

Anglo American Platinum Corporation

Seminar: 13 November 2001

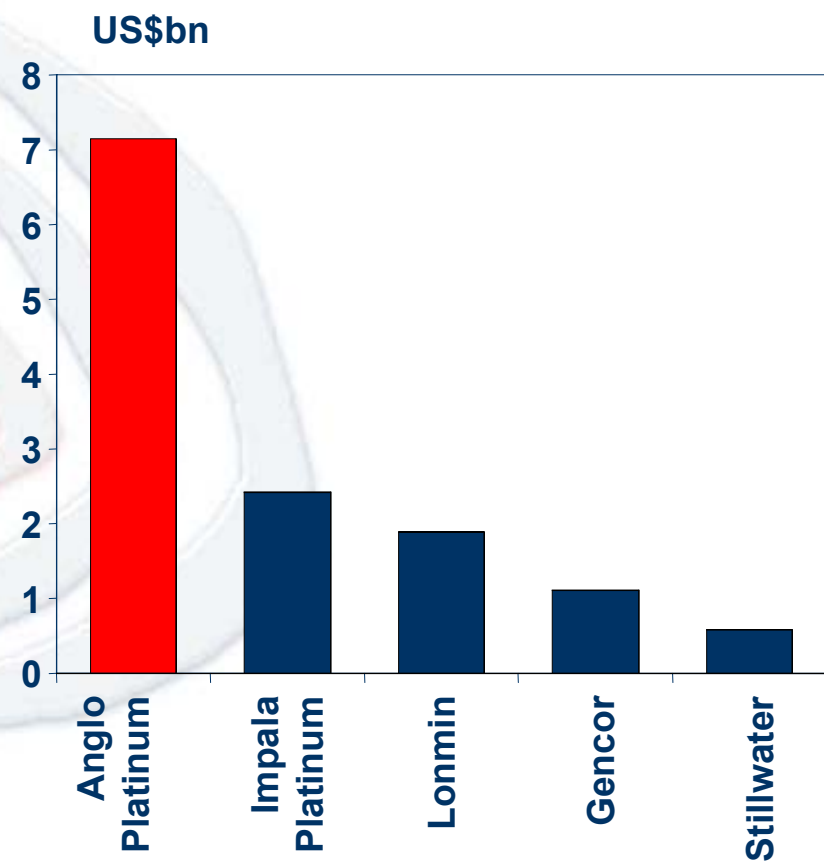
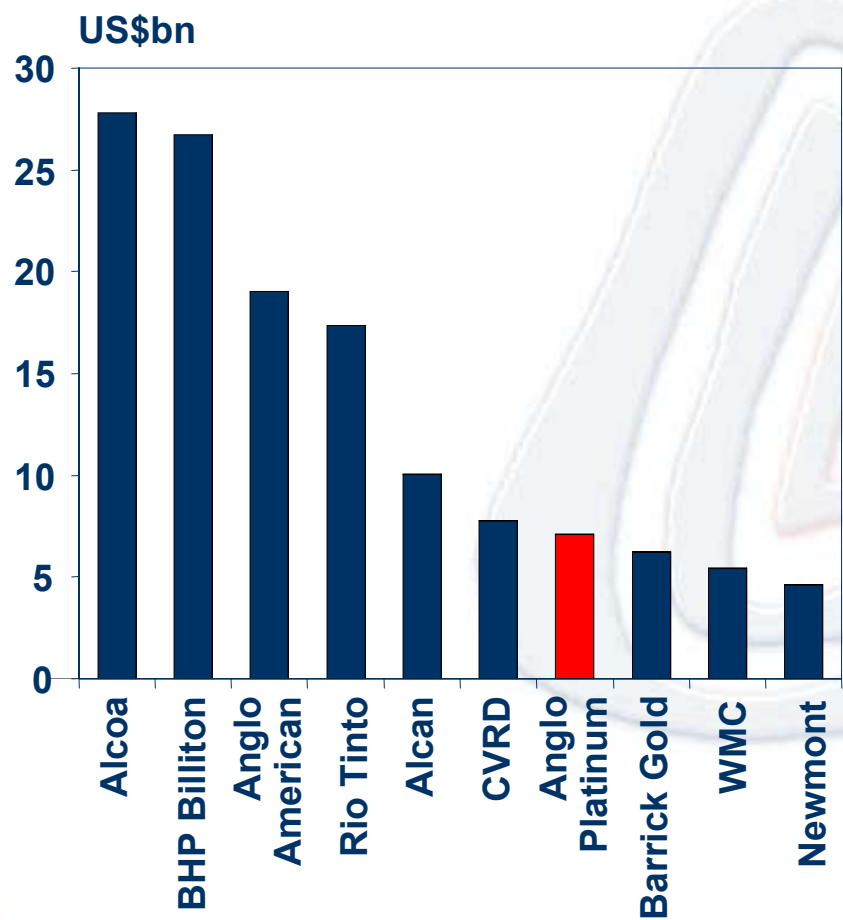
AGENDA

- **Overview and Strategy** **Barry Davison**
- **Markets** **Sandy Wood**
- **Expansion and Operations** **Dorian Emmett**
- **Questions**

WORLD LEADER IN PLATINUM

- **The world's largest primary producer of platinum**
- **12 months to June 2001 : produced 2.1 million ounces platinum and 1.0 million ounces palladium**
- **Record earnings :**
 - 12 months to December 2000 : US\$1 bn**
 - 6 months to June 2001: US\$0.5 bn**
- **Market capitalisation : US\$7 bn**

MINING AND PLATINUM COMPANIES BY MARKET CAPITALISATION



Source : Bloomberg as at 1 November 2001



UNIQUE COMPETITIVE ADVANTAGES

- Ore reserve quality
- Superior operational flexibility
- Expansion projects in place
- Johnson Matthey relationship

STRATEGY

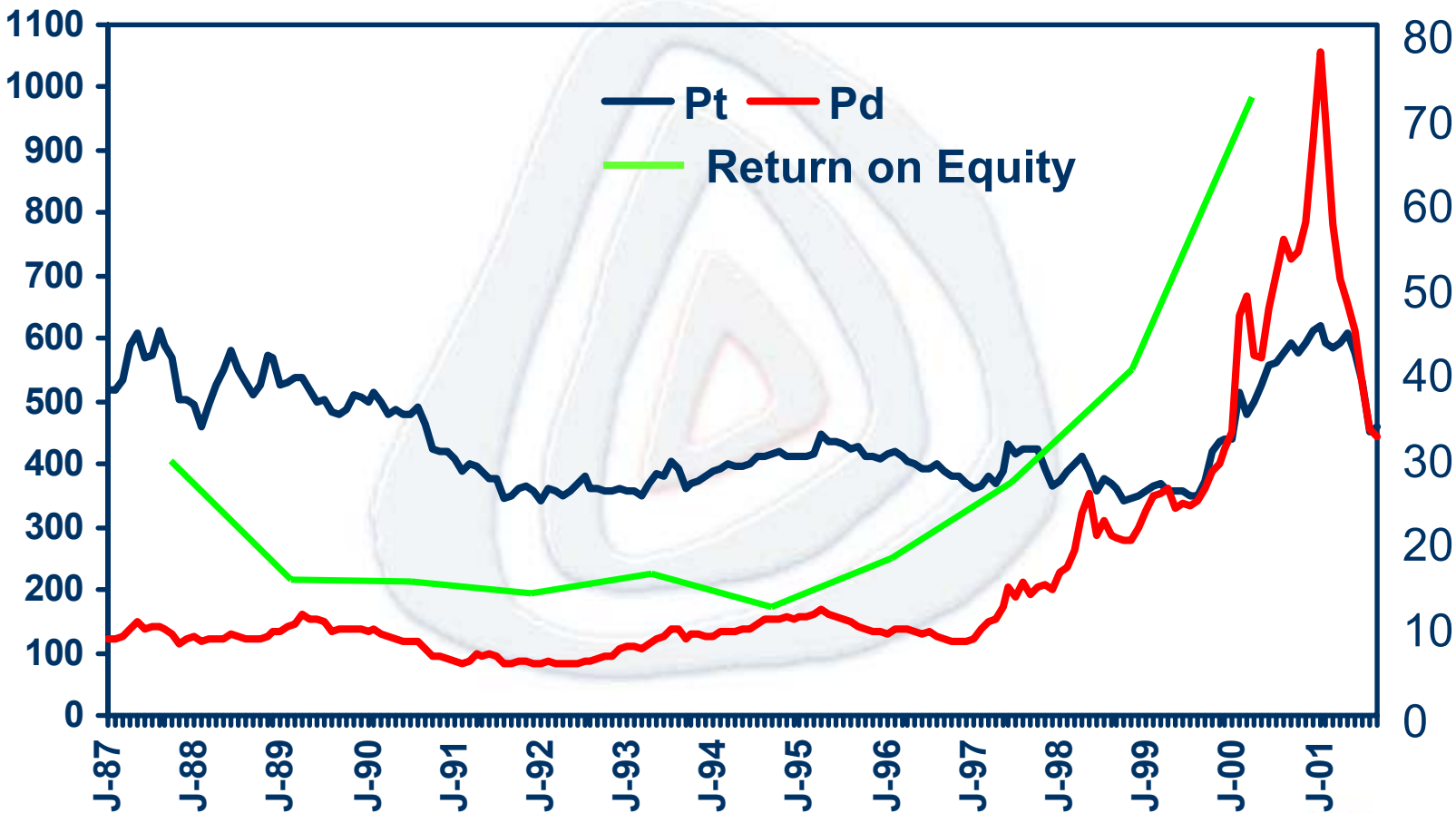
- **Grow the market for Platinum Group Metals**
- **Expand into market growth**
- **Optimise value in current operations**

A Market driven business

RETURN ON EQUITY

Metal Price: US\$/oz

RoE

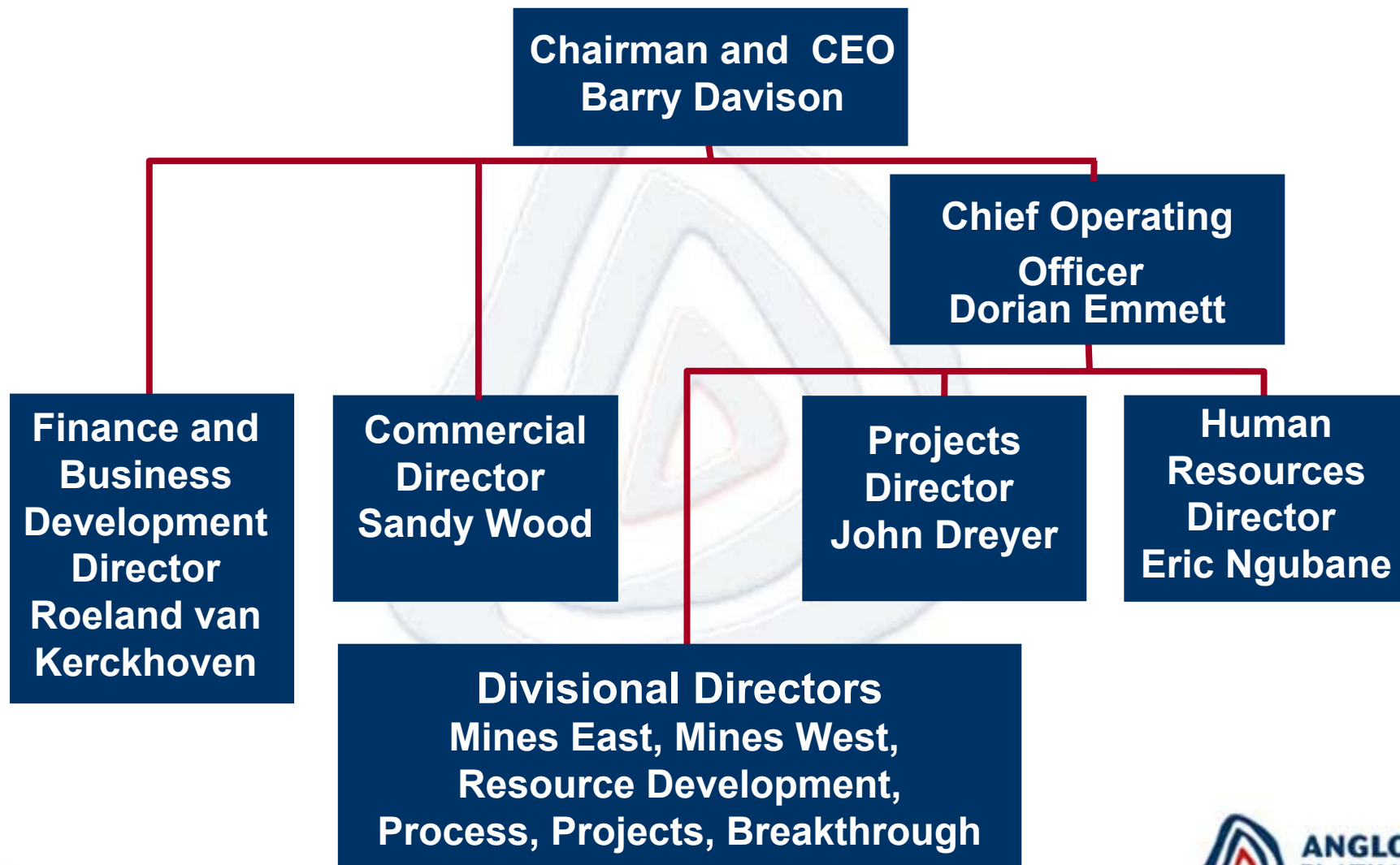


BUSINESS FOCUS

- Nurture and grow PGM markets
- Establish and commission multiple green- and brown-fields expansion sites
- Implement breakthrough initiatives

Maximise Shareholder Value

STRUCTURE



EXPANSION

- 2006 target of 3.5m oz in place
- Underlying demand fundamentals sound
- Continuous monitoring of demand
- Long lead time for greenfield mining projects
- New operations are lower cost and higher efficiency

