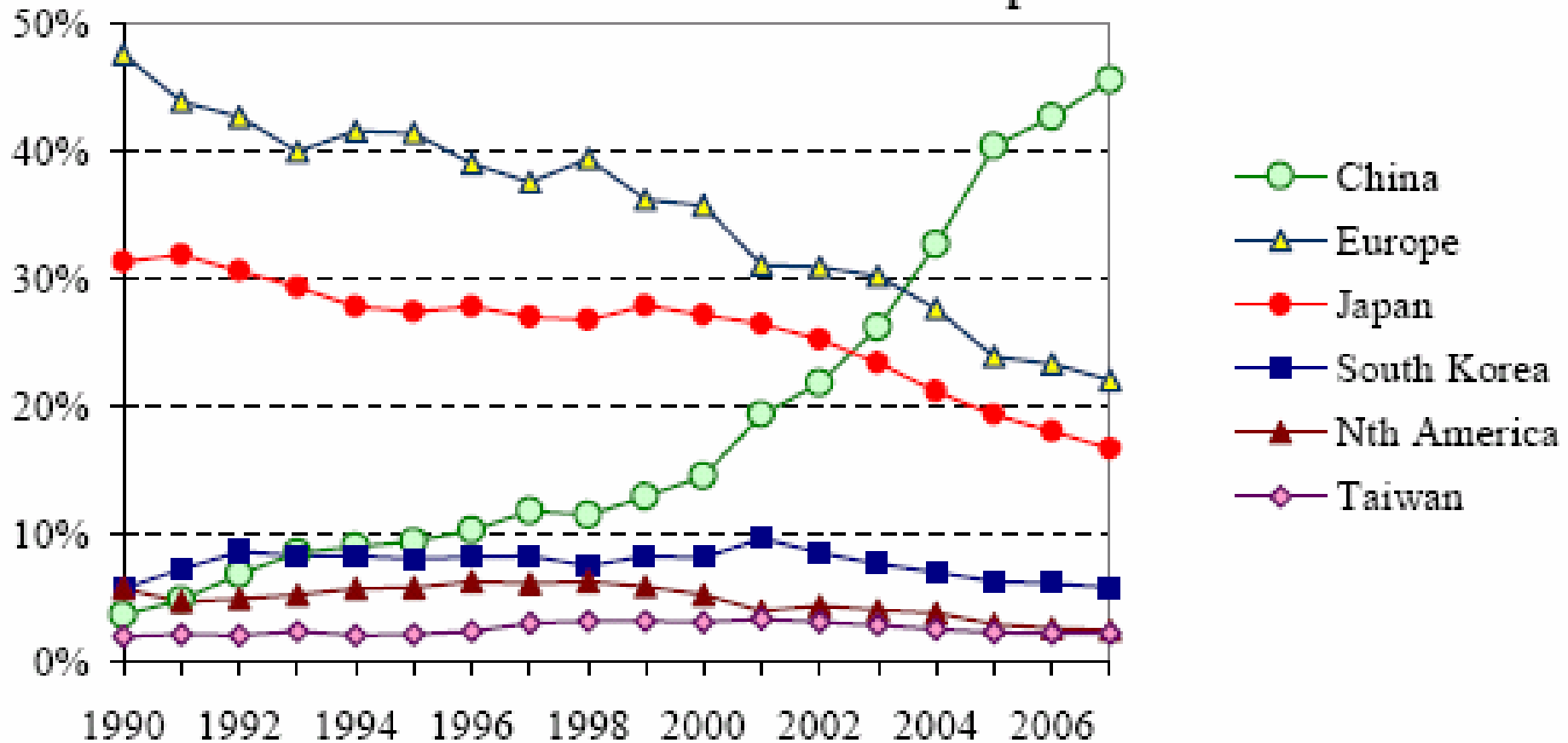




# China's share of seaborne iron ore demand is growing

*China's share of the global seaborne market has grown strongly and will exceed 45% in 2007*

