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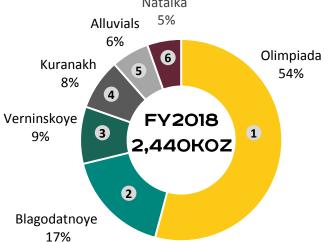
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### LARGE-SCALE ASSETS SPREAD ACROSS SIBERIA AND THE FAR EAST





### **PRODUCTION**

- 1. Olimpiada
- 2. Blagodatnoye
- 3. Verninskoye
- 4. Kuranakh
- 5. Alluvials
- 6. Natalka

### **EXPLORATION**

- 7. SUKHOI LOG
- 8. Chertovo Koryto

Rock moved <sup>1</sup>
2013: 125,019kt
2018: 300,648kt
+141%

Ore processed
2013: 22,480kt
2018: 38,025kt
+69%

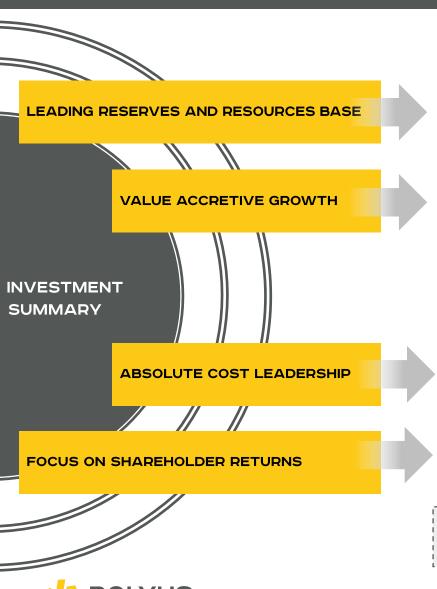
Recovery
2013: 79.3%
2018: 80.8%
+1.5 ppts



Source: Company data

1. At hard-rock operating mines, excl. Natalka and Titimukhta till 2016

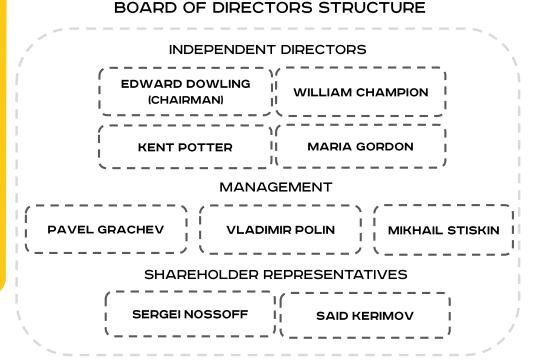
### UNIQUE EXPOSURE TO RUSSIAN & GOLD PUBLIC MARKETS



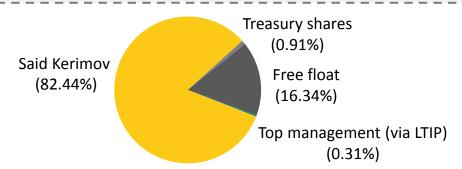
- √ 68 moz gold P&P Reserves¹ (the 2<sup>nd</sup> largest globally)
- ✓ 190 moz gold MI&I Resources<sup>1</sup> (the 2<sup>nd</sup> largest globally)
- ✓ Average life of mine: above 30 years
- √ 100% open pit operations
- ✓ Moving from ca. 2.44 moz in 2018 to ca. 2.8 moz in 2019
- Natalka reached annualised throughput capacity of 10 mt.
- ✓ A suite of low risk and cost-efficient brownfield projects
- ✓ The lowest cost producer among top-10 gold mining companies globally
- ✓ TCC and AISC in 1 decile of global cost curves
- ✓ Regular dividends of 30% of EBITDA
- ✓ Free-float @ 16.34%
- Constituent of MSCI Russia & FTSE All-World index

### **BOARD OF DIRECTORS & SHAREHOLDER STRUCTURE**

- 9 members, including 4 Independent Directors
- Independent Chairman: Edward Dowling
- A BoD Committees, including Audit and Nomination & Remuneration
- All committees headed by Independent Directors
- Independent Directors professional experience covers:
  - Natural Resources:
    - Metals & Mining
    - Oil & Gas
  - Investments and Business Development
  - Capital Markets



### SHAREHOLDER STRUCTURE OF PJSC POLYUS





### SUSTAINABILITY, HEALTH & SAFETY

### **LATEST NEWS**

- Automated HSE data and processes management system launched across Polyus' operations
- Polyus' integrated HSE management system certified in accordance with ISO 14001 and 45001. Polyus became the first Russian company certified in accordance with ISO 45001.
- Waste management: plastic waste crusher introduced at Verninskoye, new waste management facility installed at the Krasnoyarsk Business Unit, new biological waste testing lab launched at Kuranakh.

## Randgold 0.03 Polyus 0.09 Uralkali Polymetal 0.18 Severstal Glencore Centamin 0.26

0.28

0.34

0.54

1.16

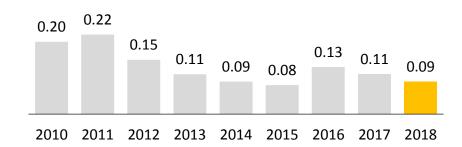
Antofagasta

Hochschild

Sibanye

Anglo American

### LTIFR<sup>2</sup> DYNAMICS AT POLYUS





### INDICES, RANKINGS, INITIATIVES





- Score: 71 out of 100
- ➤ Polyus was upgraded from "Average performer" to "Outperformer" in November 2018
- > #2 within Russian Metals & Mining universe
- ISS
- Score: "C"(medium) obtained in July 2018



Score: "BB" (average) obtained in November 2018





#2 in the 2018 WWF and UN Russian Metals & Mining Companies Environmental Transparency Rating



Polyus is a constituent of FTSE4Good EM Index since December 2018 with a FTSE Russell ESG Score of 3.9



Polyus is the only Eastern European member of the ICMM, the key international organisation promoting sustainable mining

### **KEY ESG INDICES AND RATINGS: POLYUS VS. PEERS**

	FTSE4GOOD (LATEST AVAILABLE)	MSCI ESG (JAN 2018 RATING)	DJSI (LATEST AVAILABLE ROBECO SAM SCORE)	SUSTAINAL YTICS SCORE (LATEST AVAILABLE)	ISS OEKOM	WWF RUSSIAN MINING COMPANI ES RANK	CDP (CLIMATE CHANGE 2017 SCORE)	UN GLOBAL COMPACT MEMBER
POLYUS	• 3.9 • Constituent	BB     Not in index	<ul><li>No score</li><li>Not in index</li></ul>	71	С	2	-	No
PEER 1	• 4.4 • Constituent	<ul><li>No score</li><li>Constituent</li></ul>	<ul><li>61</li><li>Constituent</li></ul>	77 (93 <sup>rd</sup> percentile)	N/A	4	С	Yes
PEER 2	• 3.1 • Constituent	B     Not in index	<ul><li> 37</li><li> Not in index</li></ul>	58	C-	9	F	Yes
PEER 3	• 3.2 • Constituent	BB     Not in index	<ul><li>No score</li><li>Not in index</li></ul>	65	N/A	10	F	No
PEER 4	• 2.8 • Constituent	• CCC • Not in index	<ul><li> 36</li><li> Not in index</li></ul>	54	C-	7	F	Yes





