

BHP Billiton Aluminium

April 2002



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Introduction and Strategy

Mike Salamon



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Presentation objectives

- BHP Billiton context
- Aluminium strategy and positioning
- Industry and competitive review
- Aluminium performance
- Prospects

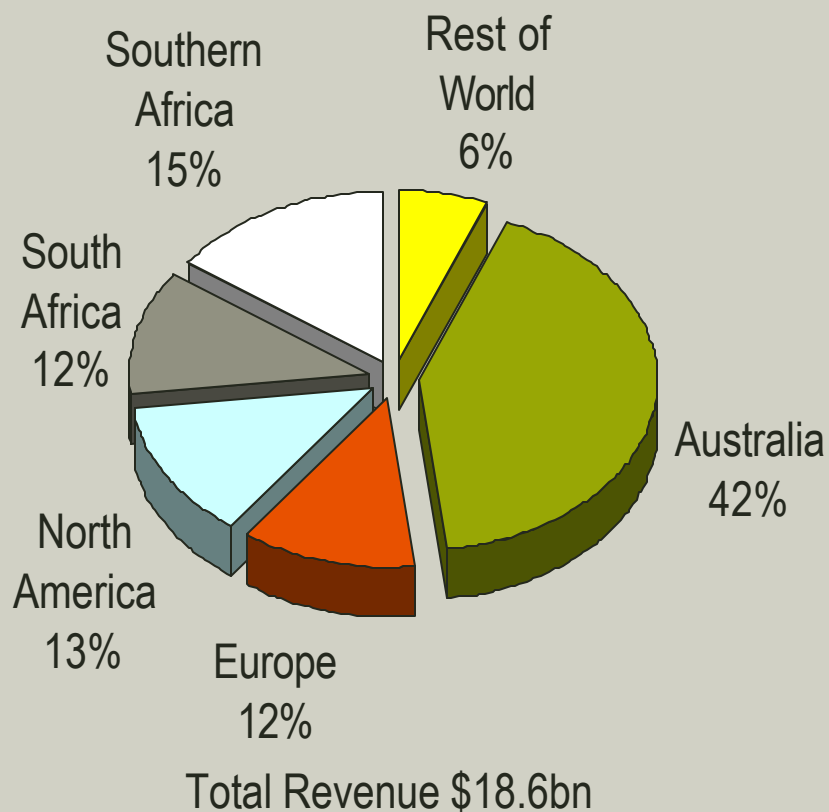
Presentation outline

Introduction & Strategy	Mike Salamon
Industry	Paul Everard
South America	“
Australia	“
Southern Africa	Mahomed Seedat
Marketing	Rod Kinkead-Weekes
Finance	Alex Vanselow
Conclusion	Mike Salamon

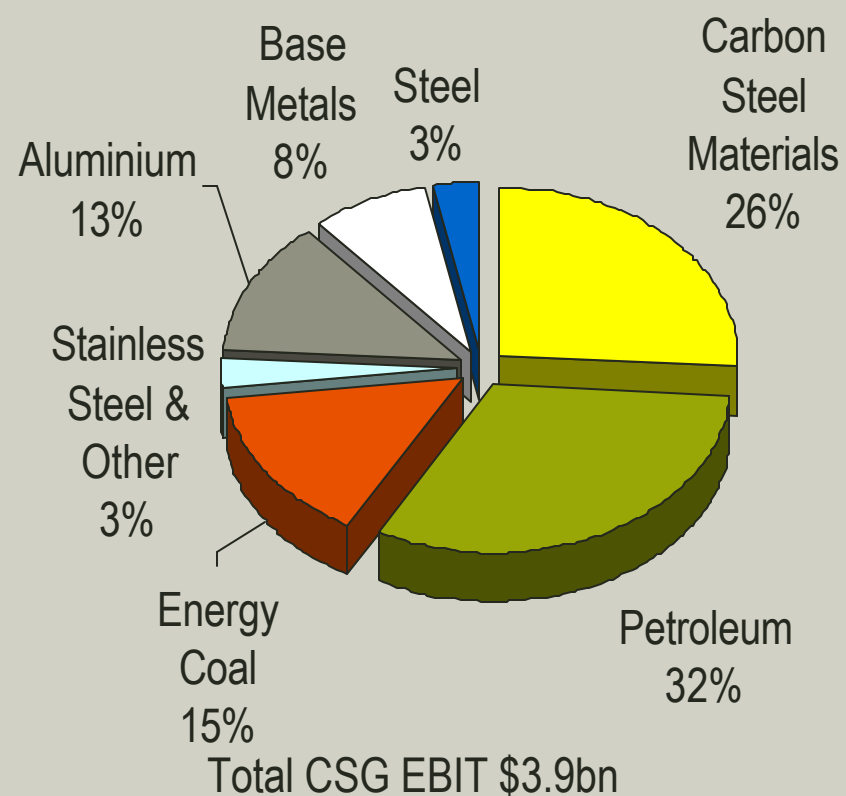
BHP Billiton - Diversification

Year end 31 December 2001

Revenue - Geographic Origin



EBIT - CSG



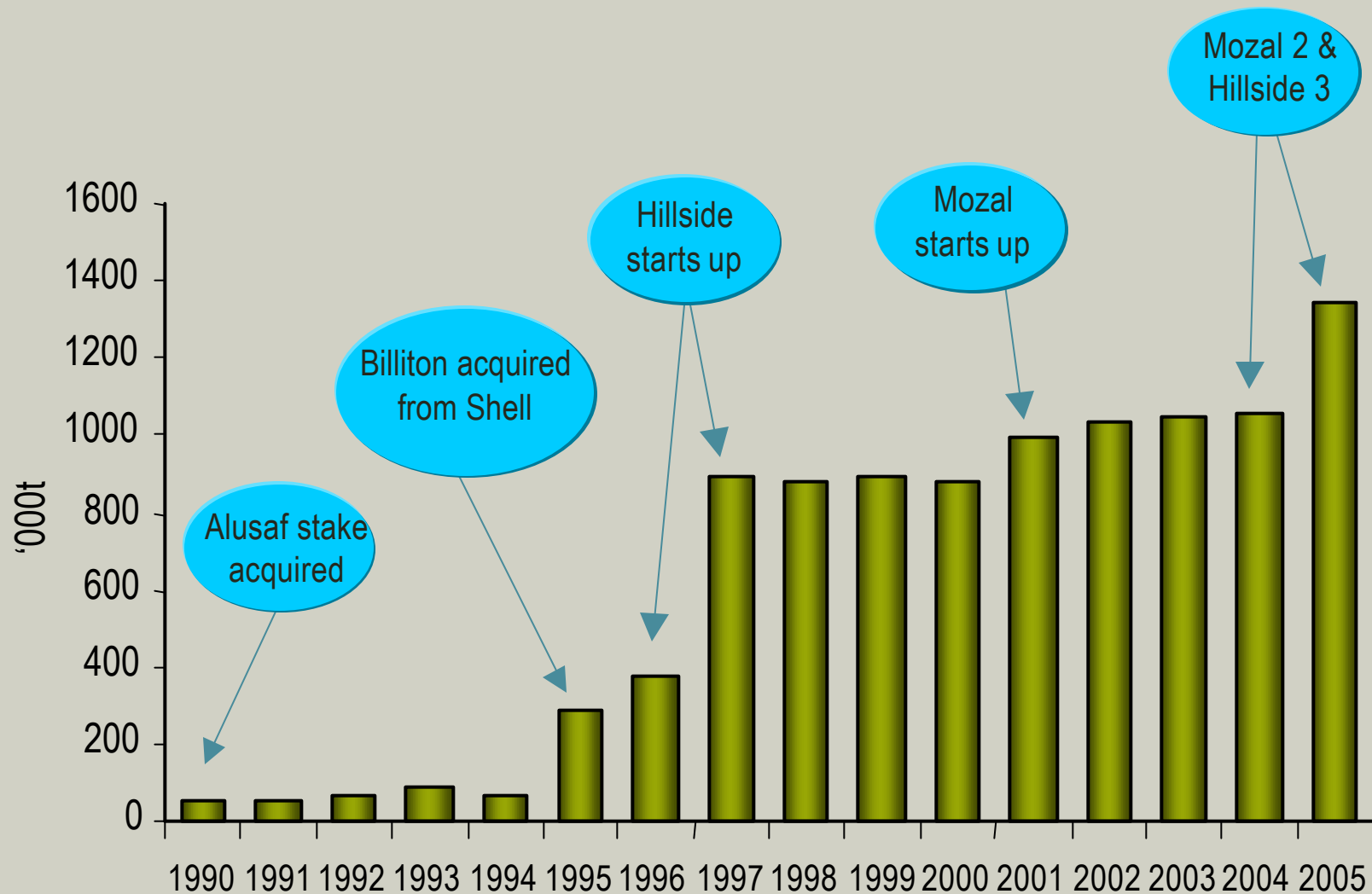
EBIT contribution excludes exceptional items

Role of Aluminium in BHP Billiton

- Critical mass and cost competitive
- Cash generative and gearing capacity
- Value growth
- Portfolio balance
- Trading and financing capability
- Base for innovation

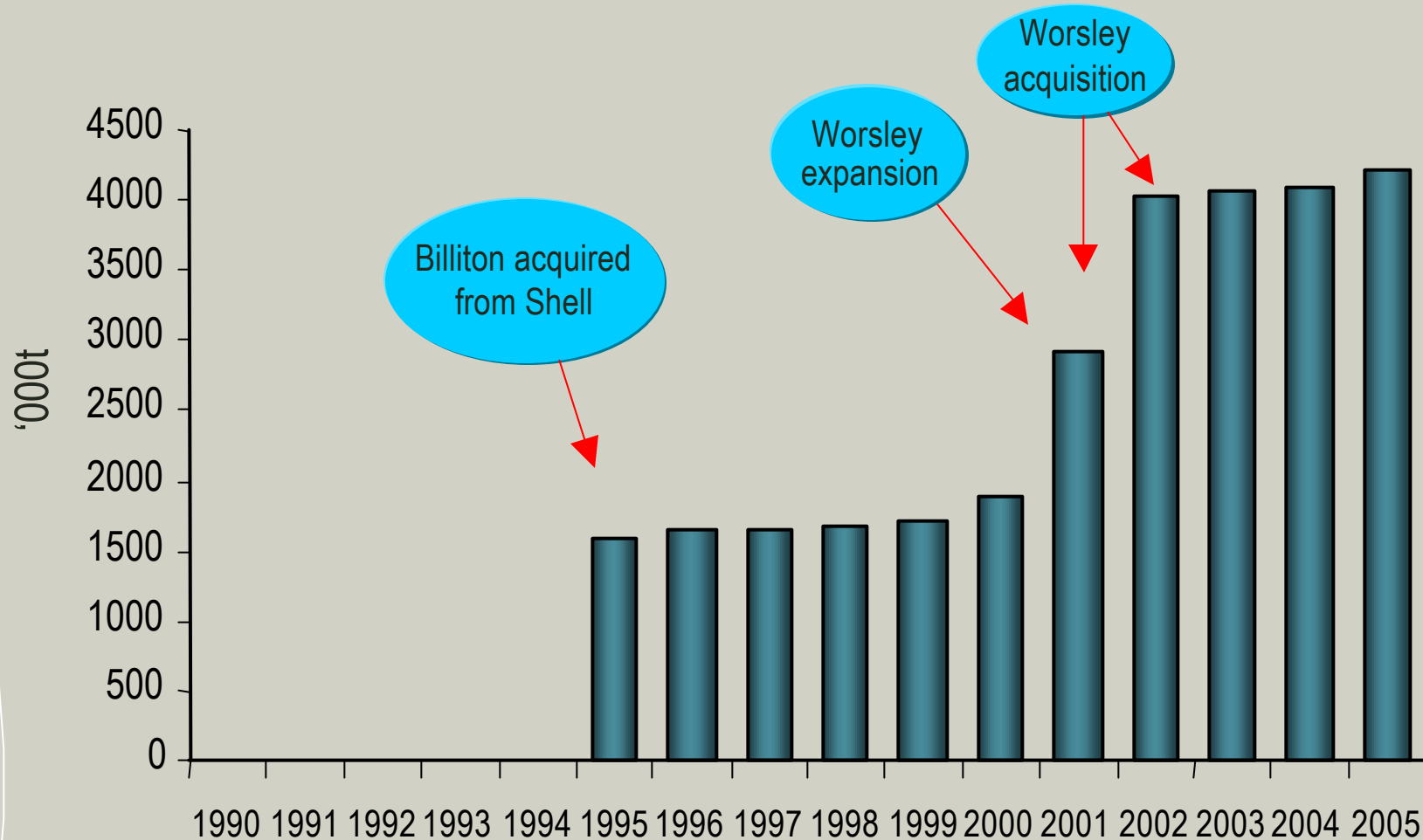
Aluminium: Growth in low cost capacity

Fiscal Year



Alumina: Growth in low cost capacity

Fiscal Year



Strategy

- **BHP Billiton Aluminium today**

- Embedded growth options – mainly exercised
- New opportunities – mostly outside existing asset base
- Alumina – good industry for low cost players
- Smelting – the right projects provide good returns
- Low cost portfolio – provides robust growth foundation

- **And our aims**

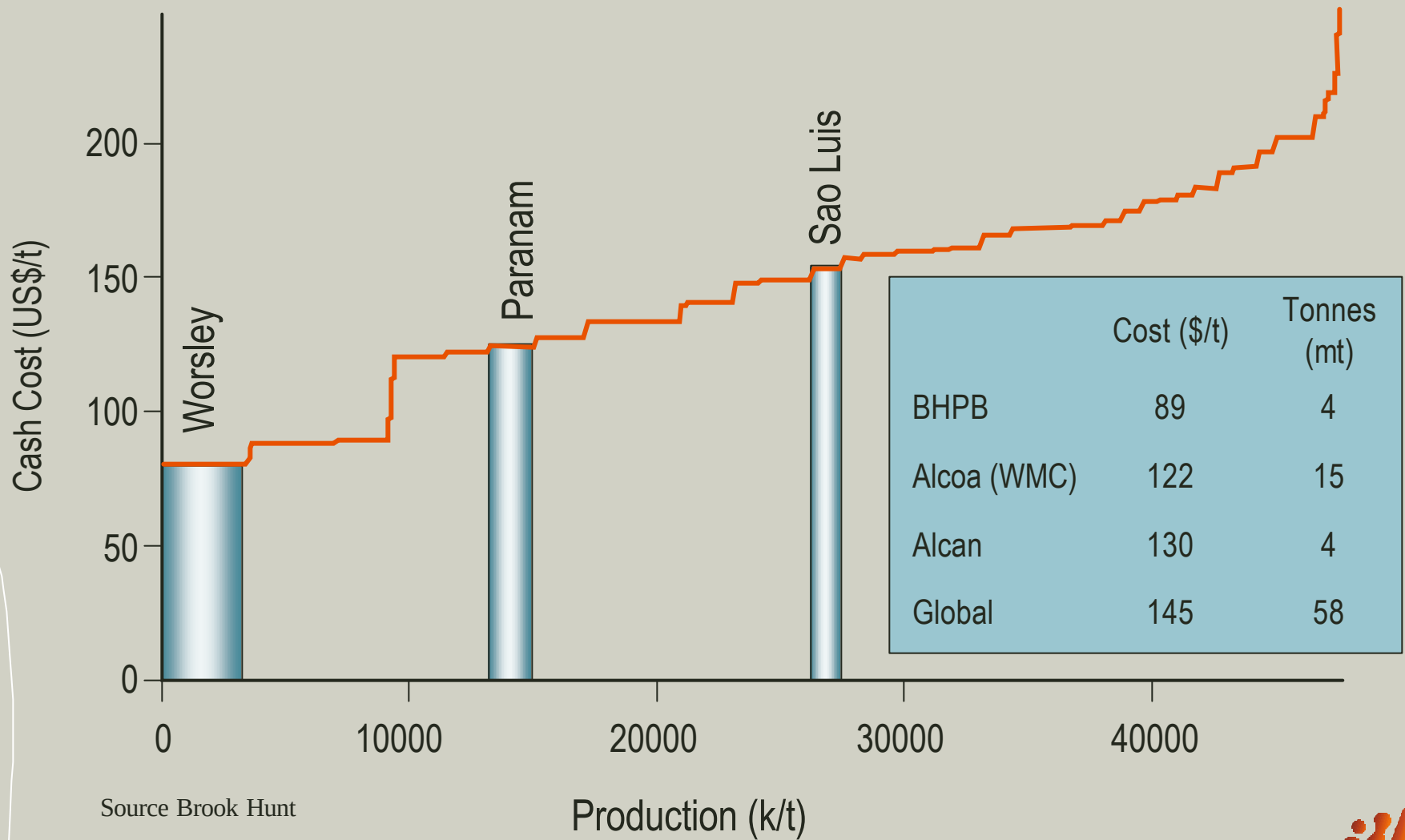
- Lowest unit cash cost producer of alumina and aluminium
- Greatest rate of profitable growth in industry
- Number 1 or 2 in third party alumina and aluminium
- Top 3 aluminium company in financial performance