GROWTH OUTLOOK

- Solid fundamentals for PGM demand
- Expansions in place
- Value optimisation on-going

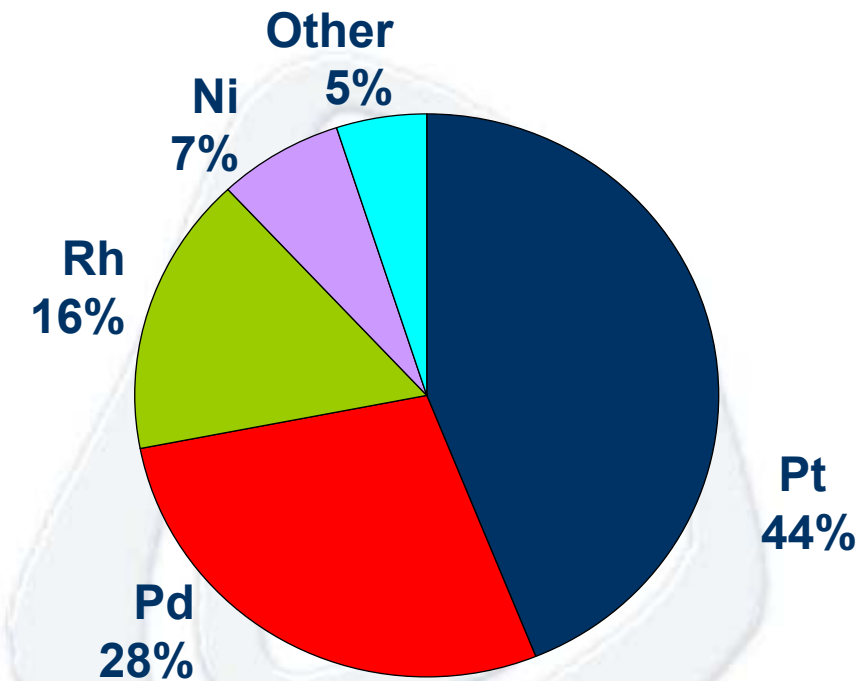
MARKETS



BUSINESS STRATEGY

- 
- **Grow the market**
 - **Expand into market growth**
 - **Optimise value in current operations**

METAL REVENUE SPLIT



R16 186m
Year ended
31 December 2000

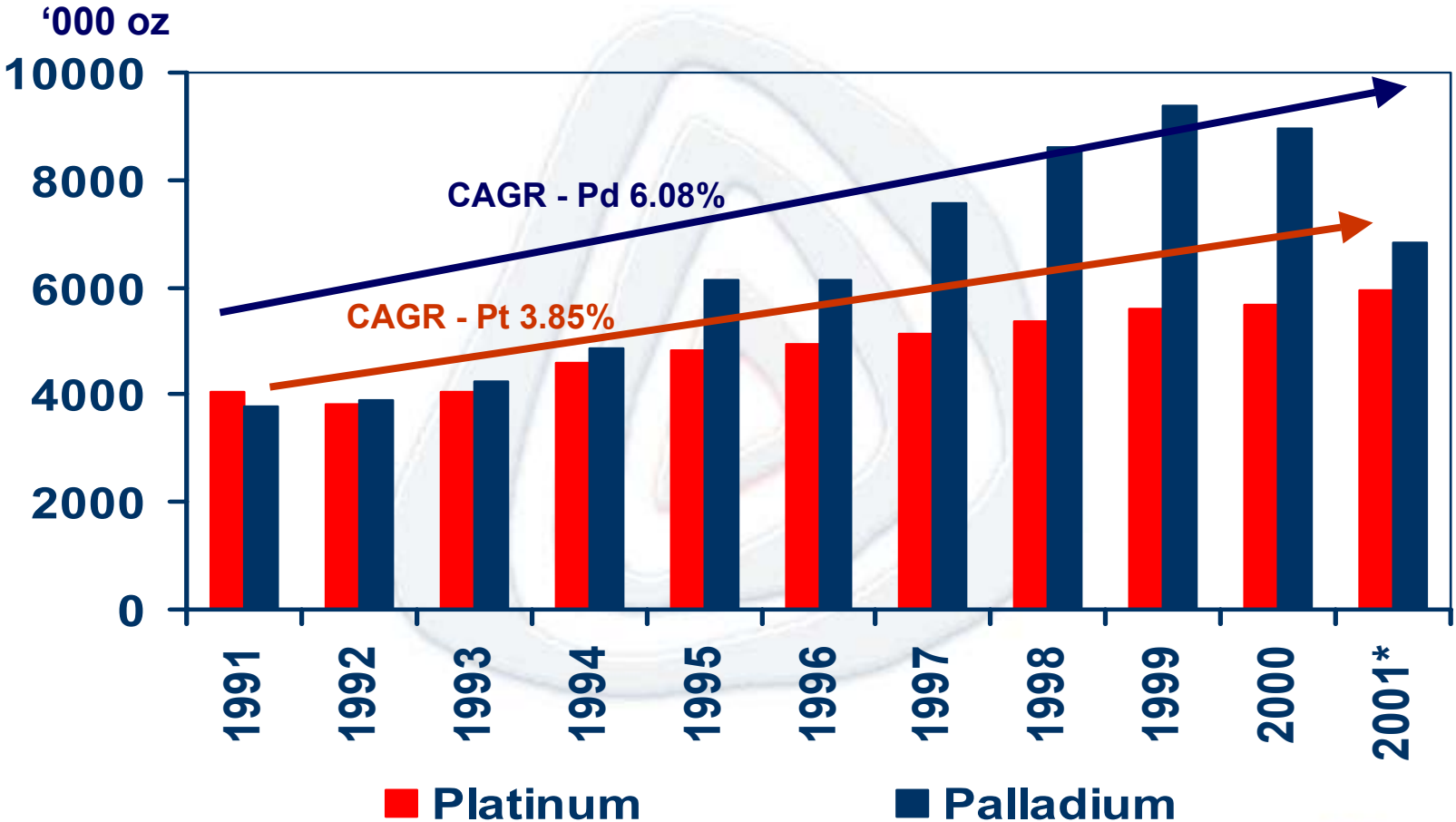
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HOW WE GROW THE MARKET

- Fundamental market research
- Identify opportunities to:
 - enhance demand in existing markets
 - encourage development of new applications for PGM's
 - geographically diversify markets
- Remove barriers to market development

PLATINUM & PALLADIUM DEMAND : 1991 - 2001



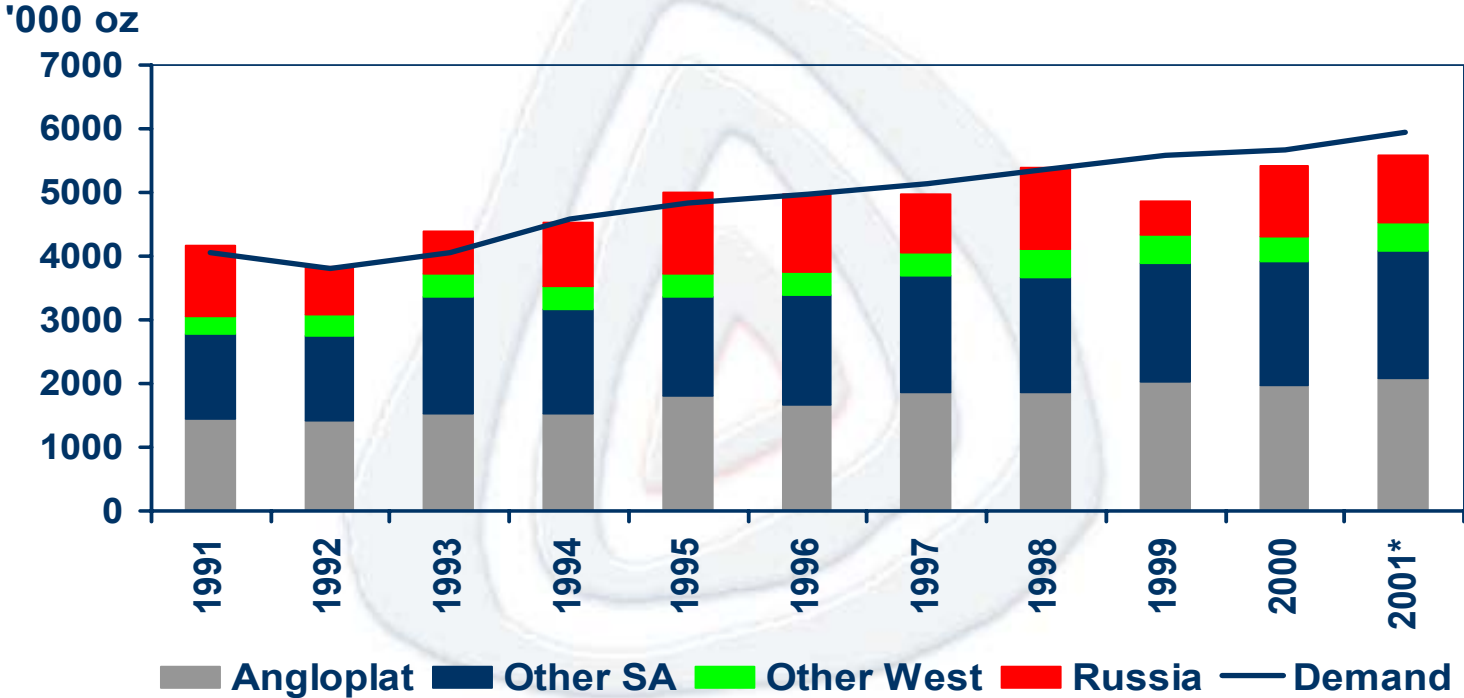
* Estimate

Source - Johnson Matthey



PLATINUM SUPPLY & DEMAND : 1991 - 2001

South Africa is the leading supplier



● Russian oversupply in the 1990's

● Strong consumer demand growth

* Estimate

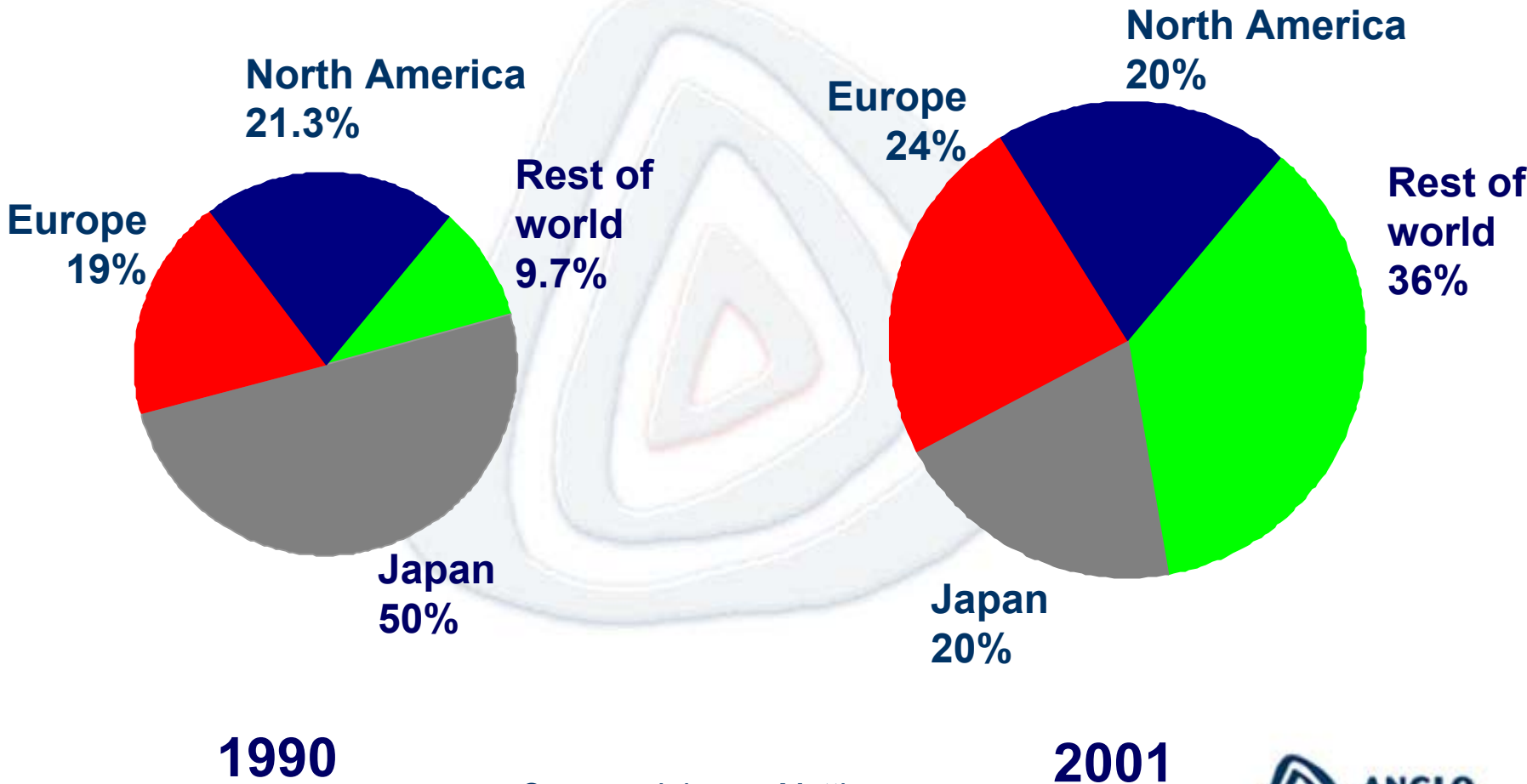
Source - Johnson Matthey



FACTORS PROVIDING STABILITY TO THE PLATINUM MARKET

- **Broad geographic demand base**
- **Broad application demand base**
 - **Industrial**
 - **Autocatalyst**
 - **Jewellery and investment**
- **Minimal platinum stockpiles**