## Share of Global Iron Ore Imports

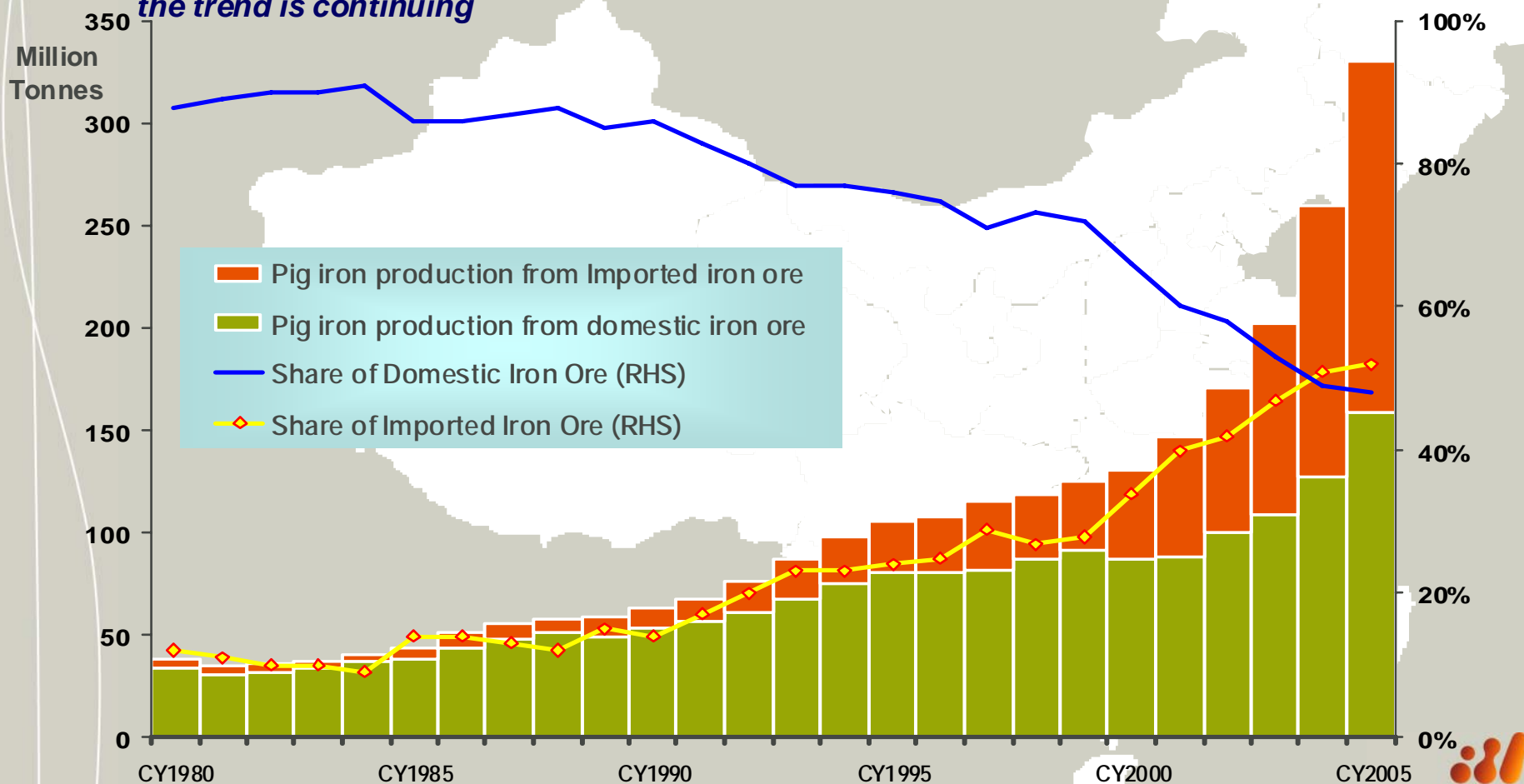


# China's occupies a unique position in the global iron ore market

- Only country with its own significant iron ore resources that imports large volumes of iron ore
- Domestic ore mainly low grade (Fe), requiring significant beneficiation and are typically used as concentrates (for sintering) or pelletising
- Extensive beneficiation significantly increases costs; thereby making seaborne ores very attractive
- Australian and Brazilian seaborne ores also very complimentary to domestic ores and provide an advantage of other Asian 'total importing' countries:
- Fe – seaborne ores cost effective in increasing overall Fe
- Can use more relaxed chemical specifications of minor elements in seaborne ores than other Asian countries as domestic ores dilute impurities