### RECENT RESULTS OVERVIEW

### FY 2018 OPERATING HIGHLIGHTS

	4Q'18	3Q'18	Q-0-Q	2Q'18	1Q'18	4Q'17	Y-0-Y	2018	2017	Y-0-Y
Olimpiada	293.3	283.0	4%	276.0	213.1	297.9	-2%	1,065.4	1,007.3	6%
Blagodatnoye	112.3	110.1	2%	102.0	91.4	126.7	-11%	415.8	456.7	-9%
Verninskoye	51.7	59.7	-13%	53.3	58.6	45.6	13%	223.3	205.7	9%
Alluvials	40.3	83.7	-52%	23.7	-	29.8	35%	147.7	145.7	1%
Kuranakh	64.4	43.9	47%	44.1	46.5	48.4	33%	198.9	171.5	16%
Natalka	27.0	43.4	-38%	39.8	22.5	3.3	n.m.	132.7	3.3	n.m.
Refined gold, koz	589.0	623.8	-6%	538.9	432.1	551.7	7%	2,183.8	1,990.2	10%
Flotation concentrate production, t	21,112	31,768	-34%	27,826	35,760	13,620	55%	116,466	84,962	37%
Antimony in flotation concentrate, t	3,534	6,408	-45%	6,219	7,441	-	n.a.	23,602	-	n.a.
Gold in flotation concentrate, koz	51.4	67.4	-24%	63.1	74.4	28.1	83%	256.3	170.0	51%
Gold payable in concentrate, koz	38.1	49.8	-23%	46.7	55.1	19.7	93%	189.7	119.0	59%
Total gold output, koz	640.4	691.2	-7%	602.0	506.5	579.8	10%	2,440.1	2,160.2	13%
Rock moved, kt	80,949	79,757	1%	72,808	67,134	63,256	28%	300,648	224,423	34%
Stripping ratio, t/t	5.7	5.3	8%	6.8	6.6	5.3	8%	6.0	4.9	22%
Ore mined, kt	12,030	12,673	-5%	9,317	8,821	10,065	20%	42,841	37,810	13%
Ore processed, kt	9,279	10,382	-11%	9,872	8,492	7,809	19%	38,025	28,663	33%
Recovery rate, %	80.6%	80.6%	0.0ppts	80.6%	81.5%	82.7%	-2.1 ppts	80.8%	83.4%	-2.6ppts
Total doré & slime gold output, koz	584.8	698.8	-16%	627.6	538.8	554.7	5%	2,450.0	2,161.9	13%

### FY 2018 HIGHLIGHTS:

- Total gold output increased 13% y-o-y to 2,440 koz (including 256 koz of gold contained in concentrate). This growth was driven by higher gold output at Olimpiada, the ramp-up of operations at Natalka and strong performance at Verninskoye and Kuranakh.
- Doré volumes totalled 2,450 thousand ounces, up 13% y-o-y.
- Ore processed volumes increased 33% y-o-y to 38,025 kt.
- Volumes of antimony contained in flotation concentrate totalled 23.6 kt.
- > AMC has updated the Sukhoi Log Mineral Resources estimate in accordance with JORC Code 2012, with a 9% increase in contained ounces compared to previous estimates. The estimated Mineral Resources at Sukhoi Log stand at 962 mt, with an average grade of 2.1 g/t Au and containing 63 moz of gold as at 30 October 2018.



### **RECENT RESULTS OVERVIEW**

### FY 2018 FINANCIALS SNAPSHOT

### **KEY HIGHLIGHTS**

	4Q 2018	3Q 2018	Q-0-Q	4Q 2017	Y-0-Y	2018	2017	Y-0-Y
Gold production (doré) (koz)	585	699	-16%	555	5%	2,450	2,162	13%
Gold production (refined) (koz)	640	691	(8%)	580	10%	2,440	2,160	13%
Average realised refined gold price excl. SPPP (\$/oz)	1,229	1,209	I 2% i	1,275	(4%)	1,263	1,260	0%
Average realised refined gold price incl. SPPP) (\$/oz)	1,232	1,213	2%	1,275	(3%)	1,265	1,271	0%
			i i					
Total cash cost (TCC) (\$/oz)	331	345	(4%)	324	2%	348	364	(4%)
All-in sustaining cash cost (AISC) (\$/oz)	634	554	14%	662	(4%)	605	614	(1%)
			l					
Total revenue (\$mln)	774	832	(7%)	743	4%	2,915	2,721	7%
Adjusted EBITDA (\$mln)	484	537	(10%)	465	4%	1,865	1,702	10%
Adjusted EBITDA margin (%)	63%	65%	(2) ppts	63%	0 ppts	64%	63%	1 ppts
Adjusted net profit (\$mln)	291	355	(18%)	242	20%	1,326	1,015	31%
			! !			 		 
Net cash generated from operations (\$mln)	404	423	(4%)	344	17%	1,464	1,292	13%
Capital expenditure (\$mln)	189	146	29%	279	(32%)	736	804	(8%)
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Free cash flow (\$mln) <sup>1</sup>	206	231	(11%)	181	14%	672	610	10%

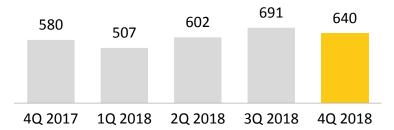
### **FINANCIAL POSITION**

	4Q 2018	3Q 2018	2Q 2018	1Q 2018	4Q 2017
Net debt, \$mIn	3,086	3,029	3,208	3,079	3,077
Net debt/adjusted EBITDA, x	1.7	1.6	1.8	1.8	1.8
RUB/USD rate	66.48	65.53	61.80	56.88	58.41



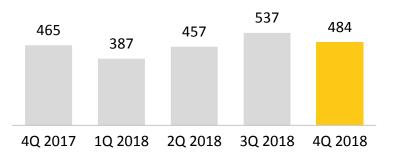
### RECENT RESULTS OVERVIEW KEY FIGURES IN 4Q 2018

### GOLD PRODUCTION, KOZ



DECREASE IN GOLD OUTPUT REFLECTS A SEASONAL SLOWDOWN IN PRODUCTION AT ALLUVIALS AND LOWER FLOTATION CONCENTRATE SALES VOLUMES FROM OLIMPIADA

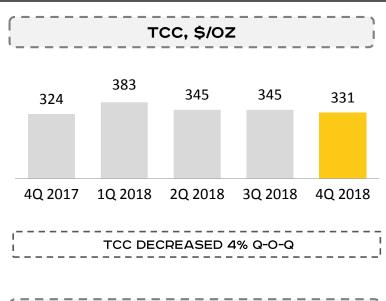
### EBITDA ADJUSTED, \$MLN

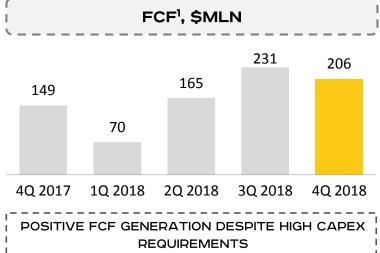


EBITDA DECREASE WAS MAINLY ATTRIBUTABLE

TO LOWER GOLD SALES VOLUMES





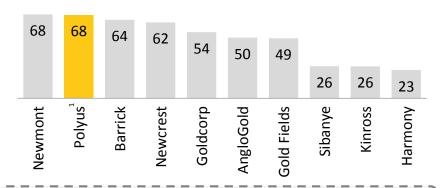




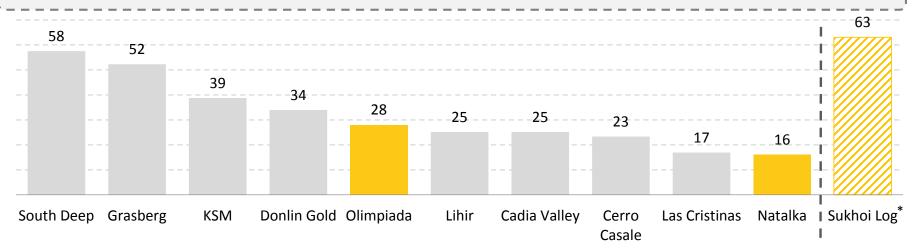
### LEADING RESERVES AND RESOURCES BASE OVERVIEW

- 68 moz gold P&P Reserves¹ (#2 globally)
- 190 moz gold MI&I Resources¹ (#2 globally)
- Average life of mine @ above 30 years<sup>2</sup> vs. 16 years on average (among the largest producers globally)

### THE LARGEST GOLD RESERVES BASE (LAST REPORTED), MOZ



### LARGEST GOLD ASSETS BY RESERVES, MOZ





<sup>\*</sup> Sukhoi Log Mineral Resource estimates as at 30 October 2018

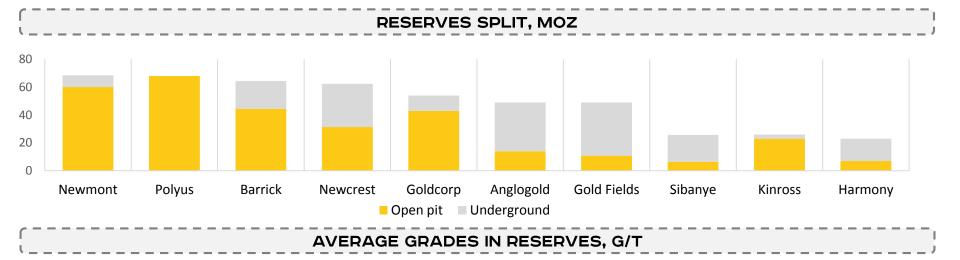
- As at 31 December 2017
- 2. Life of mine calculation is based on last reported attributable production and last reported reserves

