

### **DISCLAIMER**

Certain statements made in this presentation constitute forward-looking statements. Forward-looking statements are typically identified by the use of forward-looking terminology such as 'believes', 'expects', 'may', 'will', 'could', 'should', 'intends', 'estimates', 'plans', 'assumes' or 'anticipates' or the negative thereof or other variations thereon or comparable terminology, or by discussions of, e.g. future plans, present or future events, or strategy that involve risks and uncertainties. Such forward-looking statements are subject to a number of risks and uncertainties, many of which are beyond the company's control and all of which are based on the company's current beliefs and expectations about future events. Such statements are based on current expectations and, by their nature, are subject to a number of risks and uncertainties that could cause actual results and performance to differ materially from any expected future results or performance, expressed or implied, by the forward-looking statement. No assurance can be given that such future results will be achieved; actual events or results may differ materially as a result of risks and uncertainties facing the company and its subsidiaries. The forward-looking statements contained in this presentation speak only as of the date of this presentation and the company undertakes no duty to, and will not necessarily, update any of them in light of new information or future events, except to the extent required by applicable law or regulation.

The conversion of Mineral Resource to Ore Reserves is dependent on the approval of pre-feasibility and feasibility studies by the relevant Kumba and Anglo American Investment Committees, and the ~385 Mt exclusive Mineral Resources currently investigated for conversion to Ore Reserves as indicated on slide 35 and 41 is based on Kumba's current interpretation of its potential prior to the completion and approval of the required studies. Only Measured and Indicated Mineral Resources can be converted to Ore Reserves. The Mineral Resources being considered for potential conversion to Ore Reserves includes a material amount of Inferred Resource. Due to the uncertainty that may be attached to some Inferred Mineral Resource, it cannot be assumed that all or part of the Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Resource after continued infill drilling.

## Our value proposition

#### **Assets**

- Premium product portfolio
- Life extension opportunities
- License to operate
- Mutually beneficial partnerships



#### **Capabilities**

- Safe and flexible production
- Operating model and technology
- Marketing
- Talented people



#### **Sustainable returns**

- Strong cash generation
- Capital allocation discipline
- Attractive and sustainable dividends



## **Delivering on our Tswelelopele strategy**

## Horizon 1 Margin enhancement

✓ Enhanced product portfolio 64.5% FeFY17 64.1% Fe

✓ Improved productivity 65%FY17 58%

✓ Cost savings ~R1bn
FY18 target R0.8bn

**EBITDA margin**FY17:
45%
42%

## Horizon 2 Life extension

- ✓ Total Ore Reserves up 8% by 56.4Mt and Saleable Product up 10% by 56.2Mt
- ✓ UHDMS feasibility 68% completed
- ✓ Kolomela mining right amended to include Heuningkranz prospecting right
- ✓ Sishen LoM strip ratio reduced from ~4 to 3.4

Sishen LoM	14 years
FY17:	13 years
Kolomela LoM	<b>14 years</b>
FY17:	14 years

## TSWELEL PELE ORE TO AWE

#### Our ambitions for 2022:

- \$10/tonne margin enhancement
- 20 year life of asset

## Safety, health and environment

## **Fatality free**

#### **Safety**

**High potential incidents** 

67%

FY18: 7 (FY17: 21)

#### Health

Occupational health (new cases)

5

FY17: 2

#### **Environment**

Major incidents (level 3-5)

0

FY17: 0

**Total recordable cases** 

45%

FY18: 41 (FY17: 75)

**Voluntary HIV testing (employees)** 

91%

FY17: 92%

Rehabilitation (land reshaped)

130ha

FY17: 75ha

## Solid performance and consistent returns

#### **Operational**

Total tonnes mined (incl. contractors)

**▲ 292.5Mt** 

FY17: 271.3Mt

#### **Financial**

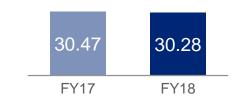
Revenue

**R45.7bn** 

FY17: R46.4bn

#### **Sustainable returns**

**HEPS** 



#### **Production**

**43.1Mt** 

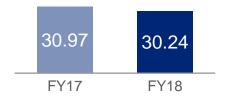
FY17: 45.0Mt

#### **EBITDA**

▲ R20.6bn

FY17: R19.6bn

#### DPS (R/share)



## Mutually beneficial partnerships for long-term success

### **Employees**

R4.6bn

salaries and benefits FY17: R4.2bn

#### **Shareholders**

**R9.7bn** 

owners of Kumba FY17: R10bn

## R3bn

empowerment partners FY17: R3.1bn

#### Government

**R4.1bn** 

income tax FY17: R5.9bn

## **R983m**

mineral royalty FY17: R1.2bn

#### **Local business**

**R1.4bn** 

host community suppliers FY17: R520m

## R11.8bn

procurement from BEE businesses FY17: R9.4bn

#### **Communities**

**R124m** 

direct social investment FY17: R107m



## Stakeholder relationships – continuing to make progress

#### Mining charter MC18 concluded

- Improvement on MCIII
  - Mining rights secured
  - 'Once empowered always empowered'
- Reviewing implications for sustainability of the mining industry

# Dingleton Significant progress made

- 507 households relocated to Siyathemba
- 10 remaining households
- Sishen mining right incorporatesDingleton area
- Mining activities ongoing as appropriate

# Transnet Improved relationships

- Constructive engagements
- Joint executive steering committee
- Working closely together to deliver performance

### **Karolo ESOP**

## **Creating value** for our people

- Annual share award to employees
- Shares vest after3 years

#### **Thabazimbi**

 Mine transferred to ArcelorMittal SA on 1 November 2018



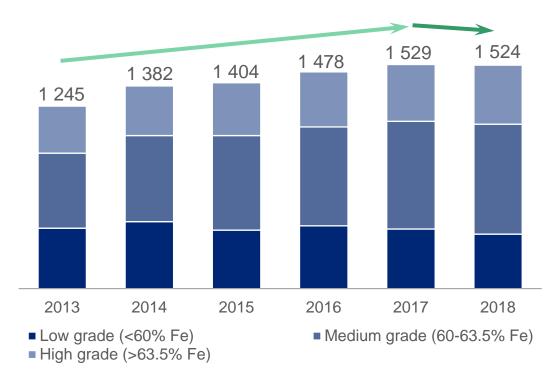


## Record steel production in China and lower seaborne iron ore supply



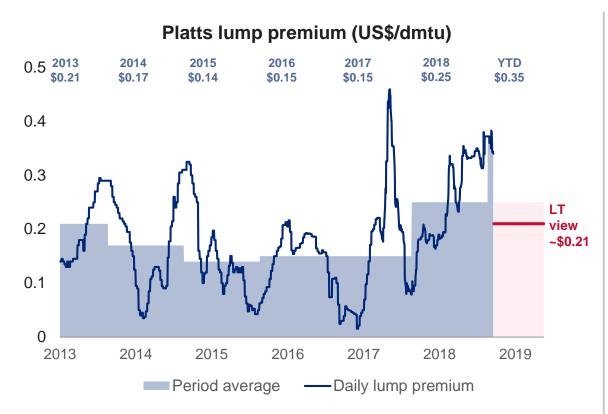
- Property starts at all-time high
- Record mill profitability in China