# Chinese domestic iron ore production

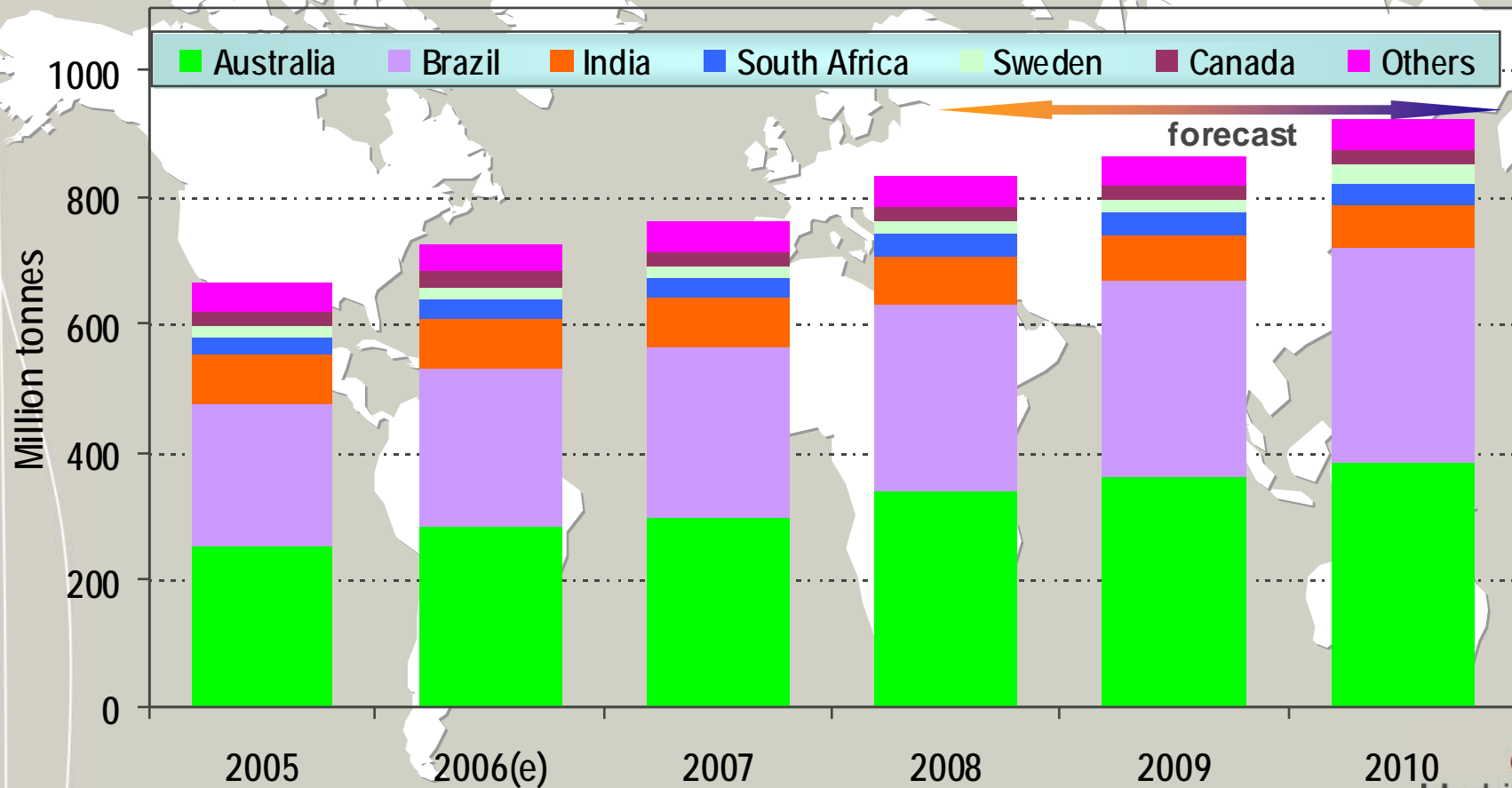
**BHP Billiton's detailed study of the expansion potential of China's domestic iron ore mines indicates that they will not be able to meet the demand of China's steel industry. This has been proven by the results that more than 50% of the iron units consumed in 2004 were imported and the trend is continuing**



# Seaborne iron ore supply

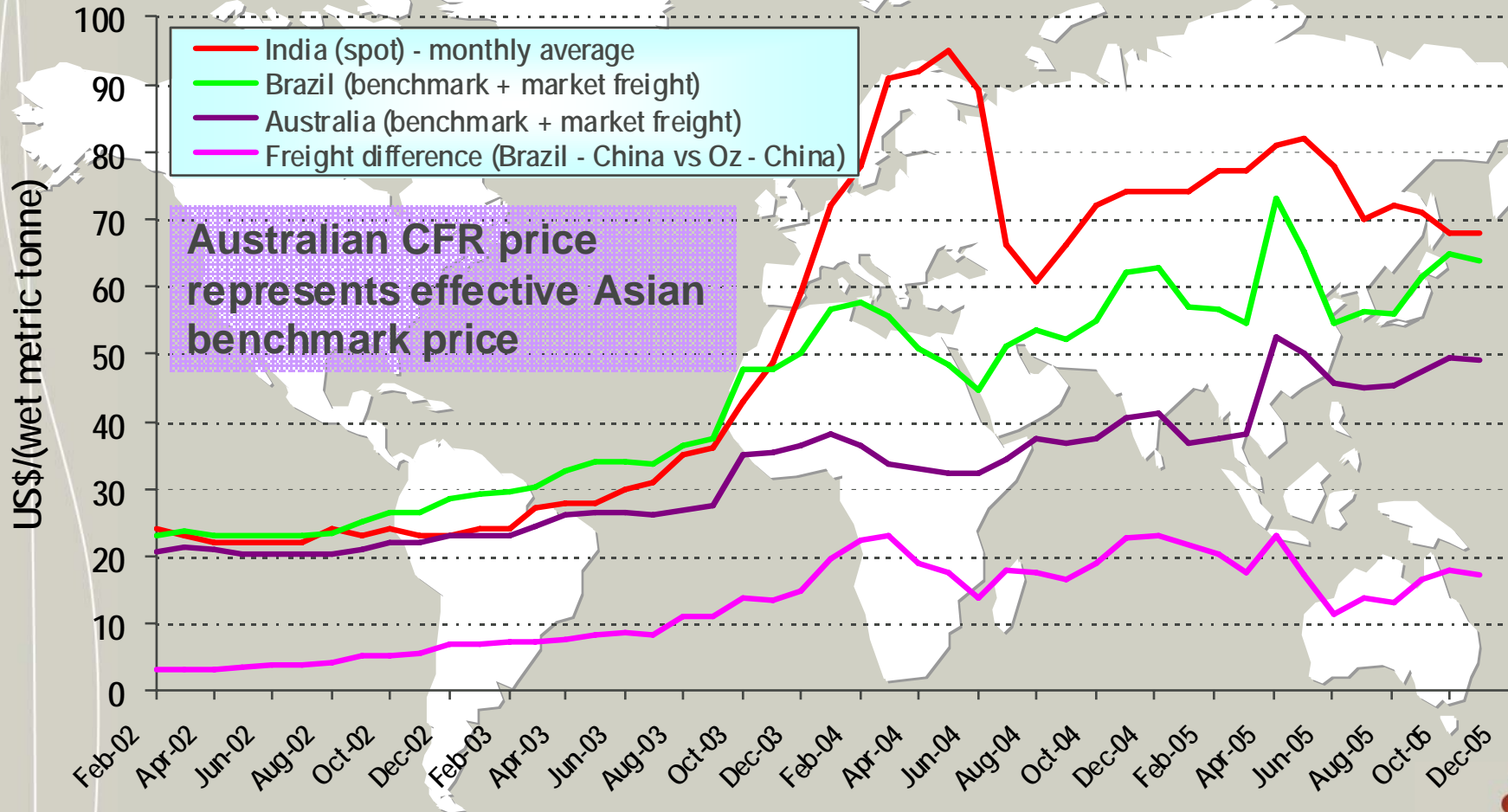
**Supply growth to meet the demand of the expanding global steel industry will come from the traditional supply basins of Australia and Brazil (>90%). While India has met some of the shortfall its own future demand will mean that their exports will stabilise or even begin to reduce.**