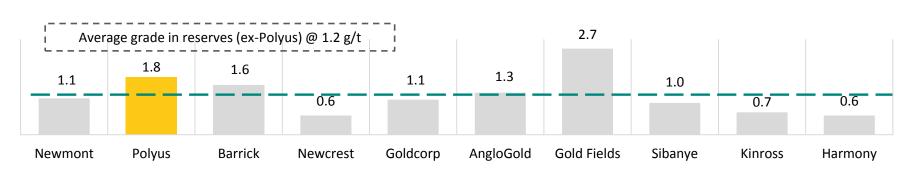


### LEADING RESERVES AND RESOURCES BASE

### HIGH-GRADE OPEN-PIT RESERVES BASE

- 100% open-pit operator with grades typical for underground mining
- 95% of Reserves attributable to operating assets





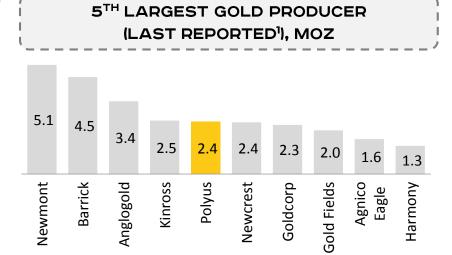


Source: companies' data

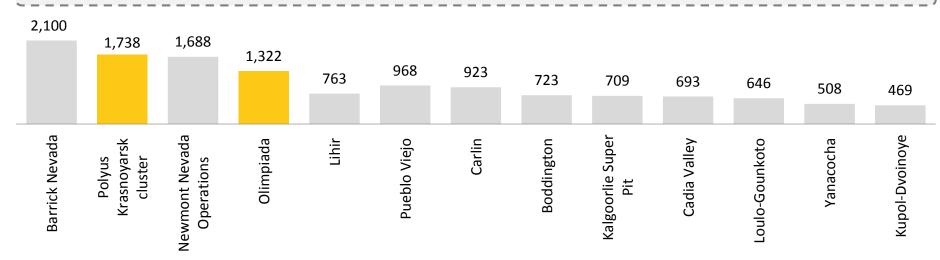


### BENCHMARKING

- Moving from ca. 2.44 moz in 2018 to 2.8 moz in 2019
- A suite of low risk and cost-efficient brownfield projects
- The Company has completed the ramp-up of Natalka to annualised name-plate throughput capacity of 10 mt.
- Sukhoi Log has moved to the pre-feasibility study stage



### LARGEST GOLD ASSETS BY OUTPUT (LAST REPORTED), KOZ





<sup>1.</sup> Production for last reported 12 months (ex. recently announced Barrick-Randgold merger and Newmont-Goldcorp merger)

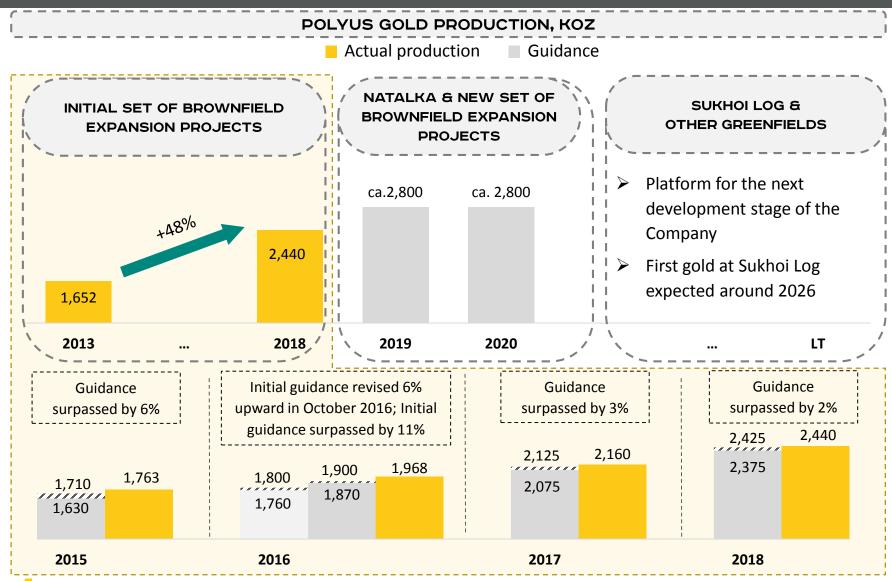
### **POLYUS KEY OPERATIONAL ADVANTAGES**



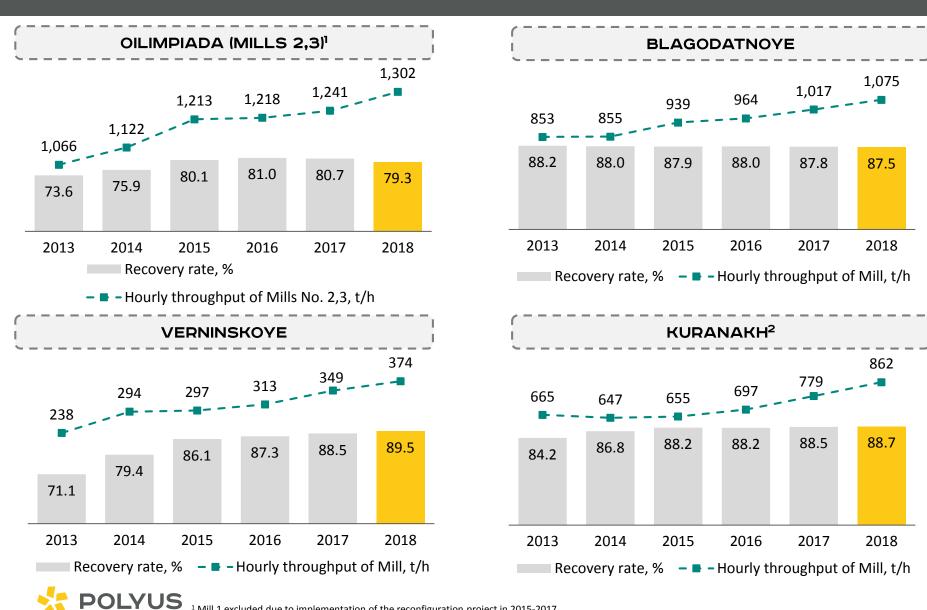
- > 100% open-pit operations
- > 2018 highlights:
  - 301 mt of rock moved<sup>1</sup> on an annual basis
  - 8 ore processing mills<sup>1</sup>: 38 mt of ore processed in 2018
  - 2.4 g/t in ore processed
- Transportation costs savings
- Economies of scale on infrastructure
- 3 mills at Olimpiada within a 5-km radius
- Construction of 3 power grids (630 km length)
   by Polyus and subsidized by the state
- Cheap, reliable and sufficient energy supply
- A suite of debottlenecking projects at existing processing facilities
- > LTIFR @ 0.09 in 2018



### STRONG GROWTH PROFILE



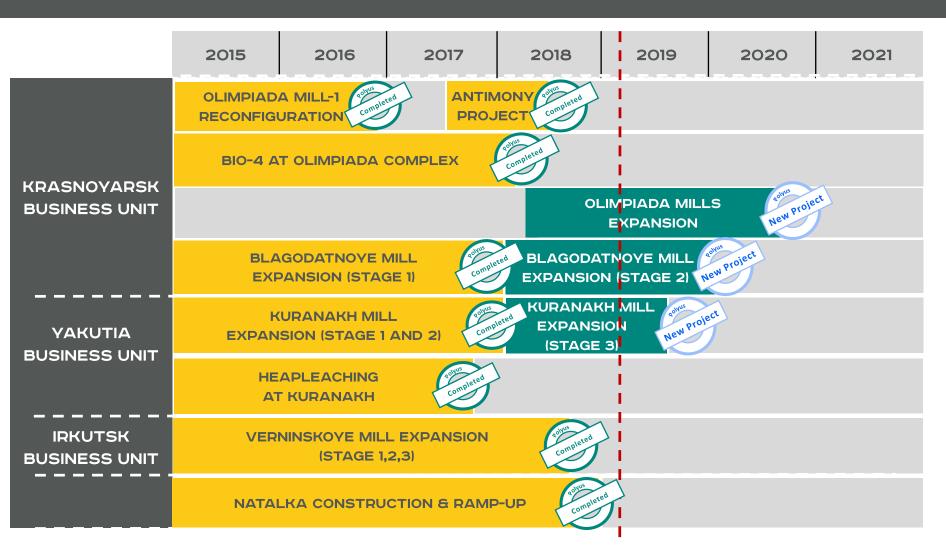
### IMPROVING RECOVERY RATES & PRODUCTIVITY