- **The world's best upstream aluminium company**

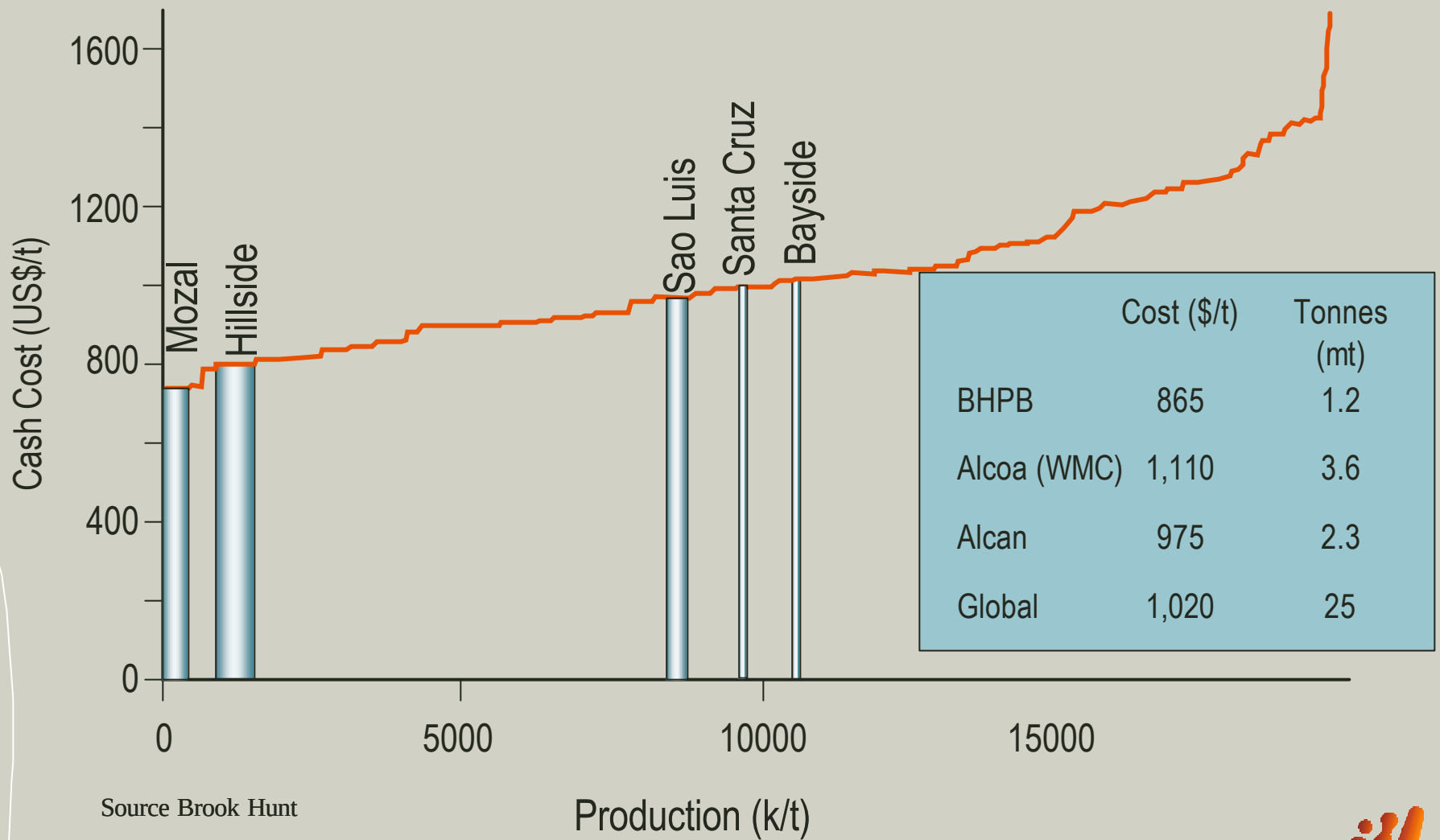
Value Drivers – The focus of Aluminium

VALUE DRIVERS What distinguishes us from others	STRATEGIC IMPERATIVES What we have to get right	PERFORMANCE MEASURES How the market should judge us
Outstanding assets –Worsley –Hillside –Mozal	“Zero harm” Operating excellence	Safety and environment Low cost Productivity improvements
Growth - project inventory –Brownfield –Greenfield	\$1.5bn in 2002-2006 Mozal 2 & Hillside 3 Worsley & other	Leveraging future returns On time and budget Delivering project value
Customer-centric marketing	Global book Organisational capability Alumina base	Preferred supplier status Creative solutions
Innovation –Strategic analysis and implementation –Marketing	Opportunity identification Commercial judgement Transaction execution	Focus on –Business opportunities –Creative customer solutions

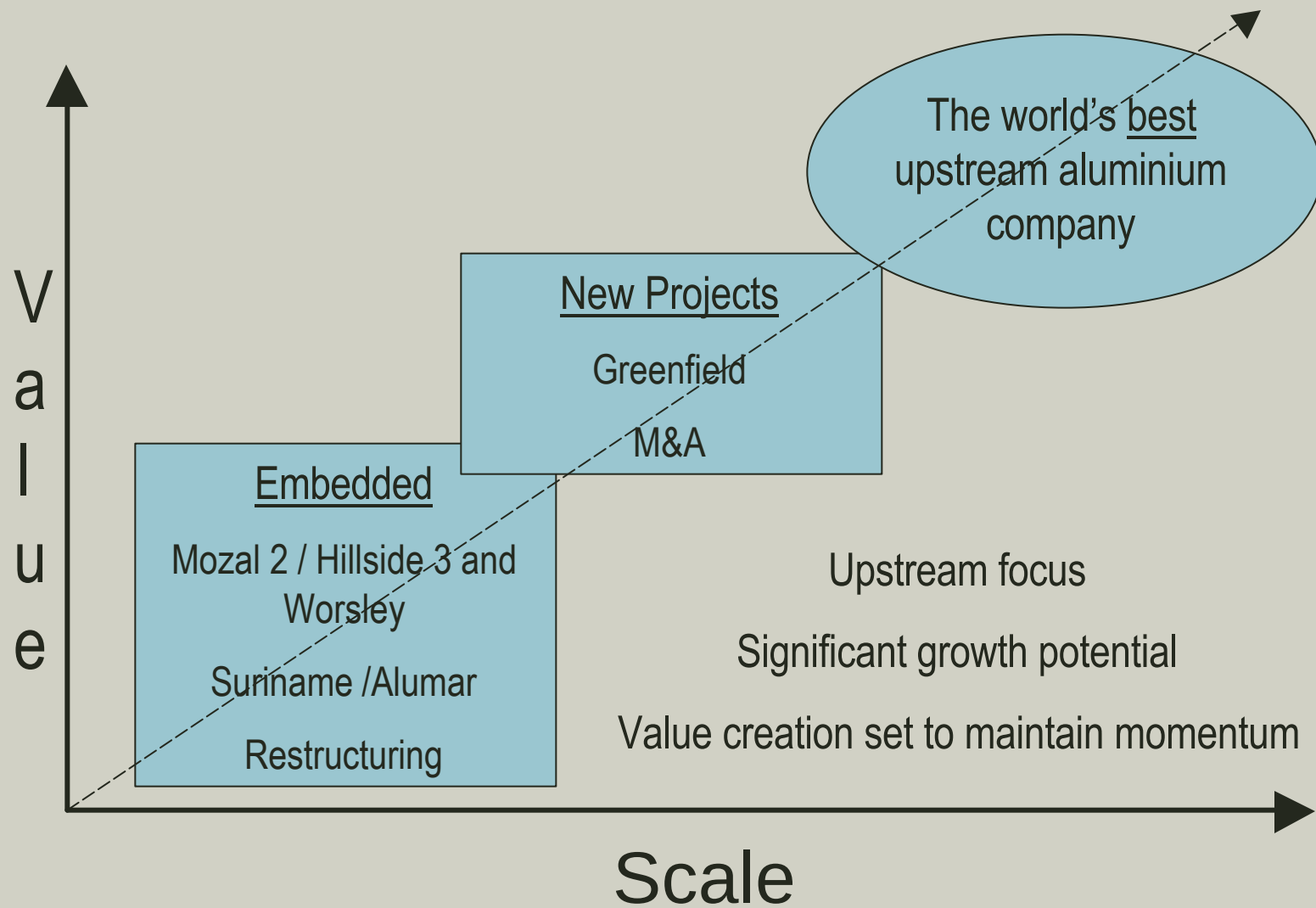
Global cash alumina refining costs in 2003



Global cash aluminium smelting costs in 2003



BHP Billiton Aluminium's growth options



Industry Environment

Paul Everard



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The industry

- Dimensions

- Demand 33mt of which secondary 8mt
- Industry capitalisation \$150bn of which upstream about 50%

- Characteristics

- Mature
- Wide-ranging applications
- Capital intensity and scale
- Economic bauxite scarce
- Power intensity
- Historically integrated
- High upstream entry and exit barriers
- Metal price volatility

The industry – key issues

- Demand
 - Automotive – can aluminium trump steel?
 - China – Rapid smelting growth and growing alumina deficit
- Supply
 - Power – PNW a “once-off”
 - Smelting technology – AP 50 and Alcoa’s inert anode
 - Recycling – Greater growth than primary
 - Environment – More value for clean energy
- Industry structure
 - Upstream – downstream split

Industry structure – the value chain

- **Value chain**

- Bauxite and alumina
 - Alumina concentrated
 - Steepening cost curve
 - Bauxite access constraints
- Smelting
 - Fragmented
 - Terminal market pricing
- Downstream
 - Inter-material competition & strong buyers in downstream lead to little pricing power

- **Our view**

- Core element of strategy
- “Two tier” cost curve providing stranded power rent
- Stay clear of downstream

Brazil

Paul Everard



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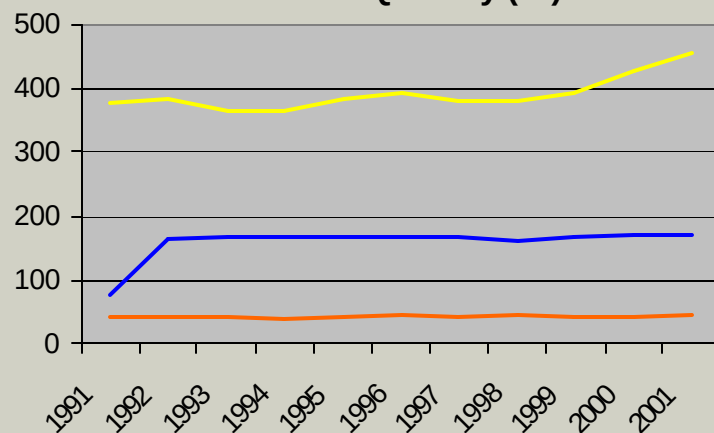
Aluminium assets in Brazil



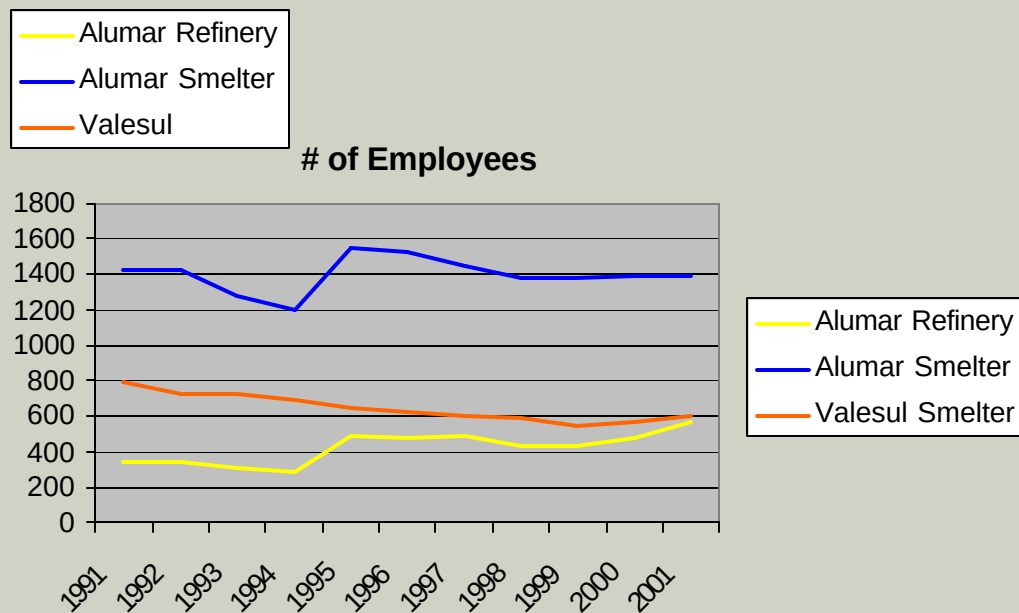
	Capacity	BMSA Share	Share
MRN	11.3 Mt	1,7 Mt	14.8%
Alumar Refinery	1270 Kt	457Kt	36.0%
Alumar Smelter	365 Kt	175 Kt	46.3%
VALESUL	92 Kt	42 Kt	45.2%

Operating performance

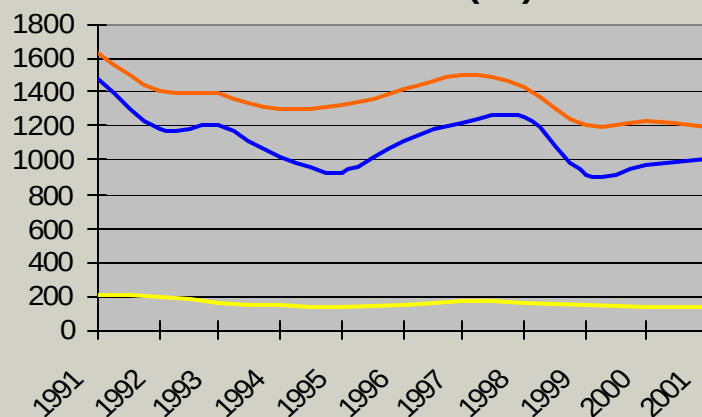
Production Quantity (Kt)



of Employees



Cash Cost(\$/t)



Developments

- Actual

- MRN bauxite mine

- From 11.3 to 16.3mt to be completed in 2003

- Capital expenditure \$190M (BHPBA share \$28M)

- Valesul smelter

- Machadinho hydro power station

- Valesul has 8.8% of investment and 7.3% firm energy take

- Start-up 2002

- Potential

- Alumar refinery expansion

Key issue – power for Alumar smelter

- Alumar power contract expires in 2004
- Consortium formed to bid (100% basis) for:
 - Santa Isabel 1,087MW and US\$600M *
 - Estreito 1,200MW and US\$775M
 - Serra Quebrada 1,328MW and US\$825M
- Consortium: CVRD (43.85%), BHPB (20.6%), Alcoa (20.0%), Votorantin (10.0%) and Camargo Correa (5.55%) *
- Won Santa Isabel auction in November 2001
- Estreito and Serra Quebrada auctions in 2002/03

Suriname

Paul Everard



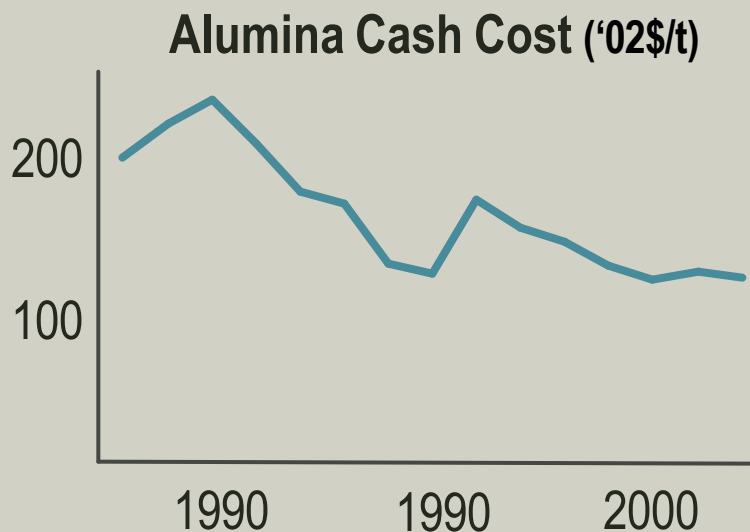
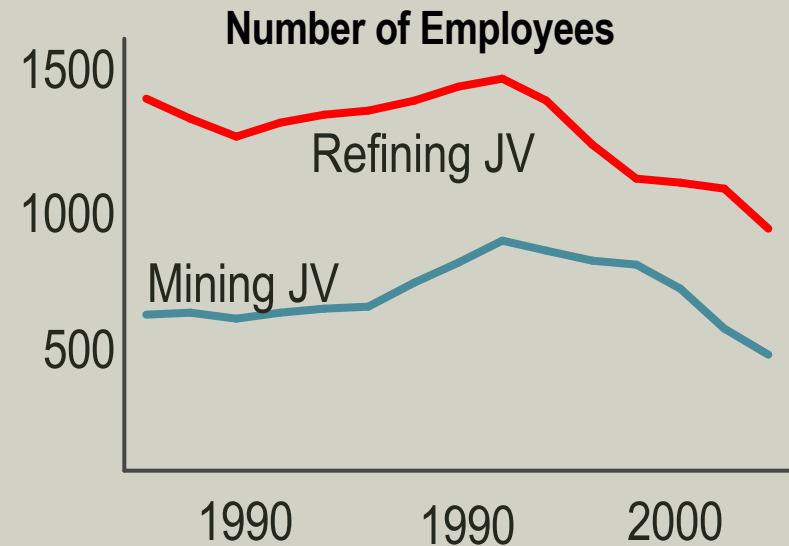
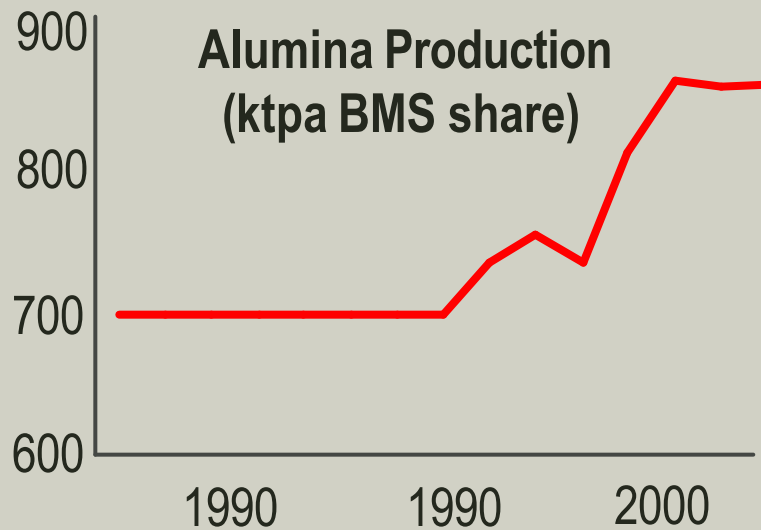
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Alumina industry in Suriname