Seaborne Iron Ore Supply Capacity



# Indication of spot market prices in China (CFR)

*Indian prices remain well above the landed cost of Australian iron ores. Chinese government measures during 2005 initially drove spot prices down but these have rebounded due to demand which is unable to be fulfilled by domestic iron ore producers.*



Data source: China Customs, Baltic Indices, BHP Billiton

# 2005 seaborne iron ore summary, 2006 preview

**2005 was a year in which the influence of China continued to exert significant influences over the seaborne iron ore market.**

## **On the supply side:**

- **Australia was able to regain its place as the largest iron ore exporter with China accounting for most of the growth in exports**
- **India increased its exports again to approximately 84Mt with 68Mt of this directed to China**

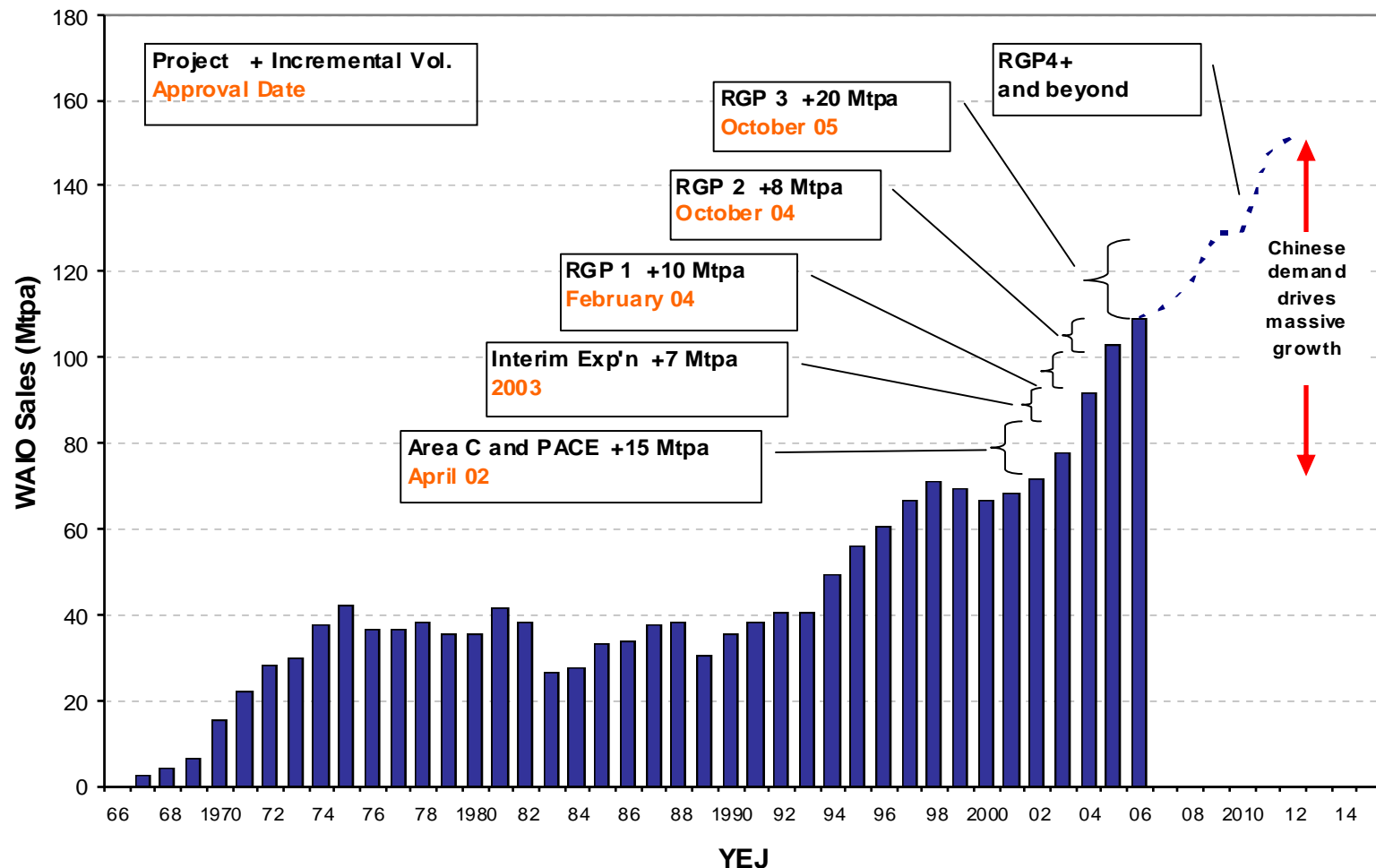
## **On the demand side:**

- **China was the whole story**
- **There was a movement in tonnage by BHP Billiton from Japan to China however, Rio Tinto and CVRD filled this gap in Japan**