<sup>&</sup>lt;sup>1</sup> Mill 1 excluded due to implementation of the reconfiguration project in 2015-2017

<sup>&</sup>lt;sup>2</sup> Recovery rate and hourly throughput at the Mill

### **PROJECT PIPELINE**





### POTENTIAL NEW PROJECTS - SOURCE OF ADDITIONAL EXPANSION

### CURRENTLY POLYUS EVALUATES A SET OF NEW PROJECTS, WHICH COULD BE ADDED TO THE PIPELINE IN THE MEDIUM TERM AND REPRESENT A POTENTIAL UPSIDE

- 1. VERNINSKOYE MILL EXPANSION UP TO 3.5 MTPA
- ➤ Following the completion of the expansion project to 2.95 mtpa, Polyus' technical team identified a potential for a further capacity expansion up to 3.5 mtpa, which might be achieved by debottlenecking of certain circuits.
- The project may involve an expansion of the milling circuit by installation of an additional ball mill of smaller scale. Technical feasibility of the expansion was confirmed by a global engineering company.
- Feasibility study is in progress.

2. BIO UNITS MODERNIZATION AT OLIMPIADA MILL COMPLEX

- ➤ Recently commissioned BIO-4 unit demonstrated a step up in operational efficiency compared to BIO 1,2,3 units, including higher recovery, throughput and decreased reagent consumption.
- ➤ Polyus is currently evaluating possible options for further BIO modernization by replicating BIO-4 technical solutions at BIO 1,2,3.
- 3. BLAGODATNOYE EXPANSION UP TO 15.0 MPTA
- Polyus is currently considering opportunities to increase throughput capacity at Blagodatnoye up to 15.0 mtpa reflecting the asset's large resource base.
- The project may involve construction of an additional 6 mtpa mill on site, which will be partially utilizing existing infrastructure.

- 4. CHERTOVO KORYTO DEVELOPMENT (CHK)
- Scoping study completed in 2016 demonstrated economic viability of further project development.
- > Geotech drilling to provide necessary inputs for further studies is currently being finalized, technical reports are being prepared.
- Polyus initiated the Pre-feasibility study of the project, which is currently being developed by a global engineering company. Results are expected by 2019 YE.



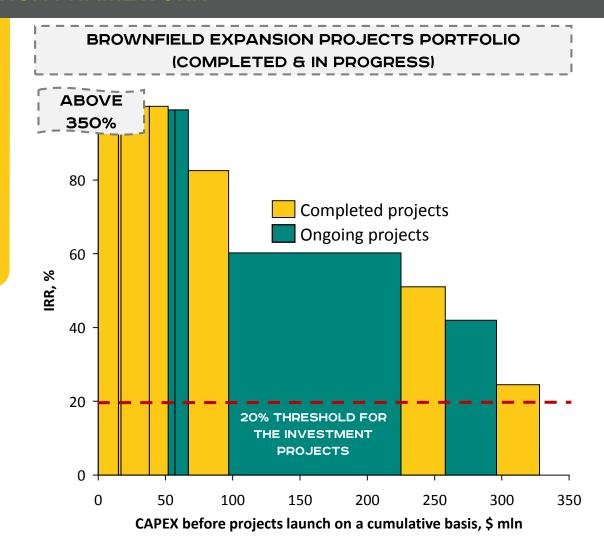
### PRUDENT CAPITAL ALLOCATION FRAMEWORK

➤ Focus on low-risk high-return projects with expected IRR of over 20% under the following assumptions:

➢ Gold price: \$1,050/oz;

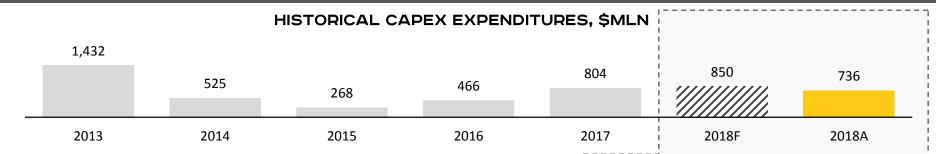
> FX: 60 RUB/USD

- Expansion projects must meet both capital and cost efficiency criteria
- More than 150 projects implemented since 2014





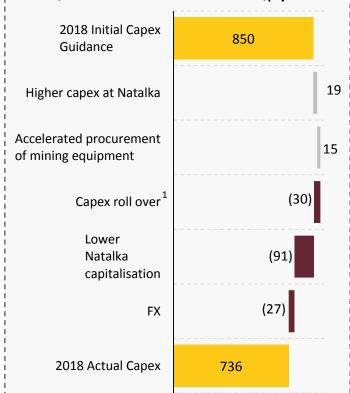
### 2018 INVESTMENT PROGRAM OVERVIEW



### 2018 CAPEX BREAKDOWN (GUIDANCE VS ACTUAL), \$MLN

	2018 GUIDANCE	2018 ACTUAL	DIFFERENCE
Olimpiada (incl.Titimukhta)	200	182	-18
Natalka	150	169	19
Natalka capitalisation	150	59	-91
Others (including IT, R&D, Logistics, Exploration)	140	106	-34
Blagodatnoe	80	71	-9
Verninskoye	40	45	5
Kuranakh	40	57	17
Sukhoi Log	30	23	-7
Alluvials	20	24	4
Total	850	736	-114

### 2018 CAPEX RECONCILIATION (GUIDANCE VS ACTUAL), \$MLN

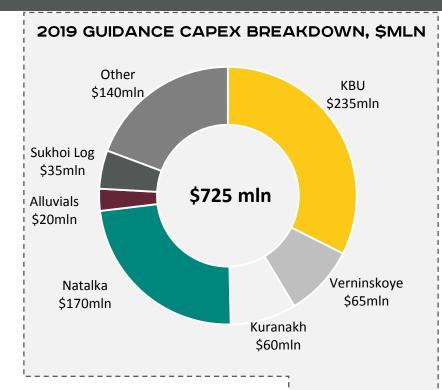




### **INVESTMENT PROGRAM IN 2019**

### POLYUS REVISED 2019 CAPEX GUIDANCE DUE TO:

- > Capex roll over from 2018, related to a recalibration of brownfield projects
- > Delayed construction of some infrastructure projects at Natalka
- Additional spending on new mid-sized projects (in PFS) and FS stages) and efficiency improvement initiatives
- > Higher exploration expenditures at the core assets
- > Higher spending on the IT infrastructure and automation (incl. ERP)



### 2019 CAPITAL EXPENDITURES GUIDANCE RECONCILIATION (\$ MLN)

30 5 30 25 (15)650 New projects<sup>2</sup> Initial guidance Exploration ΙT Revised guidance 2018 capex Mining

<sup>1</sup> At RUB/USD fx rate 60

equipment

roll over

<sup>&</sup>lt;sup>2</sup> Mid-sized projects in pre-feasibility & feasibility stages and a set of smaller efficiency improvement projects

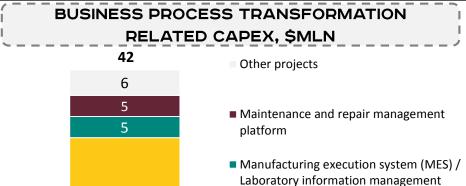


for 2019<sup>1</sup>

725

for 2019<sup>1</sup>

### CAPEX FOR BUSINESS PROCESS TRANSFORMATION AND IT



ERP

system (LIMS)



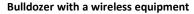
- ➤ ERP
- Investment management optimization (Primavera)
- Manufacturing execution system (MES)
- Maintenance and repair management platform
- Multi-functional center

26

- Budgeting and Reporting automation
- Automated systems for HR (SAP SuccessFactors)

# 26 5 Other IT projects Data transmission networks Equipment and software for workstations IT infrastructure development

- Development of wireless networks at Natalka and Olimpiada mines covering 125 sq km.
- External Data Processing Center in Krasnoyarsk.
- ➤ Mobile Data Processing Center at Olimpiada.
- Infrastructure development for SAP ERP











### **DRILLING PROGRAMME IN 2019**

### **SUKHOI LOG**

- > 100 km (step out and infill drilling)
- Geometallurgy drilling and sampling
- > Resource and Reserve upgrade: 2020.