#### Global seaborne iron ore supply (wet Mt)

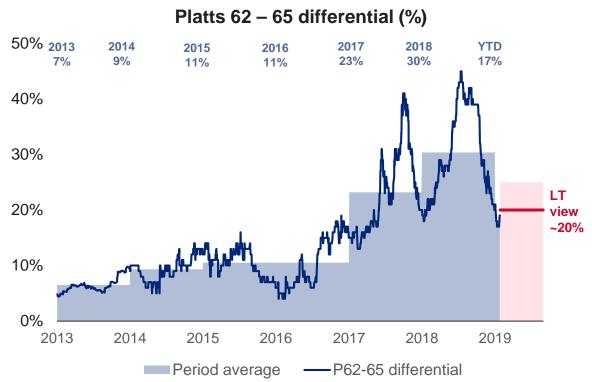


- Supply disruptions in Brazil, South Africa and Australia
- Low grade supply exits ~30Mtpa

### Premiums will continue to trade above historical levels



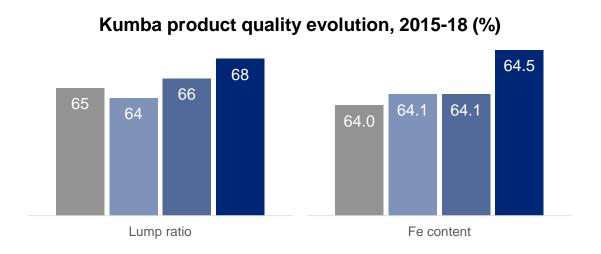
- Tighter emission standards
- Escalating sintering costs
- Sinter displacement from direct charge ores

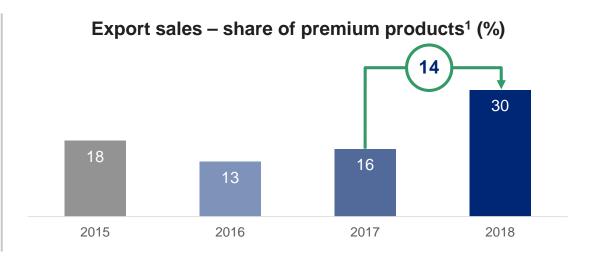


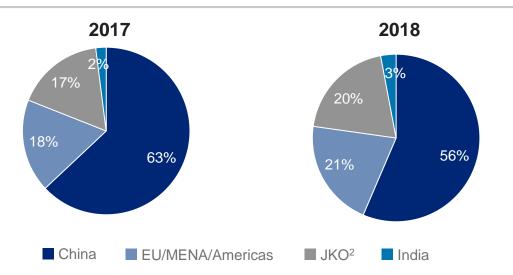
- ~250Mt of steel capacity reduction
- Bigger blast furnaces
- Steel industry consolidation

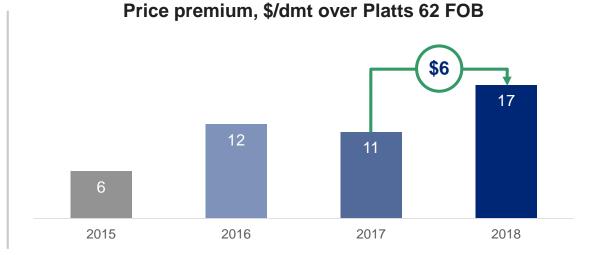
Source: China 13th Five Year Plan, CISA, MIIT
10

## Focus on quality results in better price premia





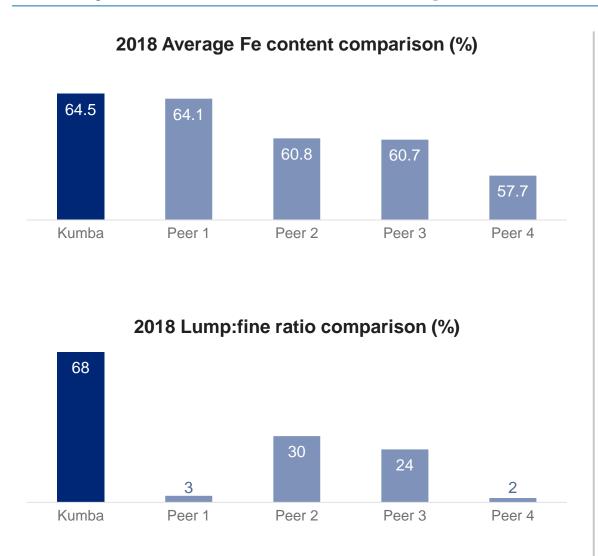


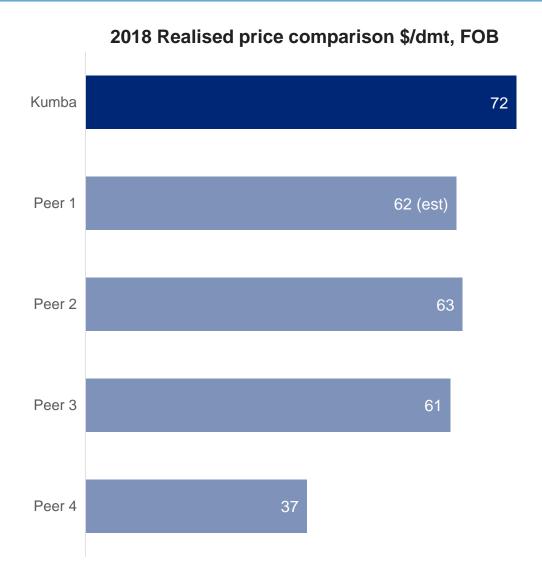


<sup>1.</sup> Premium Products are Lump of Fe content above 65% and Fines of Fe content above 64.5%.

<sup>2.</sup> Japan, Korea and ASEAN

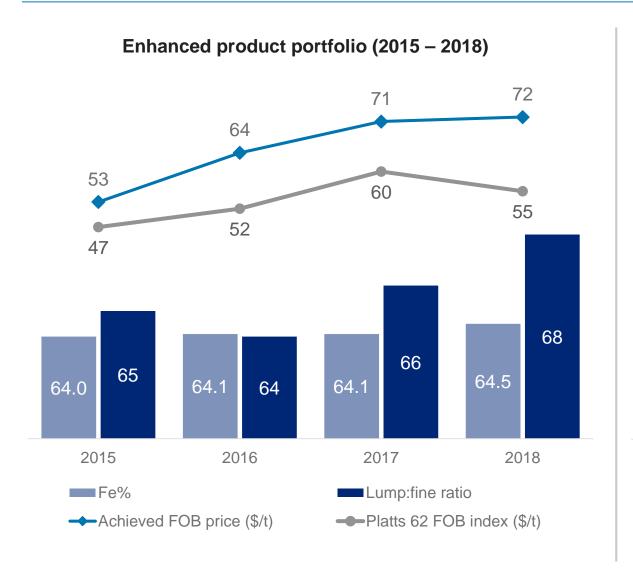
## **Quality remains Kumba's competitive advantage**