- Joint ventures with Alcoa as follows
 - Bauxite 76% BHPBA and Alcoa 24%
 - Alumina 45% BHPBA and Alcoa 55%
- Production
 - BHPBA 855kt
 - Alcoa 1,045kt

Continuous improvement



Restructuring efforts and continuous improvement processes enhance competitiveness

- + / - 10 years at 100% feed
- concessioned to both partners

- sufficient for refinery for 3 decades
- under review by BHPBA and Alcoa
- sufficient for further development

- Alcoa concessions



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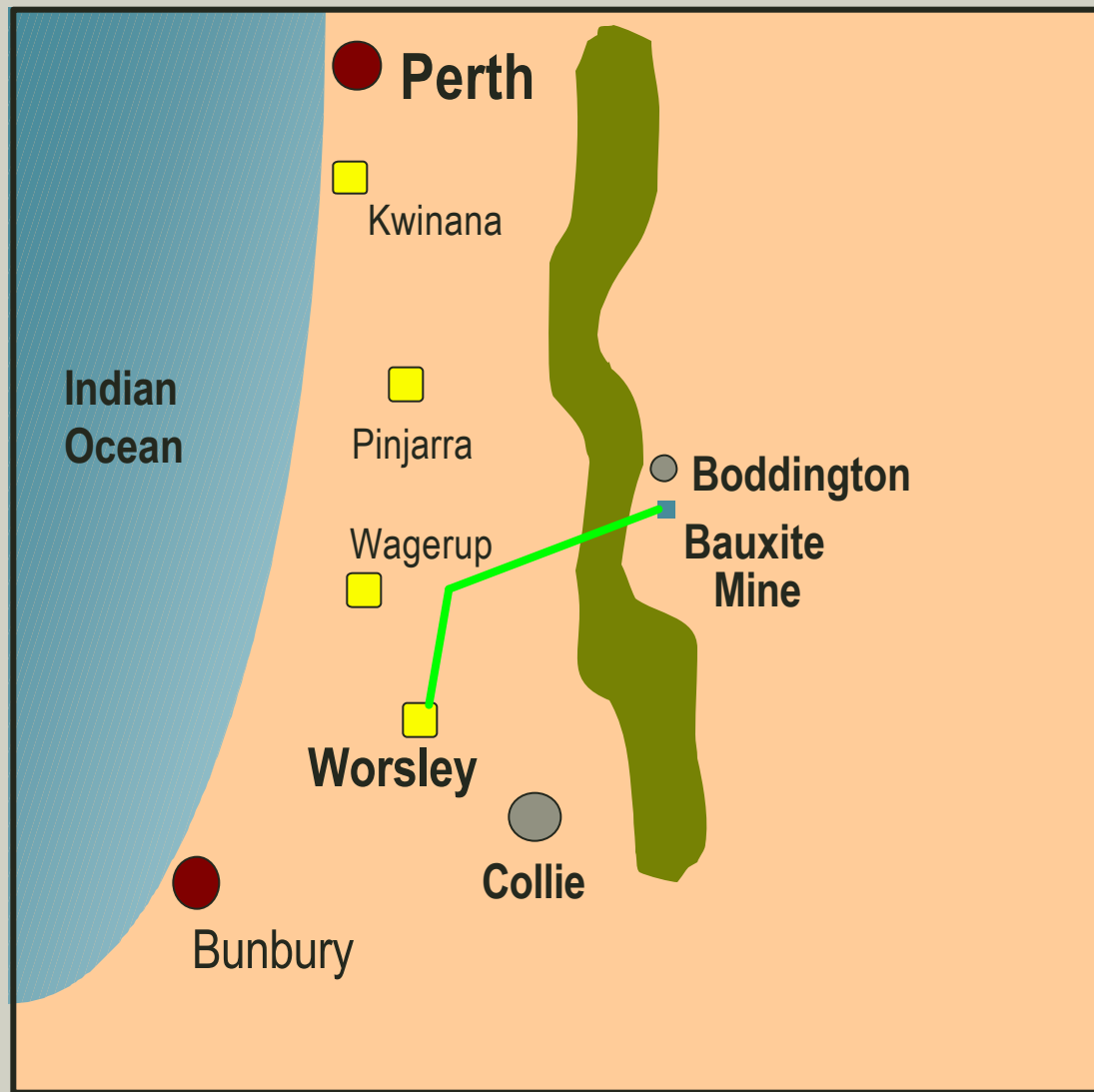
Australia

Paul Everard

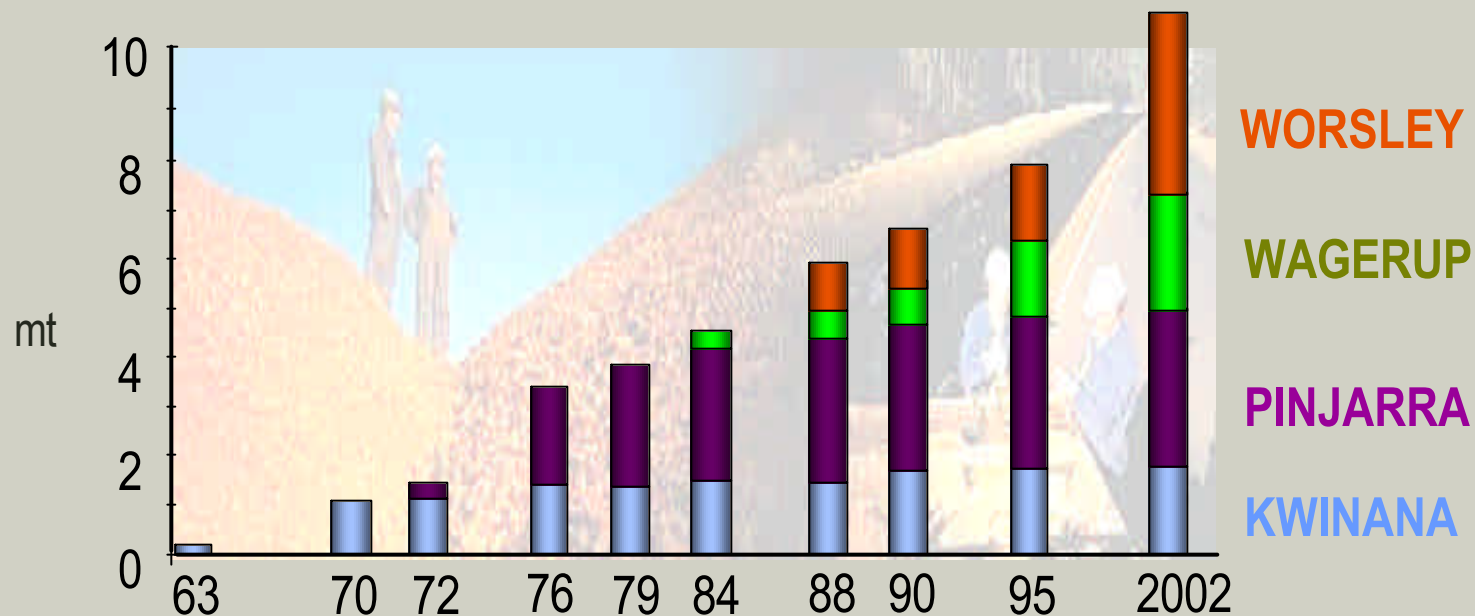


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South West Western Australia



Western Australia refinery production



1963 Kwinana commenced production

1972 Pinjarra commenced production

1984 Worsley and Wagerup commenced

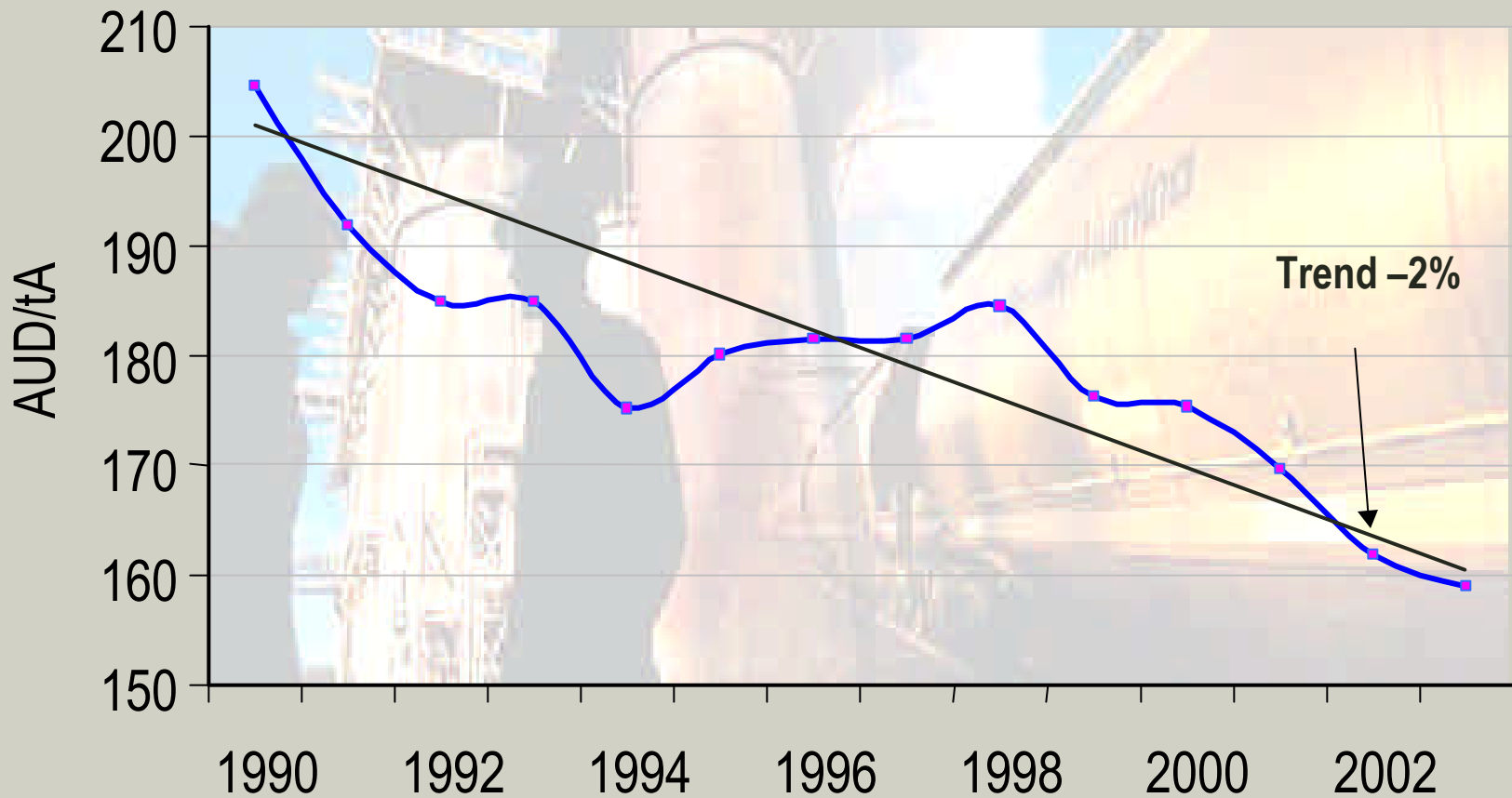
1995 Combined production approximately 8mt

2002 Combined production approximately 10.7 Mt

Worsley performance

- 3.1mt in 2002 and 3.5-3.7mt in 2008
- Bauxite reserves at 1 January 2002
 - Proven and probable 441mt
 - Minimum 40 year mine life at 3.1mtpa
- Employee relations history
 - 1994 onwards – staff contracts (98.7% take-up)
 - single class employee relationship
- Liquor burner a social issue
 - To alleviate concerns liquor burner has been closed until technical solution found (next 18 months)

Cash operating costs in constant dollars (2002)



Southern Africa

Mahomed Seedat

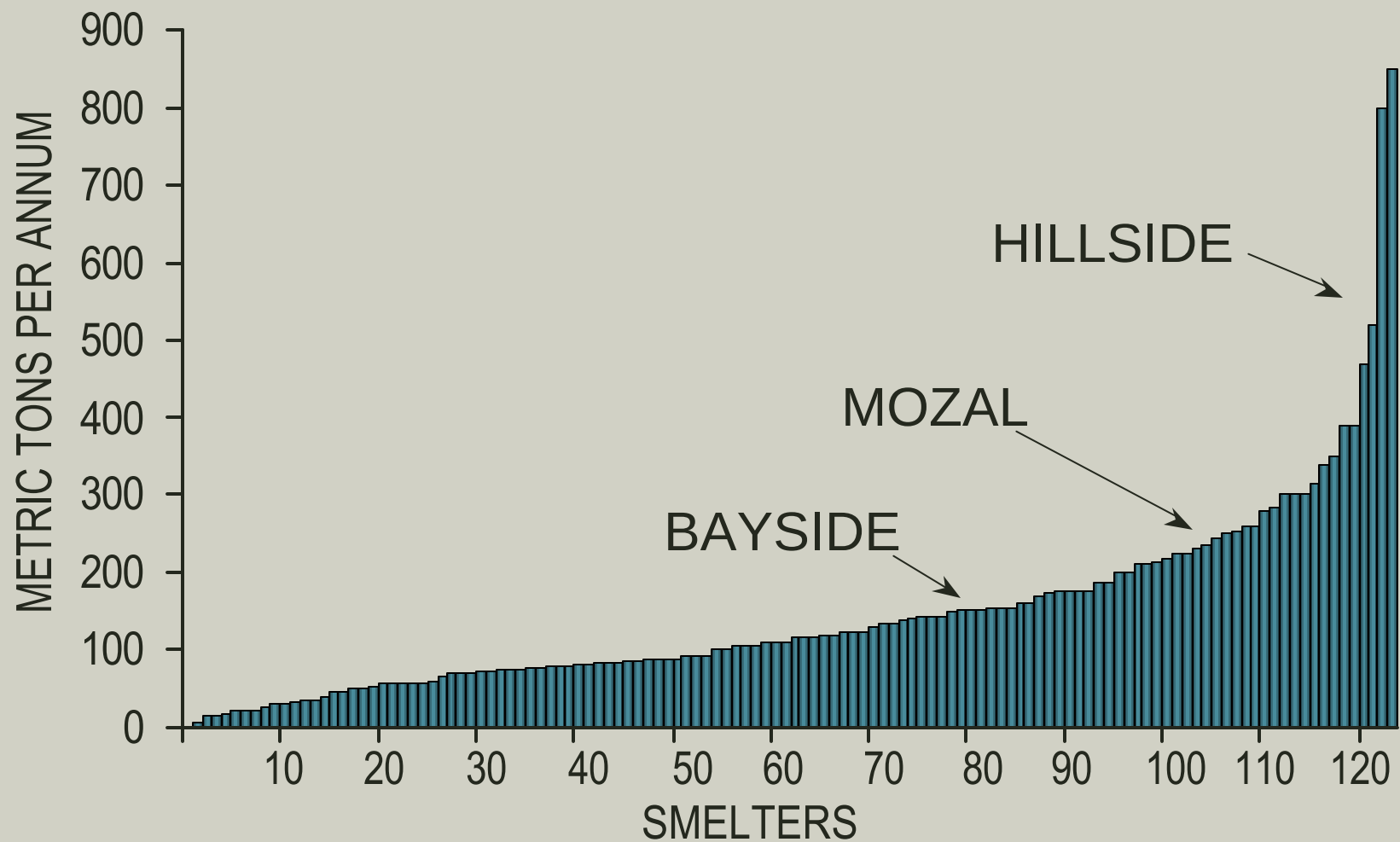


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Southern African smelters



Primary aluminium smelter capacities



Bayside improvement plans

- **From:**

- Old smelter seen as needing significant capital to stay alive
- Non integrated marketing / casthouse plan , resulting in poor “net premiums”
- Low productivity levels - 2850 FTE’s

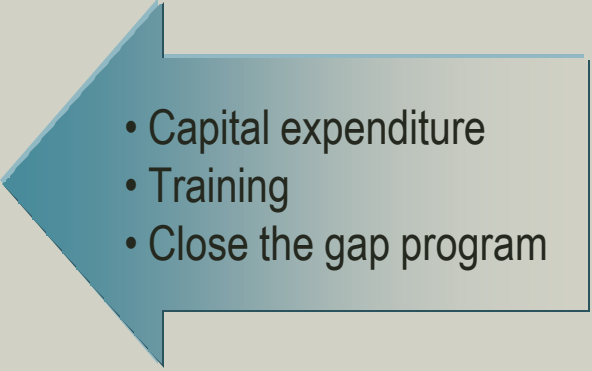
- **Current:**

- Middle of cost curve
- Good systems, structures, and people
- Significantly improved “net premiums”
- 1070 FTE’s