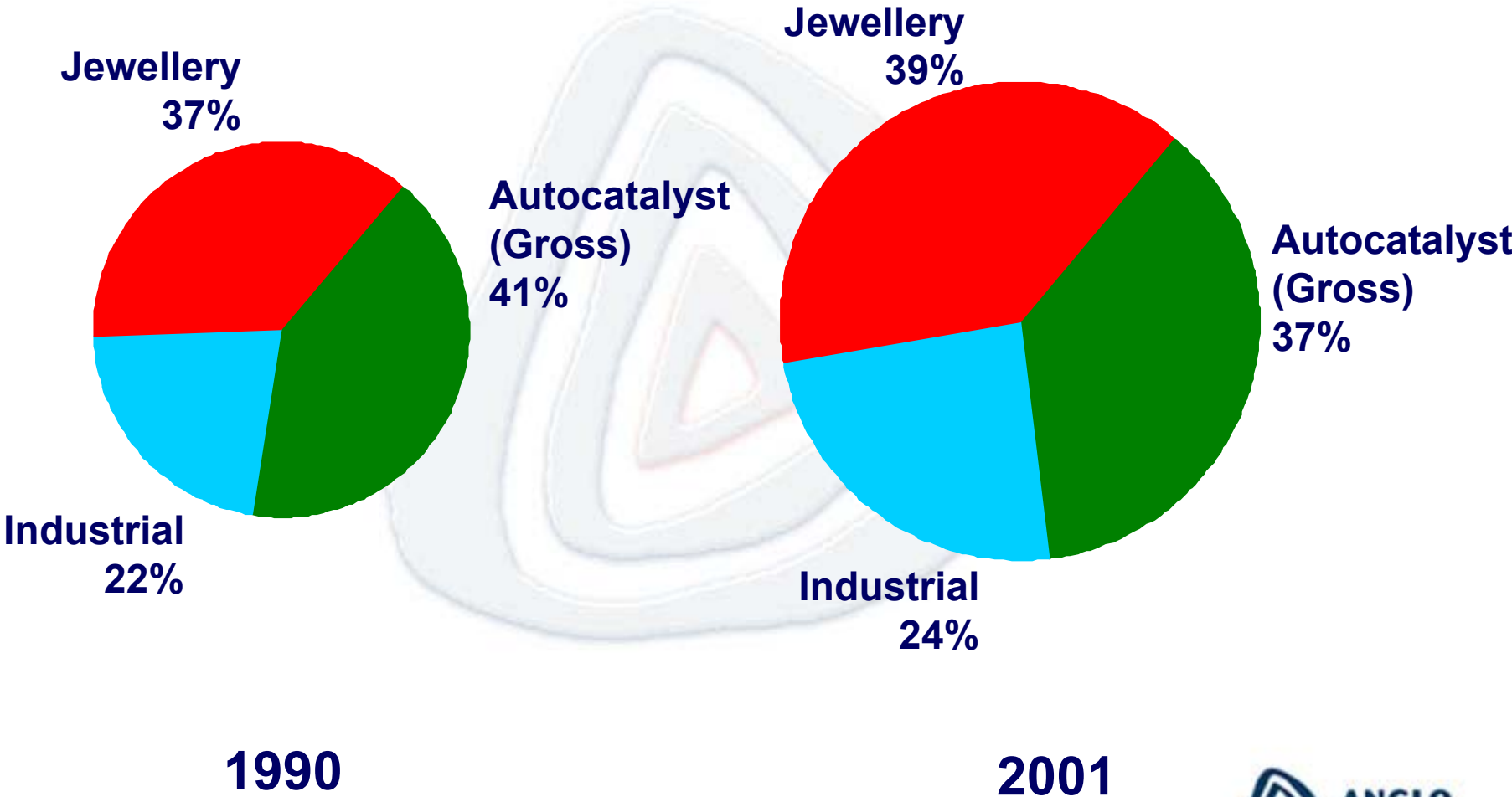
PLATINUM DEMAND BY REGION



Source - Johnson Matthey



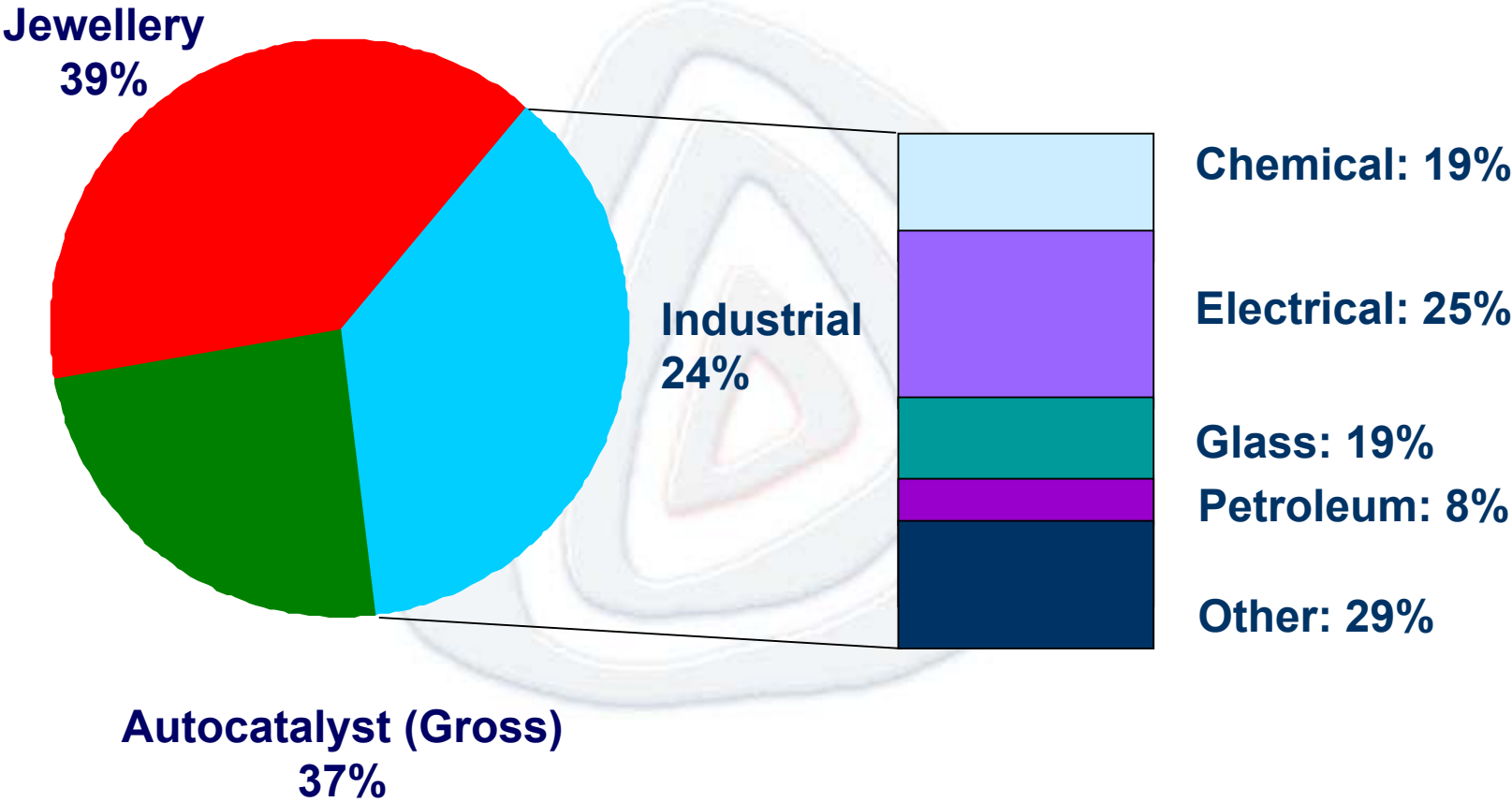
PLATINUM DEMAND BY APPLICATION



Source - Johnson Matthey

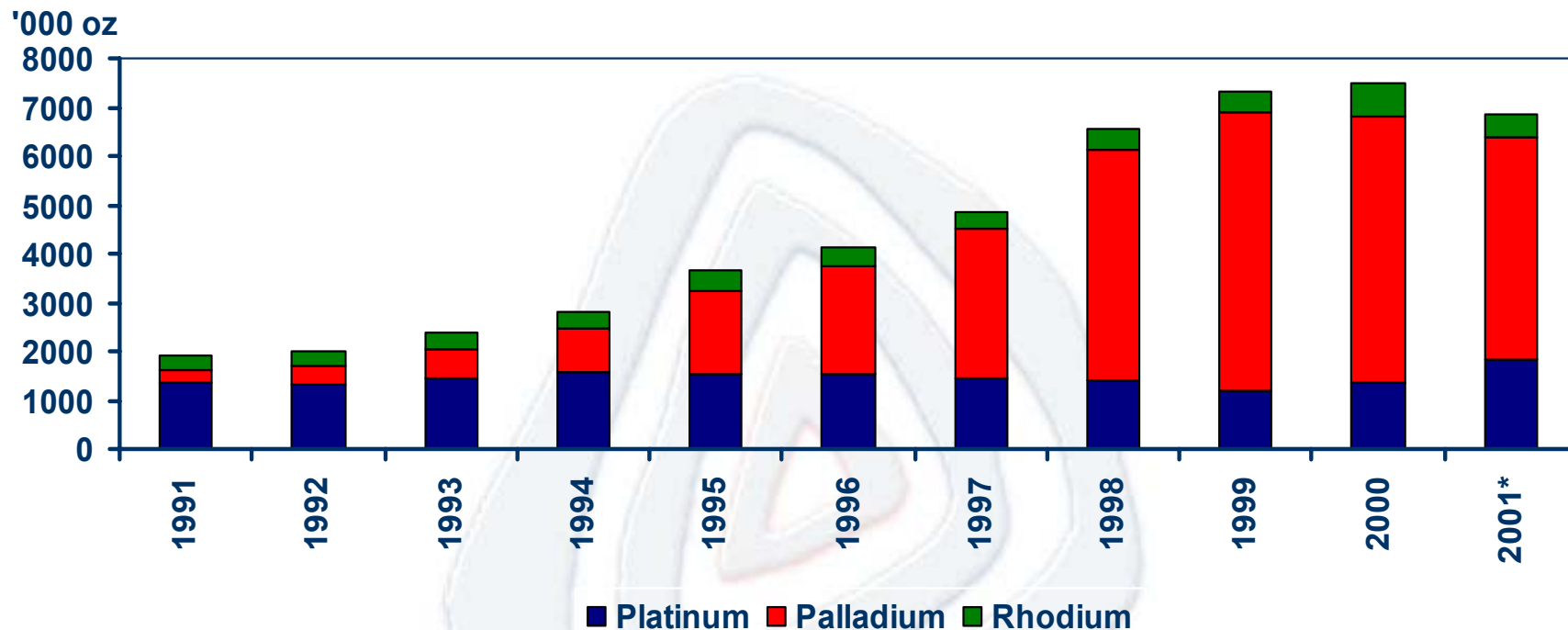


PLATINUM INDUSTRIAL DEMAND 2001



Source - Johnson Matthey

PGM AUTOCATALYST DEMAND

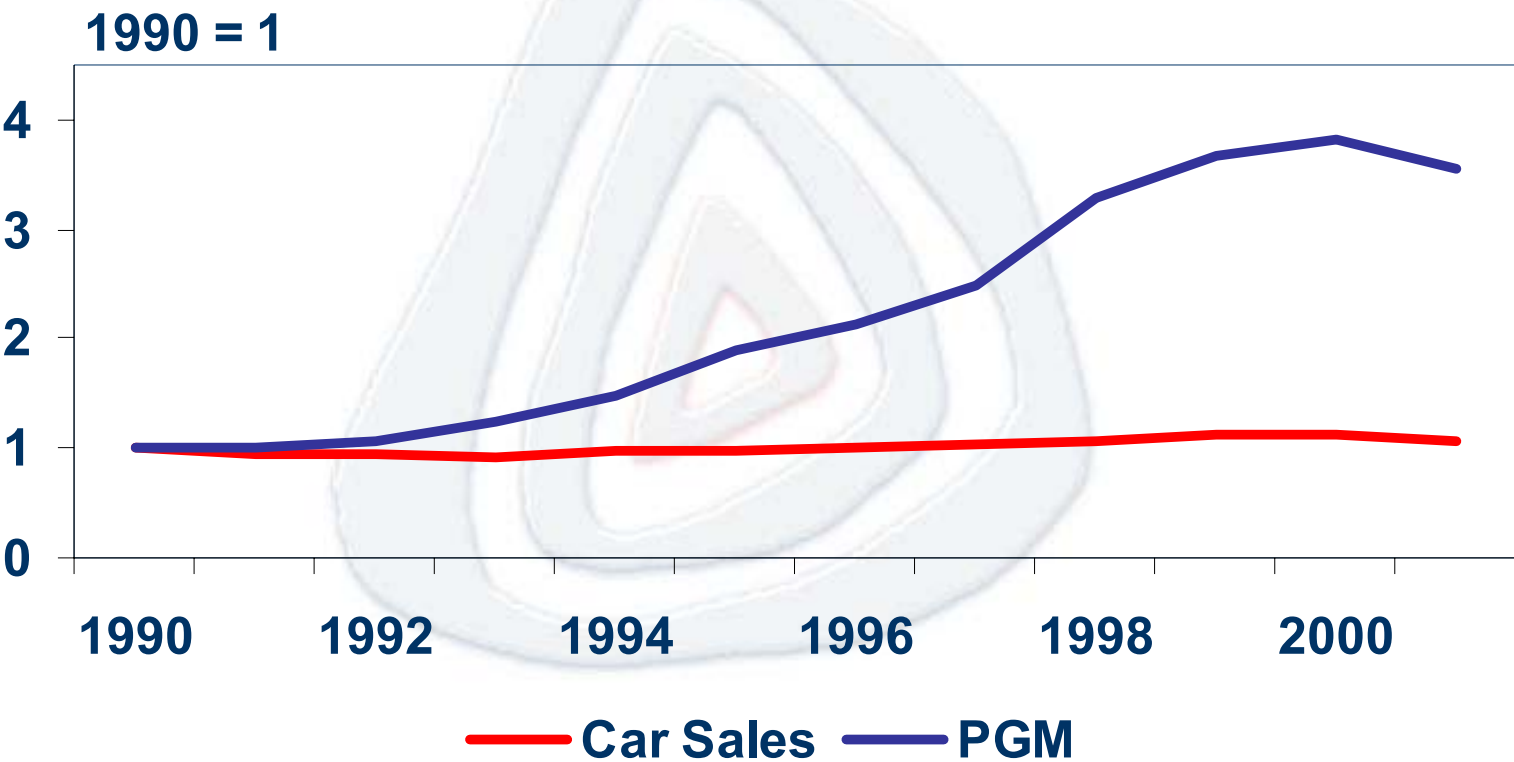


- Commitment to palladium-based technology in 1990's
- Palladium substitution by platinum commenced
- Increased PGM demand due to more stringent emission legislation