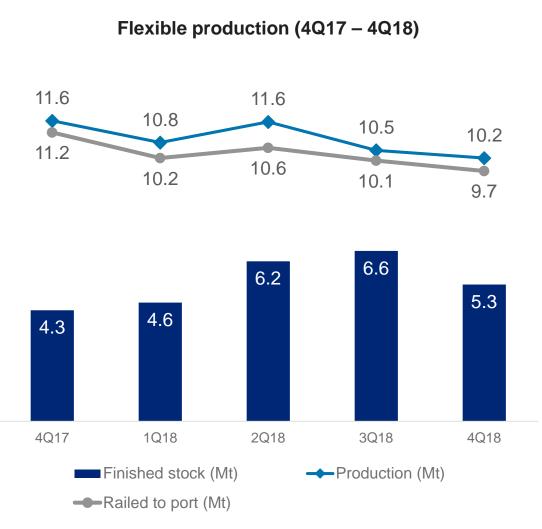




Source: Company reports, Wood Mackenzie

## Flexible production aligned to market demand and partly mitigates logistical challenge





## Sishen – Tswelelopele driving assets to full potential

Safety

**v** 55%

Reduction in high potential incidents

**FY18: 5** (FY17: 11)



Waste

**▲182Mt** 

FY17: 162Mt

**Production** 

**29.2Mt** 

FY17: 31.1Mt

Quality

**▲64.6 Fe%** 

Average FY17: 64.3 Fe%

Lump:Fine

**▲71.8%** 

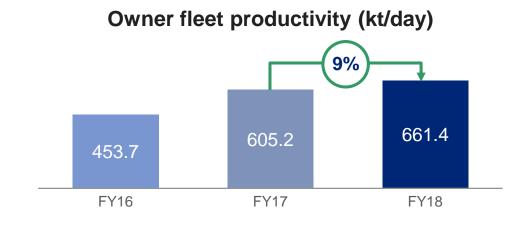
Average FY17: 70.8%

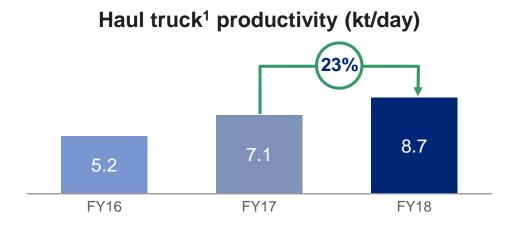
## Sishen – Tswelelopele driving assets to full potential

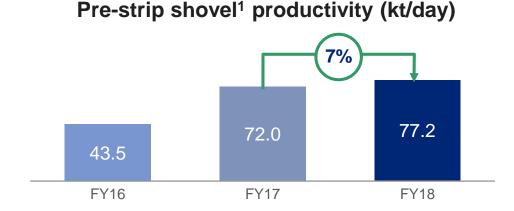
**Total tonnes mined (incl. contractors)** 

**▲ 220.5Mt** 

FY17: 199.5Mt







<sup>1.</sup> Primary waste moving equipment

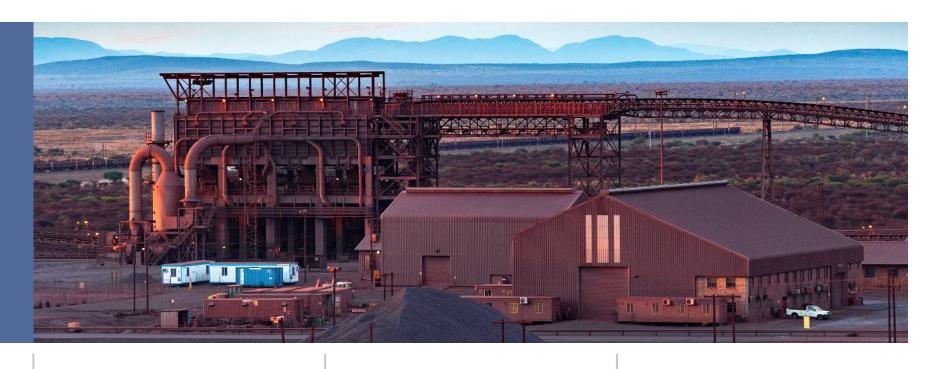
## Kolomela – Tswelelopele driving assets to full potential

Safety

**80%** 

Reduction in high potential incidents

**FY18: 1** (FY17: 5)



Waste

**▲**56.0Mt

FY17: 55.6Mt

**Production** 

■13.9Mt

FY17: 13.9Mt

Quality

▲64.3 Fe%

FY17: 64.2 Fe%

Lump:Fine

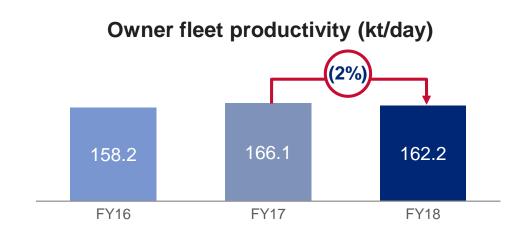
▲58.7%

FY17: 57.8%

## Kolomela – Tswelelopele driving assets to full potential

**Total tonnes mined (incl. contractors)** 

▲72.0Mt FY17: 71.8Mt



# Haul truck productivity (kt/day)







## Total sales delivered within revised guidance following rail challenges

Railed to port

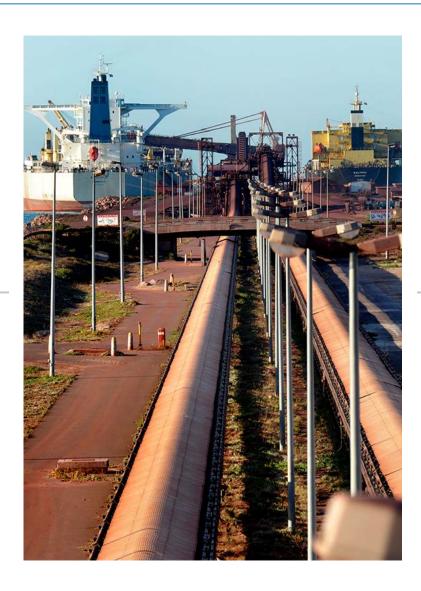
**40.6Mt** 

FY17: 42.0Mt

**Total shipped** 

**40.3Mt** 

FY17: 41.6Mt



**Total sales** 

**43.3Mt** 

FY17: 44.9Mt

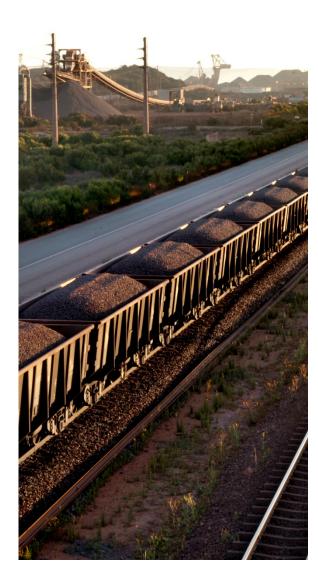
Finished product inventory

**▲5.3Mt** FY17: 4.3Mt

## Working with Transnet to improve logistics performance

#### Logistical challenges

- Low opening stocks at port in January
- 7 derailments in FY18
- Ship loader refurbishment
- Railway bridge damaged and force majeure declared on Kumba
- High finished inventory levels at mines



#### **Mitigating actions:**

- Joint executive steering committee
- Working closely together to deliver performance
- Focused on achieving above 100% contractual capacity
- Access to multipurpose terminal in Q3
- Back of port solution provided by Transnet
- Operational and sales planning across value chain
- Optimised loading, reduced loading variability, improved turn-around times at mine