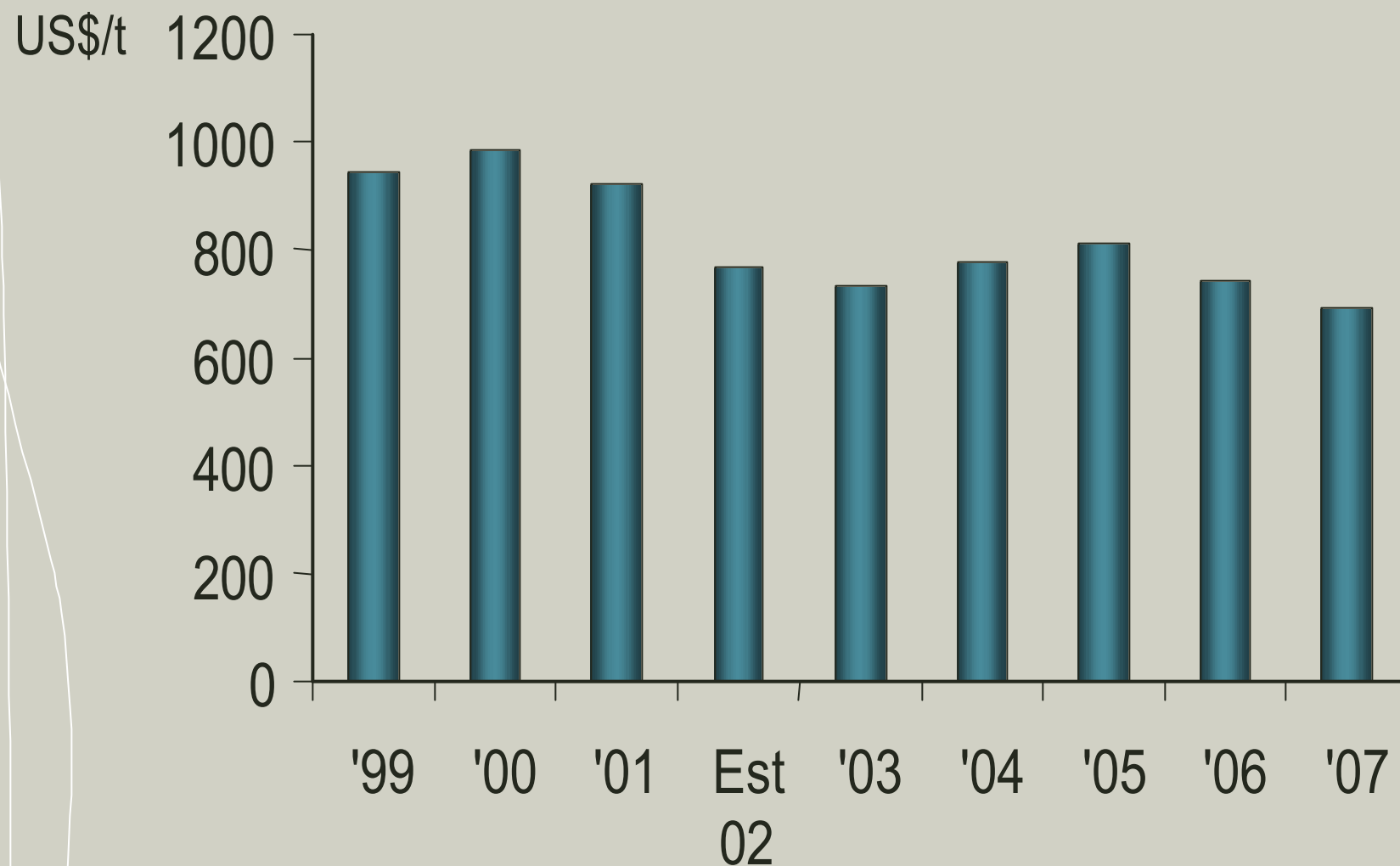
- **Vision:**

- Lower 1/3rd of cost curve
- Vastly improved human capacity
- World class net premiums
- <900 FTE’s

- 
- A large blue arrow pointing to the left, containing a list of two items.
- New energy contract
 - Business re-engineering

- 
- A large blue arrow pointing to the left, containing a list of three items.
- Capital expenditure
 - Training
 - Close the gap program

LME cash breakeven

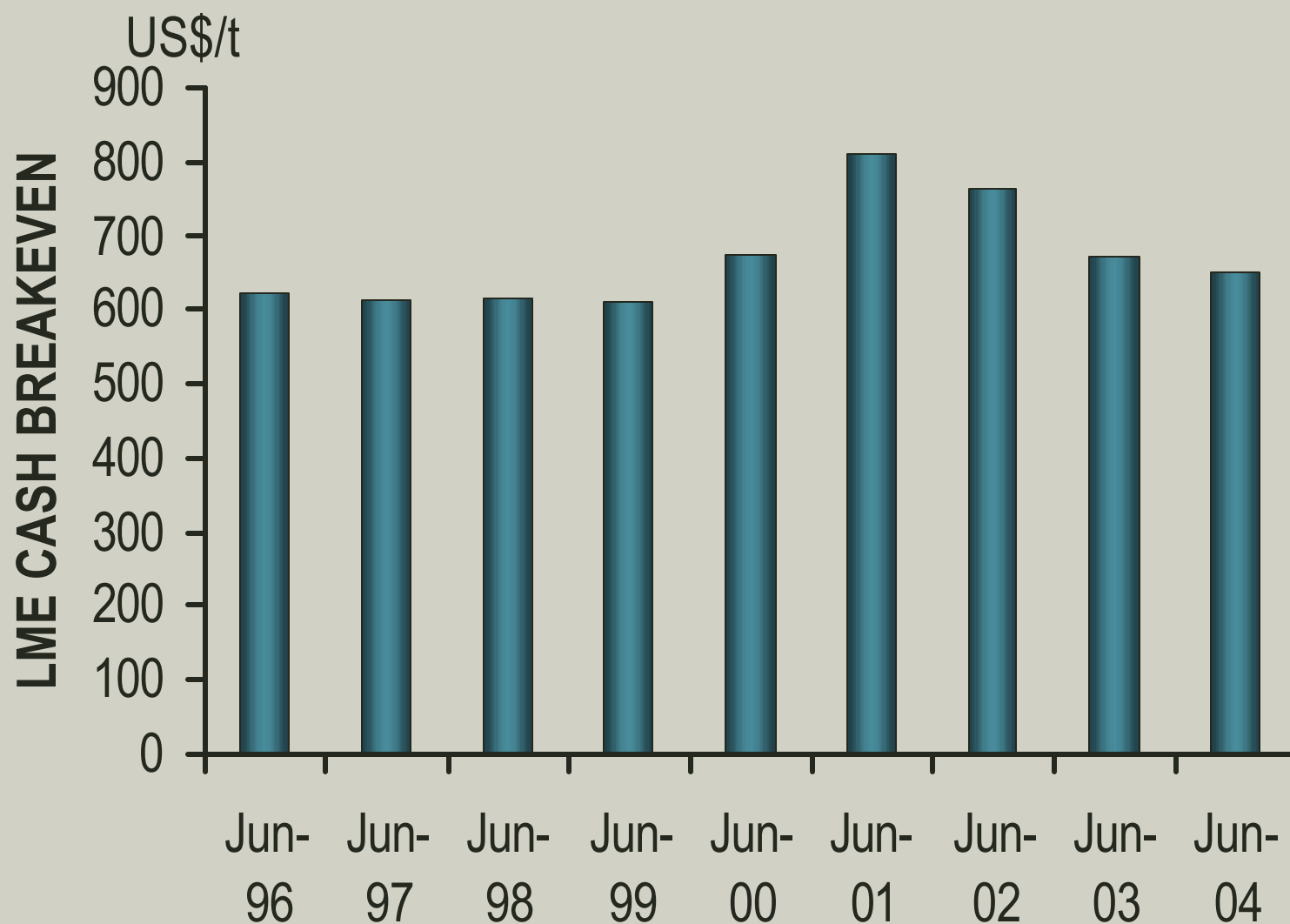


Hillside Aluminium

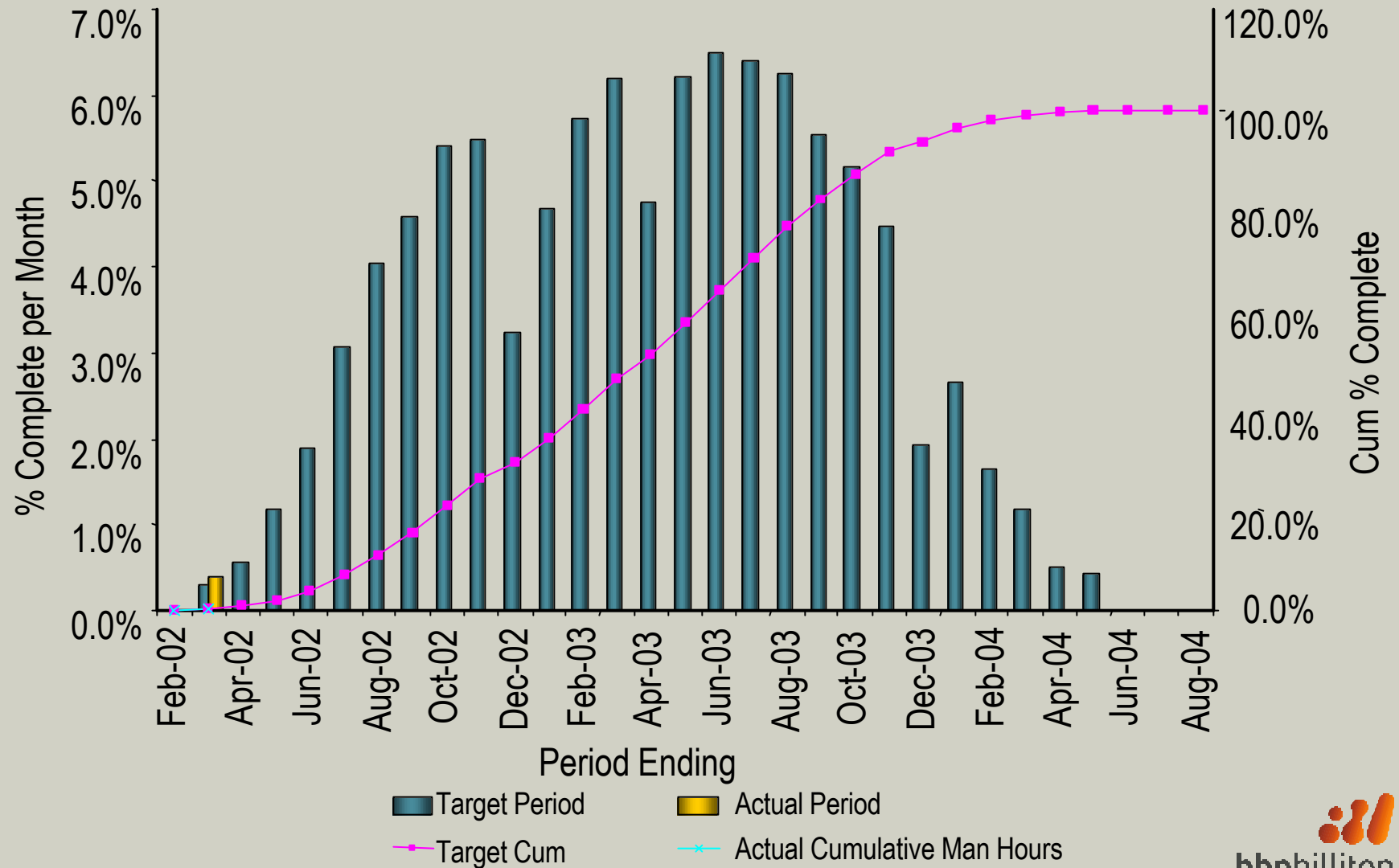


- First metal produced in June 1995
- All first generation cells have now been changed-out
- Current production capacity : 532 000tpa (466 000tpa)
- Current LME cash breakeven cost of around \$725/ton
- Expansion project officially commenced in April 2002 at a cost of \$450M (\$3400/ton).
- Expansion will increase capacity by 25% (132 000tpa).
- LME cash breakeven will improve to around \$600/ton

LME cash breakeven



Hillside Expansion - construction progress



Mozal – New facilities

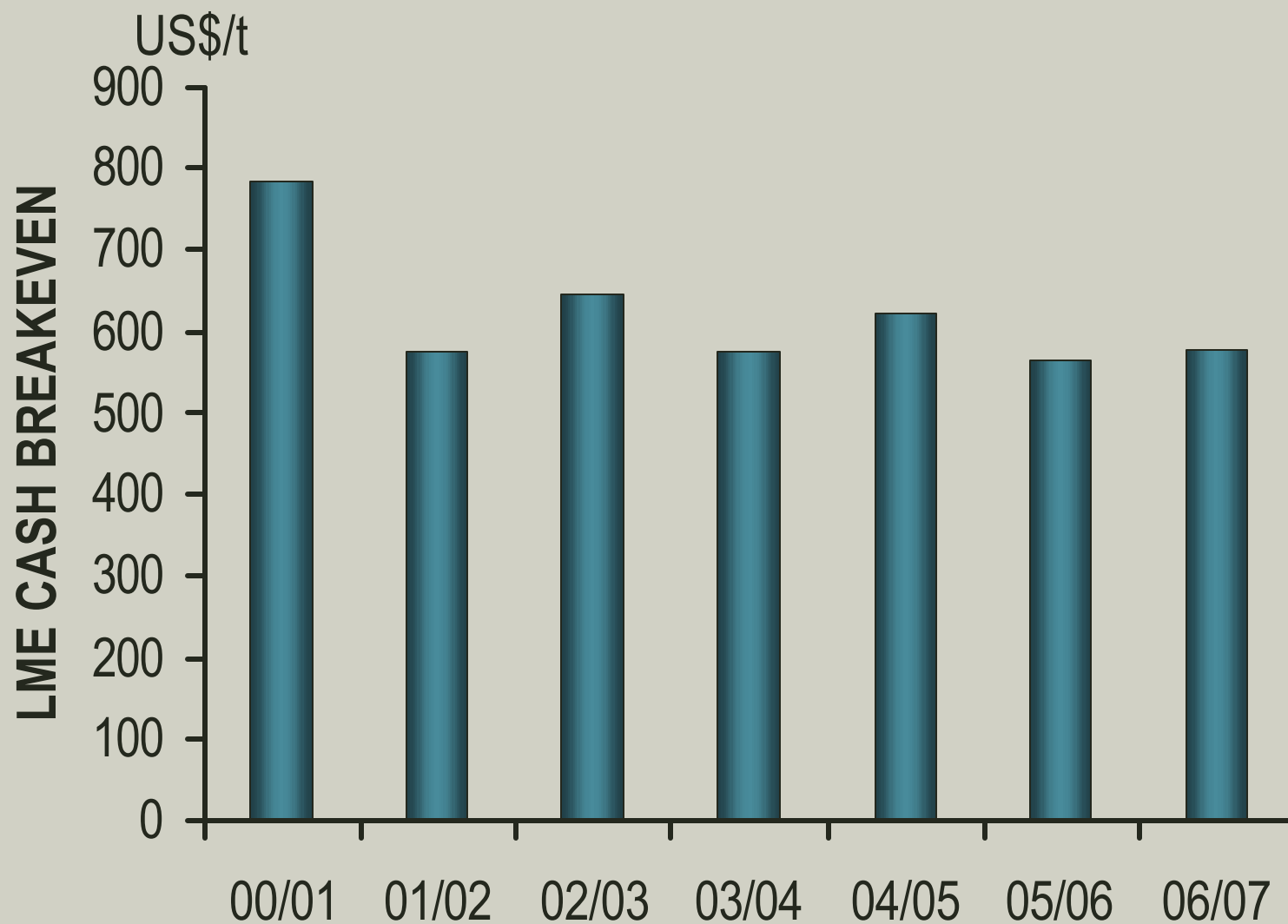


Mozal

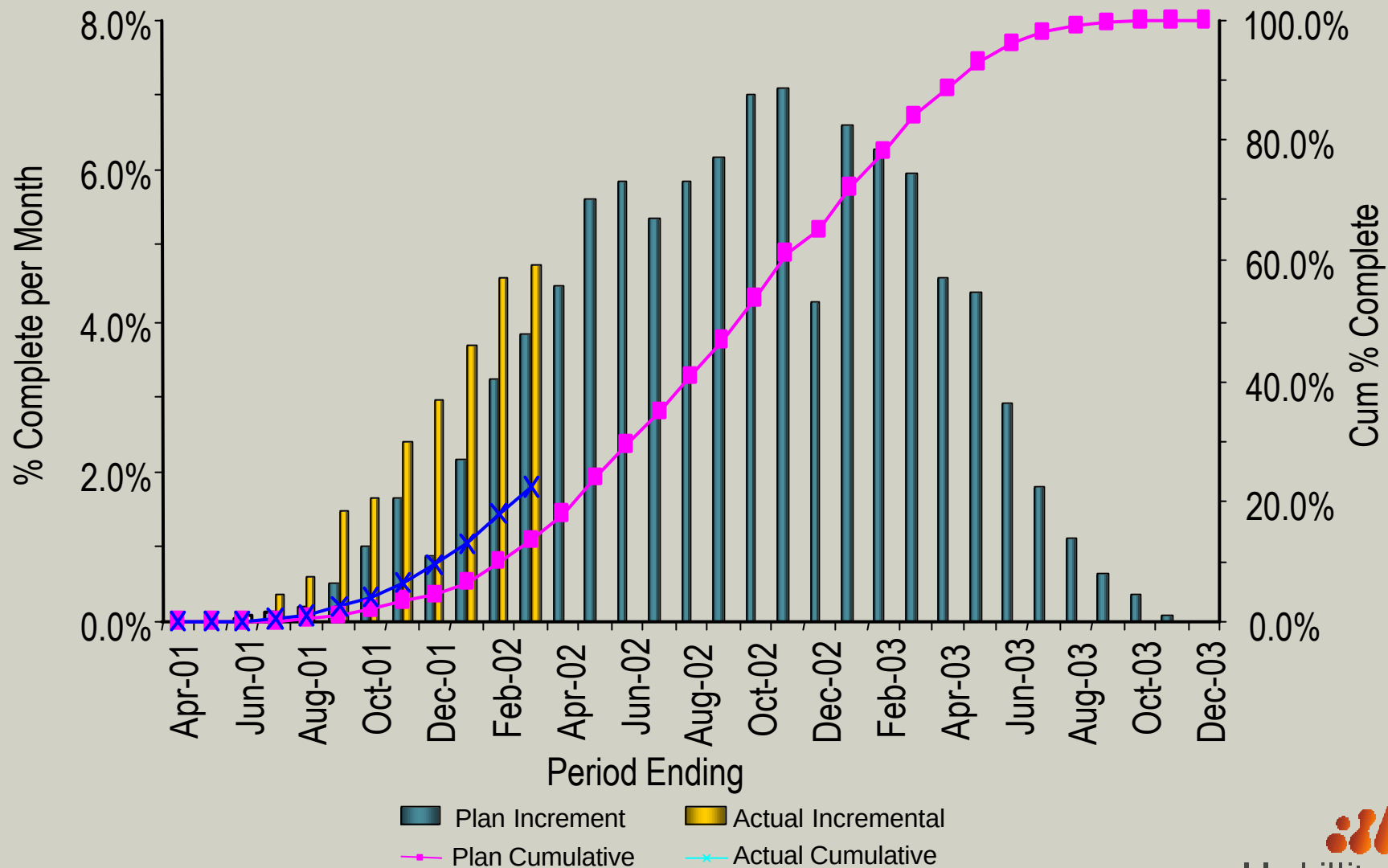


- First metal produced in June 2000
- Specific capital cost of \$3900/ton of installed capacity
- Designed for 250 000tpa
- Currently producing at a rate of 262 000tpa
- Current LME cash breakeven of \$740/ton
- Expansion project commenced in July 2001 at an approved cost of \$859M (\$3270/ ton)
- Production capacity will increase to 534 000tpa
- LME Cash Breakeven will improve to around \$575/ton