* Estimate

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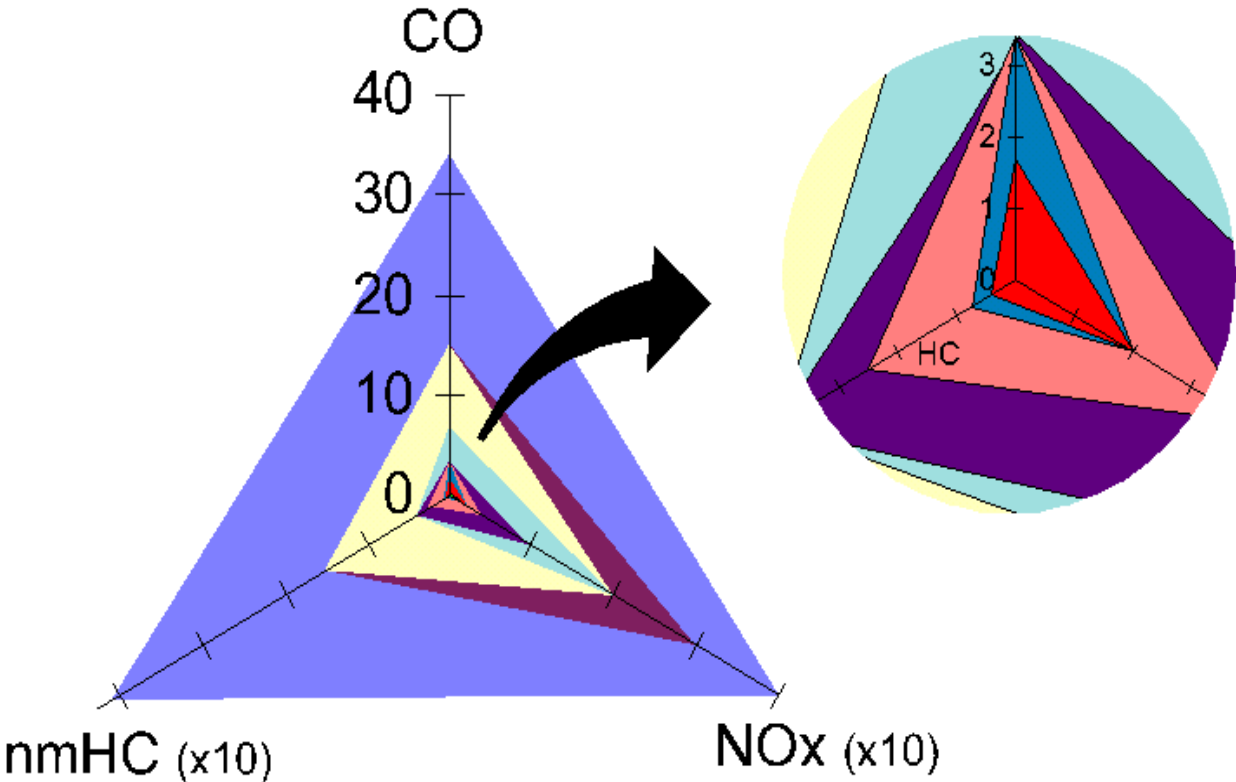
PGM DEMAND FOR AUTOCATALYST LEGISLATION DRIVEN



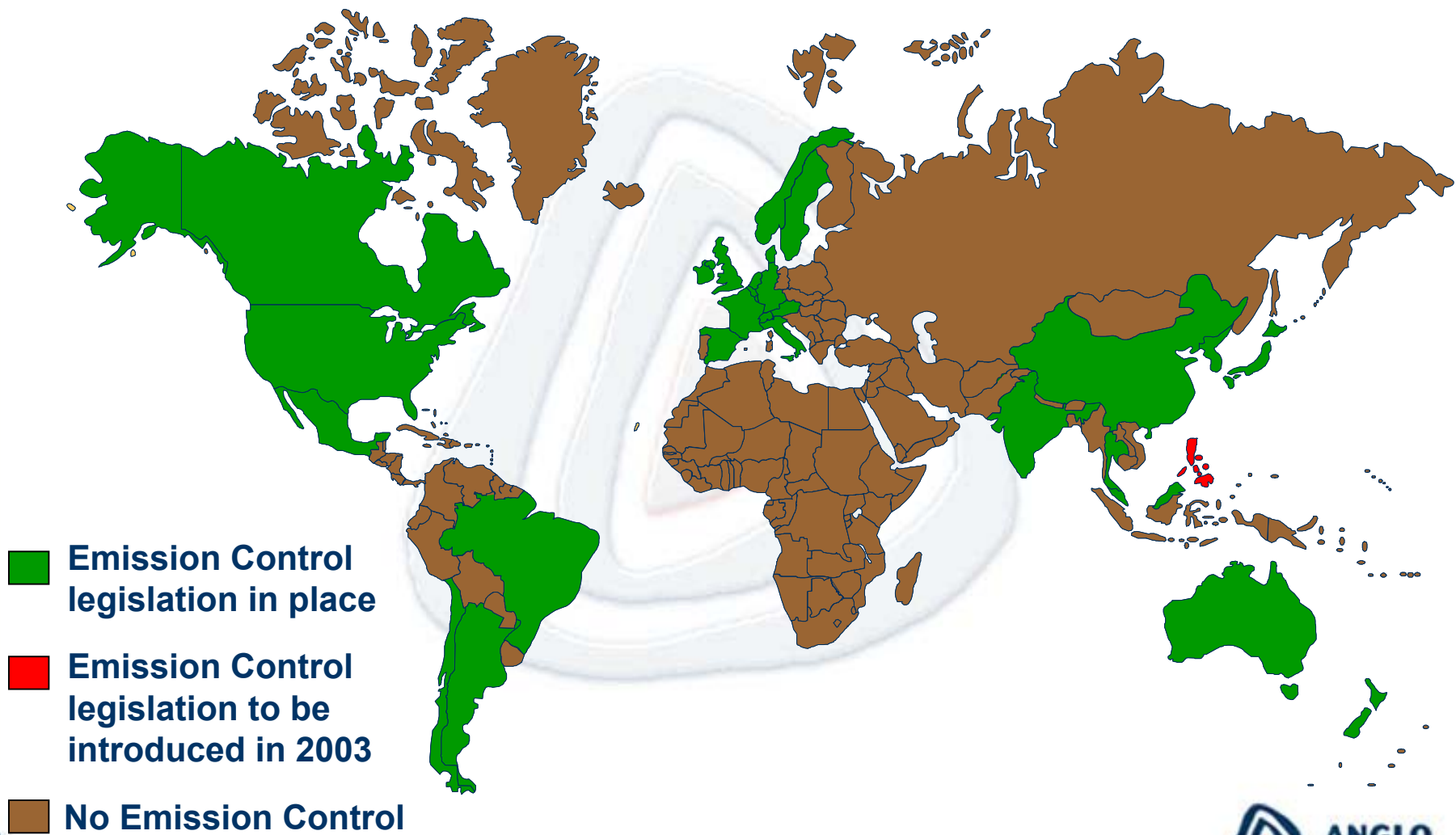
US EMISSION STANDARDS

Emission Limits

- none
- 1975
- 1977
- 1980
- 1983
- 1994
- 1997 - LEV
- 2003 - ULEV



EMISSION CONTROLS



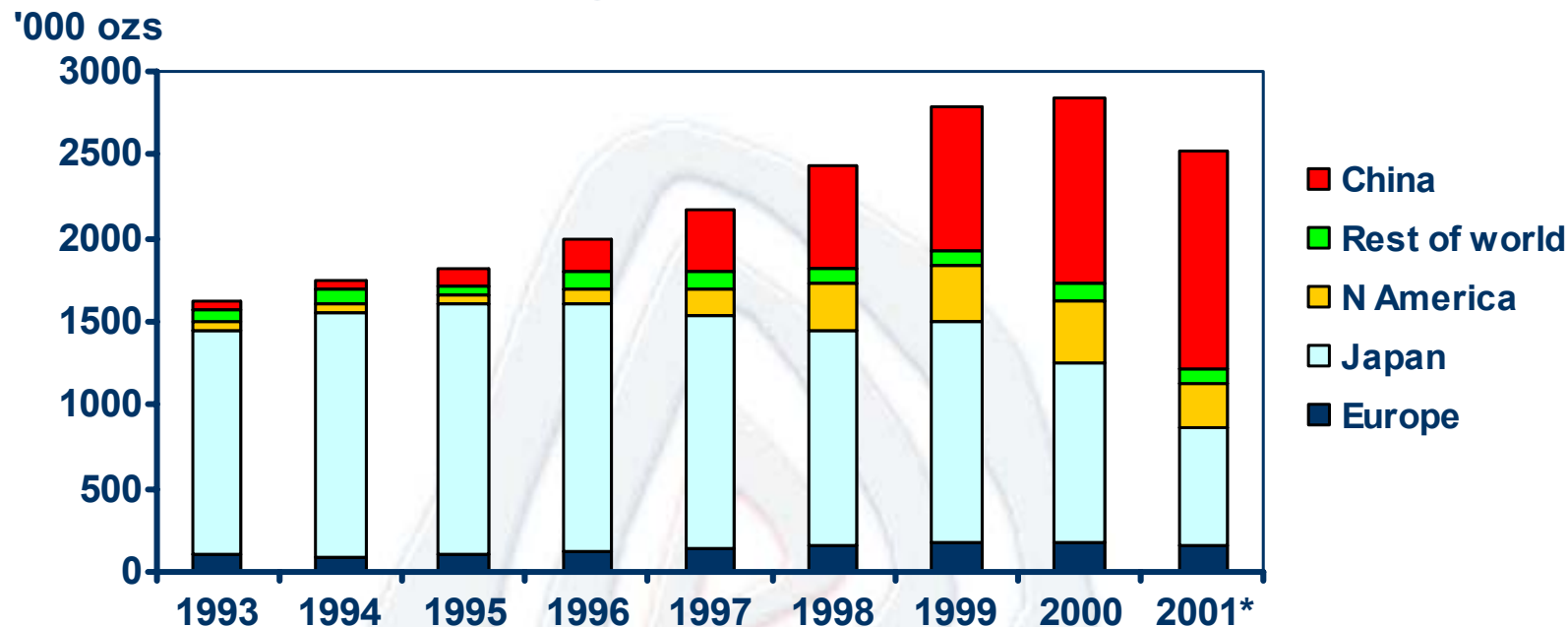
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AUTOCATALYST – PLATINUM DEMAND DRIVERS

- **Diesel engines**
- **Heavy duty trucks**
- **Palladium substitution by platinum**
- **More stringent emission standards**

PLATINUM JEWELLERY



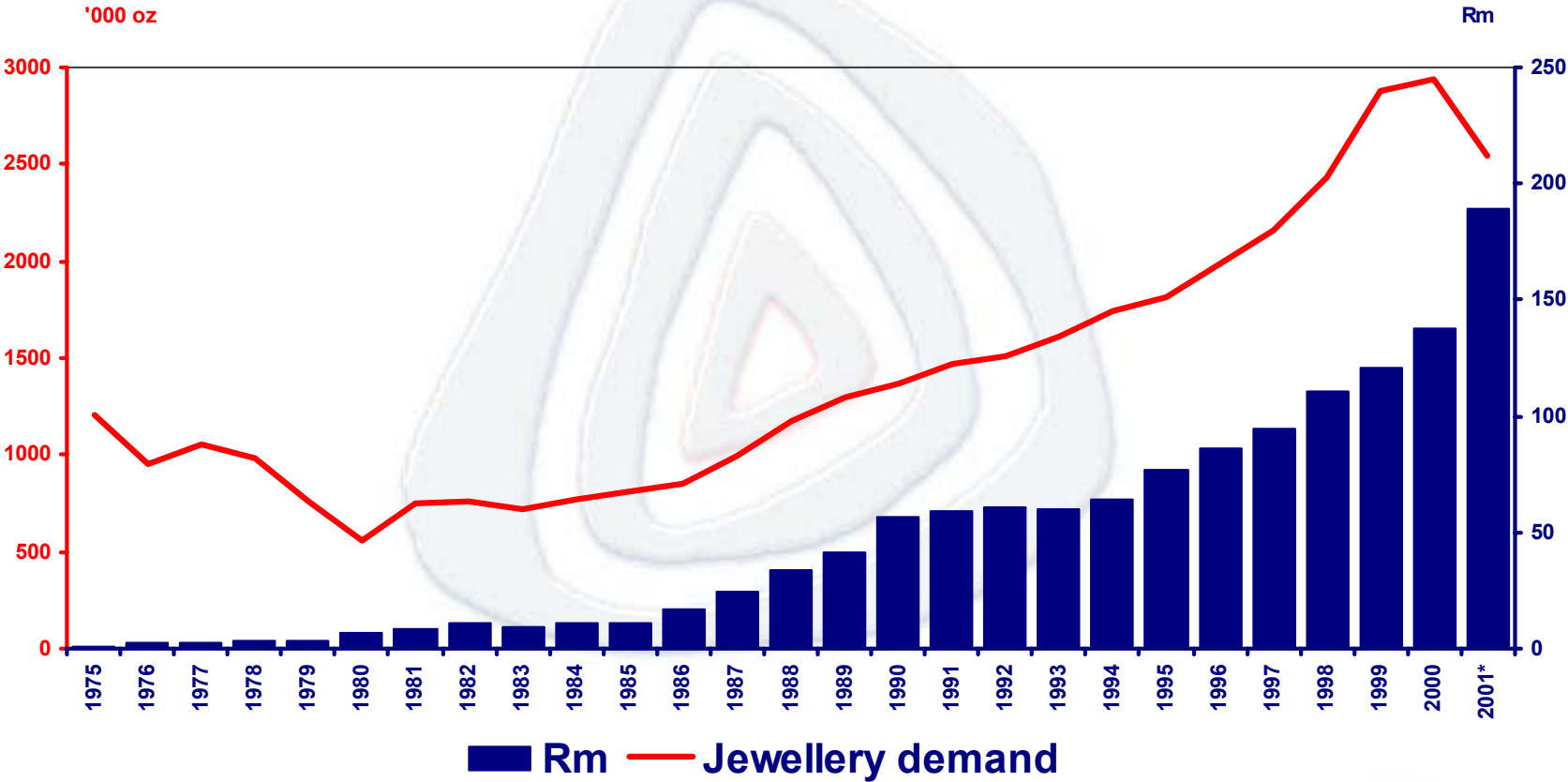
- Chinese consumer demand remains strong
- Weakness in Japan - bridal market remains the cornerstone
- Entry into India commenced
- USA developing well