## **Enhancing shareholder returns**

## **Margin enhancement**

✓ Average realised price US\$72/tonne FY17 US\$71/tonne

**✓ EBITDA margin**FY17 **45% 42%** 



### **Financial discipline**

✓ Cost savings	~R1br
FY18 target	R0.8br
Break-even price	US\$41
FY17	US\$40



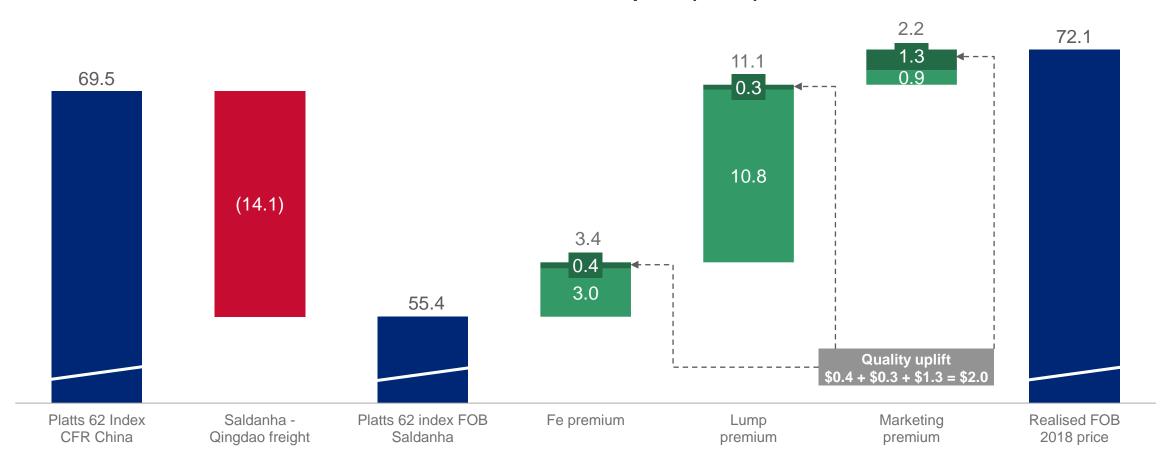
#### **Sustainable returns**

HEPS	R30.28
FY17	R30.47
DPS	R30.24
FY17	R30.97



## Our focus on quality results in better price premia

#### Kumba 2018 realised FOB price (\$/dmt)



## Revenue – market premia partially offset lower sales volumes

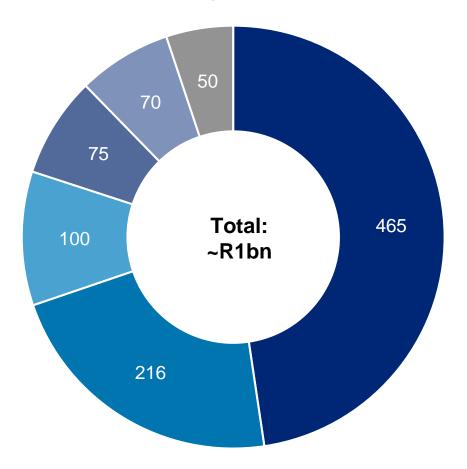


- Revenue decreased by 1%
- Total sales volumes down 1.6Mt
- Higher market premium achieved

- Average realised FOB export price up 1.5% to \$72/t (FY17: \$71/t), despite a 2.5% decrease in Plats 62 index price
- Average R/\$ exchange rate marginally stronger at R13.24 (FY17: R13.30)

## Cost savings of ~R1bn well above target of R0.8bn





#### Cost savings and improved efficiencies driven by:

■ Mining: Optimised contractor work schedule, drilling, blasting,

tyres and diesel

Overheads: Fixed cost reduction

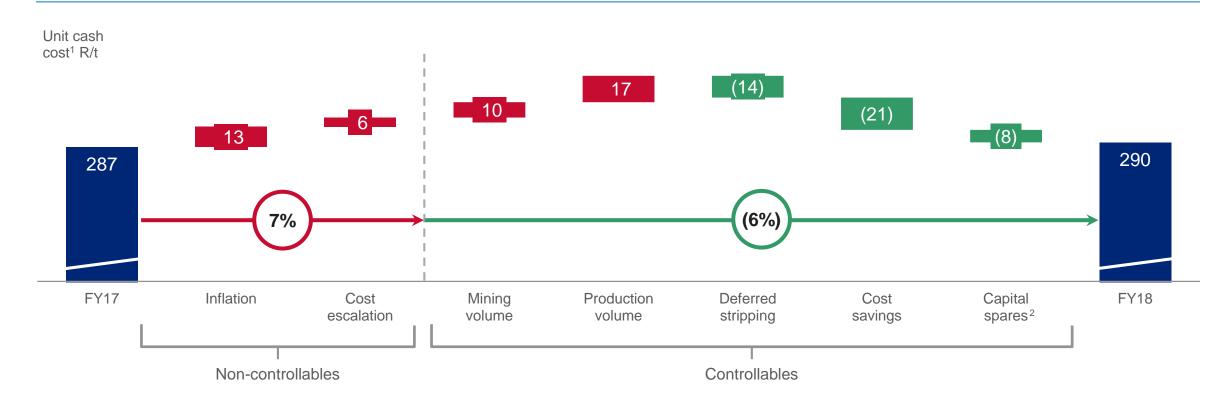
Supply chain: Contract optimisation

■ Labour: Headcount freeze and less overtime

■ Plant: Reduced consumption of Ferro Silicon and electricity

■ Workshops: Reduced external spend

## Sishen's unit costs contained despite lower production volumes and cost escalation



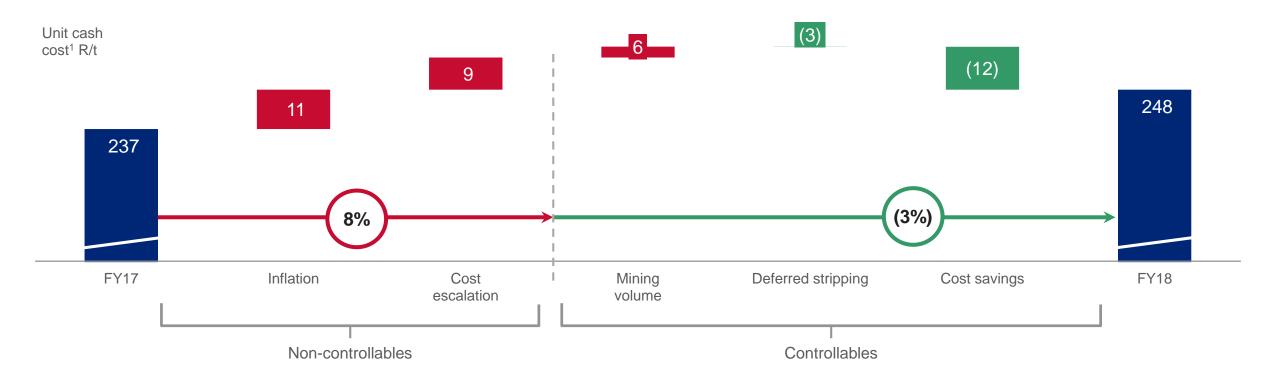
- Inflation impact: R13/tonne
- Cost escalation: 18% increase in diesel price
- Planned lower production increased costs
- Strip ratio increased to 4.7 (2017: 4.3)
- Cost savings from optimisation and improved productivity

<sup>&</sup>lt;sup>1.</sup> Excluding impact of deferred stripping on unit cost FY18: R47/t (FY17: R30/t)

<sup>&</sup>lt;sup>2</sup> During the year, the Group recognised an increased number of capital spares, for which the reconditioning costs incurred met the capitalisation criteria, as property, plant and equipment.

These reconditioning activities are anticipated to improve the performance of the equipment beyond their original expectations and this has resulted in the R8/tonne decrease from the prior year.