### **OLIMPIADA**

- > 50 km (in fill drilling Vostochniy, Promezhutochniy, deep levels, flanks).
- Resource and Reserve upgrade: 2020

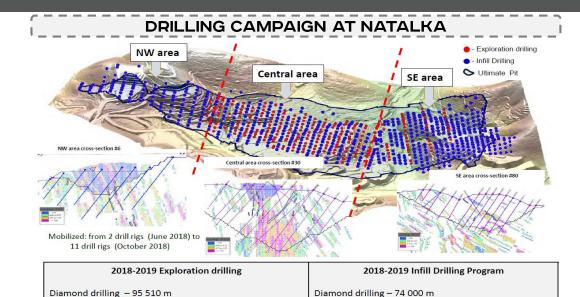
### NATALKA

- > 100 km (in fill, Geomet and Geotech drilling and sampling)
- Resource and Reserve upgrade: 2020

### **OTHER ASSETS**

 Polyus will also proceed with drilling campaign at Blagodatnoye (deep levels), Kuranakh (existing + new license areas), Verninskoye and Chertovo Koryto.

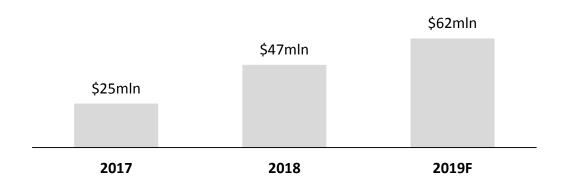
CA. 335 KM
TO BE DRILLED IN 2019
ACROSS THE GROUP



### CAPEX FOR DRILLING AND EXPLORATION PROGRAMMES

Drillholes spacing - 50 x 50 m; 50 x 100 m

Drillholes spacing - 50 x 100 m; 50 x 200 m









### NATALKA UPDATE

### **NATALKA: MINING SITE**



- Mining activity restarted in early 2017.
- ➤ In 4Q 2018, volumes of rock moved totaled 15,707 kt, while volumes of ore mined amounted to 2,564 kt.
- ➤ In 4Q 2018, average grades in ore mined were 1.07 g/t, as mining works were concentrated on lower grade zones of the ore body, in line with the mine plan
- > 17 Komatsu E730 trucks already operating on site.
- ➤ In 4Q 2018, the Company commissioned one TYHI WK-20 excavator and one Komatsu PC-1250 excavator

### MINING WORKS





### 3.28 5.26 6.77 6.46 6.67 9.83 13.09 15.71

1Q'17 2Q'17 3Q'17 4Q'17 1Q'18 2Q'18 3Q'18 4Q'18



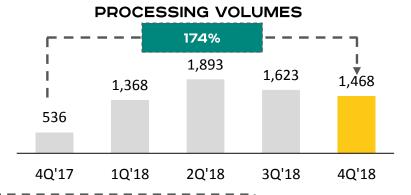
### NATALKA UPDATE

### **NATALKA: PROCESSING MILL**



- Natalka is now operating at a design flowsheet following the completion of repair works at the ball mill and scheduled maintenance works at the end of 2018.
- The Natalka Mill is now running at annualised name-plate throughput capacity of 10 mt.
- The Mill's recovery rate is gradually increasing to meet the design parameter level, reflecting the introduction of higher head grades into the ore processing operations.
- All processing circuits, including crushing, milling, gravity separation, intensive cyanidation, CIL, electrowinning and smelting are now running in line with the design.

# RECOVERY RATE 17.2 PPTS 62.9% 65.5% 65.1% 55.1% 4Q'17 1Q'18 2Q'18 3Q'18 4Q'18





4Q'18 DECLINE IN PROCESSING VOLUMES AND RECOVERIES IS ATTRIBUTABLE TO REPAIR WORKS AT THE BALL MILL AND SCHEDULED MAINTENANCE WORKS

### NATALKA UPDATE

### **NATALKA: NEXT STEPS**

### **UST-OMCHUG / OMCHAK GRID**

- ➤ The Grid is supposed to link Ust-Srednekanskaya HPP with Natalka, increasing available power capacity
- Grid length: 120 km
- Capex: RUB 8.8 bln (state subsidy)
- Timeline: completion in 2019



### SUPPORTING INFRASTRUCTURE

- Minor auxiliary equipment is still working in a test mode
- > Tailings facility to be expanded (in stages)
- > Timeline: 2018-2020

### MINING ACTIVITY RAMP-UP

- Mining activity at Natalka is expected to reach 90mt of rock moved per year
- Additional shovels and mining trucks to be purchased
  - > Timeline: 2018-2019







### **SUKHOI LOG**

### **OVERVIEW**

- One of the largest undeveloped gold deposits globally with 63 moz of gold JORC resources @ 2.1 g/t
- Close proximity to other Polyus assets creates opportunities for:
  - Optimisation of processing facilities and potential economies of scale
  - Utilisation of existing infrastructure (including the Peleduy – Mamakan grid)
- Amenable to mining via large-scale open-pit operations

A PLATFORM FOR THE NEXT DEVELOPMENT STAGE OF POLYUS



**SUKHOI LOG** 



### **SUKHOI LOG**

### MINERAL RESOURCES UPDATE

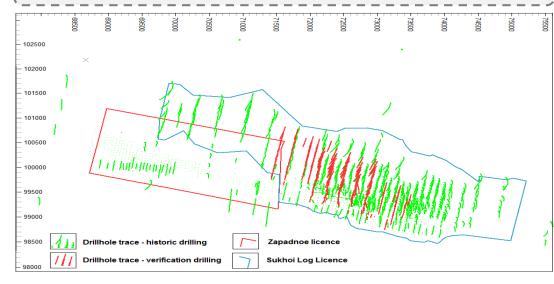
- An update on Mineral Resources estimates for Sukhoi Log has been conducted by AMC in compliance with JORC Code 2012.
- The estimated Mineral Resources at Sukhoi Log stand at 962 mt, with an average grade of 2.1 g/t Au and containing 63 moz of gold as at 30 October 2018.
- Polyus plans to drill a total of 197 km until the end of 2019, including the approximately 135 km drilled since October 2017
- Updated Mineral Reserve estimate: 2020

### SUKHOI LOG MINERAL RESOURCES AS AT 30 OCTOBER 2018 AT A 1.0 G/T AU CUT-OFF GRADE<sup>1</sup>

	CLASSIFICATION	TONNES (MT)	GOLD GRADE (G/T)	CONTAINED GOLD (MOZ)
	As at 30 October 2018			
	Inferred Resources	588	1.9	35
	Indicated Resources	374	2.4	28
	<b>Total Mineral Resources</b>	962	2.1	63
	As at 31 January 2017			
	Inferred Resources	887	2.0	58
	Indicated Resources	-	-	-
	Total Mineral Resources	887	2.0	58