* Estimate

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GROW MARKET FOR PLATINUM

Jewellery and Investment Development Expenditure via PGI

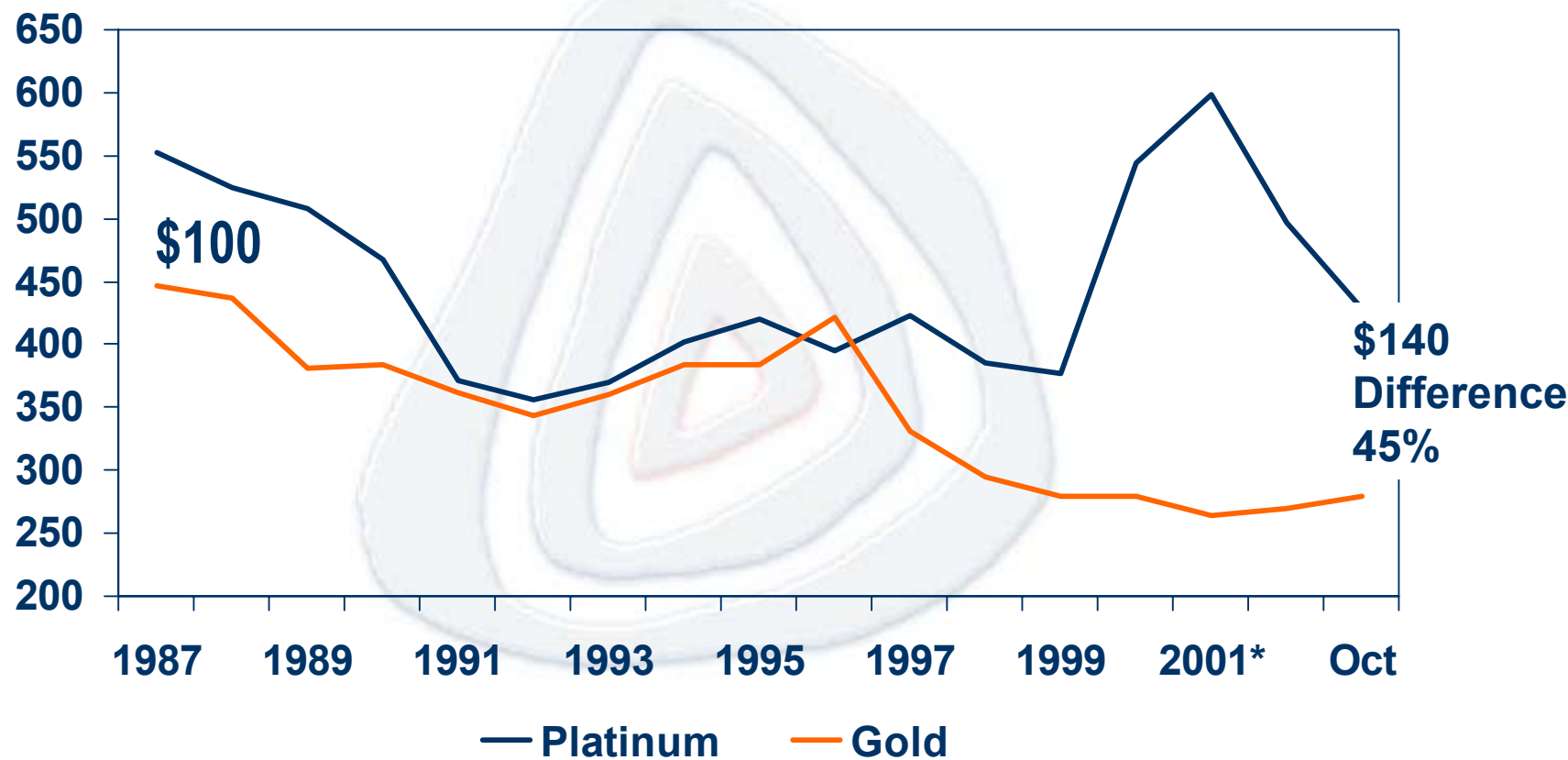


* Estimate



JEWELLERY MARKET UPDATE

Platinum/Gold Differential



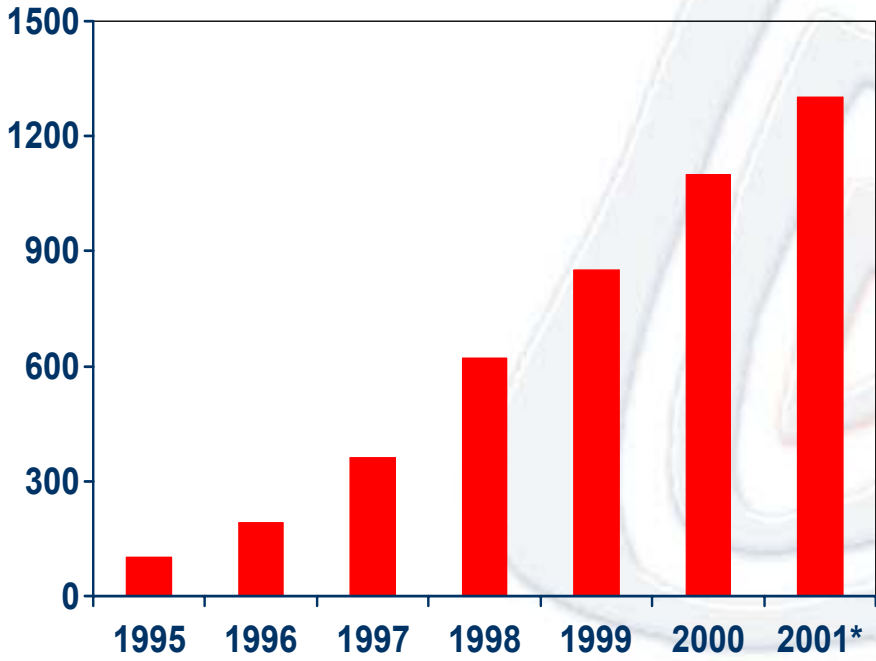
* Estimate

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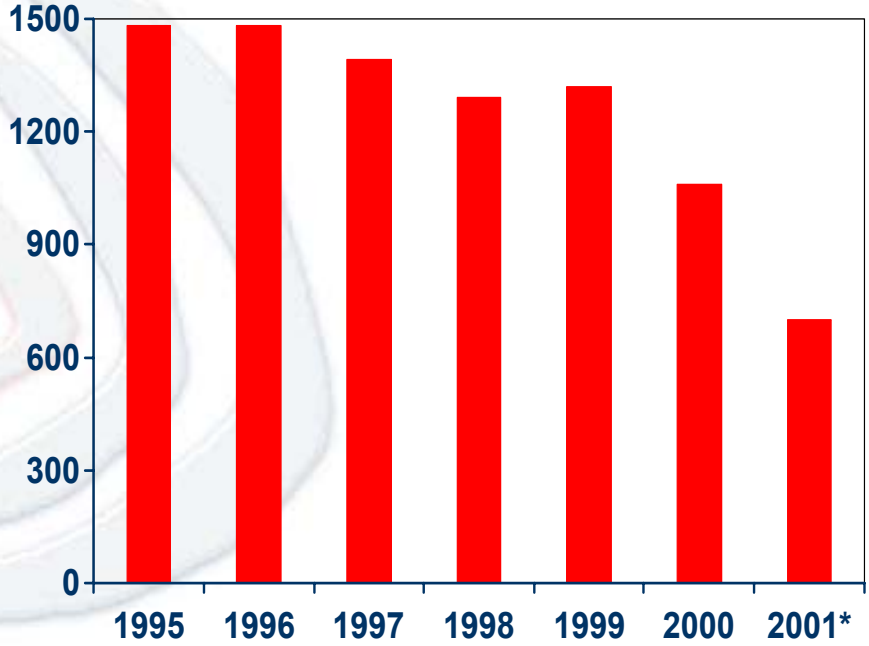
JEWELLERY MARKET - BENEFITS OF DIVERSIFICATION

Platinum
'000 ozs



CHINA

Platinum
'000 ozs



JAPAN

* Estimate



SHOPPING FOR PLATINUM AT CAISHIKOU DEPT STORE, BEIJING



INDIA 2001

- The launch advertising created consumer and trade awareness of platinum jewellery
- Trade partners are optimistic
- Interest in platinum bands/platinum diamond engagement rings
- Establishing critical mass, infrastructure & desire



Define gooseflesh.

Define a colour. Bottle green.

Define an ice-cube finding its way down your back.

Define a heavy heart.

Can you put everything within the constraints of 26 letters?

What about 'ma'? What about 'haramisu'?

There are things in life that escape 'definition'.

Life itself, for instance.

Define bitter. Tangy. Sour. Define a mistake. Wrong. Right.

Ever wonder how it changes

with every experience.

For that matter, how do you define 'experience'?

Is a kiss the mere brush of lips?

Is a smile the mere upturn of the corners of the lips?

Is platinum a mere white

metal that does not tarnish?

Is platinum a mere element on the Periodic Table?

Is platinum mere jewellery?

PLATINUM
BY INSIDE



INDIA 2001

PGI STRATEGY

- **Restore trade confidence at all levels**
- **Recognise structural change in distribution channels**
- **Sustain and build bridal markets**
- **Broaden the geographic reach to provide additional demand and to reduce risk**
- **Implement campaigns to grow platinum ownership**

PLATINUM DEMAND - OUTLOOK

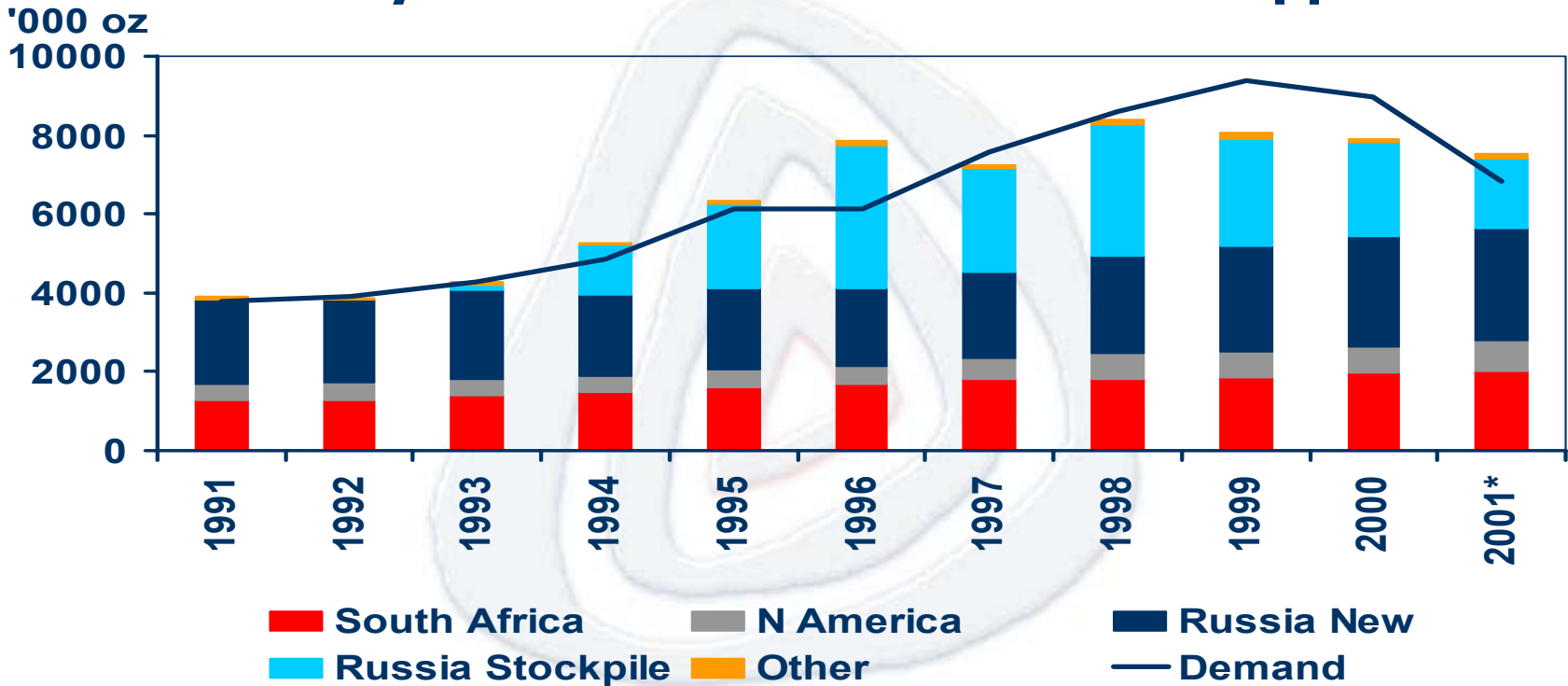
- The use of platinum in autocatalysts will continue to expand on account of more stringent emission legislation, growing demand for diesel vehicles and switching from palladium to platinum
- Chinese jewellery demand strong and USA to build on good base. Bridal support remains strong
- Traditional industrial demand stable with growth continuing to be driven by the use of platinum in electronics and chemicals