## Kolomela's unit costs well managed



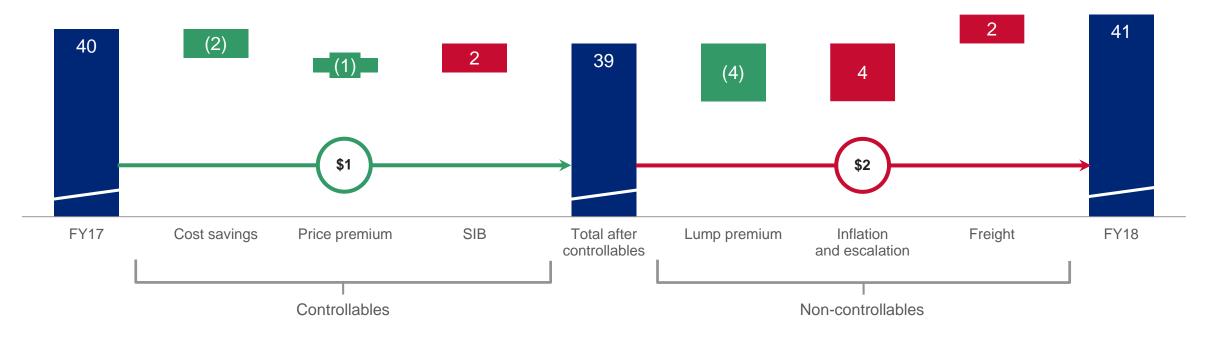
Higher fuel price driving cost escalation

- Cost savings offset R11/tonne increase in inflation-related costs
- Stripping ratio increased to 3.5 from 3.4 in 2017

<sup>&</sup>lt;sup>1.</sup> Excluding impact of deferred stripping on unit cost FY18: R22/t (FY17: R18/t)

## Break-even price reflects progress made on margin strategy

Platts 62% break-even price (\$/t)

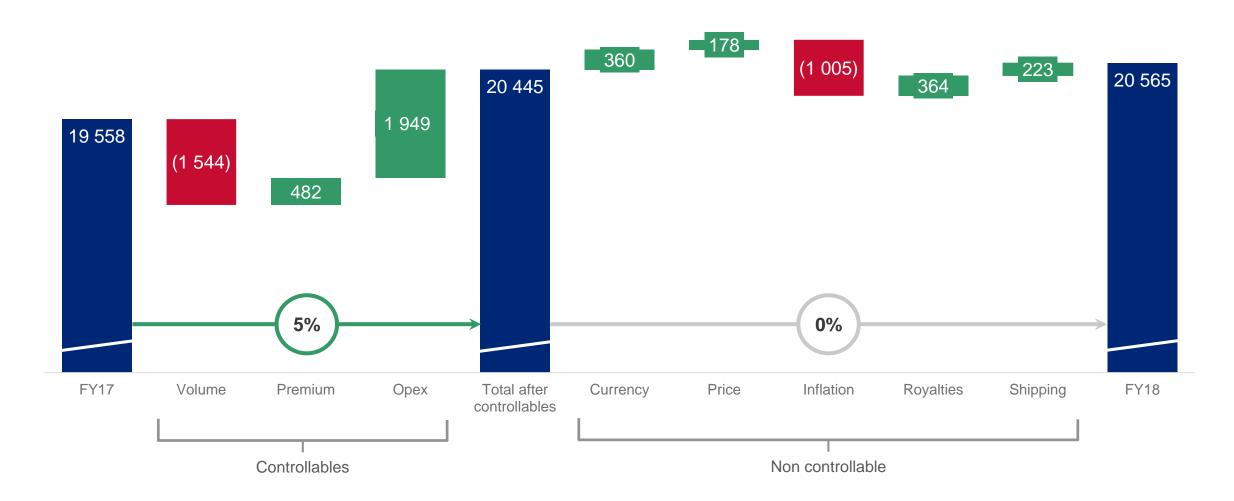


- Controllables driven by:
  - Cost savings and price premium from enhanced product portfolio
  - Higher on-mine SIB capex

- Non-controllable costs up due to:
  - Freight rates increased 19% to \$14.10/t (2017: \$11.67/t) and other cost escalations
  - Offset by higher lump premium of \$11.1/t (2017: \$6.6/t)

## **EBITDA** growth reflects benefit of margin enhancement strategy

Rm



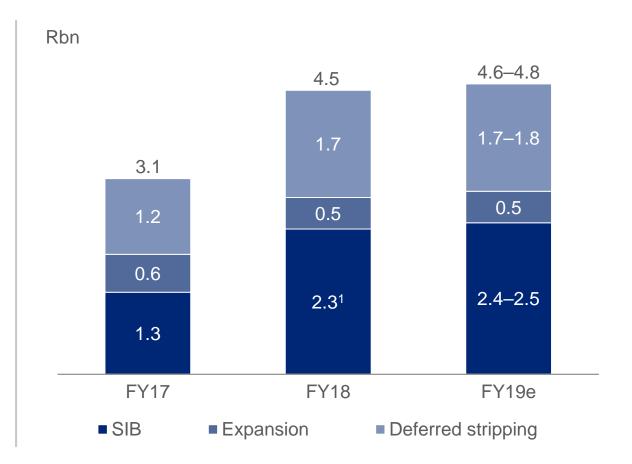
## Capital expenditure supports our strategy

#### 2018

- SIB¹: includes fleet, infrastructure and technology spend to support operations
- Deferred stripping: higher stripping ratios
- Expansion: Dingleton and completion of Sishen 2<sup>nd</sup> modular plant

#### Medium term

- SIB: Average of ~R2.7bn p.a. includes fleet renewal, plant maintenance and infrastructure upgrade
- Expansion: UHDMS project totalling ~R2 3bn

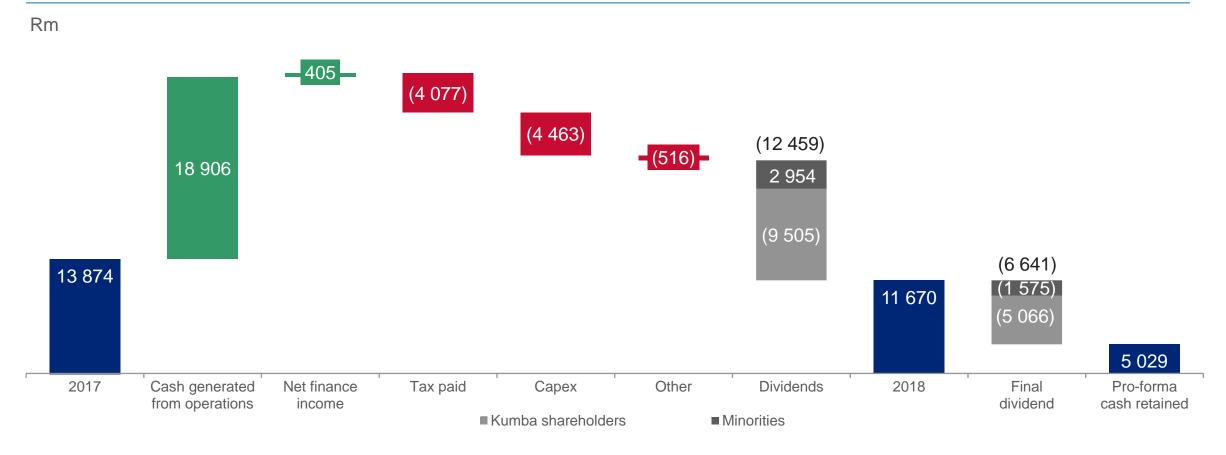


During the year, Kumba recognised an increased number of capital spares for which the reconditioning costs incurred met the capitalisation criteria for recognition as property, plant and equipment.

These reconditioning activities are anticipated to improve the performance of the equipment beyond their original expectations and this has resulted in the recognition of higher SIB expenditure than in prior years.

<sup>1.</sup> Included in SIB capital expenditure is reconditioning or overhauling costs for capital spares, which are components of heavy mining equipment.