LME breakeven



Mozal Expansion - construction progress

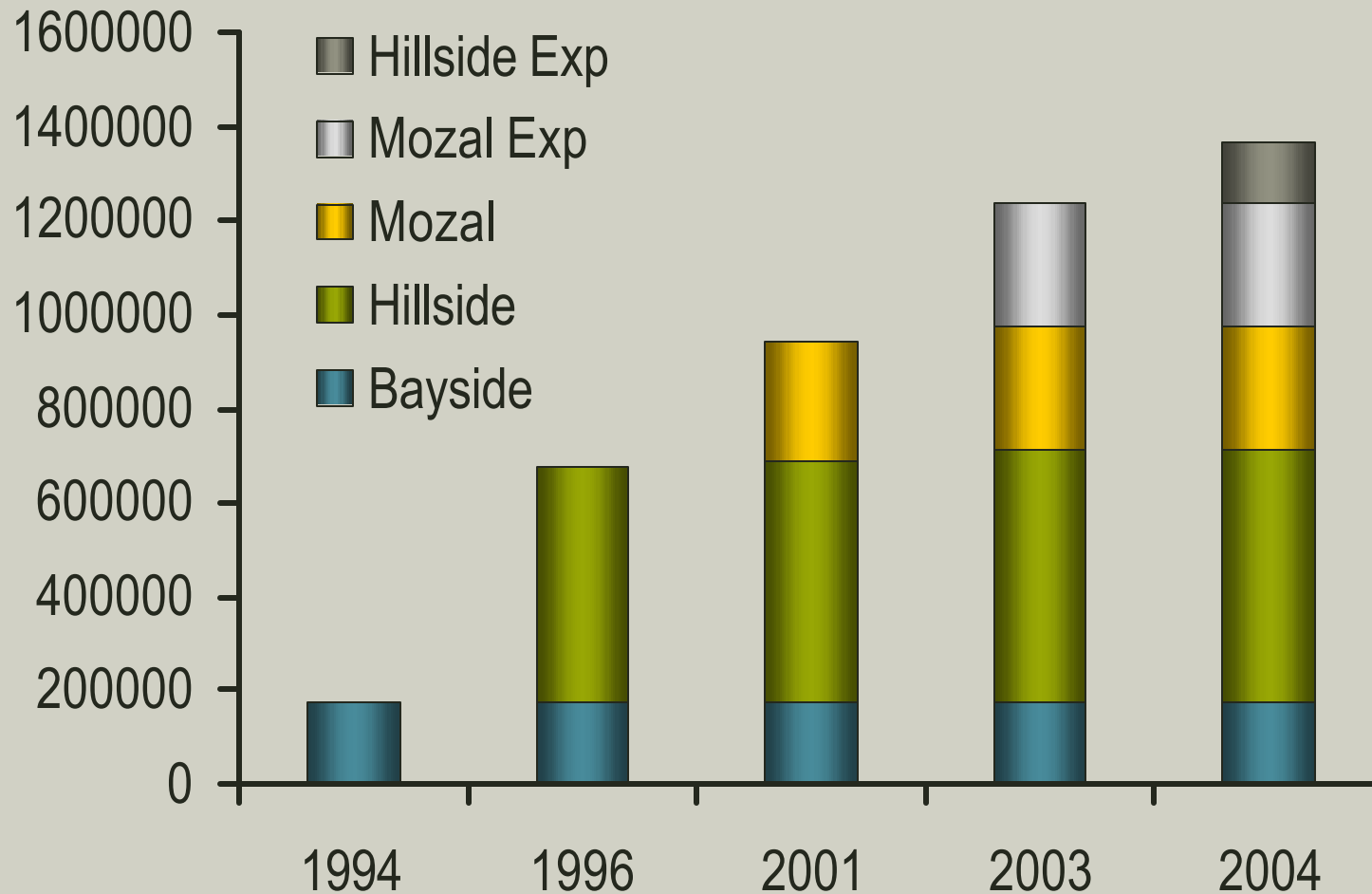


AP30 Smelter Comparisons

<u>Smelter</u>	<u>Amps.</u> <u>kA</u>	<u>Cur.Eff.</u> <u>%</u>	<u>D.C.</u> <u>kWh/t</u>	<u>Fe</u> <u>ppm</u>
Mozal	333,0	96,8	12 967	668
Hillside 1	330,0	93,8	13 081	1 250
Hillside 2	325,0	96,2	12 920	1 297
4	308,5	93,3	13 451	2 270
5	336,3	94,0	13 160	1 223
6	326,6	94,5	13 181	717
7	332,7	94,4	12 959	745
8	333,8	90,8	13 624	1 220
9	330,9	93,4	13 337	591
10	332,0	93,6	13 429	640

Source : AP30 newsletter

In just 10 years BHPB will have grown its Southern African primary aluminium capacity to 1.4mtpa



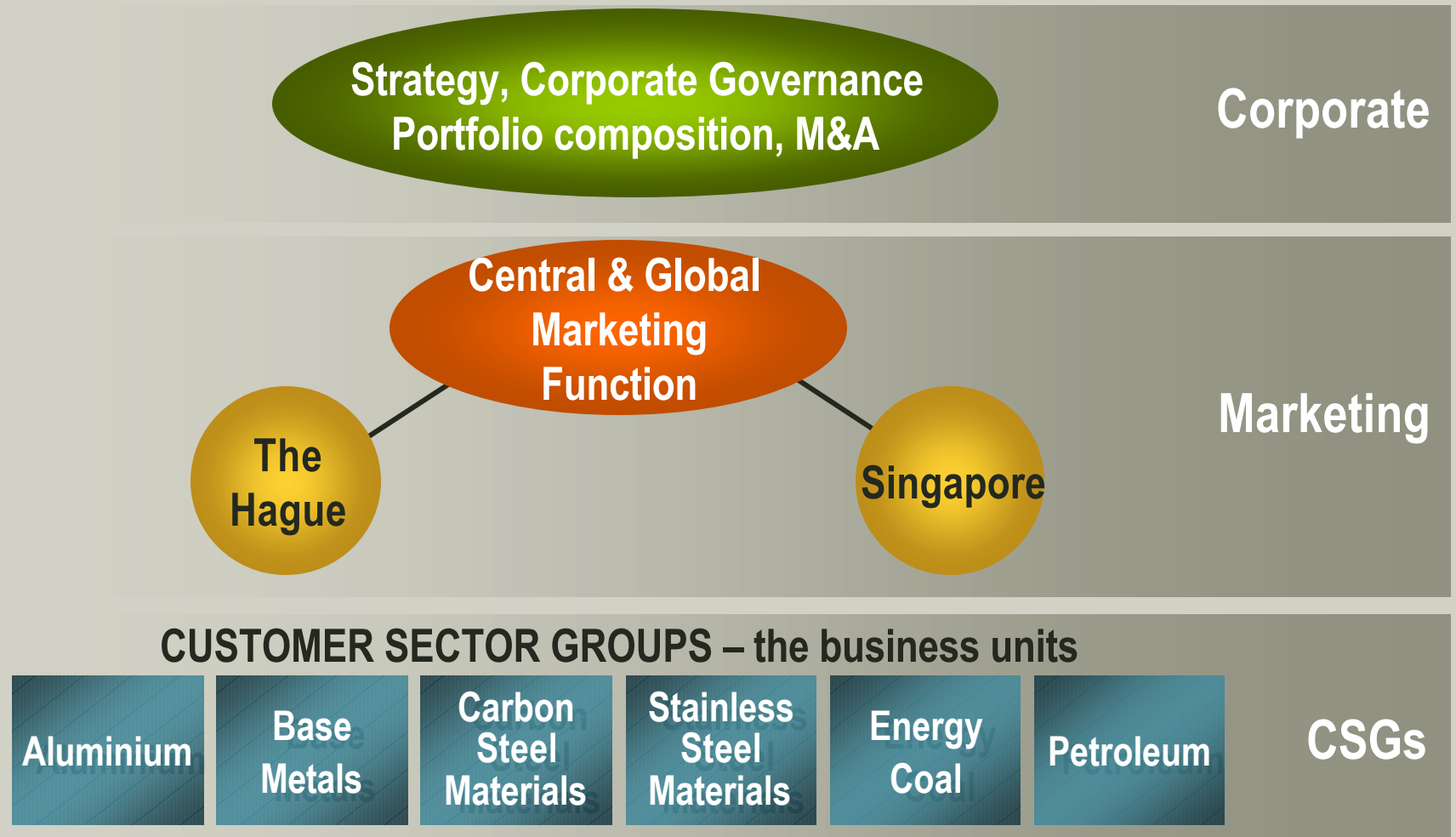
Marketing

Rod Kinkead-Weekes



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Marketing – a key component of the organisational structure



BHP Billiton's aluminium operations



Equity shipments > 1mt

Total book > 1.5mt

Aluminium marketing strategy

STRATEGY

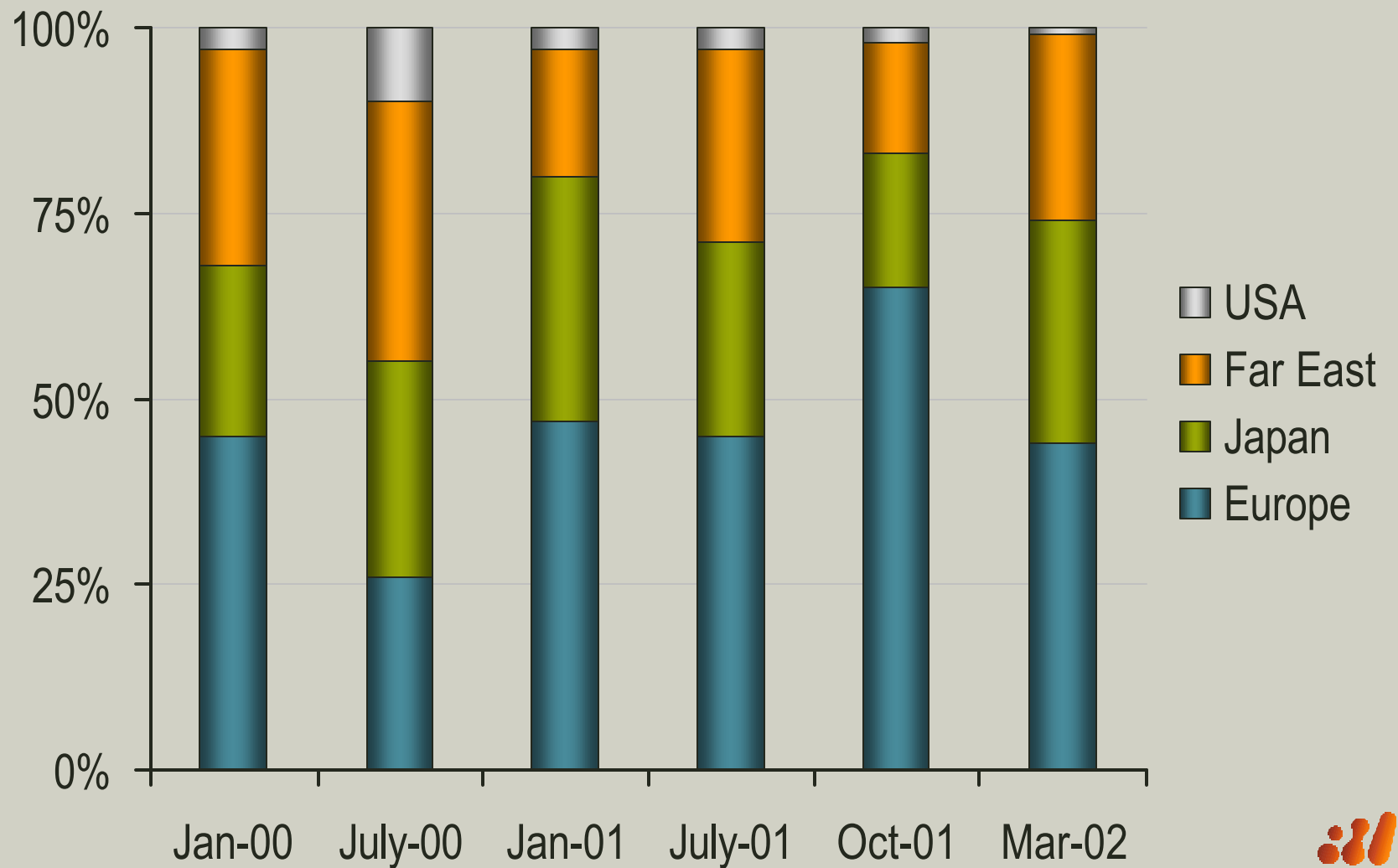
- Market diversification to maximise premium returns
- Build on strong physical base...
- plus more active trading (metal and instruments)
- Understand, manage and control risks at all times
- Maximise value from BHPB Group to provide innovative customer solutions



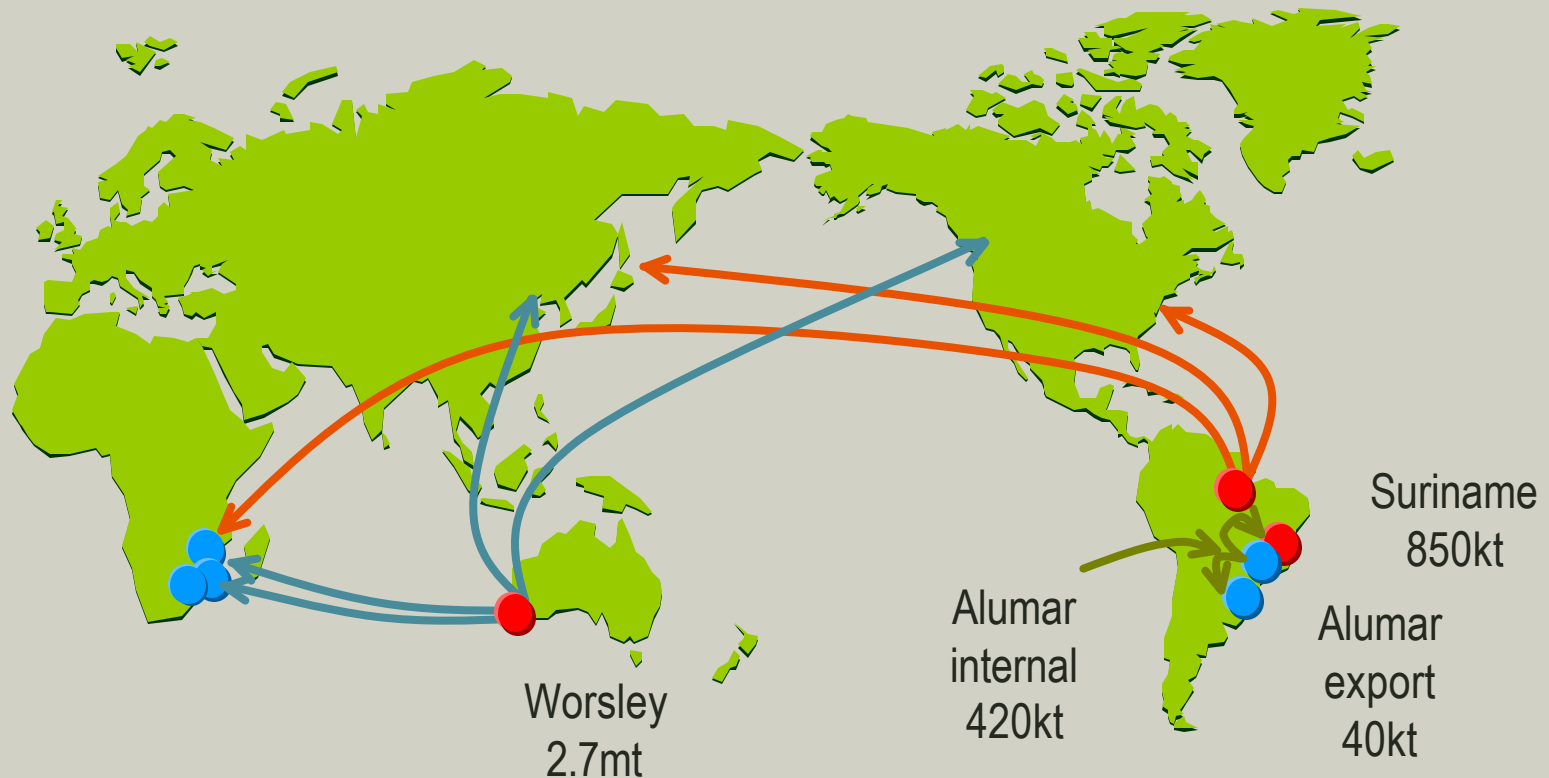
STATUS

- Number 2 in non-integrated primary metal sales
- Metal market rationalization provides opportunity

