

# INTERIM RESULTS SIX MONTHS ENDED 30 JUNE 2017

Delivering change, building a resilient business and positioning for the future





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# 2017 INTERIM RESULTS

DELIVERING ON OUR COMMITMENTS

Chris Griffith



### RESILIENT PERFORMANCE IN A DIFFICULT ENVIRONMENT

# Operational Improvements

- Total PGM production up 4%
- Record production from high-margin Mogalakwena
- Build-up of PGM and chrome inventory impacted free cash flow generation

# Financials remain stable

- Unit cost (1) increase of 3%
- Net debt further reduced to R5.9 billion
- Headline earnings per share of R2.85 / Adjusted HEPS of R3.93

# Repositioning the portfolio

- Sale of Union mine announced process underway
- Continue disposal processes of Pandora and long-dated Amandelbult resources
- Support Atlatsa Resources in placing Bokoni on care and maintenance

# Positioning for the future

- Developing demand for PGMs
- Highly attractive mechanised project optionality studies underway
- Investing in technology, people and communities



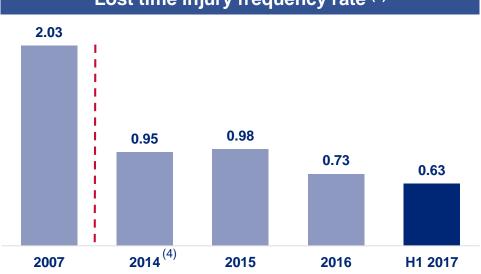
# 2017 INTERIM RESULTS OPERATIONAL REVIEW

Chris Griffith



## **SAFETY, HEALTH & ENVIRONMENT**





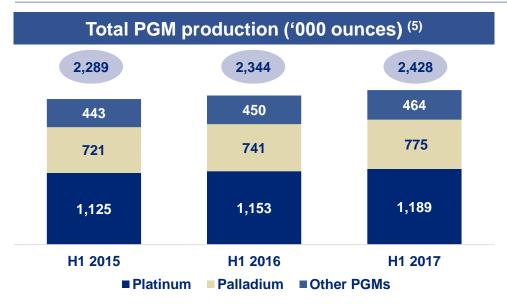
#### **Safety**

- Tragically, 2 fatalities occurred in H1 2017
- LTIFR<sup>(2)</sup> reduced by 14% to 0.63
- TRCFR<sup>(3)</sup> flat at 1.05
- Implemented revised safety strategy

#### **Health & Environment**

- Effective disease management programmes resulted in a significant reduction in HIV and TB related deaths
- No significant environmental incidents

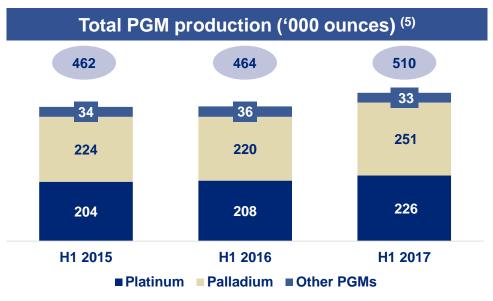
### **TOTAL PGM PRODUCTION UP 4%**

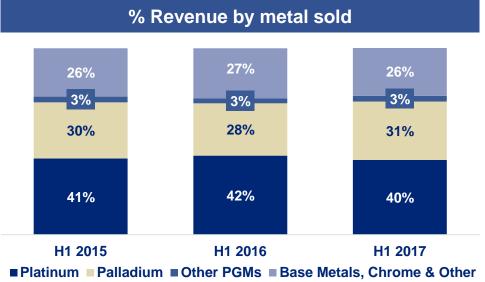




- Total PGM production up 4%
- Total platinum production<sup>(7)</sup> up 3%
- Retained own mine platinum production up 2%
  - Mogalakwena up 9%
  - Amandelbult down 4%
  - Unki up 5%
- Joint venture & associates production<sup>(8)</sup> broadly flat at 383,800 ounces
- Non-core operation Union up 3%
- Proportion of mined production reduced post disposal of Rustenburg

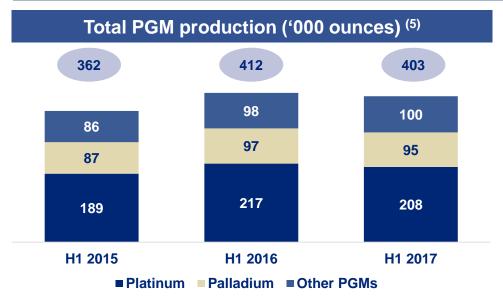
### **MOGALAKWENA – ANOTHER RECORD PRODUCTION**

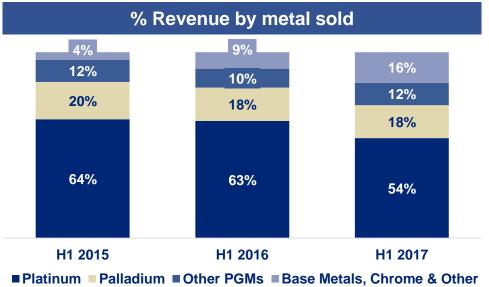




- 5 years fatality free
- Total PGM production up 10%
- Record platinum production up 9%
- Unit cost flat at R20,632 / Pt ounce (9)
- Value accretive option to debottleneck the North concentrator
  - 15,000 ounces pa for R300m
- 2017 annual production guidance of 410,000 - 420,000 platinum ounces
  - Mine Zwartfontein pit in H2 lower recoveries

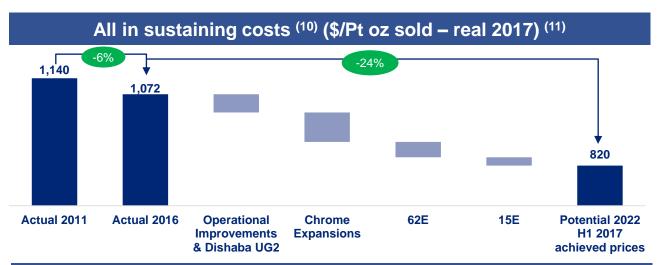
## **AMANDELBULT – IN TRANSITION & RAMPING UP CHROME**

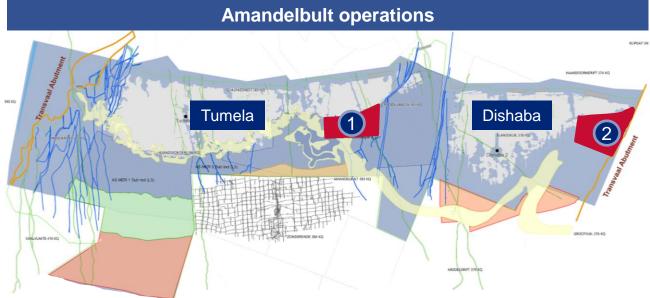




- Tragically 2 fatalities
- Total PGM production down 2%
- Platinum production down 4%
  - Transitioning production from Tumela Upper to Dishaba
- Unit cost up 17% to R21,542 / Pt ounce (includes new chrome costs and new UG2 development)
- 204,000 tonnes of attributable chrome concentrate produced
  - Generating R261 million of cash flow
- 2017 annual production guidance of c.450,000 platinum ounces