## Strong balance sheet supports sustained returns



- Strong cash generation of R18.9bn
- Working capital impact of R1.8 billion relates to finished stock of 5.3Mt
- Maintained flexibility with net cash balance of R11.7bn

- Shareholder returns of R12.5bn
- Final dividend of R15.73 per share
- Total dividend of R30.24 per share

## Disciplined capital allocation – delivering on our commitment

#### Capital allocation framework



#### **Discretionary capital options**

Future project options

Value accretive investment opportunities

Additional shareholder returns

#### **FY 2018**

R8.2bn

- Attributable free cashflow of R7.8bn
- Add back discretionary spend of R0.4bn

(R7.6bn)

- Paid 2017 final and 2018 interim base dividend of R7.1bn
- Other adjustments of R0.5bn

(R2.8bn)

- Discretionary capital of R0.4bn
- Top-up dividend paid at 2018 interim of R2.4bn
- Dividend policy: 50-75% pay-out of headline earnings
- 2018 final dividend: 75% pay-out
- 2018 total dividend: 100% pay-out and 8% yield



## Focused delivery on our Tswelelopele strategy

#### **Horizon 1 Operating assets at full potential**

- Improving productivity
- Cost initiatives targeted
- Increasing quality of product

#### **Horizon 2 Leveraging endowment**

- Efficiency and optimisation
- Technology an enabler UHDMS
- Northern Cape exploration

### **Horizon 3** Value accretive opportunities

- Opportunistic approach
- Strategic investment opportunities
- Long-term optionality



### Our ambitions by 2022:

- Margin enhancement \$10/tonne
- 20 year life of asset



## Horizon 1 – operating assets at full potential by 2022

**Enhanced product portfolio** 

**Total sales of premium products** 

40%

FY18: 30%

Improved operational efficiency

**Benchmark productivity** 

>100%

FY18: 65%

**Cost saving initiatives** 

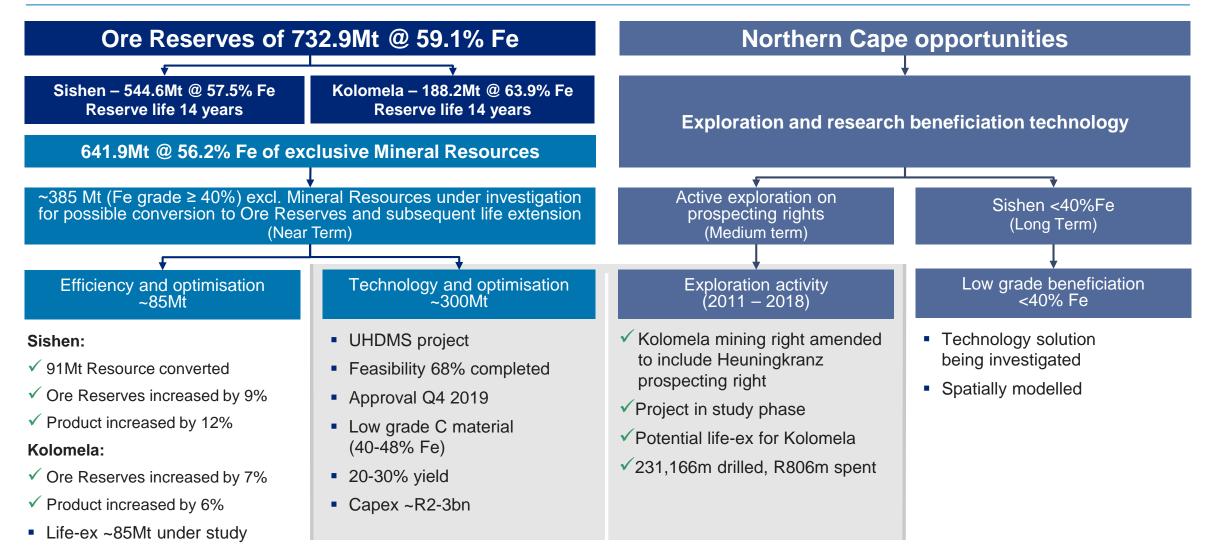
**Cumulative target** 

R2.6bn

FY18: ~R1bn FY19 target: R700m



## Horizon 2 – leveraging endowment and Northern Cape opportunities



<sup>1.</sup> Estimates as at 31 December 2018. Please refer to the Kumba 2018 Ore Reserves & Mineral Resource Report for a breakdown of the classification categories.

<sup>2.</sup> Exclusive Mineral Resources are additional to Ore Reserves and has not been modified. Please refer to our disclaimer as well as slide 41 for additional information, source data and assumptions.

<sup>8.</sup> Based on 1.6 revenue factor. Sishen Total 2018 exclusive Mineral Resource = 470.3Mt @ 54.0% Fe. Kolomela Total 2018 exclusive Mineral Resource = 171.6Mt @ 62.3% Fe

## Horizon 2 – leveraging endowment and extending Sishen life of asset

2015 Strategic redesign of pits

Ore Reserves reclassified

**▼106Mt** 

Saleable Product reclassified

**▼84Mt** 

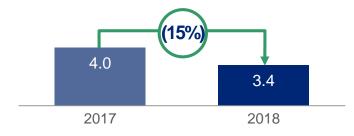
- Iron ore market downturn
- Pit redesigned resulting in a smaller shell in order to reduce cost

2016 – 2018 Focus on efficiency and optimisation

Sishen fleet OEE (%)



Slope optimisation – lower strip ratio



- Geotechnical slope optimisation complete
- LoM yield up 2.3% with 2<sup>nd</sup> UHDMS modular
- Low capital investment of R800m in modular plants

Value delivered

Ore Reserves recovered from 2015

**▲78Mt** 

Saleable Product recovered from 2015

**▲75Mt** 

- 73% of 106Mt Ore Reserve recovered
- 89% of 84Mt Saleable Product recovered
- LoM increased by 2 years despite depletion

<sup>1. 2018</sup> Depletion of 38.2Mt Reserves and 29.2Mt Saleable Product excluded in order to enable like for like comparison with 2015.

## **Guidance for 2019**

### Sishen

Production: ~30Mt

■ Waste: 170 – 180Mt

Unit costs: R315 – 325/t

Strip ratio: to exceed 4.5, LoM ~3.4

LoM: 14 years

### Kolomela

■ Production: 13 – 14Mt

■ Waste: 55 – 60Mt

■ Unit costs: R265 – 275/t

Strip ratio: to exceed 4, LoM ~4

■ LoM: 14 years

Total production

43 - 44Mt

Total sales

43 - 44Mt

Capex

R4.6 - 4.8bn

## Our value proposition

### **Assets**

- Premium product portfolio
- Life extension opportunities
- License to operate
- Mutually beneficial partnerships



### **Capabilities**

- Safe and flexible production
- Operating model and technology
- Marketing
- Talented people



### **Sustainable returns**

- Strong cash generation
- Capital allocation discipline
- Attractive and sustainable dividends







## **Annexure 1:** Life extension<sup>2</sup> under investigation

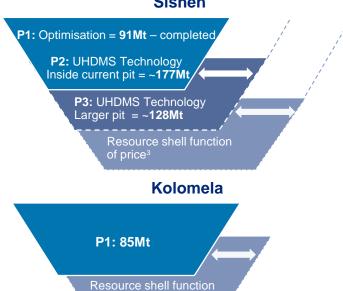
### 2018 Ore Reserves

Sishen **544.6Mt** @ 57.5% Fe Kolomela 188.2Mt @ 63.9% Fe

	2018 Yield	2018 Reserve life
Sishen	76.3%	14 years
Kolomela	95.2%	14 years

## Mineral Resources<sup>1</sup> (under investigation)

#### Sishen



	Mineral Resources <sup>1</sup>	In situ Fe grade	Conversion factor	Yield
<ul> <li>Phase 1 – Optimisation</li> <li>Improved efficiency</li> <li>Mine design - completed</li> </ul>	~91 Mt	≥48%	0.56	76.3%
<ul><li>Phase 2 – Optimisation</li><li>UHDMS technology (Current pit)</li></ul>	~177 Mt	40 – 48%	0.70 - 0.60	25 – 30%
<ul><li>Phase 3 – Optimisation</li><li>UHDMS technology (Larger pit)</li></ul>	~128 Mt	≥40%	0.70 - 0.60	37 – 42%