Primary aluminium - Sales destinations (Equity export)



BHP Billiton's alumina operations



Equity shipments 4mt

Total book today > 5mt

Alumina marketing strategy

STRATEGY

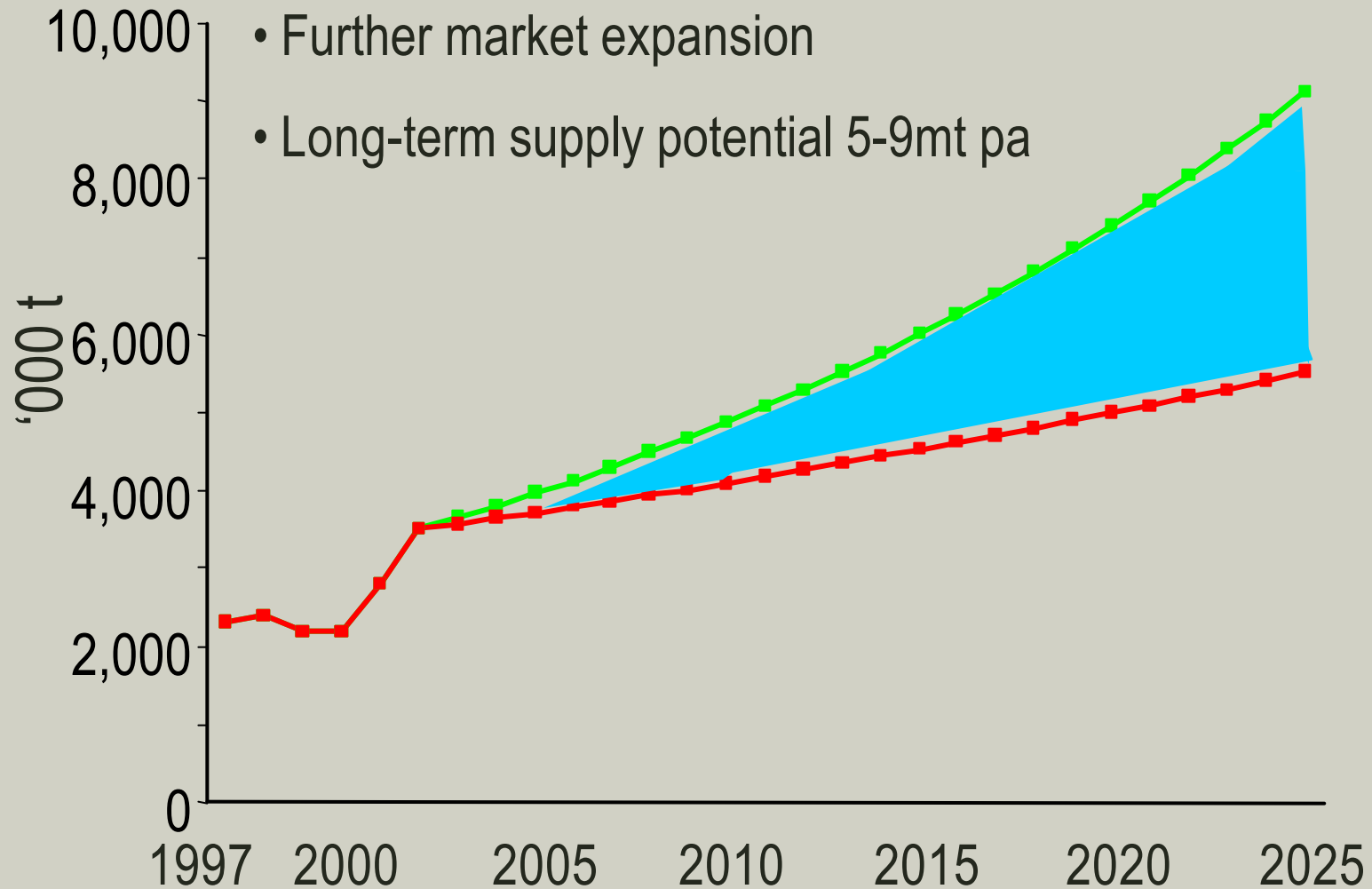
- Supply increasing internal requirements
- Position for further growth in low cost refining capacity (including bauxite)
- Capabilities to supply new markets, e.g. China, Russia
- Provide innovative customer solutions
- Risk and option management systems and controls



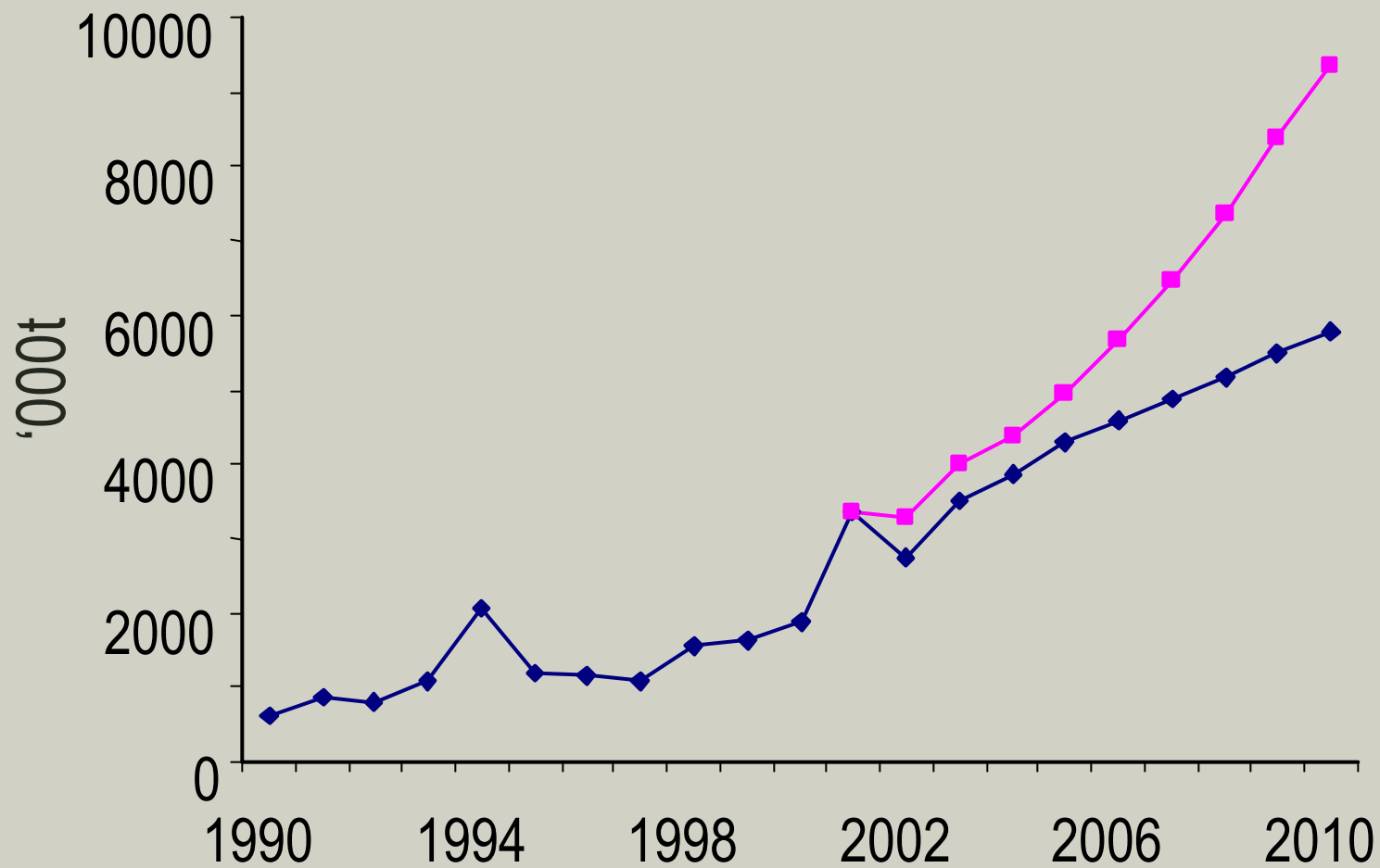
STATUS

- Market presence over 30 years
- Readily accommodated acquisition of 56% of Worsley
- Single global book

Attractive low-cost supplier for 3rd party customers



Chinese annual alumina imports – the future?



Market update

- Aluminium

- Improving demand in Europe, Korea, Taiwan and US, but...
- the consumer lagging
- Increasing LME stocks impede price recovery, although...
- total reported stocks lower than in past recessions
- Further smelter restarts anticipated; PNW to remain a swing producer

- Alumina

- Modest recovery in spot price
- Ongoing strong Chinese consumption
- Renewed Pacific North West buying

Finance

Alex Vanselow

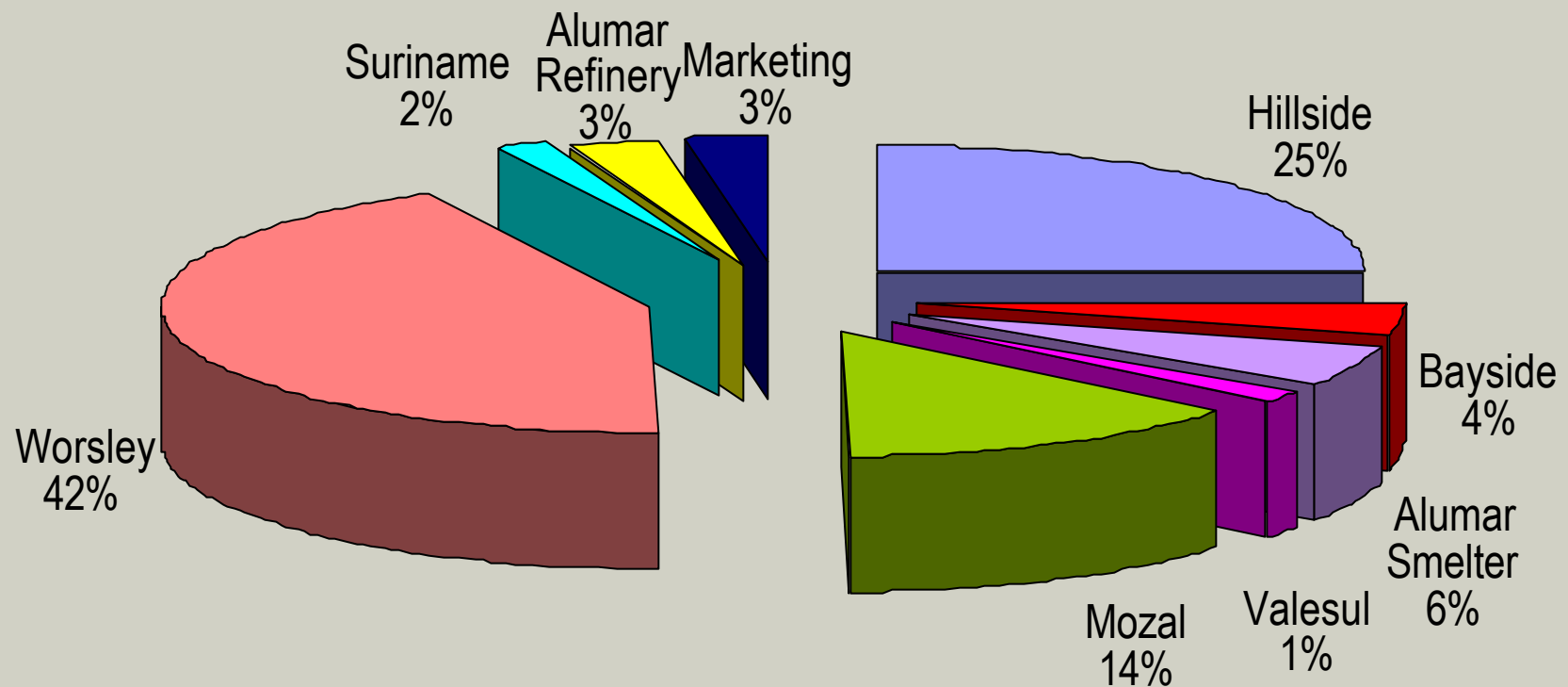


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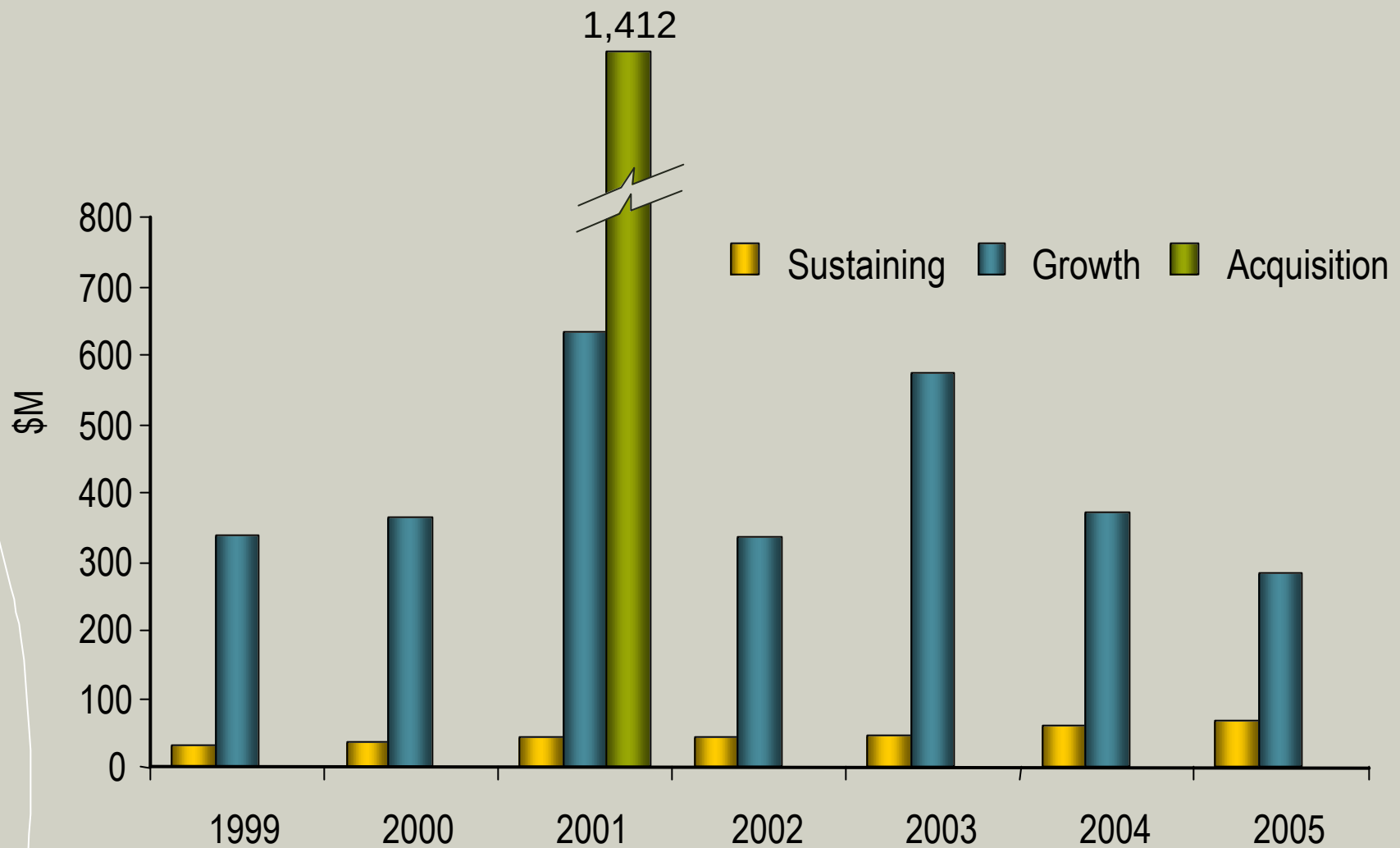
Net Operating Assets – at 31 December 2001

Reflection of rapid growth over recent years
(81% - Worsley, Hillside and Mozal)