#### **AMANDELBULT – IMPROVE PROFITABILITY AND RESILIENCE**

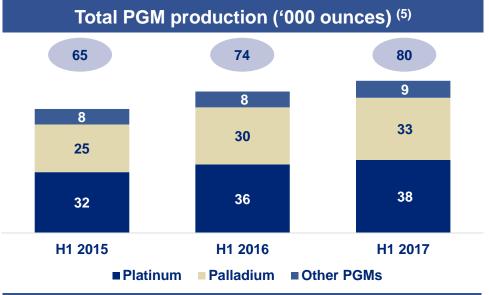


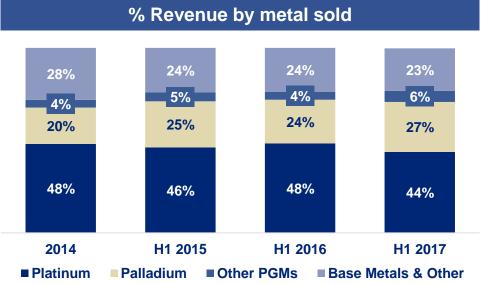


## Major investment to replace or grow only required in c.2025

- **1. Operational Turnaround** improving IMS <sup>(12)</sup> at Dishaba and implement productivity improvements
- 2. Develop the Dishaba UG2 utilising existing Merensky infrastructure
- 3. Extract the full value of the metals mined expand chrome production
- 4. Two capital light replacement projects identified largely utilising existing infrastructure, mitigate declining production,
  - 15E XLP drop down<sup>(13)</sup>
- 2 62E Raise bore shaft<sup>(14)</sup>

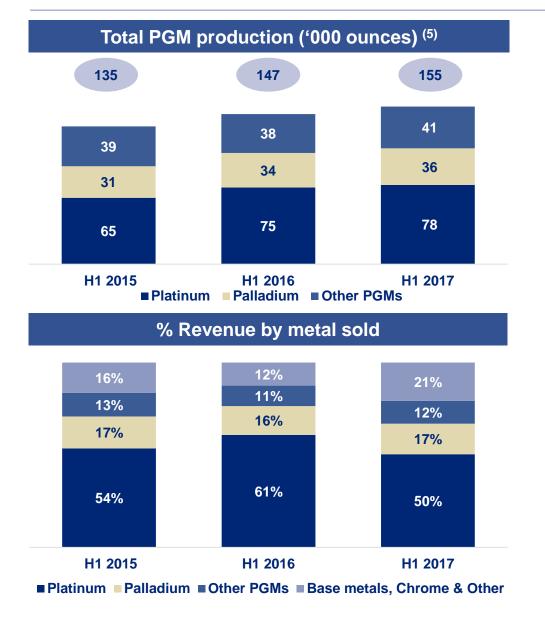
### **UNKI – DELIVERING ABOVE NAMEPLATE CAPACITY**





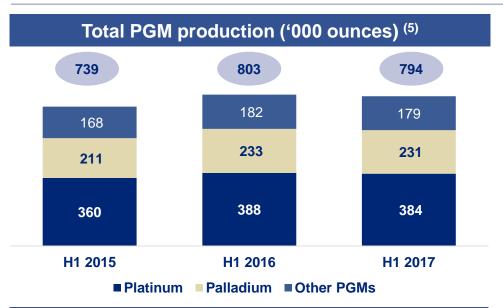
- 5 years fatality free
- Total PGM production up 8%
- Record H1 platinum production up 5%
- Unit cost down 12% to R22,848 / Pt ounce largely due to the strength of the rand
- Construction of Unki smelter commenced and on track for start-up in H2 2018
  - Capex of R300 million in 2017
- 2017 platinum production guidance of c.75,000 ounces

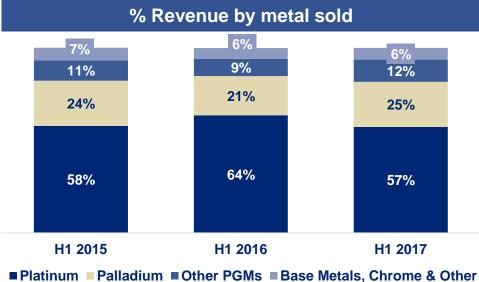
## **UNION – SALE ANNOUNCED AND DISPOSAL PROGRESSING**



- Year to date fatality free
- Total PGM production up 5%
- Platinum production up 3%
- Masa chrome produced 77,000 tonnes of attributable chrome concentrate
  - Chrome stock build-up led to lower cash generation
- Unit cost up 5% to R20,345 / Pt ounce
- Disposal of Union announced 15 Feb
  - Section 11 application to be submitted shortly and is the key outstanding CP
- 2017 platinum production guidance of c.160,000 ounces

#### JVS & ASSOCIATES – MINED & PURCHASE OF CONCENTRATE



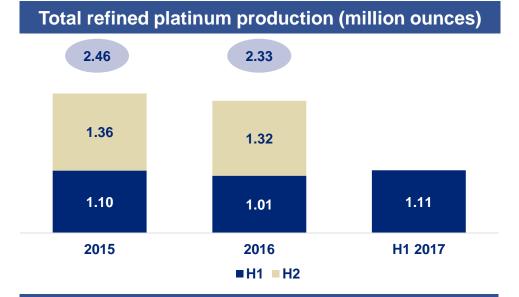


- Tragically 2 fatalities
- Platinum production broadly flat at 383,800 ounces:
  - BRPM up 8% to 99,300 ounces
  - Modikwa up 3% to 57,800 ounces
  - Kroondal down 5% to 131,000 ounces
  - Mototolo down 7% to 57,800 ounces
  - Bokoni down 8% to 37,900 ounces

## Atlatsa placing Bokoni on care and maintenance

- AAP ceased funding of Atlatsa's share of Bokoni losses – no alternative funding
- Atlatsa Board decision to place Bokoni on care and maintenance

### **REFINED PRODUCTION & SALES – HIGHER IN H2 2017**







#### Refined platinum production

- Refined platinum production increased 10% to 1.11 million ounces
  - Impacted by the Waterval smelter rebuild in H1
  - ACP water leak impact 90,000 ounces
  - Pipeline inventory built-up to be refined in H2 2017

#### **Platinum sales**

- Platinum sales down 8% to 1.12 million ounces
  - Higher sales expected in H2 due to refining increases