PLATINUM DEMAND DRIVERS

- **Short term** : Autocatalyst
- **Medium term** : Autocatalyst, Jewellery, Electronic & Chemical
- **Long term** : Fuel Cells

PALLADIUM SUPPLY & DEMAND : 1991 - 2001

A heavy historic reliance on Russian supplies



- Post 1999 saw autocatalyst manufacturers draw down stocks.
- Substitution occurred in dental and electronics

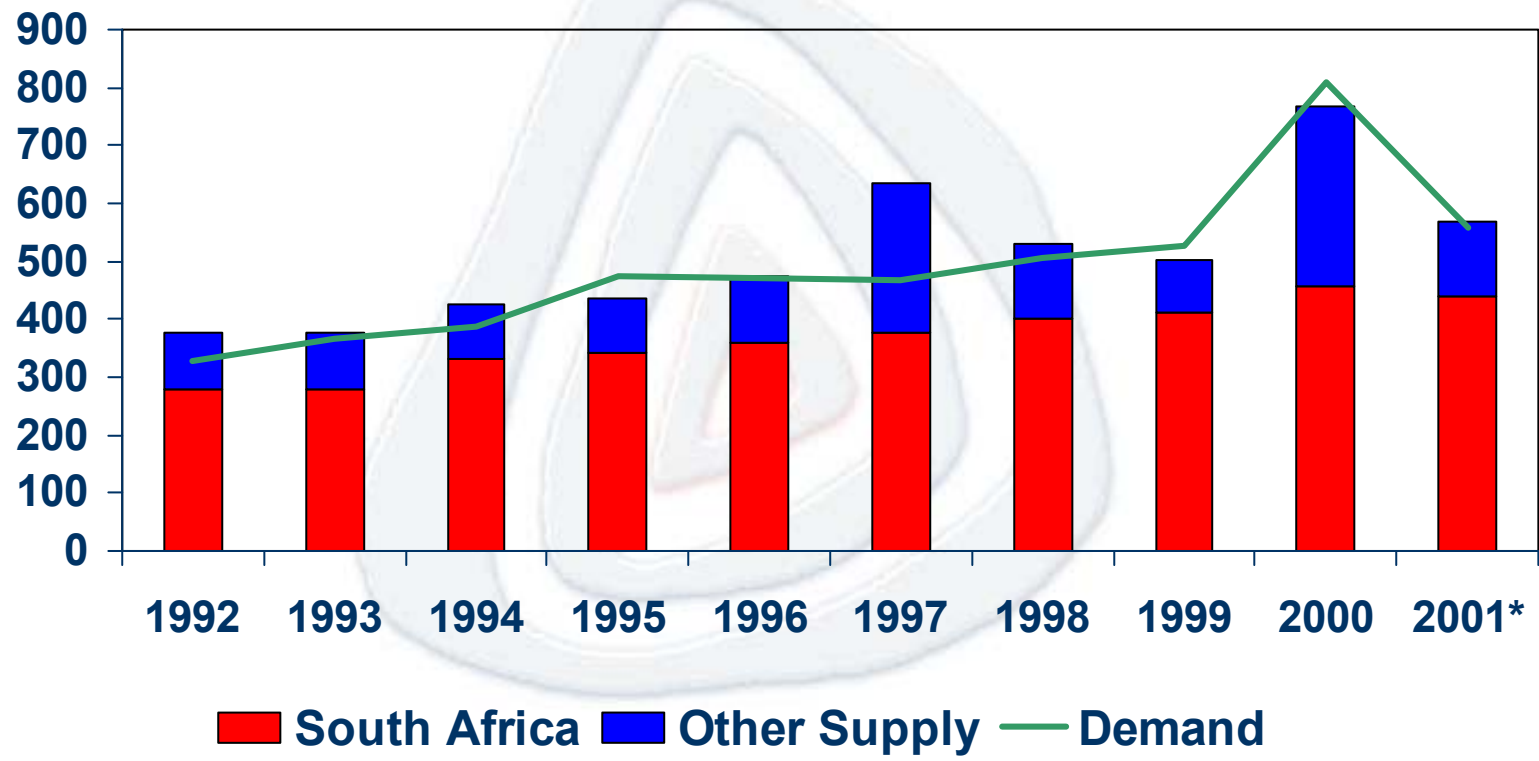
* Estimate



PALLADIUM DEMAND - OUTLOOK

- Autocatalyst demand remains. Thrifting and substitution by platinum will have an influence
- Substitution in electronics will continue
- Massive Russian selling in early 2001 has eased supply concerns
- Overhang of stock remains

RHODIUM SUPPLY & DEMAND : 1992 - 2001



* Estimate

RHODIUM - OUTLOOK

- **An essential element of the autocatalyst mix, particularly NOx control**
- **Entrenched element of PGM alloys used in glass manufacture**

FUEL CELLS - THE FUTURE

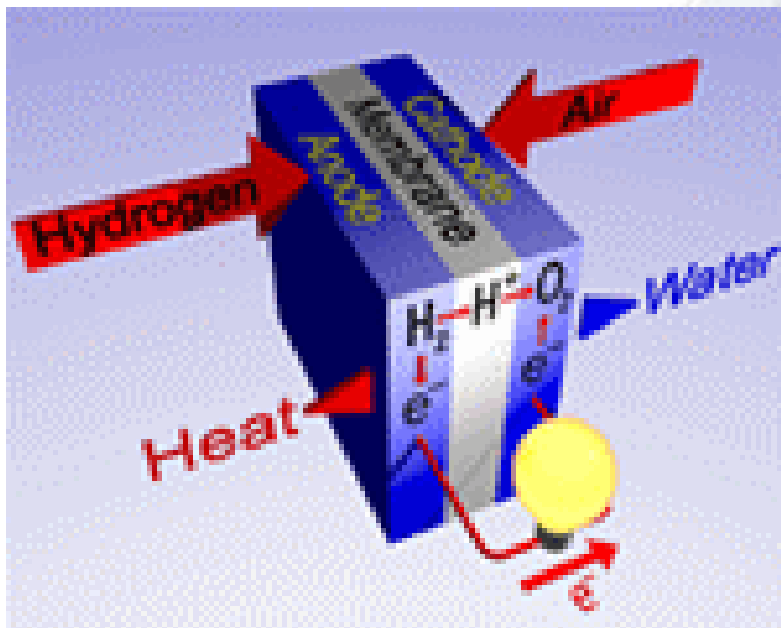
***“I believe fuel cells will finally end
the 100 year reign
of the internal combustion engine”***

Bill Ford, Chairman, Ford Motor Company



**Ford
PS2000
SUV**

FUEL CELLS



- **Environmentally friendly, no harmful emissions**
- **Produces electricity, heat and water**
- **Modular**
- **Efficient**

FUEL CELLS - FUEL OPTIONS

- Gasoline
- Methanol
- Hydrogen
- PGM contribution in fuel reforming

FUEL CELLS - RECENT DEVELOPMENTS

- General Motors plans production ready FCV by 2004 and expects to mass produce Fuel Cell cars by the end of the decade
- Ballard and Osaka Gas to collaborate in development of stationary PEM for Japanese residential applications
- Nissan Motor Company and Renault SA to invest \$695 million in the next 5 years on fuel cell vehicle research

FUEL CELLS - RECENT DEVELOPMENTS

- **NEC wants to put fuel cell powered electronic products in the market in 2005**
- **The Long Island Power Authority installed 55 fuel cells to prove the benefits of the technology**
- **Ford announces the fuel cell version of the Ford Focus will be in mass production by 2004**

FUEL CELLS - THE FUTURE

- **Initial introduction: stationary applications in the short term**
- **Commercialisation of Fuel Cell Vehicle's in medium to longer term**
- **Portable applications?**
- **Projection of 500 000 oz Platinum demand by 2010**

MARKETS - IN CONCLUSION

- **PGM demand fundamentals sound**
- **Global economic issues will have a short term influence on price**
- **Medium and long term outlook exciting**

EXPANSION AND OPERATIONS

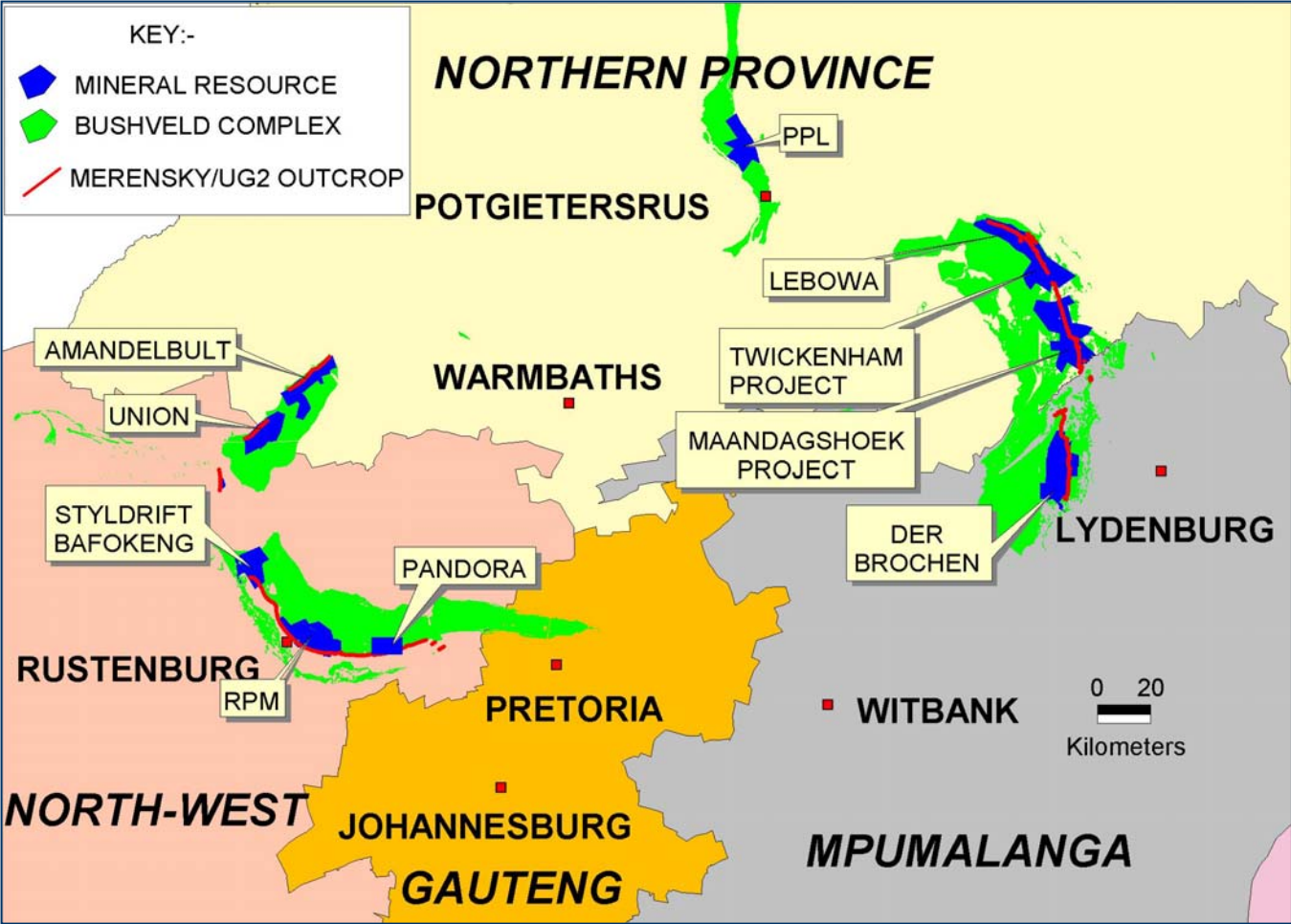
SAFETY

- Intensive focus at all levels
- Zero tolerance target zero (“Otto”) initiatives in place
- Increasing mechanisation will enhance safety
- Focus on behavioral safety
- Safety is primary criterion in new mine design

BUSINESS STRATEGY

- 
- **Develop the market**
 - **Expand into market growth**
 - **Optimise value in current operations**