**2006 should see a continuation of the trends with China providing most of the demand which will be filled by new Australian and Brazilian tonnes.**

# BHP Billiton's production response to demand growth

**BHP Billiton has progressively expanded production to meet market demand. Further expansions to over 152Mt are under study.**



Note: All figures on 100% basis

Data source: BHP Billiton



bhpbilliton

# Phased expansions to >152 million tonnes

*Staged expansions RGP 3 and RGP4 will take capacity to >152Mtpa, further studies are underway to go beyond this should market demand warrant it*

Project	Target Completion Date (CY)	Capacity Increase Mtpa (wet) (100% basis)	Capital 85% Terms US\$M
MAC/PACE	Q3 2003/Q1 2004	13	437
Accelerated Expansion Project	Q2 2004	8	80
RGP1	Q4 2004	10	101
RGP2	H2 2006	8	489
RPG3	End 2007	20	1,300
<i>RGP4+ *</i>	<i>H1 2010</i>	<i>~152 Mtpa system total</i>	<i>~1,400</i>
<i>Beyond 152 Mtpa**</i>	<i>TBA</i>	<i>TBA</i>	<i>TBA</i>

*\*Currently under feasibility study*

*\*\* Also under study*

- Disciplined approach to capital expenditure while increasing supply to customers
- RGP's - Series of phased, modular expansion steps
- Substantial capital commitments required



# RGP 2 Port Car Dumper 4 Construction





# RGP 2 OB18



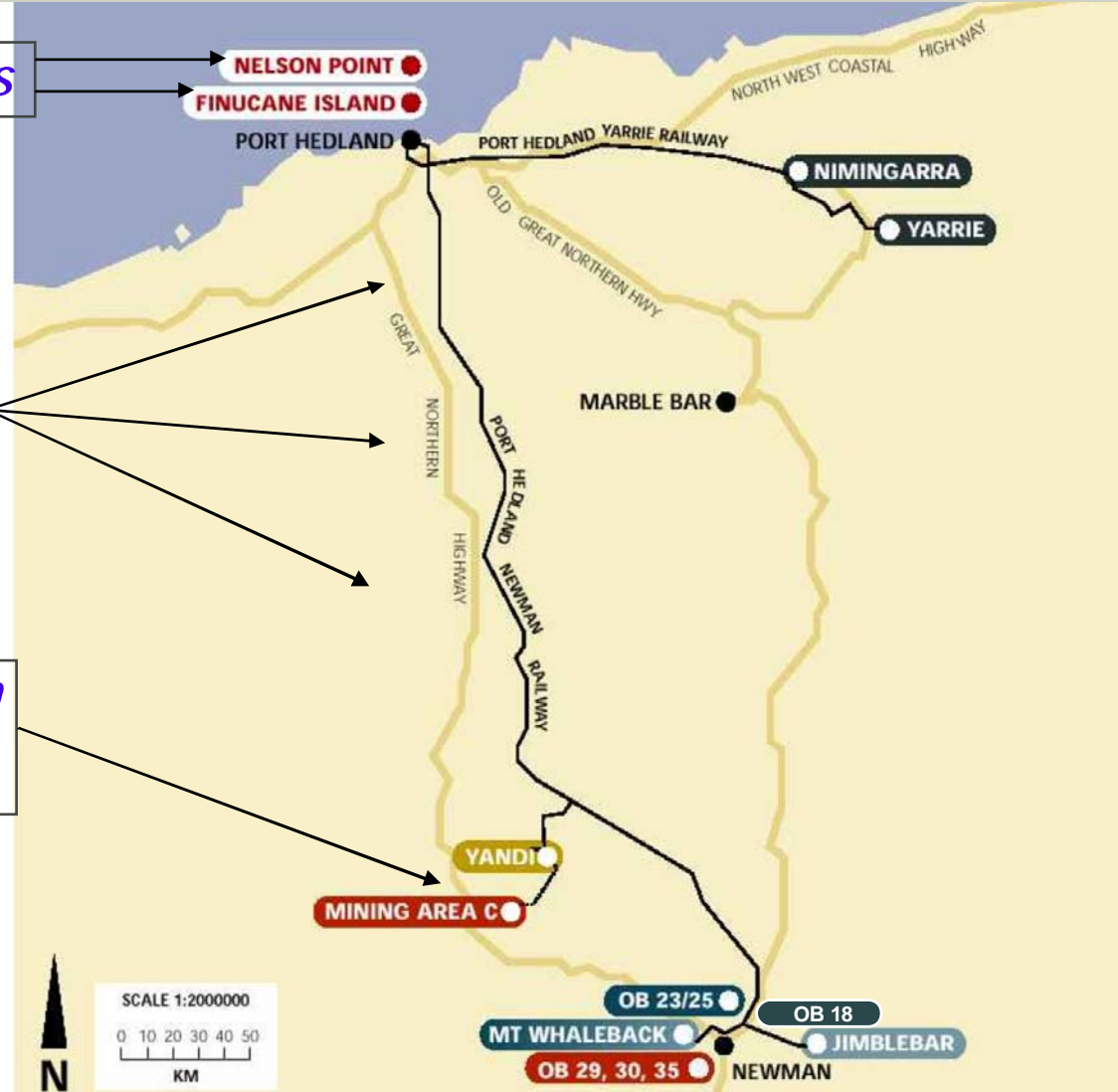
# RGP 3 – boosting capacity by 20 Mtpa to 129Mt