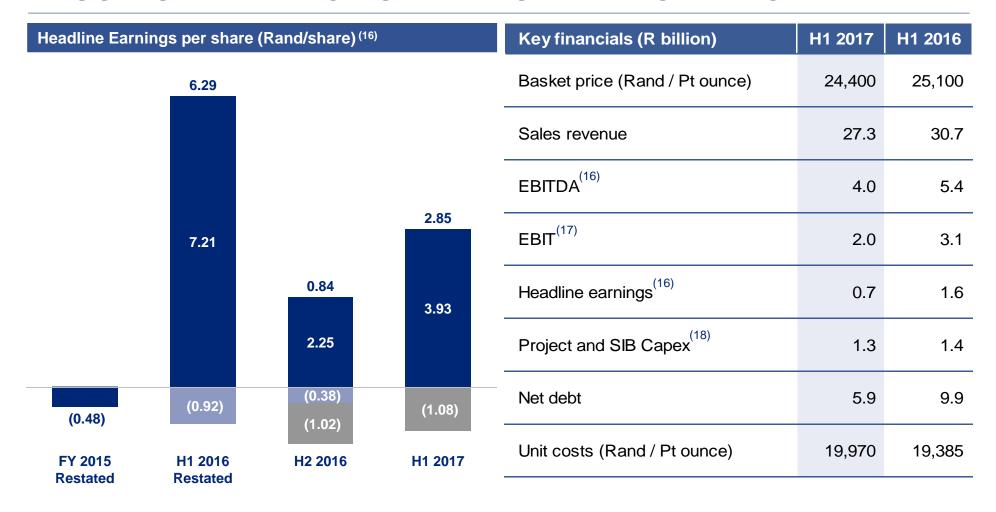


# 2017 INTERIM RESULTS FINANCIALS

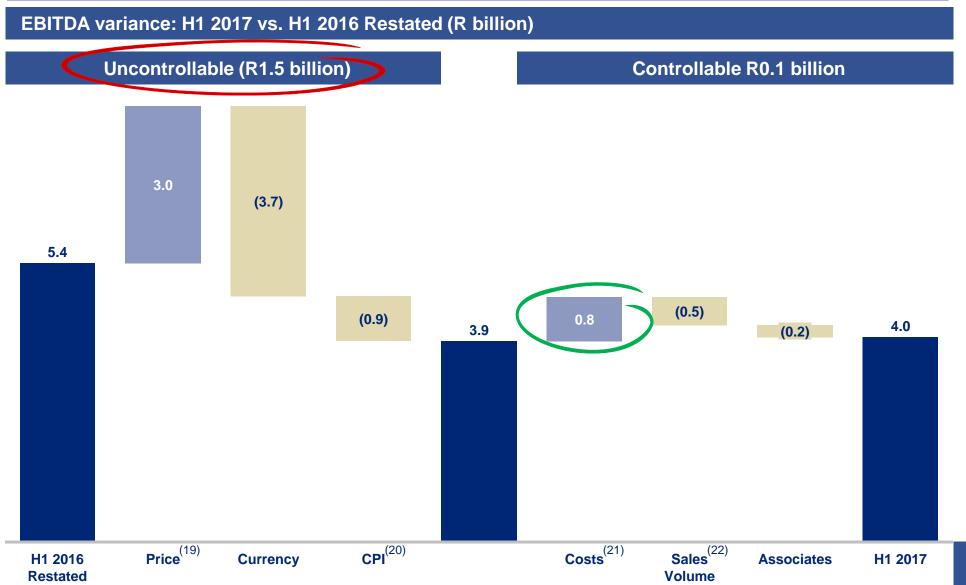
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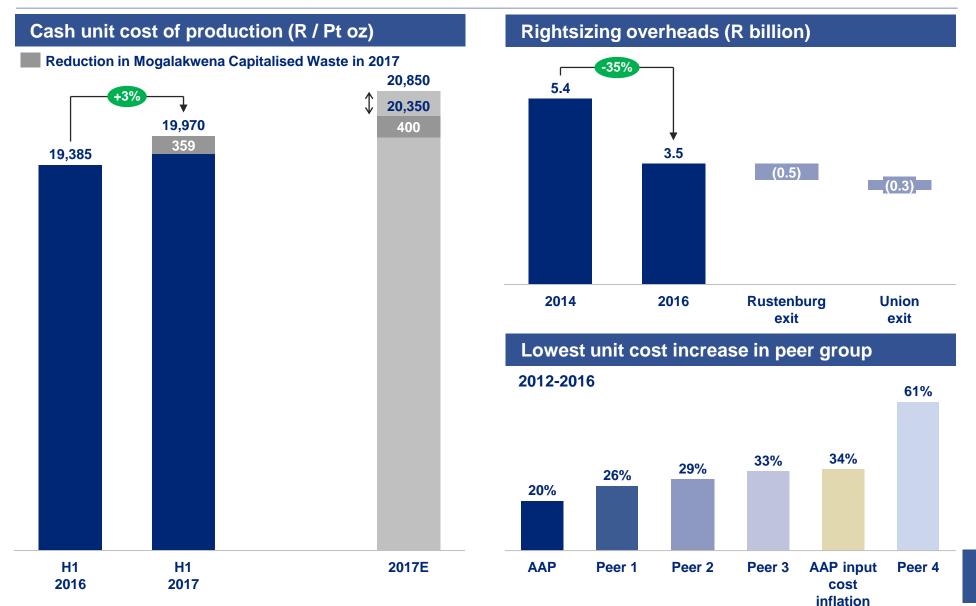
## **RESULTS – BALANCE SHEET FURTHER STRENGTHENED**



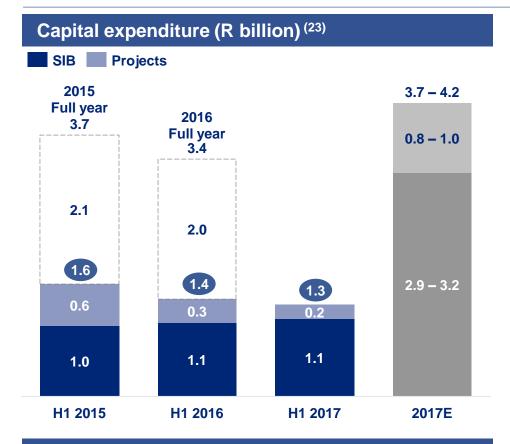
## **EARNINGS IMPACTED BY WEAK RAND BASKET PRICE**



## CONTINUED FOCUS ON COSTS, OUTPERFORMING PEERS



### DISCIPLINED CAPITAL ALLOCATION CONTINUES



### Capitalised waste stripping (R billion)

H1 2015	H1 2016	H1 2017	2017E
0.5	0.6	0.4	0.8

- Aimed at maintaining asset integrity and adding value, not volume
- Focus on low capex and fast payback project spend
- Continued strong SIB governance