ANGLO PLATINUM MINERAL RESOURCES



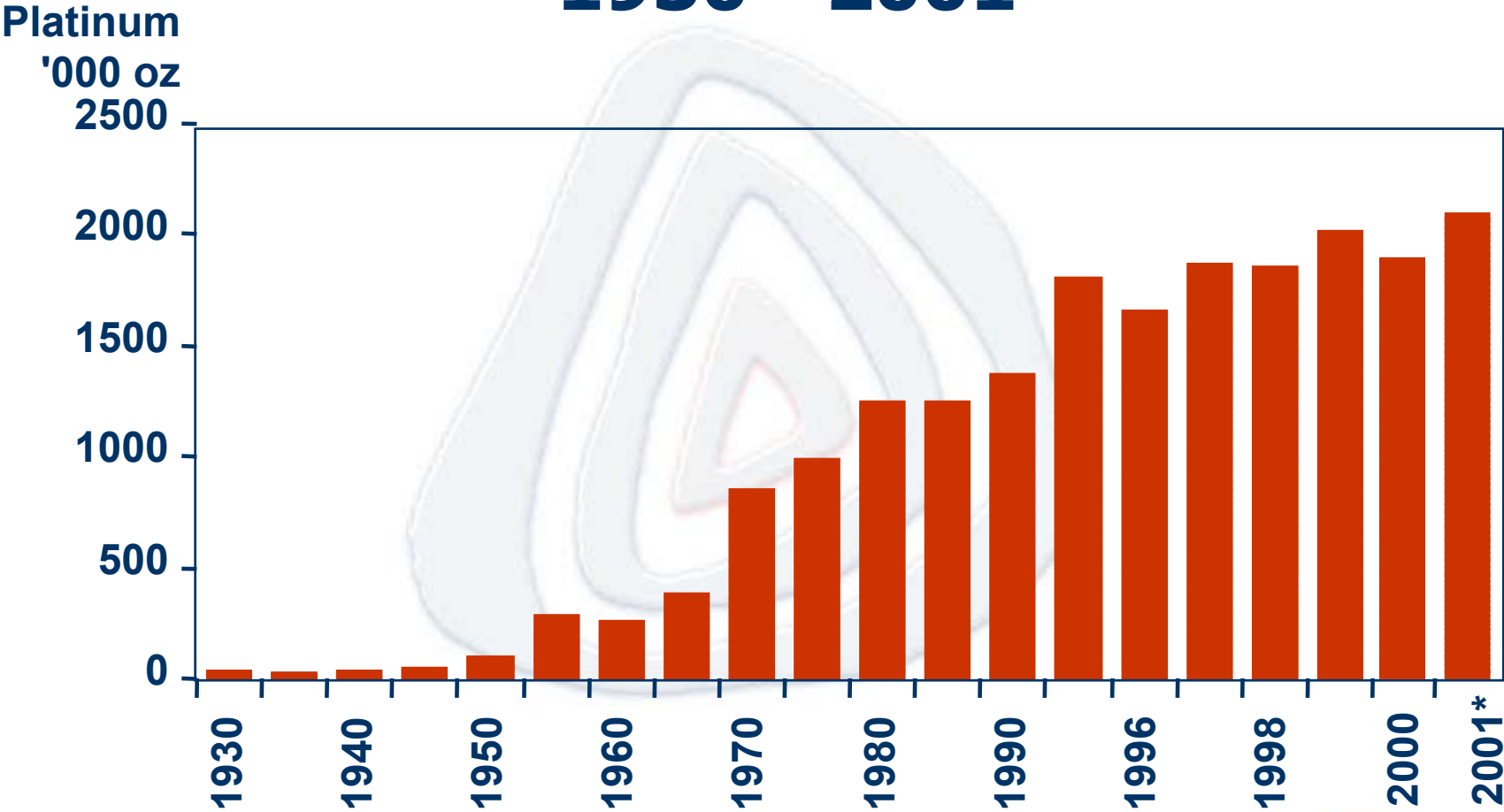
ANGLO PLATINUM MINERAL RESOURCES

- **Anglo Platinum's access to multiple, high quality production sites (brown and greenfields) affords:**
 - **expansion opportunities**
 - **low cost replenishment of current production base**

MINERALS DEVELOPMENT BILL

- **Key mineral leases on the Eastern Limb secured via agreement with Government**
- **Security of tenure issues being effectively addressed by Anglo Platinum**
- **Sound relationship with government**

ANGLO PLATINUM'S PRODUCTION 1930 - 2001



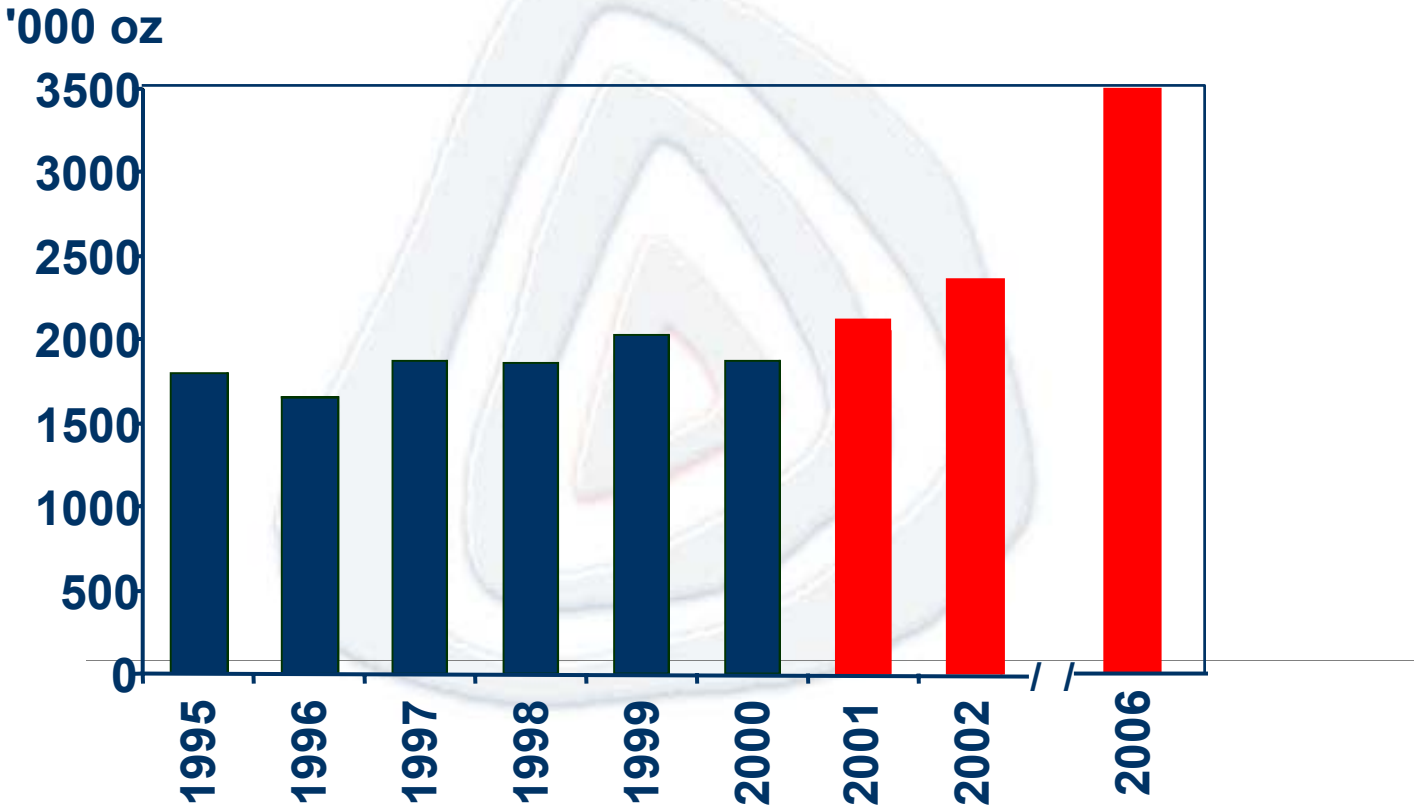
* Estimate

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PLANNED EXPANSION

Total Platinum ounces



EXPANSION PROJECTS

	Capex (unescalated)	Pt oz ('000s) per annum	Steady state production
Amandelbult UG2	R0.24 bn	72	2001
Middelpunt Hill	R0.11 bn	35	2001
BRPM	R1.20 bn	250	2003
Maandagshoek	R1.35 bn	162	2004
Union UG2	R0.45 bn	94	2004
RPM UG2 (incl.Waterval)	R1.40 bn	395	2003
Waterval Convertor (ACP) Ph 1	R1.45 bn	-	2002
Pietersburg Smelter	R1.31 bn	-	2003
Pandora Joint Venture	R0.57 bn	115	2007
Styldrift Joint Venture	R2.24 bn	250	2006
Twickenham	R2.70 bn	115	2006

EXPANSION - PROJECT SELECTION

- All opportunities ranked via multiple criteria
- Earnings growth and shareholder return focus
- 12% real hurdle rate
- Safety health and environment criteria extremely important

EXPANSION - ISSUES

SKILLS PROVISION

- Remains our greatest challenge
- Current work force exceeds 40 000
- 13 000 new job opportunities
- Key issues, timeous & effective:
 - skills identification
 - recruitment
 - training
- Comprehensive Human Resource Development programme in place

EXPANSION - ISSUES

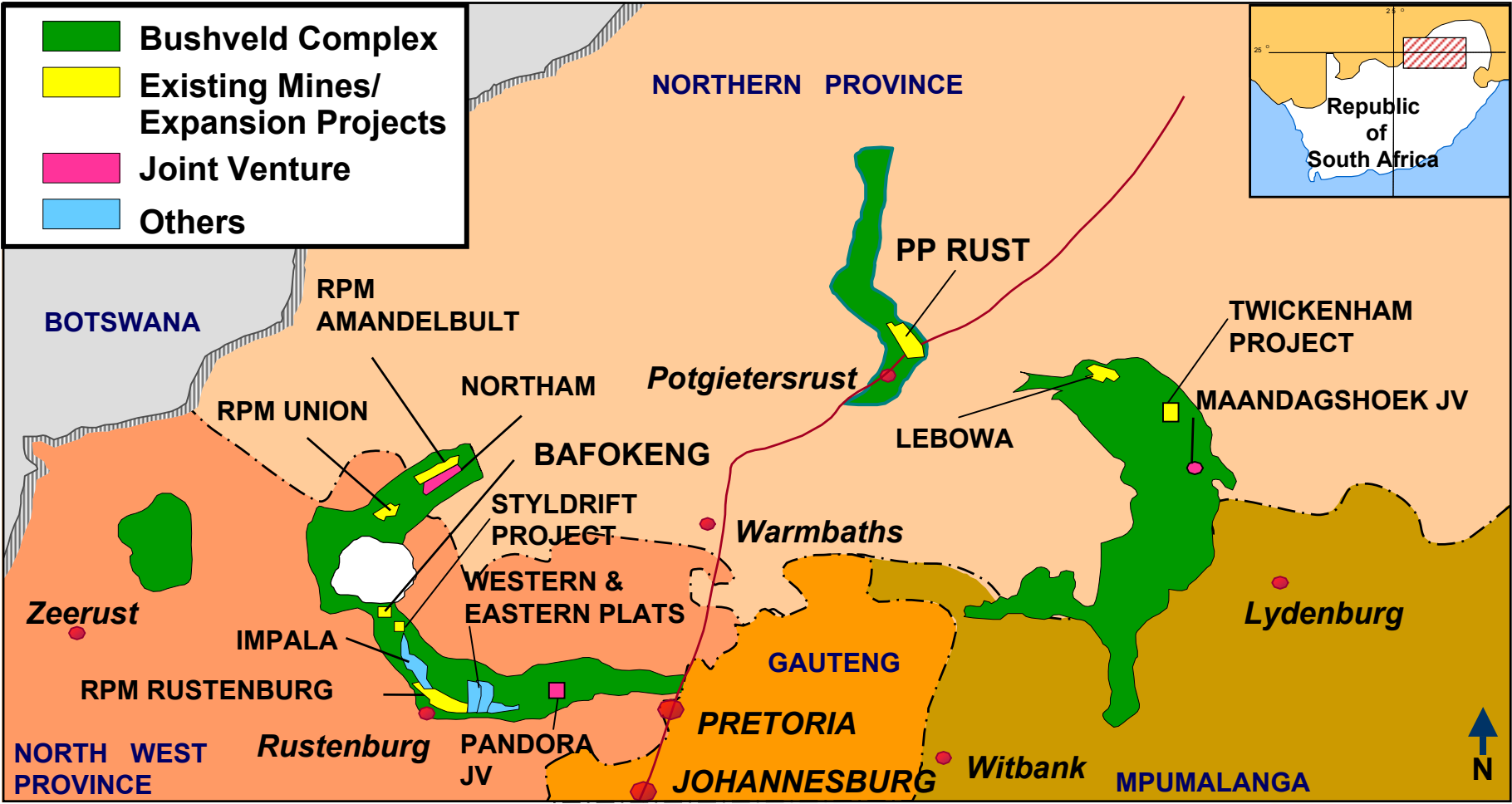
INFRASTRUCTURE

- Comprehensive infrastructure footprint being established - facilitates further resource development

STAKEHOLDERS

- Appropriate accommodation of the interests of all stakeholders being comprehensively addressed

ANGLO PLATINUM OPERATIONS



EXPANSION: BRPM

- **Financial completion: 90%**
- **Physical completion: 90%**
- **Underground development build up affected by difficult geological conditions**
- **Plant performance excellent**

EXPANSION: RPM / WATERVAL UG2

- Financial completion: 40%
- Physical completion: 45%
- Shaft sinking on schedule
- East portal intersected reef
- Concentrator construction on schedule

EXPANSION: MAANDAGSHOEK

- Financial completion: 20%
- Physical completion: 35%
- Shaft sinking on schedule - reef intersected
- Concentrator construction in progress
- Hill adits will alleviate authorisation delay