**385Mt of 642Mt** exclusive Mineral Resources<sup>1</sup> (2018) under investigation for short to medium term potential conversion to Ore Reserves

≥50%

0.55 - 0.45

85 Mt

of price<sup>3</sup>

Phase 1 = New pit

98 - 100%

<sup>1.</sup> Please refer to our disclaimer as well as slide 35 for source data and assumptions. Estimates as at 31 December 2018. Please refer to the Kumba 2018 Ore Reserves & Mineral Resource Report for a breakdown of the classification categories. Exclusive Mineral Resources are additional to Ore Reserves and has not been modified.

<sup>2.</sup> Subject to rail capacity

<sup>3.</sup> Based on 1.6 revenue factor, Sishen Total 2018 exclusive Mineral Resource = 470.3Mt @ 54.0% Fe, Kolomela Total 2018 exclusive Mineral Resource = 171.6Mt @ 62.3% Fe

**Annexure 2: Logistics performance reflects challenging environment** 

Mt	FY18	FY17	% change	2H18	1H18	% change
Railed to port (incl. Saldanha Steel)	40.6	42.0	(3)	19.8	20.8	(5)
Sishen mine (incl. Saldanha Steel)	27.1	28.5	(5)	13.4	13.7	(2)
Kolomela mine	13.5	13.5	_	6.4	7.1	(10)
Total sales	43.3	44.9	(4)	22.1	21.2	4
Export	40.0	41.6	(4)	20.5	19.5	5
Domestic	3.3	3.3	_	1.6	1.7	(6)
Total ore shipped	40.3	41.6	(3)	20.8	19.5	7
CFR (shipped by Kumba)	26.6	28.6	(7)	13.8	12.8	8
FOB (shipped by customers)	13.7	13.0	5	7.0	6.7	4
Finished product inventory	5.3	4.3	23	5.3	6.2	(15)

Annexure 3: Operating margin driven by lower revenue, expense growth well controlled

Rm	FY18 <sup>1</sup>	FY17 <sup>1</sup>	% change	2H18 <sup>1</sup>	1H18 <sup>1</sup>	% change
Revenue	45 725	46 379	(1)	26 251	19 474	35
Operating expenses	(29 429)	(25 058)2	17	(15 039)	(14 390)	5
Operating profit	16 296	21 321	(24)	11 212	5 084	121
Operating margin (%) <sup>3</sup>	36	36	_	43	26	17
Profit for the period	12 595	16 133	(22)	8 742	3 853	127
Equity holders of Kumba	9 615	12 335	(22)	6 672	2 943	127
Non-controlling interest	2 980	3 798	(21)	2 070	910	127
Effective tax rate (%)	24	25	(1)	24	27	(3)
Cash generated from operations	18 906	22 432	(16)	12 032	6 874	75

<sup>&</sup>lt;sup>1.</sup> Including Thabazimbi mine

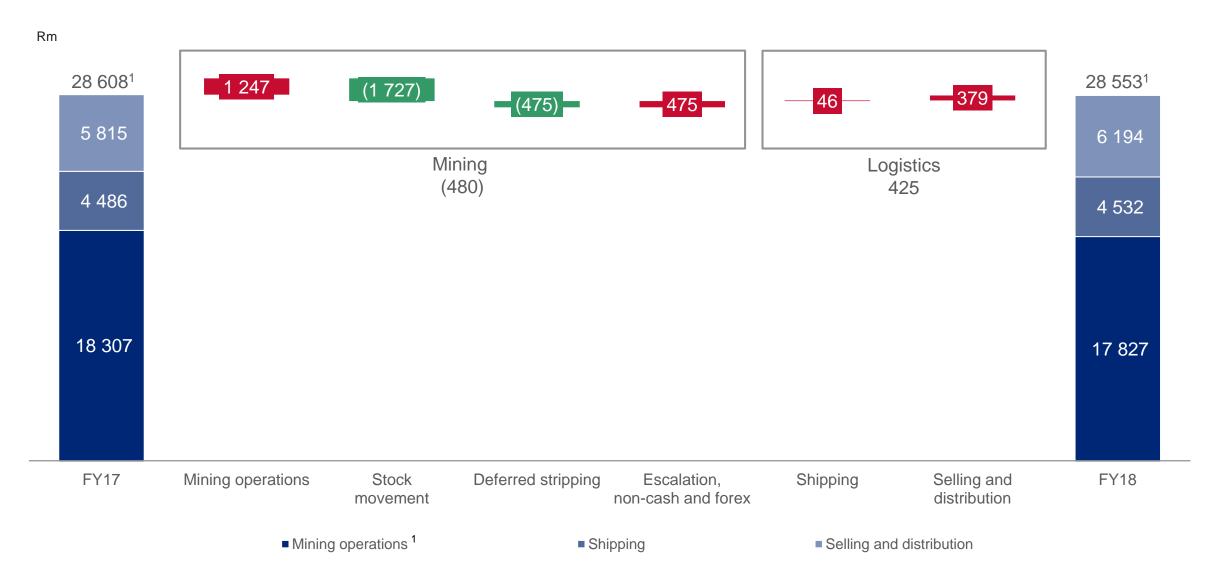
<sup>&</sup>lt;sup>2.</sup> Includes the impairment reversal in 2017

<sup>&</sup>lt;sup>3</sup> Excluding the impairment reversal in 2017

# Annexure 4: Revenue sector analysis

	FY18	FY17	% change	2H18	1H18	% change
Export (Rm)	38 261	39 261	(3)	21 873	16 388	33
Tonnes sold (Mt)	40.0	41.6	(5)	20.5	19.5	_
US Dollar per tonne	72	71	1	75	69	13
Rand per tonne	957	944	1	1 067	840	30
Domestic (Rm)	2 787	2 714	3	1 554	1 233	26
Shipping operations (Rm)	4 677	4 404	6	2 824	1 853	52
Total revenue	45 725	46 379	(1)	26 251	19 474	35
Rand/US Dollar exchange rate	13.24	13.30	_	14.19	12.30	15