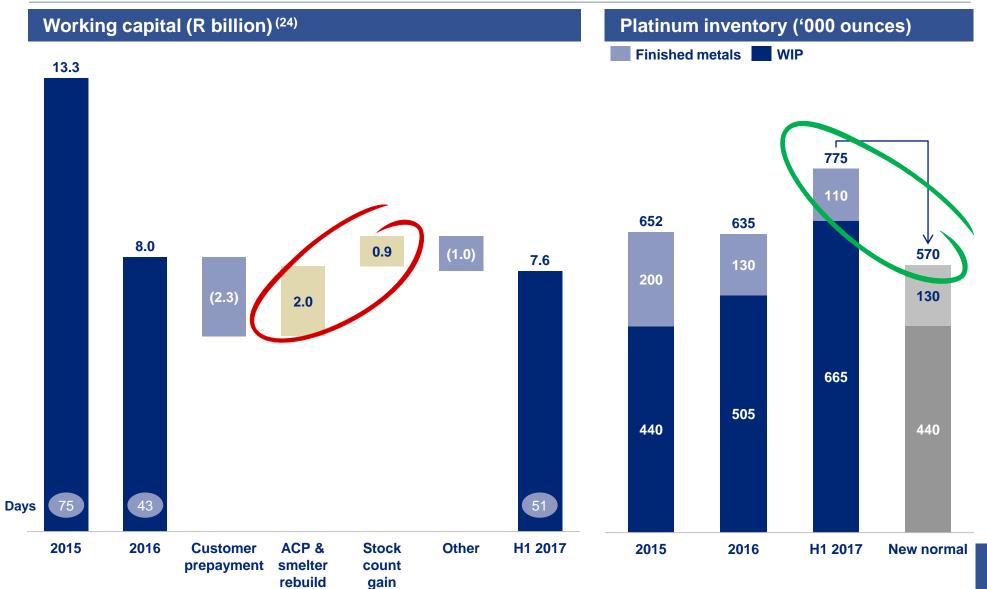
#### 2017:

- Mogalakwena concentrator optimisation
- Dishaba UG2 in progress
- Unki smelter advanced
- Planned Waterval smelter furnace rebuild completed
- Unscheduled ACP Phase A rebuild underway

#### **Near term:**

- SO<sub>2</sub> abatement (c.R1.0bn pa in 2018 and 2019)
- Smelter furnace rebuilds (2018 & 2020)

## **FURTHER WORKING CAPITAL RELEASE IN H2**

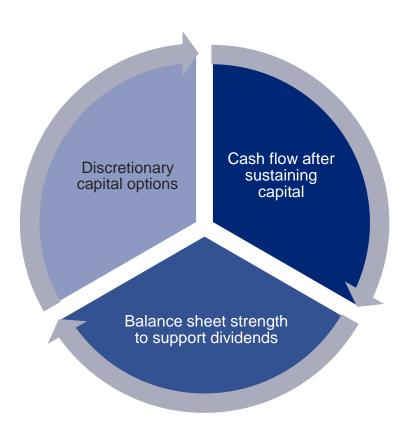


## LOWER NET DEBT, STRONG LIQUIDITY MAINTAINED

Net debt (R billion)			Net debt (R billio	n)	
Opening net debt 1 January 2017		(7.3)	12.8	,	Net debt : EBITDA
Cash flow from operations	4.3		1.5	7.3	
Capex and capitalised waste stripping	(1.7)			0.8	5.9 0.7
Cash tax paid	(0.4)				
Bokoni funding	(0.5)		31 Dec 2015	31 Dec 2016	30 Jun 2017
			Liquidity headroo	om (R billion)	
Other	(0.5)				16.5
Net interest paid	(0.6)			<b>14.9</b> 5.3	7.1
Free cash flow	0.6		9.5 1.6		
Customer prepayment		2.3	7.9	9.6	9.4
Rustenburg mine POC pipeline		(1.5)			
Closing net debt 30 June 2017		(5.9)	31 Dec 2015  Cash	31 Dec 2016  Undrawn comm	30 Jun 2017 nitted facilities

### CAPITAL ALLOCATION FRAMEWORK

#### **Capital allocation framework**



#### **Targets and priorities**

#### Margin enhancement...

- Operating cashflow remains constrained at current prices
  - 2017 H1 only R4.3bn
- Cashflow supported in 2016/2017 by 'once-offs'
  - Working capital reduction of R5.3bn in 2016

#### Balance sheet strength...

- Strong balance sheet a key enabler of AAP strategy
  - Target below 1.0x net debt to EBITDA through the cycle
  - H1 2017 net debt down to R5.9bn
  - Net debt to EBITDA of 0.7

#### Base dividend reinstated...

- Ambition to re-introduce dividend, needs to be sustainable
- Based on cover ratio, to assist with sustainability through the cycle

#### Strict value criteria on all capital options...

- Prioritise stay in business capex, aimed at maintaining asset integrity
- Focus on low capex and fast payback project spend
- No expansion projects for now





# 2017 INTERIM RESULTS MARKET REVIEW

Chris Griffith



## MARKET PRICES – USD PLATINUM PRICE UNCHANGED





#### **US Dollar platinum price unchanged**

 USD platinum price declined 1% to \$957/oz compared to \$971/oz in H1 2016

#### **Basket prices**

- 2017 achieved basket prices
  - US Dollar basket up 13% to \$1,843/oz (\$1,632/oz in H1 2016)
  - Rand strengthened by 14% to R13.24 against the US Dollar
  - Rand basket down 3% to R24,400/oz (R25,100/oz in H1 2016)

## PLATINUM MARKET – MODEST SURPLUS IN 2017

#### Platinum supply and demand (25) '000 ounces 2016 2017F Δ% Y-o-Y **Demand** (154)(4.6)% Autocat: Gross 3.318 3.164 1,708 1,725 1.0 % Jewellery: Net 17 2.1 % Industrial: Gross 1,843 1.881 38 220 (400)(35.5)% Investment: Net 620 6,990 (499)(4.9)% 7,489 Supply (1.5)% Primary 6.103 6,011 (92) Recycling: Auto & Industrial 1,184 1,281 97 8.2 % 7,287 7,292 5 0.1%

#### Platinum market balance ('000 ounces) (25)

(202)

302

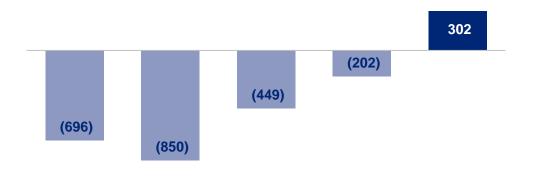
2016

2017F

**Market Balance** 

2013

2014



2015

#### Demand likely to decline by 5%

- Lower consumption forecast in the global automotive sector
- LDD vehicles sold in W. Europe declined by 125,000 units in first 5 months of 2017
- Gross Chinese jewellery demand forecast to fall at a slower pace than last year, with jewellery recycling likely to slow
- Industrial demand set to strengthen in line with global GDP