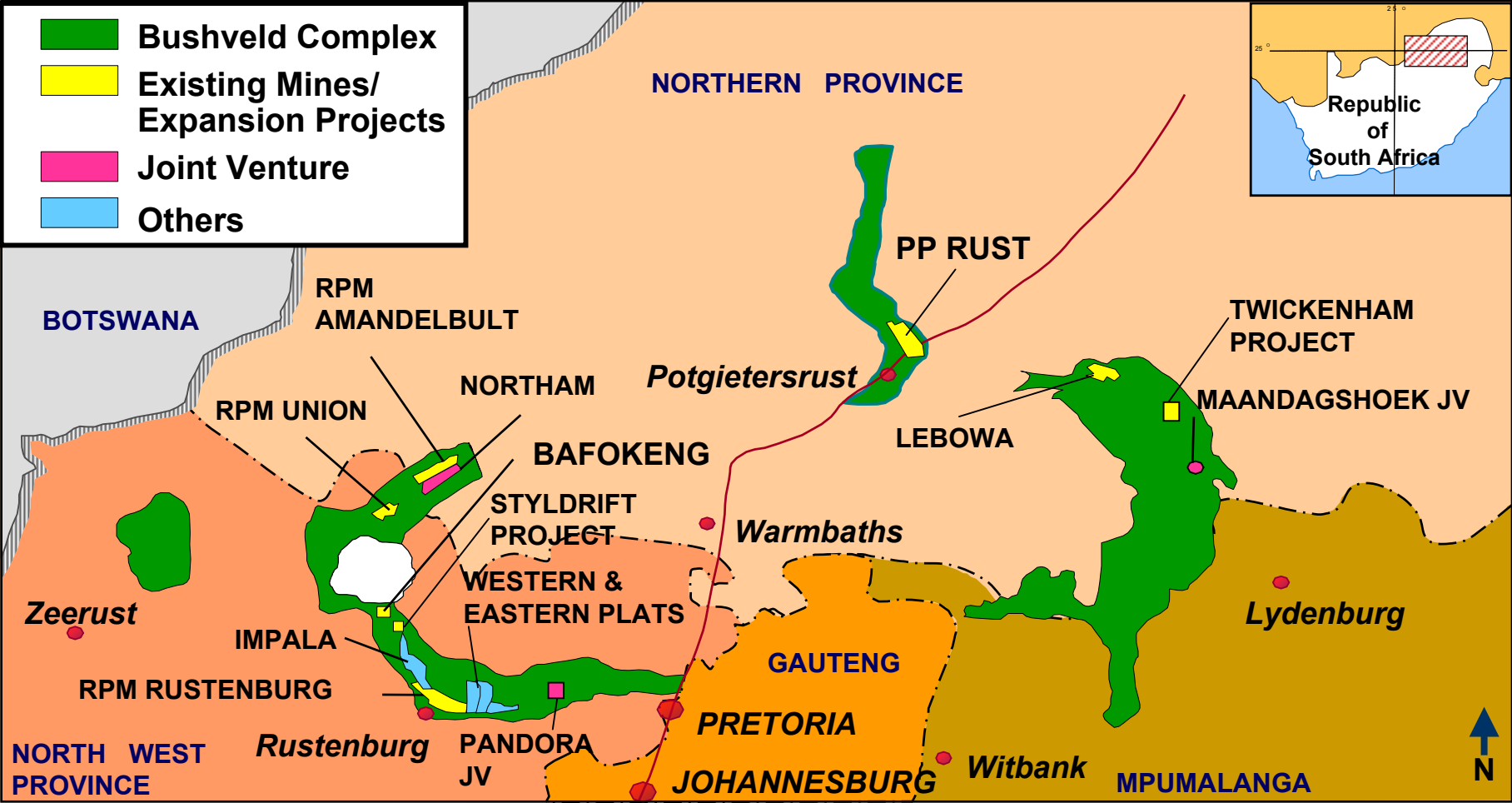
EXPANSION: OTHER

- **Union UG2**
 - **Decline development commenced**
 - **Plant contracts awarded**
- **Pietersburg Smelter**
 - **Design on schedule**
 - **Commissioning in Q1 2003**
- **Pandora JV design being finalised**

BUSINESS STRATEGY

- 
- **Develop the market**
 - **Expand into market growth**
 - **Optimise value in current operations**

ANGLO PLATINUM OPERATIONS



CURRENT OPERATIONS

	2000					1999		
Mining Operation	Tons milled	Refined Pt ozs	%	Op. Margin	Op. Cont	Tons milled	Refined Pt ozs	%
Rustenburg	7 215	631	34	53.4	30	7 701	768	38
Union	4 159	289	15	61.6	17	3 749	333	16
Amandelbult	6 412	574	31	69.5	36	6 222	638	32
Bafokeng- Rasimone	1 533	115	6	-	-	101	4	0
Potgietersrust	4 177	194	10	63.2	15	4 059	201	10
Lebowa	1 079	72	4	44.2	2	1 021	79	4
TOTAL	24 575	1 871	100		100	22 853	2 022	100

CURRENT OPERATIONS - PROCESS

- **11 Concentrators situated adjacent to mining operations**
- **2 Smelter complexes at RPM Waterval and Union**
- **1 Base metals refinery**
- **1 Precious metals refinery**

VALUE OPTIMISATION

- **Choice of low cost sites for expansion or replacement / replenishment**
- **Breakthrough:**
 - **Mining optimisation**
 - **Concentrator optimisation**
 - **Mechanisation**
- **Cost control**

REPLACEMENT / REPLENISHMENT PROJECTS

- Continuous project evaluation includes current operations
- Value of deep Merensky is compared to shallow UG2 and Platreef for both brown and green field projects
- Lower grade, higher efficiency projects will be implemented and announced in due course
- Flexibility of expansion production sources is high

BREAKTHROUGH

- **Commenced in 1997**
- **Substantial benefits over 1996 base**
- **Redefined in 2001**
- **Four focus areas**
 - **Mining Optimisation**
 - **Mechanisation**
 - **Concentrator Optimisation**
 - **People Optimisation**

BREAKTHROUGH: MINING OPTIMISATION

- **Blast Frequency & Advance per blast**
- **Introduce best practice via a four step process**
 - **Basic infrastructure**
 - **Basic disciplines**
 - **Team development**
 - **Support services**
- **Phased implementation in place**

BREAKTHROUGH: CONCENTRATOR OPTIMISATION

- **Optimal operational control of concentrators**
- **Merensky / UG2 blending and streams**
- **Basic control, expert systems and best practice**

BREAKTHROUGH: BENEFITS

- **The operating profit in 2002 will be R300 million higher as a direct result of the implementation of the mining optimisation and concentrator optimisation initiatives.**

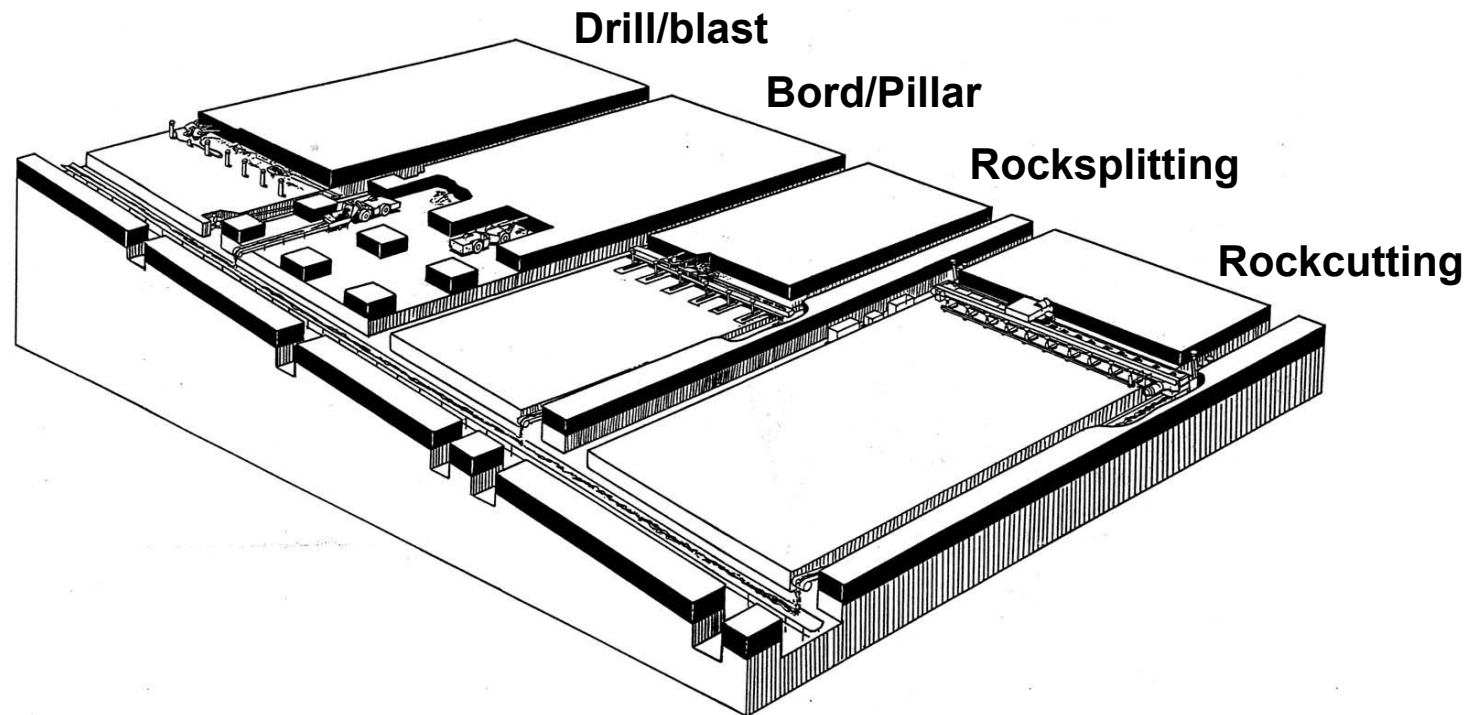
BREAKTHROUGH: MECHANISATION

- **Research and development**
- **Application of research**
 - **Operational trials**
 - **Systems support**
 - **Implementation**
- **Mining methods, equipment used
people skills**

BREAKTHROUGH: MECHANISATION

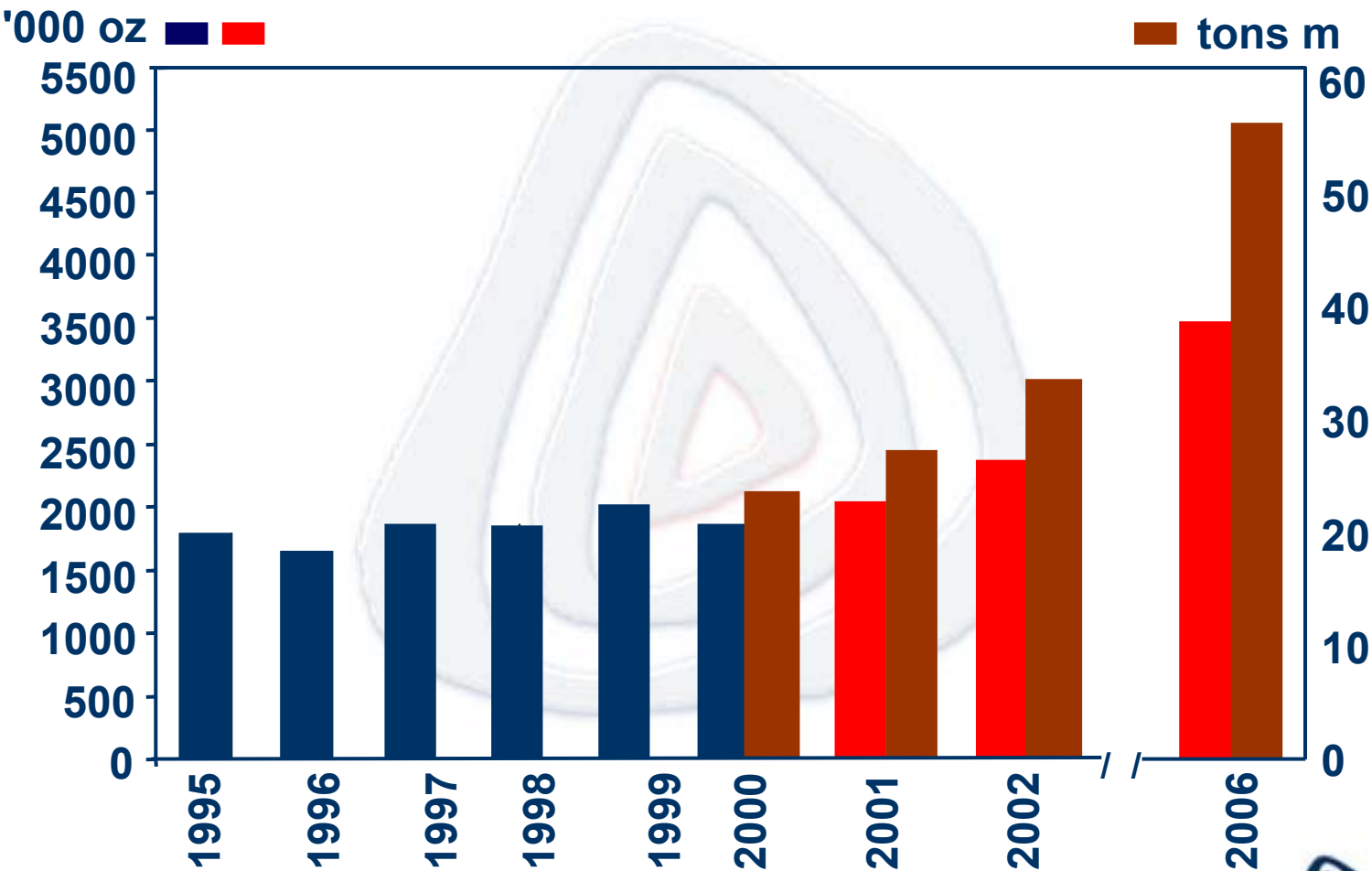
- **Drill rigs and bord and pillar methods are ready for selective, appropriate group implementation**
- **Current underground production from mechanised sources is 8%**
- **For 2002, 15% of underground tons milled will be from mechanised sources**
- **Risk management of implementation is in place**

BREAKTHROUGH: MECHANISATION



PLANNED EXPANSION

Total Platinum ounces and tons milled



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COST PROFILE

- Expansion : refined Pt ounces + 75%
- Expansion : tons milled +100%
- Increasing UG2 and mechanisation will tend to reduce average mined grade
- Ongoing focus on stores and labour costs
- Shallow more efficient new mines (expansion & replenishment) and Breakthrough initiatives will offset grade reduction and other cost drivers
- Focus on Rand / ton milled control
- Steady state and ramp up will be separately reported

GROWTH OUTLOOK

- Solid fundamentals for PGM demand
- Expansions in place
- Value optimisation on-going

Anglo American Platinum Corporation

Seminar: 13 November 2001