

	Major PGM uses		
	Platinum	Palladium	Rhodium
Automotive	Catalyst to control exhaust emissions Spark plug tips Oxygen sensors in vehicle on-board diagnostic systems	Catalyst to control exhaust emissions (particularly hydrocarbon control) Oxygen sensors in vehicle on-board diagnostic systems	Catalyst to control exhaust emissions (essential for No _x control)
Investment	Small/large bars, coins, ETFs (exchange traded funds)	Coins, ETFs (exchange traded funds)	
Jewellery	Fabrication	Fabrication Alloying agent platinum jewellery Whitening agent in production of white gold	Electroplating to give jewellery white finish
Fuel Cells	Electrode coating in fuel cell stack Fuel-processing catalyst Tailgas burner	Tailgas burner	Fuel-processing catalys
Petroleum	Reforming and isomerisation for upgrading octane quality	Hydrocracking to achieve higher yields	

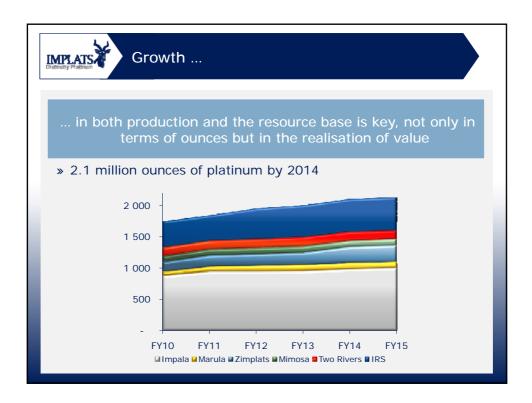
IPLATS	Major PGM uses		
	Platinum	Palladium	Rhodium
Chemical	Gauze for catalytic production of nitric acid Process catalyst for producing bulk (PTA) and specialty chemicals (eg silicones)	Catchment gauze to recover Pt and Rh in nitric acid production Process catalysts	Process catalysts, eg production of ammonia (Kellogg process)
Dental	Hardener in dental alloys	Alloying agent	
Electronics	Alloy coating for hard disks to improve storage capacity Thermocouples to monitor temperature in steel, semi- conductor and glass industries	Conductive paste in multi-layer ceramic chip capacitators Conductive tracks of hybrid integrated circuits Salts for plating process	Alloyed with platinum in thermocouples
Glass	Production of LCD glass Bushings for producing glass fibre Specialty glasses Glass for TVs, monitors and cathode ray tubes Glass substrates for hard disks		Alloyed with platinum ir producing LCD glass Alloyed with platinum ir bushings











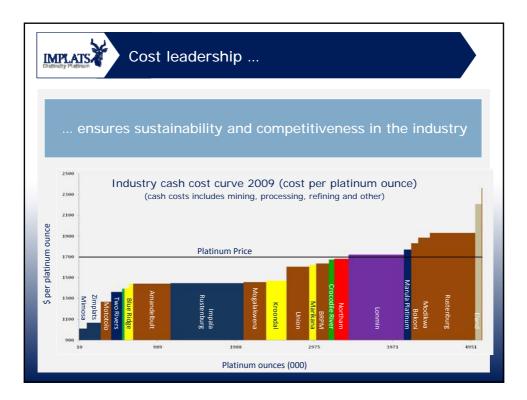














10





Capital projects – Impala Rustenburg				
Shaft		20	16	17
Cost (Rbn)		6.8	7.2	11.1
Depth (m)		1 100	1 600	2 000
Completion date		FY17	FY19	FY23
Full production (000 Pt oz)		150 000	180 000	180 000
Production contribution (Pt oz)	FY11 FY12 FY13 FY14	10 000 30 000 60 000 90 000	- - 30 000 70 000	- - -
Project status				
Shafts - Main - Ventilation - Refrigeration		Commissioned Commissioned -	Sunk Sunk -	50% sunk 80% sunk 93% sunk









ARTICLE Pleasinum	Market			
Platinum	(000 oz)	2010 Est	2009	2008
Demand	Automotive	3 350	2 950	3 830
	Jewellery	2 145	2 410	1 355
	Industrial	1 395	1 230	1 755
	Investment	550	650	425
	Total	7 440	7 240	7 365
Supply	SA	4 765	4 580	4 485
	Recycle	900	850	970
	Russia	800	775	800
	Other	805	925	1 075
	Total	7 270	7 130	7 330
Supply/Der	mand Balance	(170)	(110)	(35)

	Market			
Delle			2000	0000
Palladium	(000 oz)	2010 Est	2009	2008
Demand	Automotive	4 710	4 170	4 940
	Other	3 740	3 365	3 620
	Total	8 450	7 535	8 560
Supply	SA	2 525	2 470	2 355
	Recycle	1 420	990	1 085
	Russia	3 135	3 765	3 750
	Other	1 065	980	1 180
	Total	8 145	8 205	8 370
Supply/Demand Balance		(305)	670	(190)

Rhodium (000 oz)		2010 Est	2009	2008
Demand	Automotive	718	682	759
	Industrial	148	113	136
	Total	886	795	895
Supply	SA	668	642	582
	Recycle	200	185	222
	Other	108	101	106
	Total	976	928	910
Supply/Demand Balance		110	133	15

Investing in Implats	
Johannesburg (JSE): London (LSE):	IMP IPLA
United States (Level 1 ADR):	IMPUY