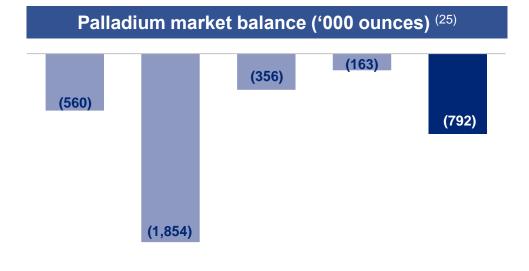
#### Supply expected to grow by 0.1%

- Primary supply is set to decline by 1.5% due to lower Russian metal sales
- Automotive recycling to increase modestly

#### Market balance: modest surplus

## PALLADIUM MARKET – SUBSTANTIAL DEFICIT EXPECTED

Palladium supply and demand (25)								
'000 ounces	2016	2017F	Y-o-Y	Δ%				
Demand								
Autocat: Gross	7,935	8,217	282	3.6 %				
Industrial	2,127	2,210	83	3.9 %				
Investment	(646)	(298)	348	(53.9)%				
	9,416	10,129	713	7.6%				
Supply								
• Primary	6,762	6,631	(131)	(1.9)%				
Recycling: Auto & Industrial	2,491	2,706	215	8.6 %				
	9,253	9,337	84	0.9%				
Market Balance	(163)	(792)						



2015

2016

2017F

2013

2014

#### Demand likely to expand by 7.6%

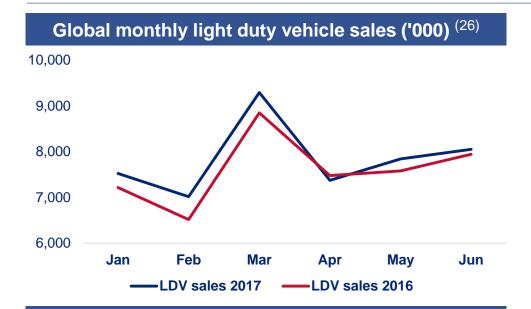
- Automotive demand to expand in 2017, with global vehicle numbers growing
- Disinvestment demand forecast but higher prices could see buying in H2
- Industrial demand forecast to firm in 2017

#### Supply expected to grow by 0.9%

- Primary supply forecast to decline slightly in 2017 as sales from Russia fall
- Automotive recycling set to increase more rapidly than for platinum

#### Market balance: substantial deficit

## **AUTOMOTIVE MARKET – GROWING GLOBAL DEMAND**



#### W. Europe cumulative LDD diesel sales ('000) (26) 3,500 3.063 3,000 2.938 2,500 2,000 1,500 1.000 500 0 **Feb** Jan Mar Apr May Jun LDD sales 2017 — LDD sales 2016

# Global light duty vehicle demand expected to rise 2.8% in 2017

Palladium has benefited from increased sales of gasoline vehicles

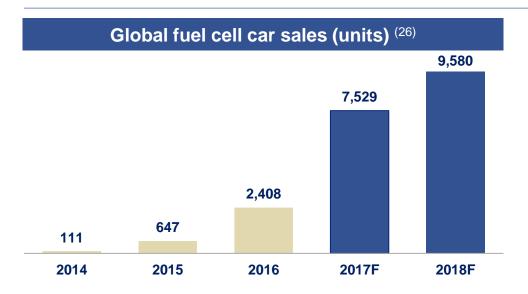
# Light duty diesel demand to soften but heavy duty diesel demand should rise

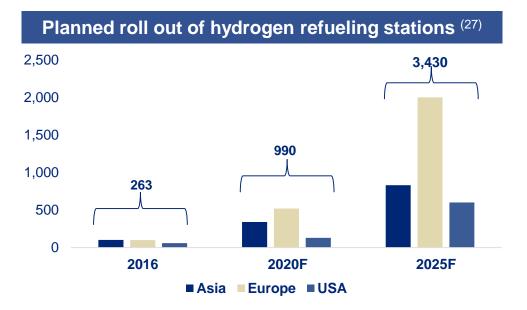
- Sales of light duty diesel vehicles in Western Europe fell by 4% in volume terms in H1
- Heavy duty diesel currently represents approximately 15% of auto demand and is forecast to rise significantly in the next few years

## Potential upside from palladium substitution

 Depending on relative prices, there is potential for platinum to replace palladium in many gasoline catalysts

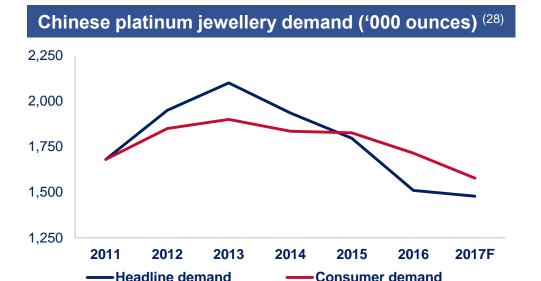
### **AUTOMOTIVE MARKET – STRONG FCEV POTENTIAL**



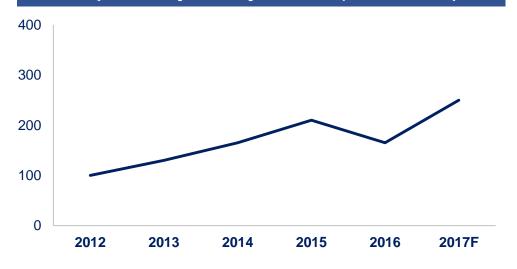


- Fuel cell vehicle sales are expected to grow by over 200% in 2017
- Honda has begun leasing the Clarity fuel cell car in California where there are almost 30 refuelling stations operating
- Mercedes to release new GLC fuel cell car
- Japan is targeting 200,000 FCEV units on its roads in 2025 and 800,000 units in 2030
- China is targeting one million FCEV unit sales by 2030 – equivalent to 300,000 ounces of demand
- Chinese government incentivising FCEV production – 18,000 buses and light delivery vehicles in H1 2017

#### JEWELLERY MARKET – SLOWING DECLINE IN JEWELLERY



#### Indian platinum jewellery demand ('000 ounces) (28)



# Global gross platinum demand set to decline, net demand to be steady

- Chinese gross platinum jewellery demand likely to fall in 2017 from margin pressure
- Recycling material is expected to decline within China
- Jewellery demand in India to grow
- US and Japanese demand remain stable

#### **Platinum Guild International (PGI)**

- Focus on China continues with PGI partners outperforming rest of sector
- Evara brand wins award in India
- Campaign in Japan aimed at senior population who hold wealth

## **INVESTMENT MARKET – PLATINUM FLOWS REMAIN POSITIVE**



#### Annual net Pt investment demand ('000 ounces) (25)



# Platinum flows positive, palladium flows negative

- Platinum flows positive USA and Japan
- Platinum ETF holdings up 122,000 ounces YTD
- Japanese buying of platinum bars continues but at a slower pace than 2016
- Palladium ETF holdings continue to decline but at a slower rate than in 2016