## Annexure 5: Operating expenditure reduced through cost savings and lower volumes

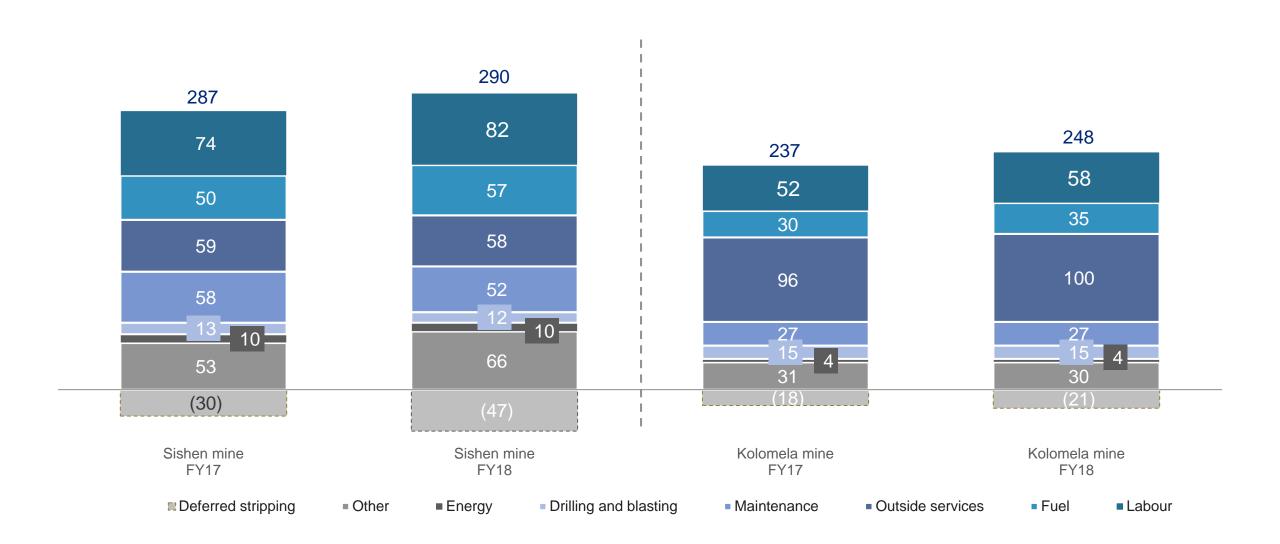


<sup>&</sup>lt;sup>1.</sup> Excluding the mineral royalty and impairment reversal in 2017

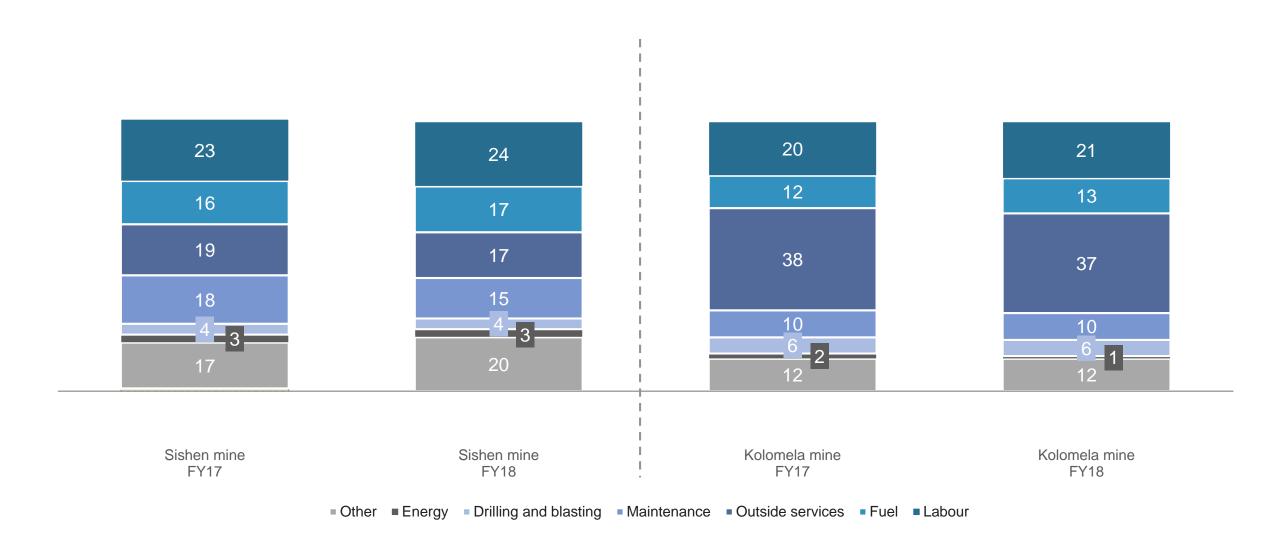
# Annexure 6: Aggregate operating expenditure

Rm	FY18	FY17	% change	2H18	1H18	% change
Cost of goods sold	17 827	18 306	(3)	8 842	8 985	(2)
Cost of goods produced	16 222	16 588	(2)	7 491	8 731	(14)
Production costs	17 661	16 360	8	8 658	9 003	(4)
Sishen mine	12 209	11 164	9	5 927	6 282	(6)
Kolomela mine	5 079	4 708	8	2 580	2 499	3
Thabazimbi mine	69	94	(27)	25	44	9
Other	304	394	(23)	125	179	(30)
Inventory movement WIP	(1 439)	228	>(100)	(1 166)	(273)	>100
A grade	(1 250)	(69)	>100	(258)	(992)	(74)
B grade	(189)	297	>(100)	(908)	719	>(100)
Inventory movement finished product	171	231	(26)	551	(380)	>(100)
Corporate support and studies	1 339	1 123	19	759	2 580	31
Forex and other	95	364	(74)	40	55	(27)
Mineral royalty	876	1 239	(29)	344	532	33
Impairment reversal	_	(4 789)	(100)	_	_	_
Selling and distribution	6 194	5 816	6	3 188	3 006	6
Shipping operations	4 532	4 486	1	2 664	1 868	43
Operating expenses	29 429	25 058	17	15 039	14 390	(26)

## ANNEXURE 7: Sishen and Kolomela mines' unit cash cost structure (R/t)



## ANNEXURE 8: Sishen and Kolomela mines' unit cash cost structure (%)



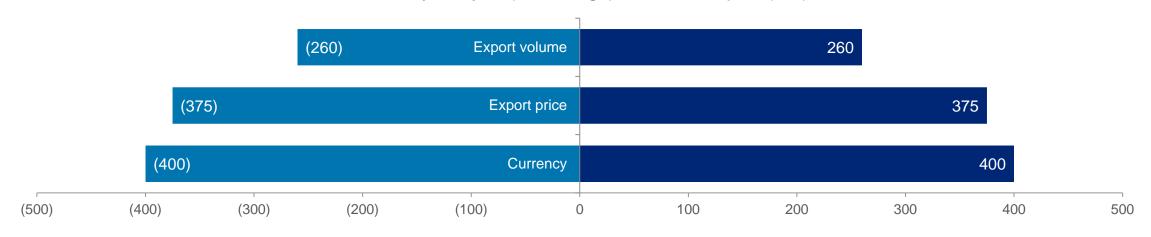
# **Annexure 9:** Capital expenditure analysis

Rm			Forecast
	FY18	FY17	12 months 31 Dec 2019
Approved expansion	506	575	~400
Deferred stripping	1 669	1 194	1 700 – 1 800
Sishen	1 370	942	1 100 – 1 200
Kolomela	299	252	~600
SIB	2 288	1 300	2 400 – 2 500
Sishen	1 691	793	1 700 – 1 800
Kolomela	597	507	~700
Total capital expenditure	4 463	3 069	4 500 – 4 700
Unapproved expansion	-	-	~100
Total approved and unapproved capital expenditure	4 463	3 069	4 600 – 4 800

## **Annexure 10: Sensitivity analysis for 2018**

### 1% change to key operational drivers, each tested independently

Sensitivity analysis (1% change) – EBITDA impact (Rm)



### Change per unit of key operational drivers, each tested independently

Sensitivity analysis	Unit change	EBITDA impact
Currency (Rand/US\$)	R0.10/US\$	R300m
Export Price (US\$/t)	US\$1.00/t	R520m
Volume (kt)	100kt	R65m
		Breakeven price impact
Currency (Rand/US\$)	R1.00/US\$	US\$3.00/t