Total: USD 4.7b



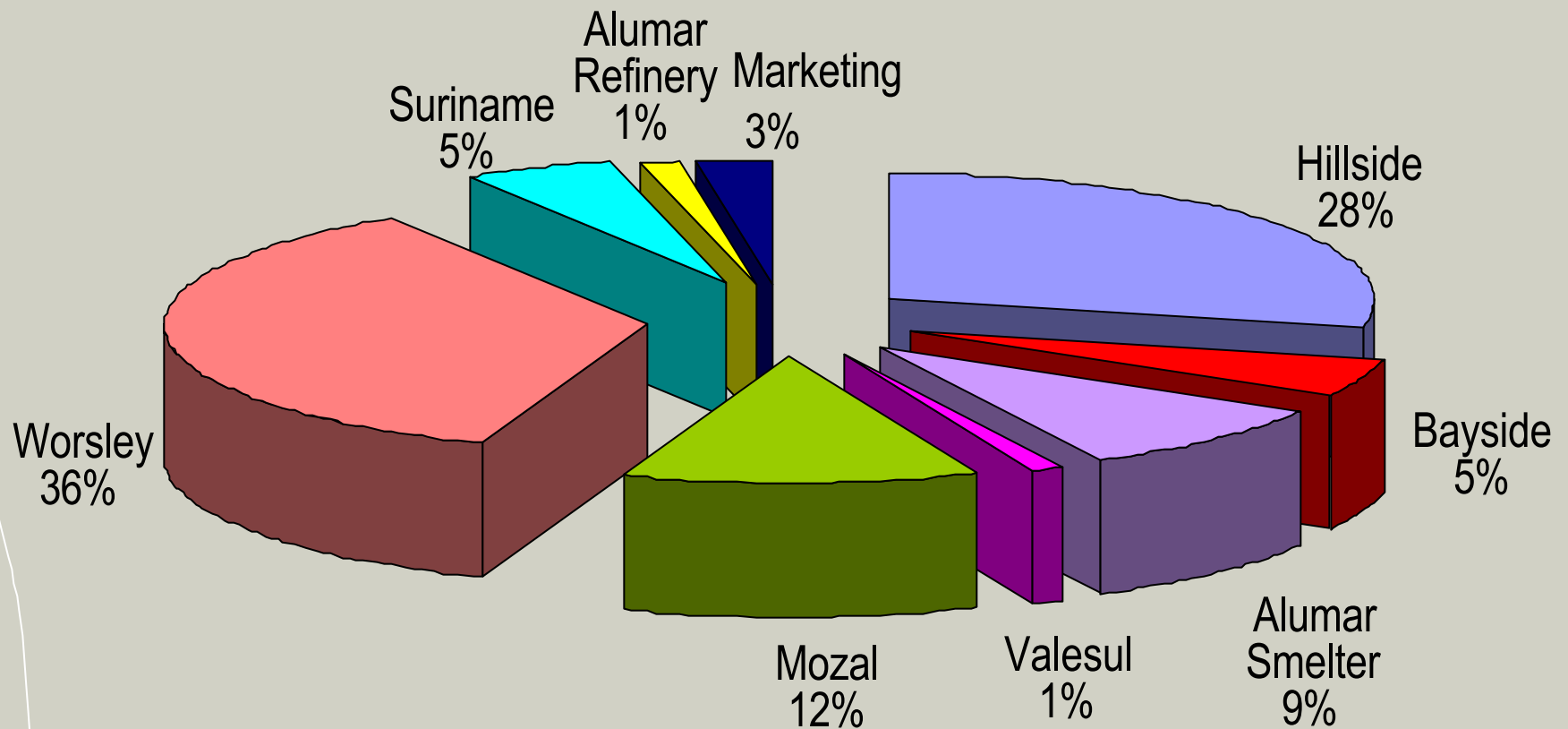
Capital Expenditure



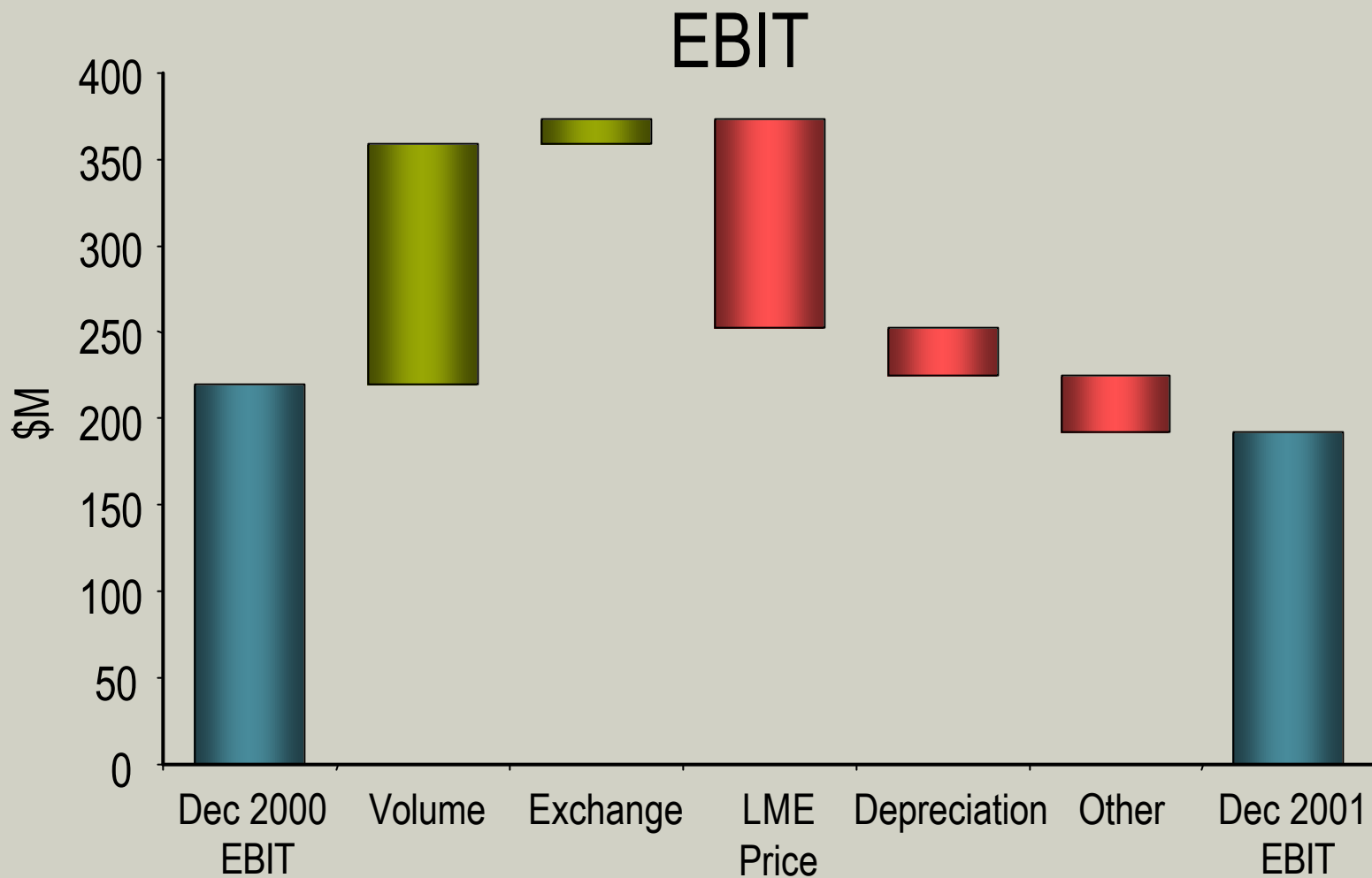
EBIT – half year to 31 December 2001

Dominated by 3 major assets

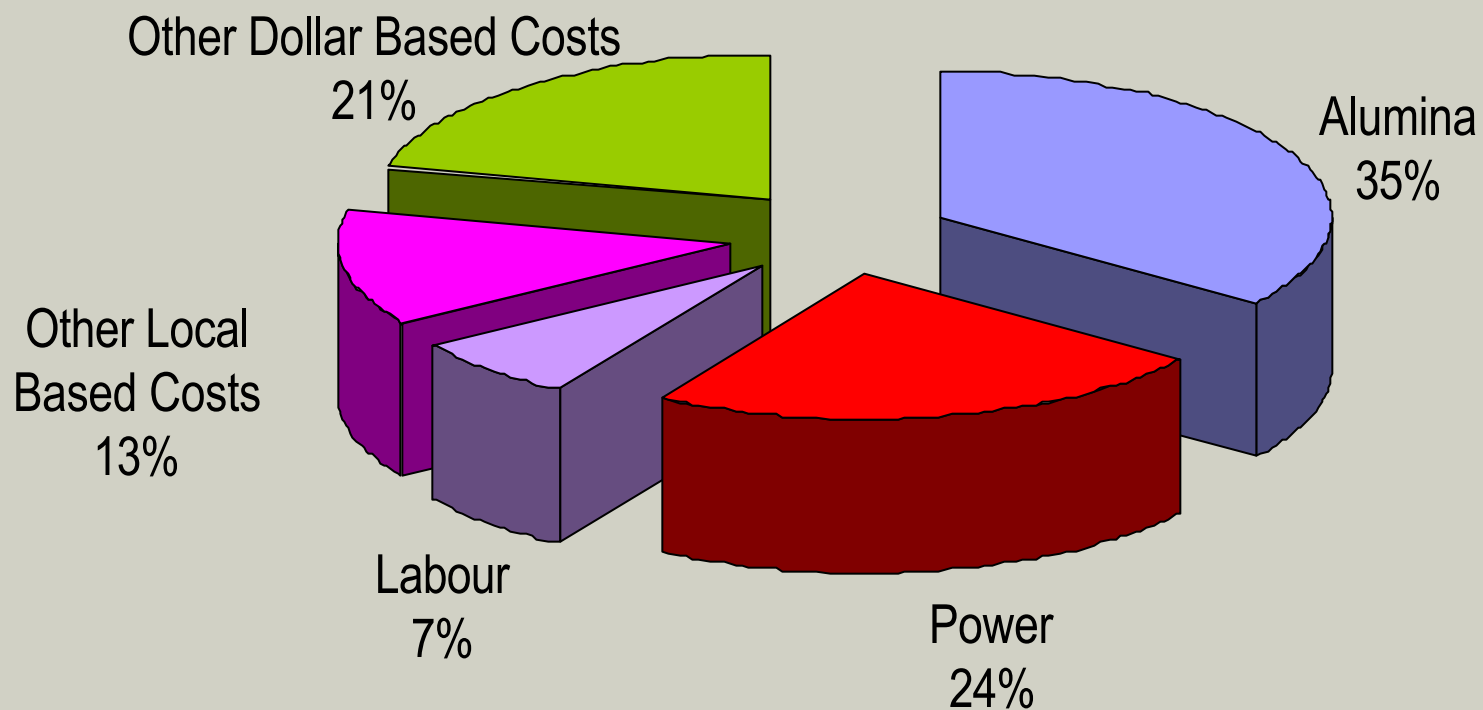
Total: USD 192M



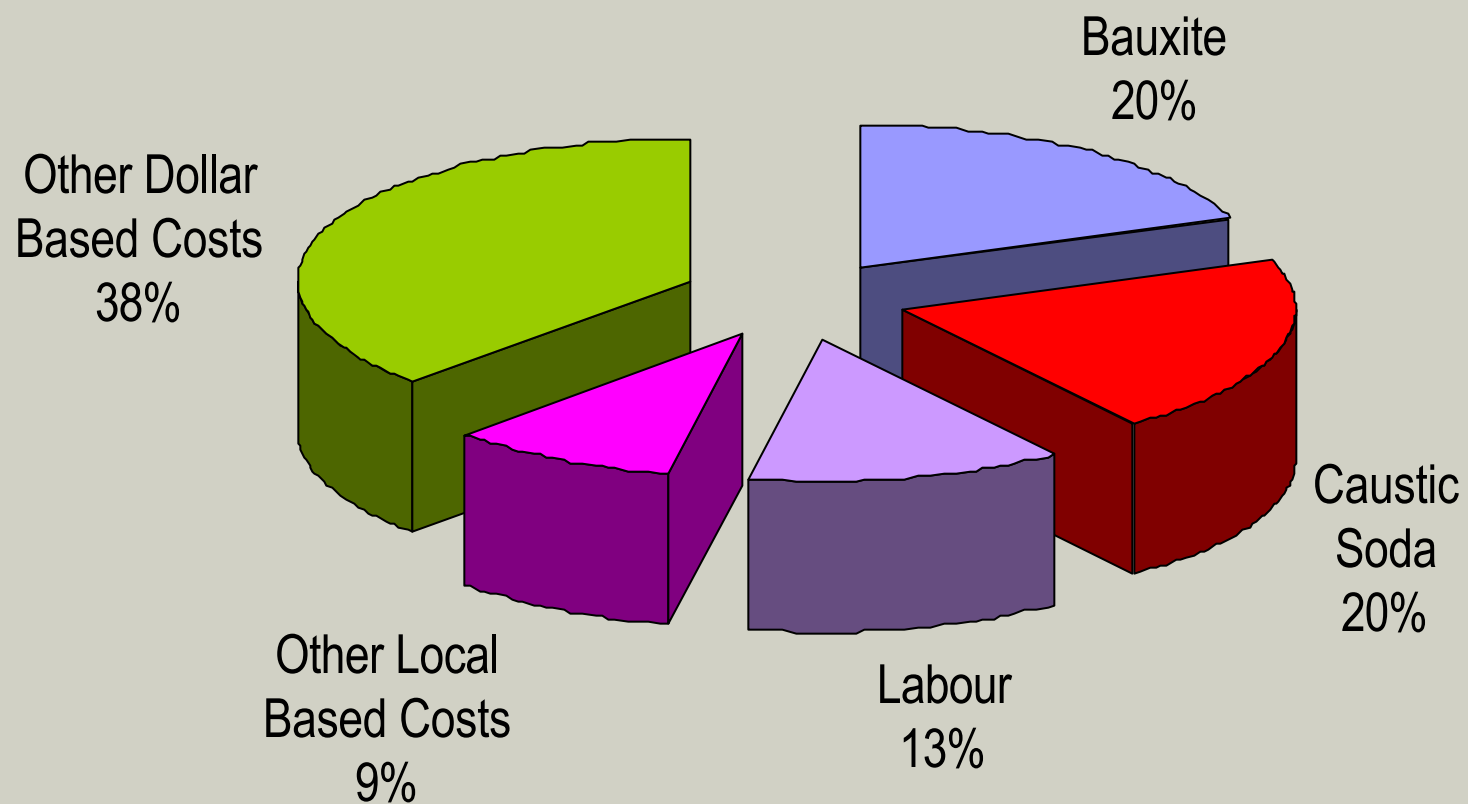
EBIT – Half year 2001 versus half year 2000