#### **World Platinum Investment Council**

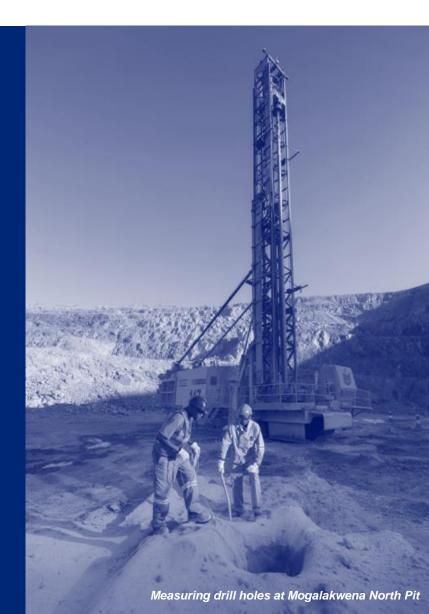
- Launch of physical platinum products by the UK's Royal Mint
- Partnering with Bullion Vault to offer vaulted product
- New range of platinum for sale in India in partnership with Muthoot Exim





# 2017 INTERIM RESULTS MINING CHARTER III

Chris Griffith



## SUPPORTING COM IN LEGAL CHALLENGE ON MCIII

- AAP fully committed to meaningful and sustainable transformation in the mining industry
- Contribution is meaningful and beyond compliance
- Cannot support MCIII in its current form:
  - No collaboration
  - Will discourage investment
  - Is legally and practically flawed
- Objective: a Charter that is practically implementable and that preserves and enhances investment and jobs
- Welcome the decision by the ANC that further discussion on MCIII is required

#### **Delivery Beyond Compliance (2016)**

- 27% of business acquired by HDSA's and 8% of Amplats shares held indirectly by HDSA
- 72% BEE/HDSA procurement
- Target of 40% HDSAs at each management level exceeded:
  - Top Management (42%)
  - Senior Management (45%)
  - Middle Management (64%)
  - Junior Management (78%)
- 15% of employees are women
- 6% of total payroll spent on skills development and training
- 114 SLP projects initiated since 2010 (107 completed)
- 96 SLP2 projects identified and ratified
- SLP 1 Committed R679 million spent R1.24 billion on these and other projects
- H1 2017 SLP2 and CSI spend was R117 million





# 2017 INTERIM RESULTS OUTLOOK

Chris Griffith



### RESILIENT PERFORMANCE IN A DIFFICULT ENVIRONMENT

# Operational Improvements

- Production guidance 2.35 to 2.40 million platinum ounces (metal in concentrate)
- Refined production guidance 2.45 to 2.50 million platinum ounces

# Financial guidance on track

- Unit cost guidance R20,350 to R20,850 per platinum ounce (produced ounces)
- Capital expenditure guidance R3.7 to R4.2 billion (stay in business and project capital)

# Repositioning the portfolio

- Disposals of Union, Pandora and long-dated Amandelbult resources targeting to complete in H2 2017
- Supporting Atlatsa Resources in placing Bokoni on care and maintenance

# Positioning for the future

- Developing demand for PGMs
- Highly attractive mechanised project optionality studies underway
- Investing in technology, people and communities

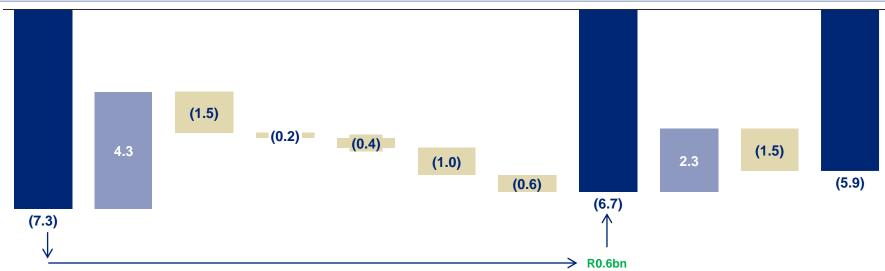




# **APPENDIX**



## **NET DEBT AND CASH FLOW BY MINE**



Operation	Net Debt December 2016	Cash from operations	SIB & Waste capital	Project capital	Cash tax paid	Funding of associates & other	Net interest paid	Free cash flow	Customer Prepayment	Rustenburg mine POC pipeline	Net Debt June 2017
Mogalakwena		1,628	(816)	(85)				727			
Amandelbult		(190)	(234)	(0)				(425)			
Unki		118	(33)	(83)				2			
Twickenham		(92)	(0)	10				(83)			
NMT		(101)	(16)	(0)				(117)			
Joint Ventures		200	(186)	(37)				(24)			
Associates		(129)	(29)	-		(500)		(658)			
3rd Parties		(99)	(64)	-				(163)			
Union		24	(58)	-				(34)			
Company <sup>(30)</sup>		2,918	(45)	(0)	(384)	(489)	(611)	1,389	2,321	(1,529)	
	(7,320)	4,276	(1,481)	(196)	(384)	(989)	(611)	615	2,321	(1,529)	(5,912)

## **COST BREAKDOWN**

Costs reflective of AAP Own mined and Joint Venture share of production and costs at operations. Excludes all purchase of concentrate costs and volume, overhead and marketing expenses.

2015	Cost base (Rbn)	Volume % PGM	volume (koz)	Labour	Contractors	Materials	Utilities	Sundries
Opencast Mining	2.4	25%	885	25%	9%	67%	3%	-4%
Conventional Mining	14.8	51%	1,781	60%	3%	18%	8%	12%
Mechanised Mining	5.1	24%	830	42%	17%	26%	6%	9%
Concentrating	6.4			15%	4%	34%	22%	25%
Processing	5.3			24%	2%	26%	30%	19%
Total	34.0	100%	3,497	41%	6%	27%	13%	14%