A 9% INCREASE COMPARED TO THE PREVIOUS ESTIMAT

### TRACES OF VERIFICATION AND HISTORIC DRILLHOLES WITHIN THE LICENCE BOUNDARIES

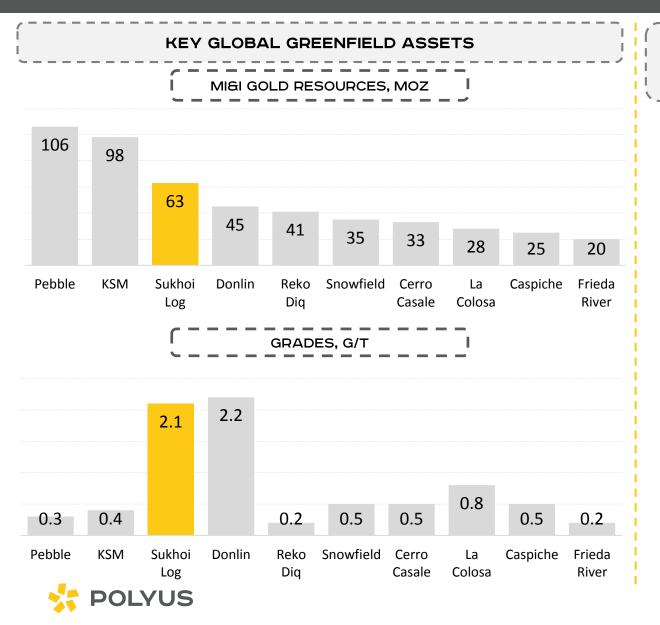




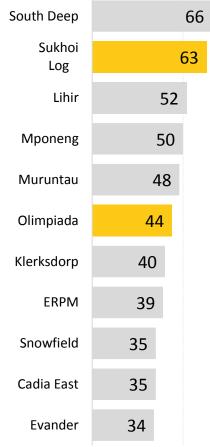
9%

### **SUKHOI LOG**

### SUKHOI LOG IS A UNIQUE ASSET AMONG GREENFIELDS & OPERATING ASSETS



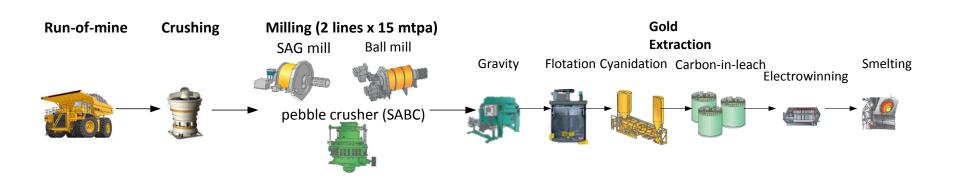
### ASSETS BY MIGI GOLD RESOURCES, MOZ



### **SUKHOI LOG**

## SCOPING STUDY: PROCESS PLANT & KEY ECONOMIC PARAMETERS ESTIMATES

#### CONVENTIONAL GRAVITY-FLOTATION SCHEME WAS SELECTED FOR SUKHOI LOG



- Scoping study resulted in 3 potential processing schemes, which will be evaluated further at pre-feasibility and feasibility stages
- Scoping study will be followed by a prefeasibility and feasibility studies which are currently expected to last through 2020

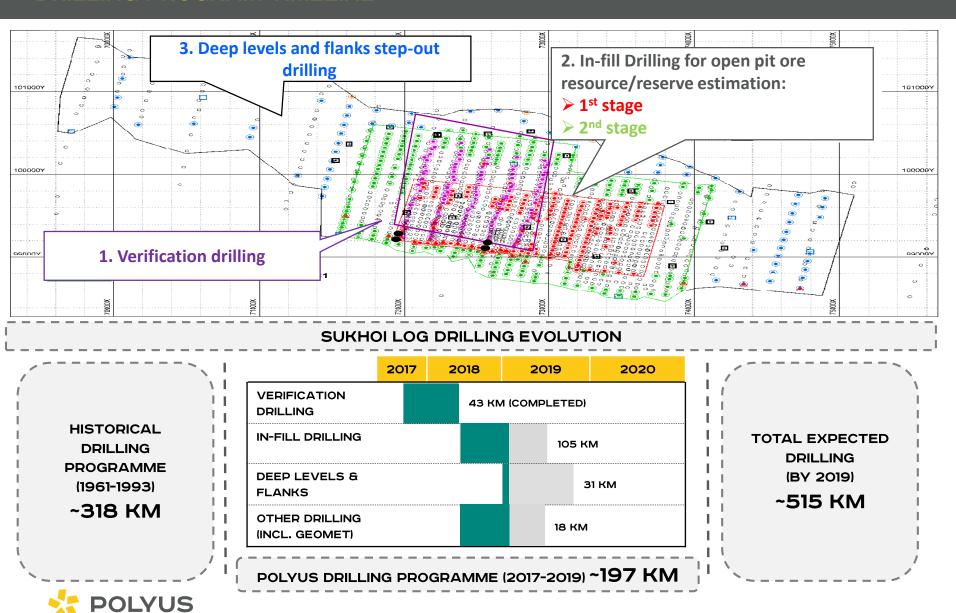
- > The estimates are at the scoping study level of accuracy
  - ➤ Throughput capacity: 30 mtpa
  - ➤ Preliminary production volumes estimation: ca 1.6 moz pa LoM
  - > TCC (\$/oz): 420-470
  - ➤ Project Construction Capex: \$2.0 2.5 bln
    - Next update on the economic parameters is expected upon completion of pre-feasibility study



INVESTMENT DECISION AND START OF CONSTRUCTION CAPEX SPENDING ARE SLATED FOR 2021

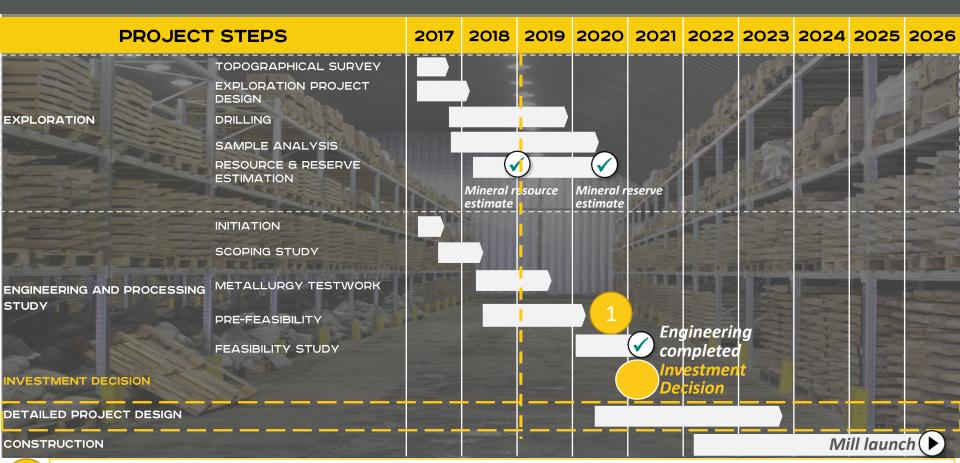
# **SUKHOI LOG**

# **DRILLING PROGRAM TIMELINE**



# **SUKHOI LOG**

## **PROJECT TIMELINE**





### Key pre-feasibility study sections are:

- 1. Detailed open pit design and mining schedules
- 2. Detailed design of processing plant
- 3. Review of infrastructure
- 4. Detailed estimation of project economic parameters (opex, capex)

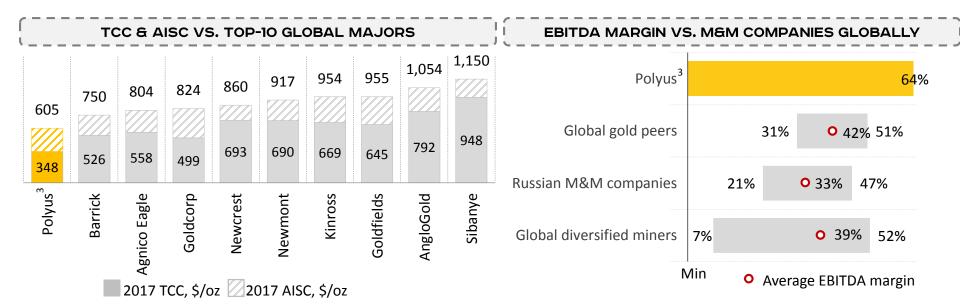
WITH THE SCOPING STUDY BEING COMPLETED, POLYUS LAUNCHED THE PRE-FEASIBILITY STUDY





# **KEY FINANCIAL FIGURES & BENCHMARKING**

	2014	2015	2016	2017	2018	2018 VS 2017
Total cash costs, \$/oz	585	424	389	364	348	(4%)
EBITDA adjusted, \$ mln	1,018	1,278	1,536	1,702	1,865	10%
EBITDA adjusted, margin %	45%	58%	62%	63%	64%	1 ppts
Capex <sup>2</sup> ,\$ mIn	525	268	466	804	736	(8%)
FCF <sup>1</sup> , \$ mln	282	351	902	610	672	10%
Net debt / EBITDA adjusted, "x"	0.3	0.3	2.1	1.8	1.7	(6%)





Source: Company data

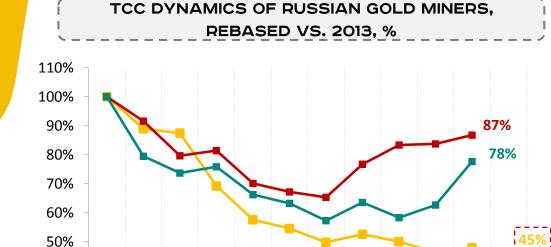
<sup>&</sup>lt;sup>1</sup> calculated on unlevered basis