*RGP 3 will involve major expenditure on port, rail and mine expansions to Area C, boosting capacity to ~129Mtpa with first production by end of Q4 2007*

*Port expansions*

*Rail upgrades*

*Mine expansion  
Area C*





# Also expanding port capacity to meet demand

## Nelson Point

RGP2 – CD1 & CD3 to direct dump to berths A & B

- Upgrade OHP#2 conveyors.

RGP3 – Car dumper upgrades

- Conveyor upgrades

## Finucane Island

RGP2 – Installation of Car Dumper 4

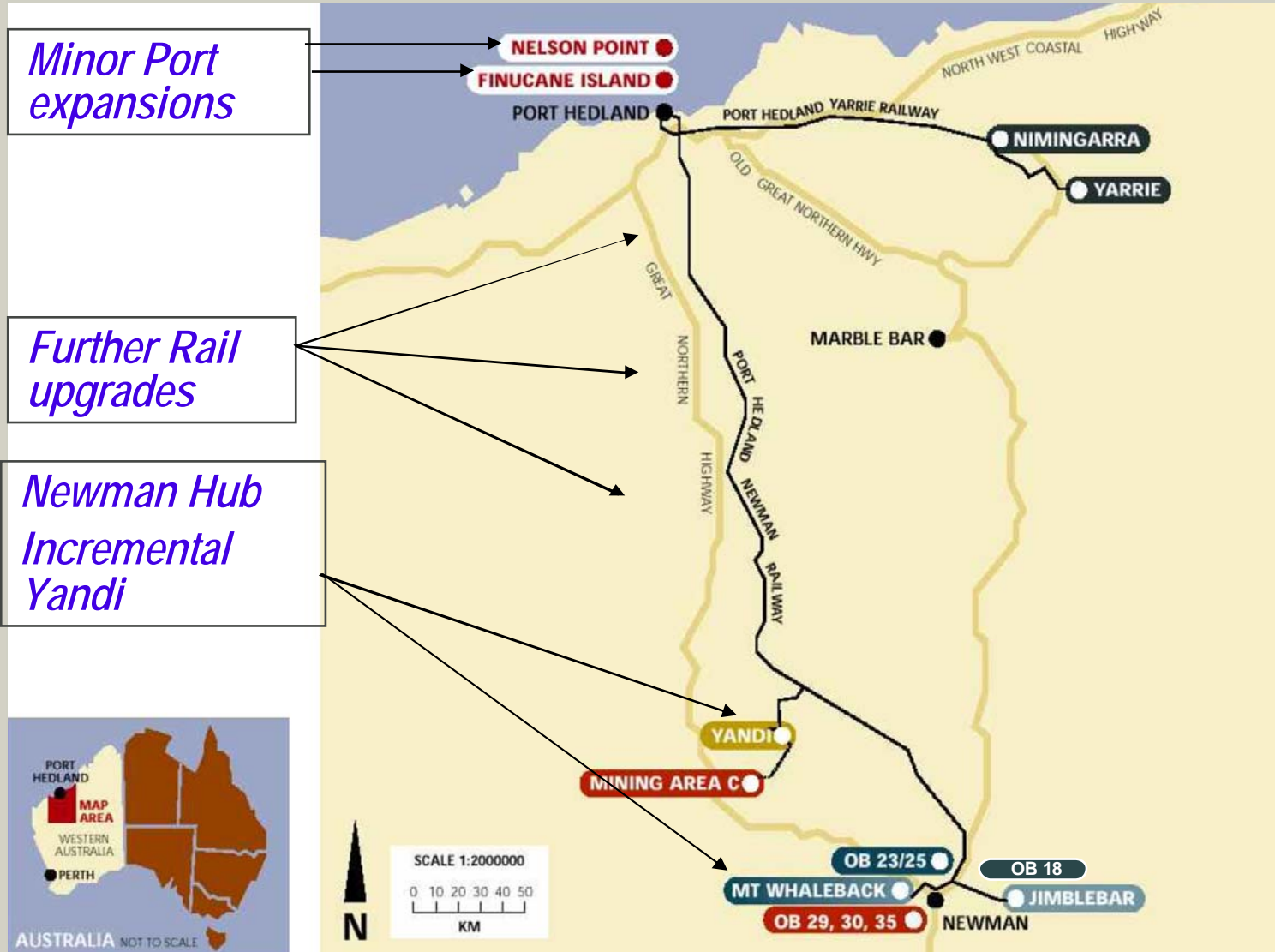
RGP3 – Upgrades to C Berth

- Increase C & D berth flexibility
- Shiploaders 3 & 4 flexibility
- East Yard.