Aluminium cash costs

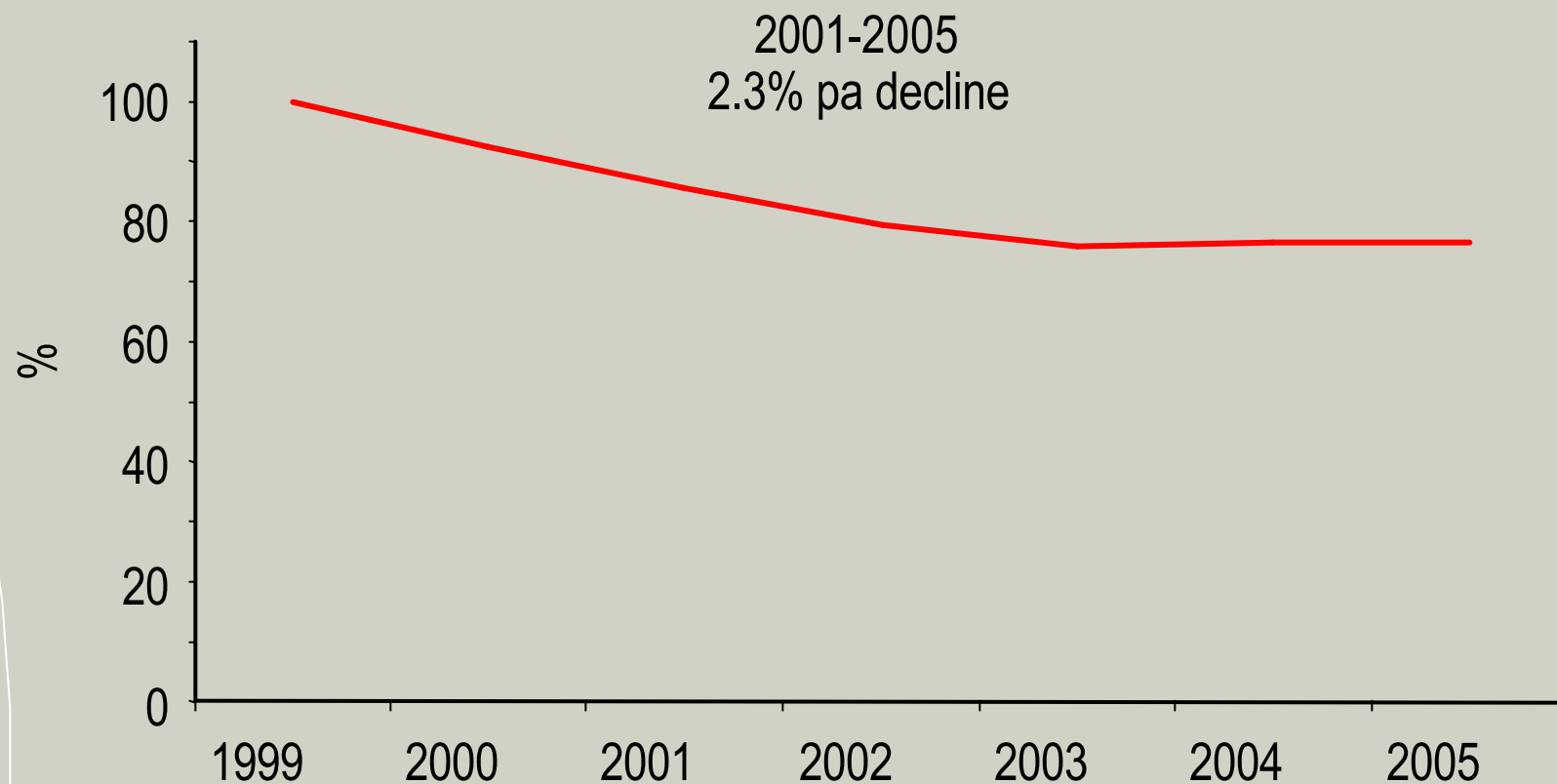


Alumina cash costs



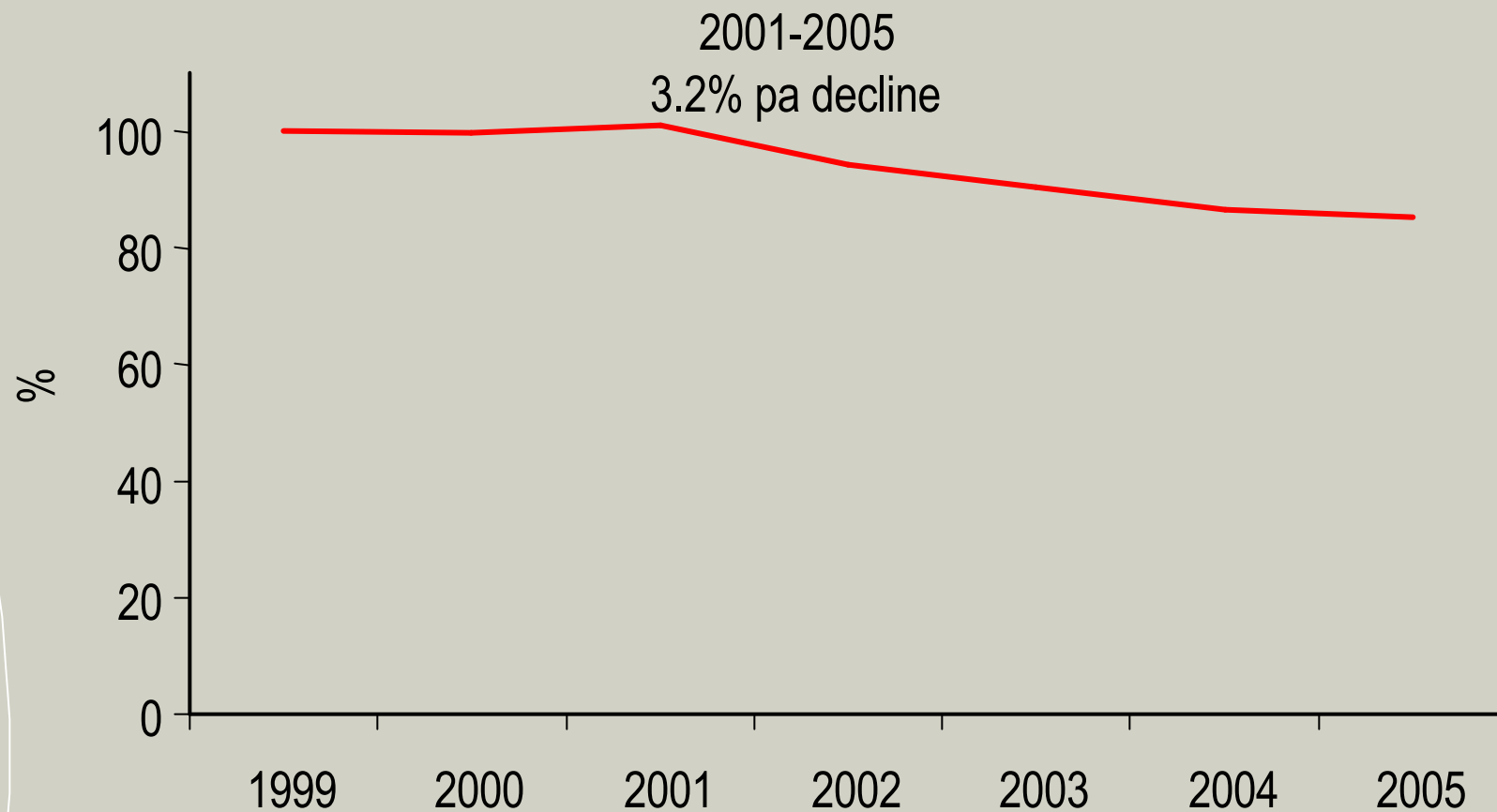
Real cash cost index - Alumina

Normalised to 1999 Exchange Rates



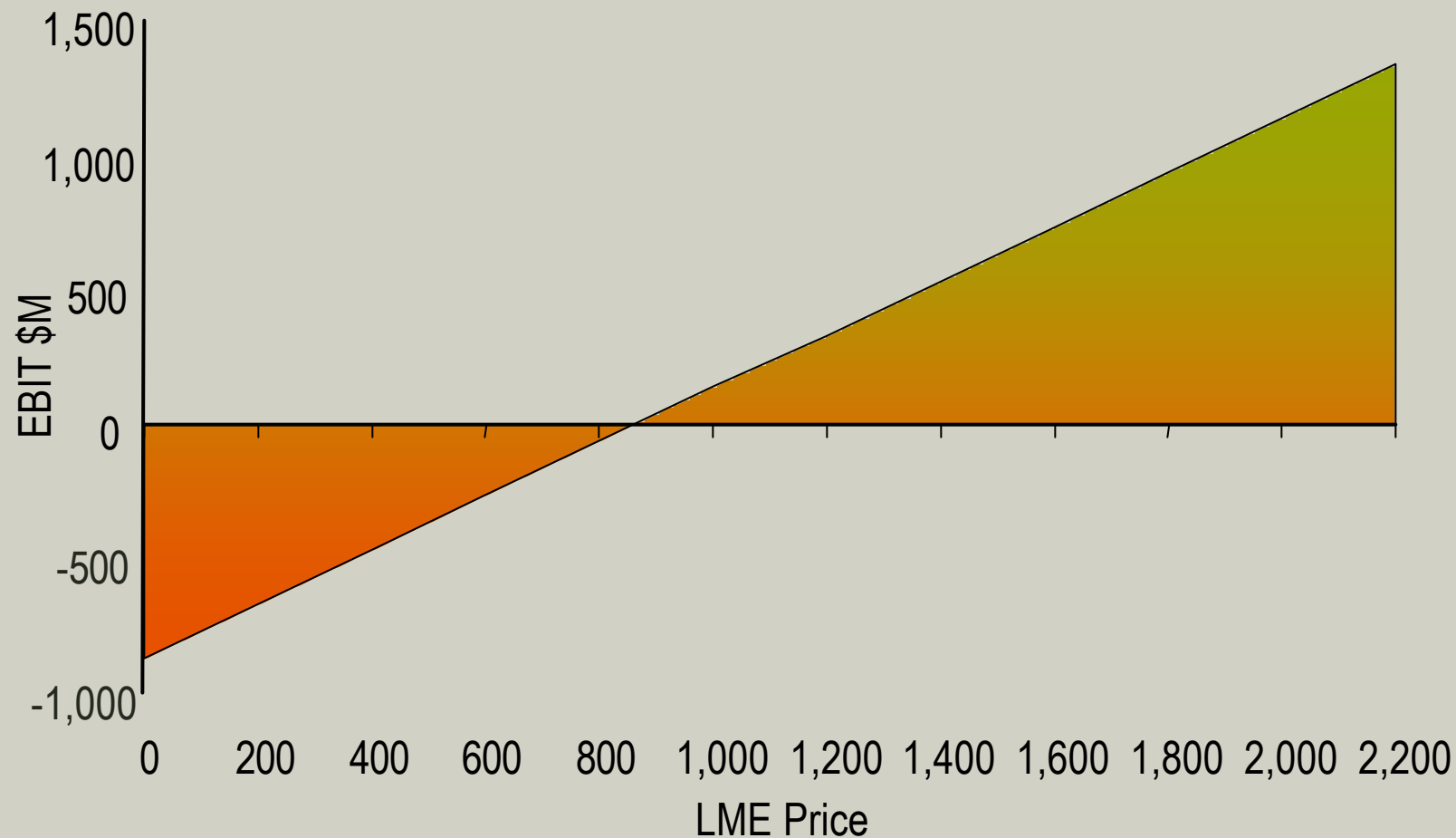
Real cash cost index - Aluminium

Normalised to 1999 LME Price and Exchange Rates



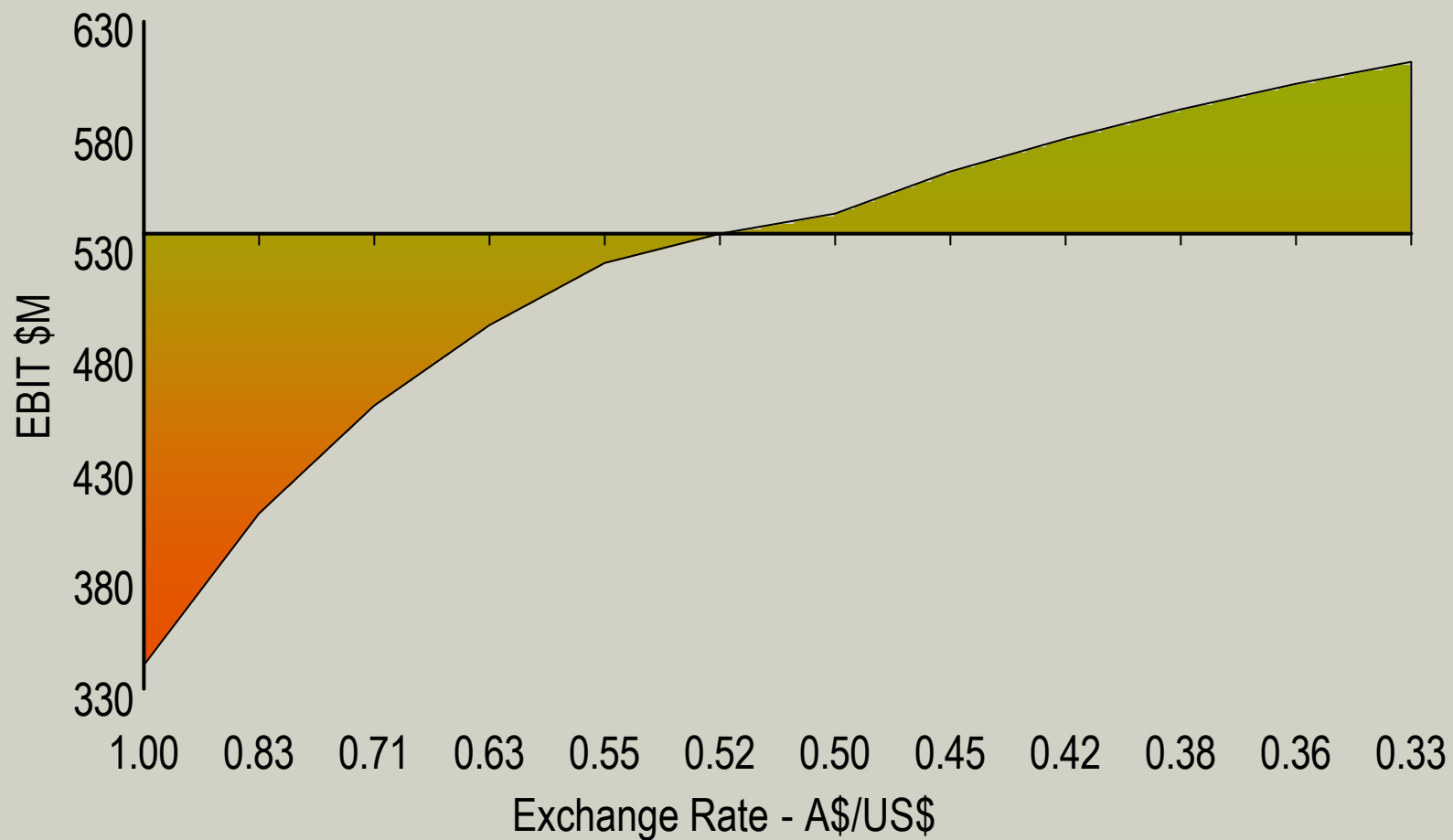
EBIT aluminium price sensitivity

Fiscal 2003



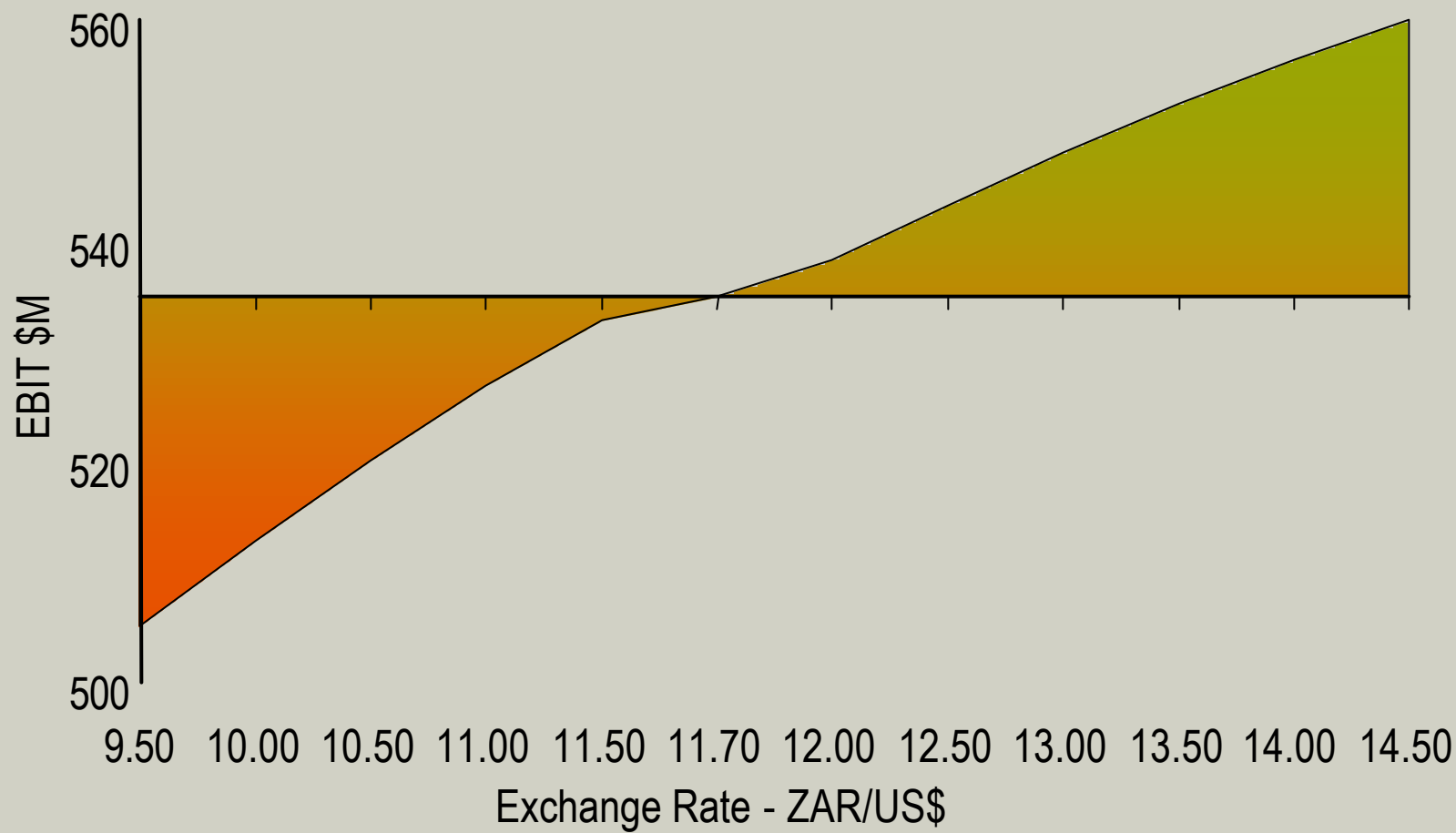
EBIT US\$/A\$ exchange rate sensitivity

Fiscal 2003



EBIT Rand/US\$ sensitivity

Fiscal 2003



Value drivers – Aluminium

- Reduce costs by > 2% pa real in planning period
 - normalising LME linkages
- Improved EBIT and increasing free cash flow (before cap-ex)
- Deliver minimum \$1.5bn in value adding projects by 2006
 - 15% of Group total
- 2006 forecast nominal EBIT returns
 - LME \$1,350/t (2002 \$) ~ 12%
 - LME \$1,550/t (2002 \$) ~ 18%

Conclusions

Mike Salamon



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Conclusions

- Vision
 - To be the world's best upstream aluminium company
- Within this envelope we will:
 - Develop embedded and greenfield growth options
 - Pursue opportunistic M&A
 - Exploit outstanding cost competitive position
 - Pursue innovative marketing ...
 - and finally, be creative across all aspects of our business
- Leading to strong cash flow and financial performance