<sup>&</sup>lt;sup>2</sup> ex. Sukhoi Log license acquisition costs net of Omchak power grid construction cost

<sup>&</sup>lt;sup>3</sup> FY 2018 figures for Polyus. Last reported numbers for other companies

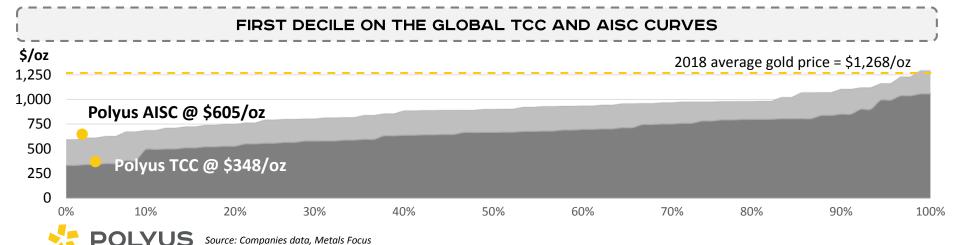
# THE LOWEST COST PRODUCER GLOBALLY

- The lowest cost producer among top-10 gold mining companies globally
- TCC and AISC in the 1<sup>st</sup> decile of global cost curves



1H13 2H13 1H14 2H14 1H15 2H15 1H16 2H16 1H17 2H17 1H18 2H18

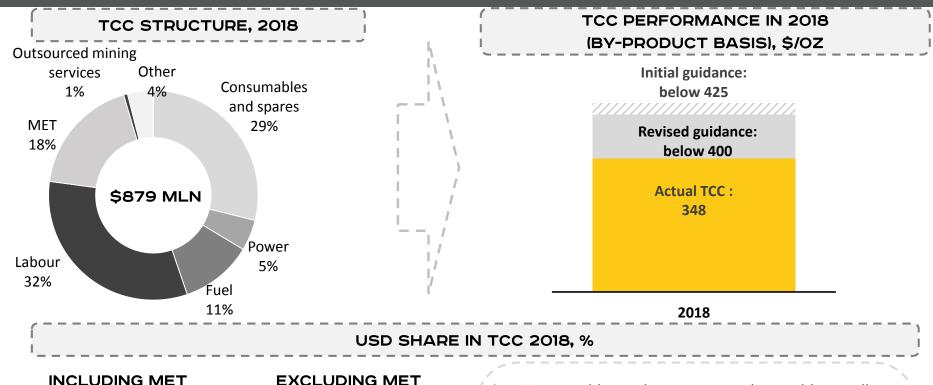
→ Polymetal → Petropavlovsk

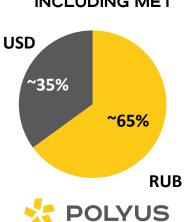


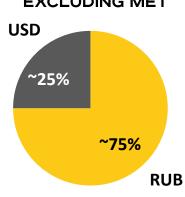
40%

----Polvus

# **TOTAL CASH COST PERFORMANCE**



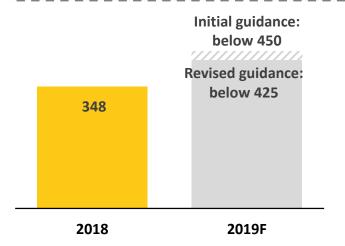




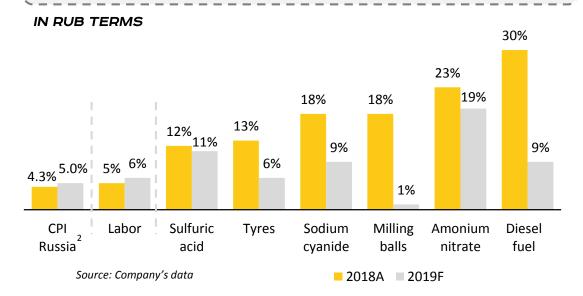
- Consumables and spare parts split roughly equally on USD-linked components and RUB items
- Although fuel is linked to USD due to export and local netbacks parity, 70% of this item can be considered to be effectively RUB-denominated, accounting for the oil price movements associated with FX rate
- Labor and other costs are RUB-denominated
- Polyus TCC excl. MET are ca. 25% USD-denominated

# **TOTAL CASH COST GUIDANCE**

# TCC GUIDANCE<sup>1</sup> FOR 2019, \$/OZ (BY-PRODUCT BASIS)



# KEY COST COMPONENTS INFLATION IN 2018-2019, %



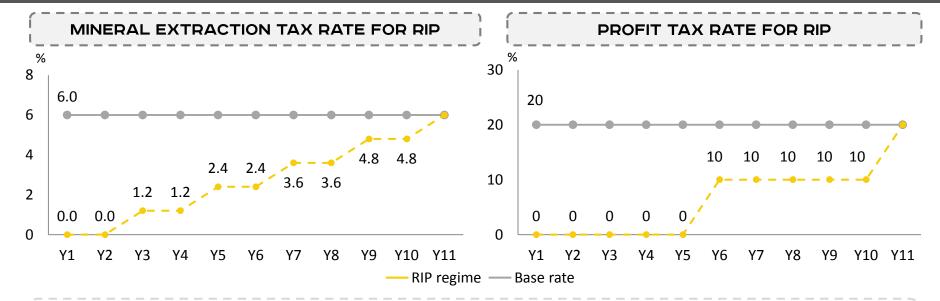
- 2019 CPI inflation in Russia is expected at around 5.0% vs ca. 4.3% in 2018
- Polyus expects that prices on key consumables will grow by around 4-20% driven mainly by global markets trends and catchup with rising export netbacks
- Tight control over inflating costs remains key priority for Polyus

<sup>&</sup>lt;sup>2</sup> Bloomberg data for 2019



<sup>&</sup>lt;sup>1</sup> At gold price \$1,330/oz and RUB/USD fx rate 60

# REGIONAL INVESTMENT PROJECT



- Regional Investment Project is a special tax regime, which allows for tax benefits for the projects in the Far Eastern region of Russia
- ➤ The tax regime provides for lower mineral extraction tax rate (MET) and profit tax rate for the projects

### **RIP AT VERNINSKOYE**

- Lower MET rate is applied at Verninskoye from 1<sup>st</sup> of January 2017.
- ➤ Polyus is exempt from the payment of the profit tax credited to the federal budget from 1<sup>st</sup> of January 2017 (3% of profit before tax).

### **RIP AT NATALKA**

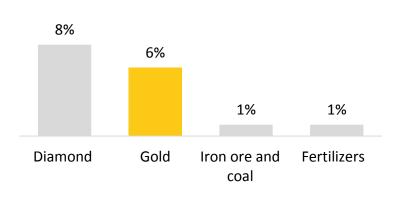
- Lower MET rate is applied from May 2018.
- Lower profit tax rate will be applied from 1<sup>st</sup> January of 2019.

POLYUS

Source: Company data 45

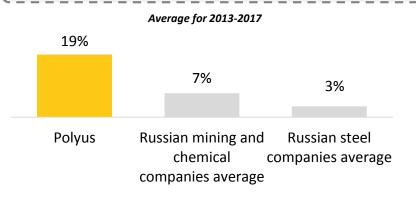
## MET AND EFFECTIVE TAX RATE

#### MINERAL EXTRACTION TAX RATE IN RUSSIAN M&M & CHEMICALS INDUSTRIES



- ➤ MET payments for gold and diamond companies are linked to underlying commodity prices (6% for gold).
- ➤ MET payments for other sectors are either calculated of the cost of mining (iron ore, base metals, potash etc.) or represent an absolute amount on a per tonne basis (coal).
- MET payments by gold companies are one of the highest within the industry.

### EFFECTIVE TAX RATE IN RUSSIAN M&M & CHEMICALS INDUSTRIES, % OF REVENUES



Effective tax rate (profit tax + MET) on Polyus is higher than an industry average in Russia.