# RGP4+ - Proposed Expansion to ~152 Mtpa

*RGP 4 and other possible staged expansions are aimed at taking capacity to around 152Mtpa*





# Beyond 152Mtpa, large resources to support further growth

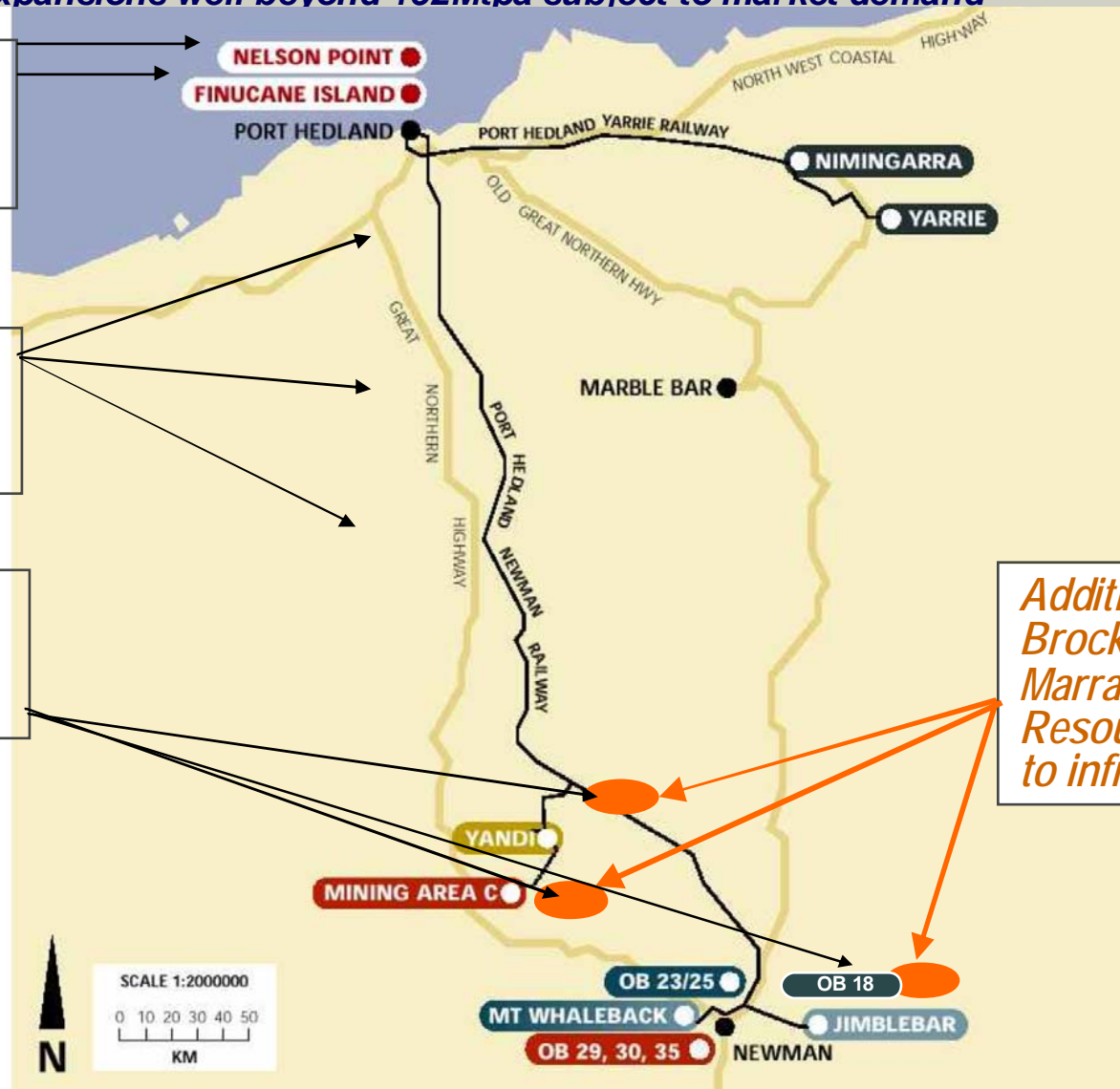
**BHP Billiton has vast further resources close to existing and expanding infrastructure that will enable further expansions well beyond 152Mtpa subject to market demand**

*Further Port expansions and new port*

*Further Rail upgrades and new rail system*

*Location of New Brockman Hub under study*

*Additional Brockman & Marra Mamba Resources close to infrastructure*



# Growth prospects outside Australia

***BHP Billiton also has the ability to grow through further expansion at Samarco in Brazil should demand for pellet continue to remain strong***



Samarco beneficiation plant at Germano



Samarco pellet plant at PontaUbu

# Key issues to achieving continued growth – increasing construction costs (1)

## Large increase in construction costs due to overheated Australian construction market

- Numerous projects competing for limited construction resources
- Numerous reports of project costs increasing/ going over budget
- Increasing lead times for vital equipment