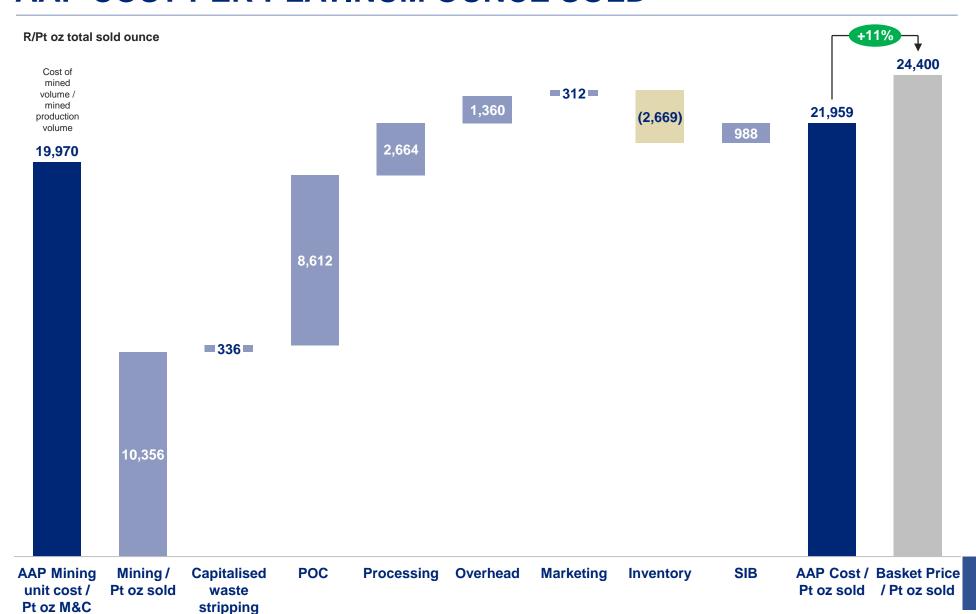
2015 used as a comparison as 2016 costs not directly comparable due to the Rustenburg disposal in November 2016 i.e. only 10 months of mining cost included in 2016.

H1 2017	Cost base (Rbn)	Volume % PGM	volume (koz)	Labour	Contractors	Materials	Utilities	Sundries
Opencast Mining	1.7	36%	510	20%	7%	59%	2%	11%
Conventional Mining	4.9	42%	600	56%	6%	18%	7%	13%
Mechanised Mining	2.0	21%	303	40%	12%	31%	7%	10%
Concentrating	2.7			14%	0%	38%	20%	26%
Processing	2.9			26%	4%	25%	29%	17%
Total	14.3	100%	1,413	35%	6%	30%	14%	16%

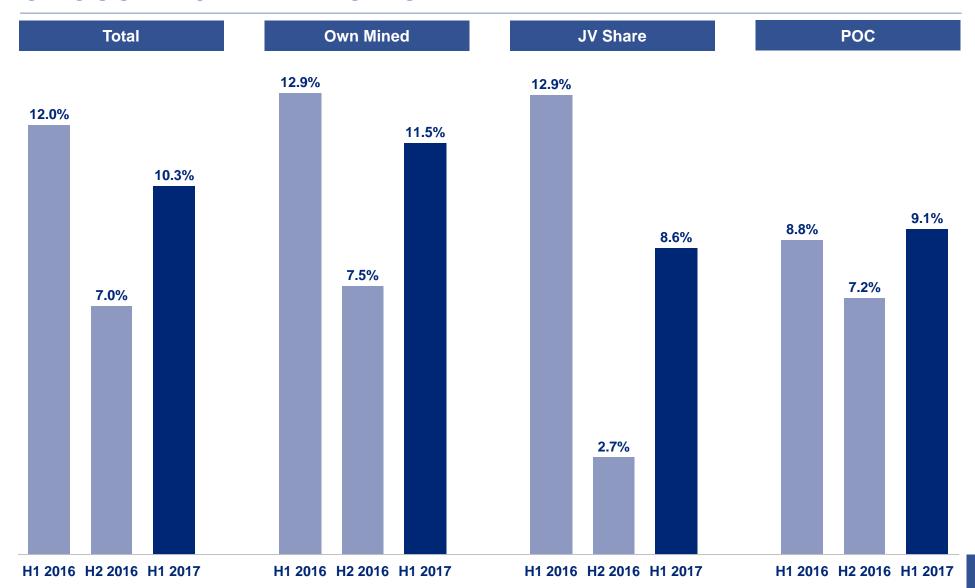
Non ZAR – 10% of total costs

- 100% at Unki
- Circa 25% at Mogalakwena

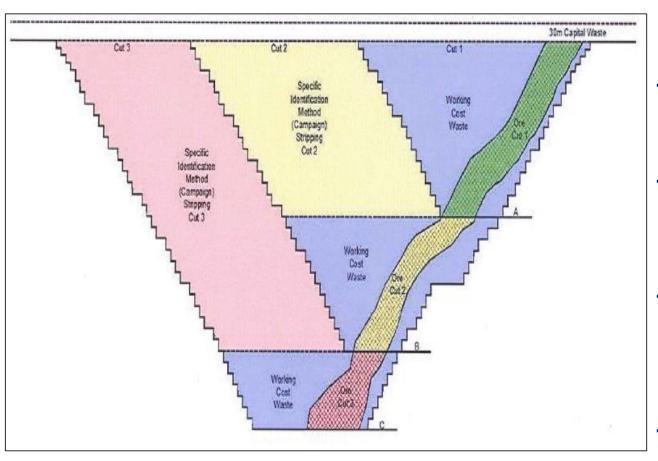
## **AAP COST PER PLATINUM OUNCE SOLD**



## **GROSS PROFIT MARGINS**



### **MOGALAKWENA WASTE STRIPPING**



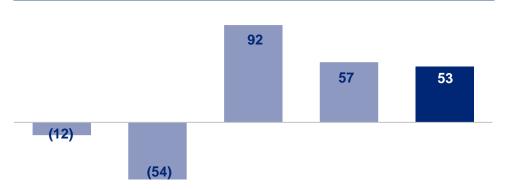
- Waste Stripping is the process of removing mine waste material (overburden) in order to gain access to ore deposit
- Waste stripping in the production phase, which provides improved access to ore, is recognised as a stripping asset i.e. capitalised
- This stripping asset is depreciated on a unit of production basis over the life of the orebody to which it improves access. Ongoing operational stripping is expensed as incurred
- The annual waste stripping tonnes are determined based on the mining plan and the extraction strategy, this can change during any financial year and as a result will impact the capital tonnes mined
- Capitalise to extent that it provides access to future ore (incl. preproduction)

### RHODIUM MARKET – MODEST SURPLUS

#### Rhodium supply and demand (25)

'000 ounces	2016	2017F	Y-o-Y	Δ%
Demand				
Autocat: Gross	795	810	15	1.9 %
• Other	195	181	(14)	(7.2)%
	990	991	1	0.1%
Supply				
• Primary	774	754	(20)	(2.6)%
Recycling	273	290	17	6.2 %
	1,047	1,044	(3)	(0.3)%
Market Balance	57	53		

#### Rhodium market balance ('000 ounces) (25)



2015

2016

2017F

2013

2014

#### Demand expected to climb by 0.1%

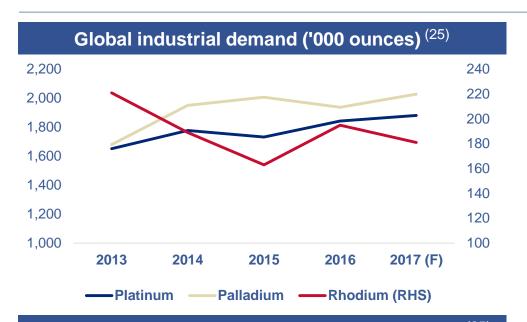
- Automotive demand to grow in 2017, with global vehicle numbers increasing
- Other demand to dip lower year-on-year
- Over-the-counter investor and speculator interest boosts the rhodium price