Newly delivered locomotives

Construction costs have also increased in Brazil due to appreciation of the Real and increased activity

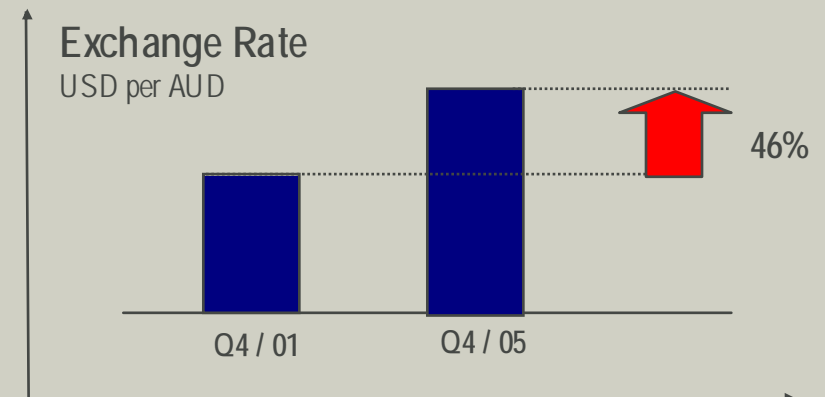
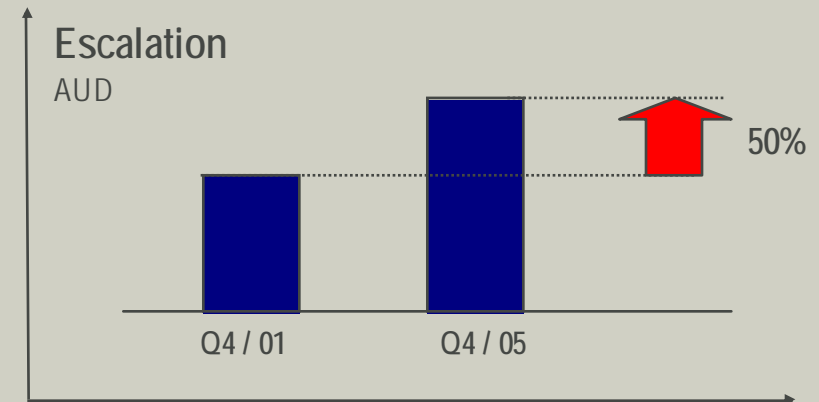
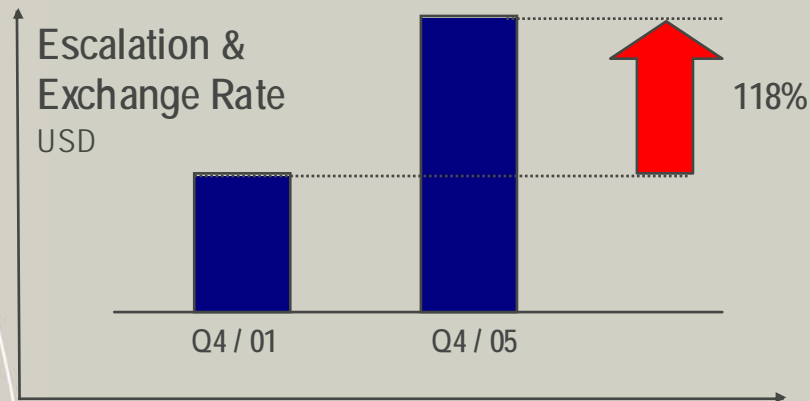
Car dumper 4 tunnel at Port Hedland



# Key issues to achieving continued growth – increasing construction costs (2)

## Construction Projects in Western Australia

Impact of Escalation and Exchange Rate Movement 2001 – 2005



# Key issues to achieving continued growth – mandated open access to integrated infrastructure assets

- Part IIIA application causing uncertainty and delays:
  - Limited resources within BHPBIO - being applied to legal defence rather than expanding the business
  - Consideration may be given to different expansion paths
  - How third-party track access would work in practice is almost impossible to determine – with large potential range of outcomes on our business
- The problem of how access would work in practice for this application is caused in large part because track access under Part IIIA is inherently **inefficient**

## Key issues to achieving continued growth – mandated open access to integrated infrastructure assets (cont.)

- Inefficient third party access will either result in:
  - Very high access charges – thereby precluding access
  - Or subsidies from BHPBIO – thereby distorting investment incentives
- More efficient solutions exist
  - State- based Rail Transport Agreement
  - Purchase of ore at tenement boundary
- Inefficient third party access is not in the interest of the State, and not in the interest of the access seeker if equitable access charges are applied

## Summary

- Seaborne iron ore demand continues to show substantial growth
- Chinese domestic producers unable to meet Chinese demand meaning increased demand for seaborne iron ore
- Traditional producers Australia and Brazil will provide the majority of new supply but markets will remain tight in the near to medium term
- BHP Billiton has staged expansions RGP2, 3, 4 in the pipeline to raise capacity to 152Mtpa and beyond
- Already studying expansions well above 152Mtpa in WA and also potential to further increase Samarco
- Key issues with continued growth include spiralling construction costs and mandated open access to integrated infrastructure assets

**Thank you for  
your attention**