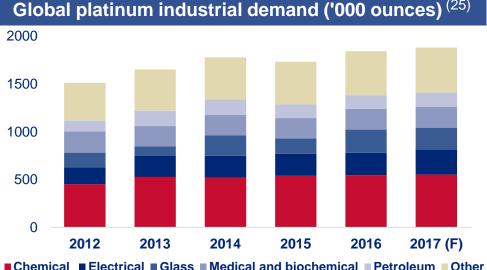
#### Supply expected to decline by 0.3%

- Primary supply from South Africa expected to decline in 2017
- Automotive recycling likely to return more metal than in 2016

#### Market balance: modest surplus in 2017

### INDUSTRIAL DEMAND - HEALTHY ANNUAL GROWTH





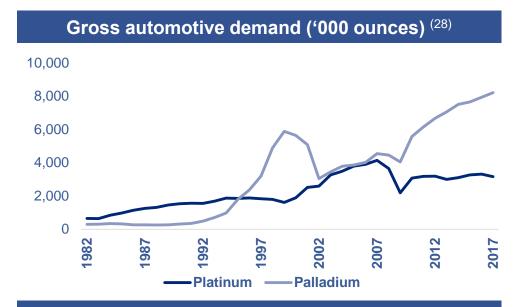
# Platinum demand from industrial applications continues to grow

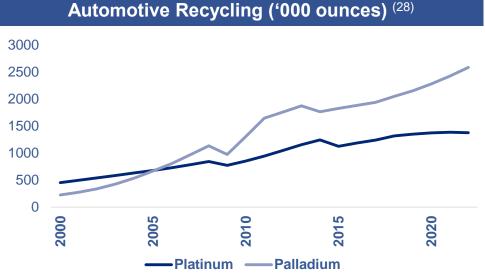
- Industrial demand for platinum is expected to grow again in 2017
- Strong buying by Chinese companies has been seen in the first sixth months of the year
- Demand for platinum in fuel cells shows substantial year on year growth

# Industrial demand for palladium returns after a dip in 2016

- Demand from the chemical sector has been healthy year to date
- Demand from dental applications in Japan is falling but remains decent

# AUTOMOTIVE RECYCLING - LIMITED GROWTH IN PLATINUM RECOVERY, MORE GROWTH IN PALLADIUM





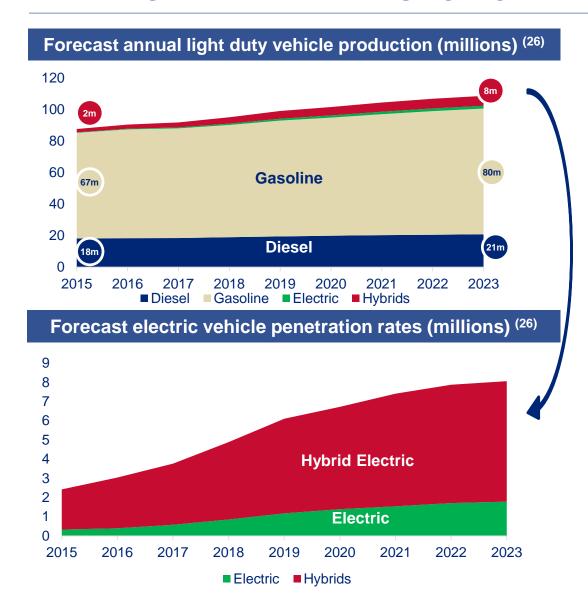
#### Platinum recycling set to grow modestly

- Platinum recoveries set to increase 8.2% in 2017, aided by processing of some scrap stockpiles
- Further growth in recycling likely to be modest
- recoveries to plateau, reflecting lower usage of platinum in gasoline catalysts

# More rapid growth in palladium recoveries expected

- End-of-life automotive catalyst recycling likely to rise by 10.8% in 2017 to record levels
- Substantial growth expected in palladium
- improved recycling infrastructure in China
- greater use of palladium in recent years

#### PLATINUM MARKET – AUTOMOTIVE



#### Automotive market expected to grow

- Internal combustion engine market expected to grow despite lower market share in the future
- PGM demand forecast to be robust over this timescale
- China offering subsidies for electric vehicles

#### **Electrification will increase**

- Alternative powertrain penetration forecast to be 8% by 2023
- Hybrid electric vehicles will account for the majority of electric drive trains
- Hybrid electric vehicles contain similar amounts of platinum group metals to conventional vehicles

#### **FOOTNOTES**

- (1) Unit cost on a produced metal in concentrate basis
- (2) Lost time in jury frequency rate (LTIFR) calculated per 200,000 hours worked
- (3) TRCFR is total recordable case frequency rate
- (4) 2014 LTIFR normalised for the 5 month long strike
- (5) Total PGM (platinum group metals) production is on a metal in concentrate basis
- (6) Mined production is on a platinum metal in concentrate basis
- (7) Total platinum production is on a metal in concentrate basis
- (8) Joint venture and associates production is both mined metal in concentrate and purchase of concentrate
- (9) Unit cost for Mogalakwena inclusive of capitalised waste stripping
- (10) All in sustaining cost (AISC) = (total cash costs (incl SIB and excl. project capital and working capital) net of by-product revenue) / (Pt oz sold) / (R/\$ exchange rate)
- (11) H1 2017 achieved prices: Pt: \$957, Pd: \$780, Rd: \$911 and USD/ZAR of 13.24
- (12) IMS is Immediately Stopeable Reserves
- (13) XLP dropdown is an extra low profile, trackless mechanised mining method
- (14) A raise bore shaft is where a shaft is developed upwards
- (15) Impairments relate to loans to Atlatsa and Bakgatla and the IFRS2 charge was for Amandelbult Chrome Plant
- (16) EBITDA, EBIT, Headline earnings and HEPS restated for H1 2016 and FY 2015
- (17) EBIT is Earnings before interest and tax including pre-tax profits and losses from associates normalised for impairments
- (18) Project and SIB capital expenditure excludes Capitalised waste stripping and Interest capitalised
- (19) Price variance calculated as increase/(decrease) in Dollar price multiplied by current period sales volume
- (20) Inflation variance calculated using CPI on prior period cash operating costs that have been impacted directly by inflation
- (21) Costs include cash operating costs and inventory movements
- (22) Sales volume variance calculated as increase/(decrease) in sales volume multiplied by prior period cash margin
- (23) Capital expenditure excludes capitalised waste stripping and Interest capitalised
- (24) Working capital refers to only trade working capital
- (25) Johnson Matthey data as of PGM Market Report May 2017
- (26) LMC Automotive
- (27) TUV Sud
- (28) Johnson Matthey, APML
- (29) Bloomberg, APML
- (30) Company costs includes mainly marketing expenses and Corporate SIB expenditure