### **FOCUS ON SHAREHOLDER RETURNS**

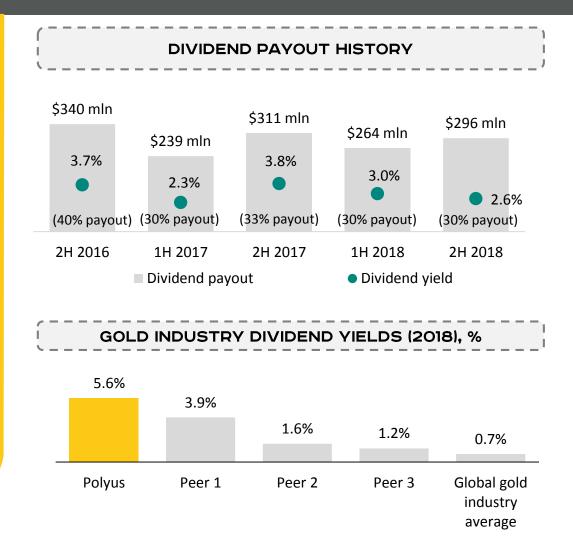
## PRUDENT DIVIDEND POLICY

### **KEY HIGHLIGHTS**

- FY 2017 and FY 2018 dividend: 30% of EBITDA but not less than \$550 million
- Post FY 2018: 30% of EBITDA
- Threshold for the dividend policy: Net Debt/EBITDA < 2.5x</p>
- If Net Debt/EBITDA > 2.5x, BoD will exercise discretion on dividends
- Semi-annual dividend payments

### **DIVIDENDS FOR 2H 2018**

- Board of Directors intends to recommend the dividends for 2H 2018 in the total amount of \$296 mln (\$2.2 per share)¹.
- The total dividend payout for the full year of 2018 will correspond to \$560 mln.
- The dividend record date is expected to be in May 2019.





Source: Company data, Bloomberg data

<sup>1</sup>Based on the current number of shares (excluding treasury stock) dividend per share is expected to be \$2.2 per ordinary share.





# DEBT MANAGEMENT BONDS BUY-BACKS IN 2018

#### **CONVERTIBLES BUY-BACK**

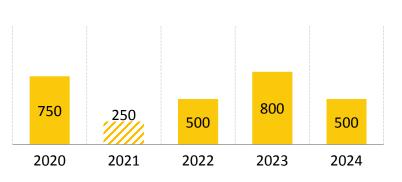
- In April 2018, Polyus conducted repurchase of convertibles for \$50 mln nominal or 20% of the total issue, taking into account significant market dislocation.
- ➤ The convertibles were repurchased at 86.7% for a total consideration of \$43.4 mln.

### **EUROBONDS BUY-BACK**

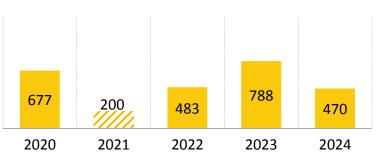
➤ In September 2018, Polyus conducted repurchase of 2020, 2022, 2023 and 2024 notes in aggregate principal amount of \$132 mln, thus improving the maturity profile

### MATURITY SCHEDULE OF EUROBONDS & CONVERTIBLES

### BEFORE BUY-BACKS: TOTAL OF \$2.8 BLN



### AFTER BUY-BACKS: TOTAL OF ~\$2.6 BLN



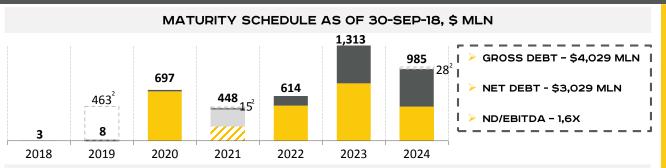
Convertibles

Eurobonds

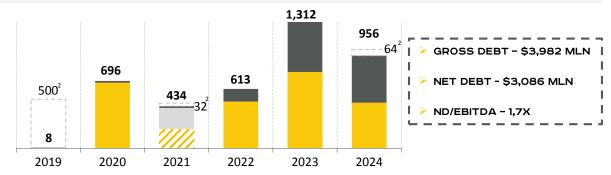


### **DEBT MANAGEMENT**

## PROACTIVE DEBT BOOK MANAGEMENT

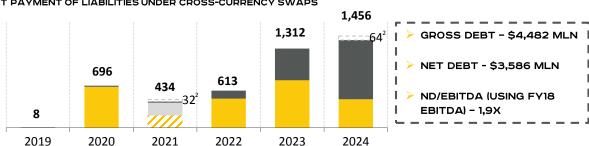


### MATURITY SCHEDULE AS OF 31-DEC-18, \$ MLN1



### PRO-FORMA MATURITY SCHEDULE AS OF 31-DEC-18, \$ MLN3





- The Company plans to repay the principal amount and liabilities under cross-currency swaps in the amount of ca. \$1.0 bln in April 2019, utilizing a credit facility with Sberbank in a total amount of RUB 65 bln due in 2024.
- The group's net debt does not include liabilities under crosscurrency swaps in the total amount of \$591 mln as of the end of 4Q 2018.
- The current portion of derivative liabilities amounts to \$500 mln and will be included into the net debt calculation post the repayment of the respective amount (subject to foreign exchange rate fluctuation) in April 2019.

🖟 Cross currency swaps 🔳 Bank loans 🔲 RUB bonds 🏏 Convertibles 📙 Eurobonds



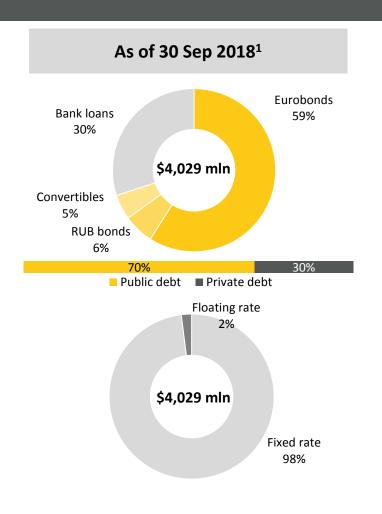
## **DEBT MANAGEMENT**

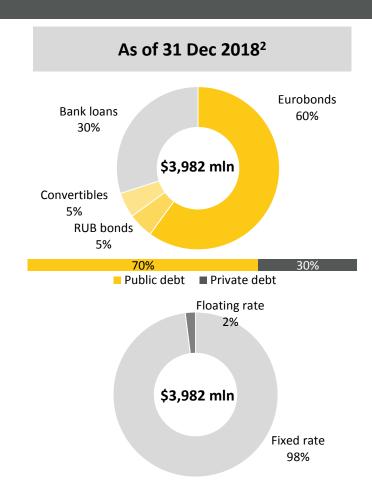
# MANAGING COST AND STRUCTURE

DEBT BREAKDOWN
BY SOURCE

DEBT BREAKDOWN BY INTEREST RATES

> AVERAGE INTEREST RATE





4.8%

4.8%



<sup>&</sup>lt;sup>1</sup>The debt breakdown does not include liabilities under cross currency swaps related to RUB-denominated bank credit facilities and rouble bonds, in a total amount of \$507 million as at 30 September 2018.

<sup>&</sup>lt;sup>2</sup>The debt breakdown does not include liabilities under cross currency swaps related to RUB-denominated bank credit facilities and rouble bonds, in a total amount of \$591 million as at 31 December 2018.





# **GUIDANCE OVERVIEW**

	2018	2019F
GOLD PRODUCTION, MOZ	2.440	CA. 2.8
TCC, \$/OZ	348	BELOW 450 BELOW 425
CAPEX, \$MLN	736	<del>650</del> <b>72</b> 5

# 2018 ... 2019

PRODUCTION GROWING 15% TO CA. 2.8 MOZ

TCC REMAINING AT
BELOW \$425/OZ TERRITORY

BOTH CAPEX & TCC FORECASTS ARE BASED ON THE ASSUMPTION OF FOREIGN EXCHANGE RATE OF 60 ROUBLES PER DOLLAR

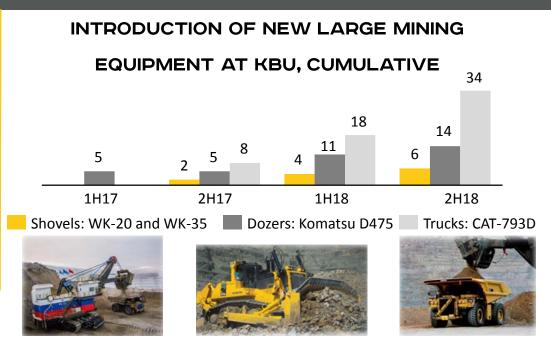


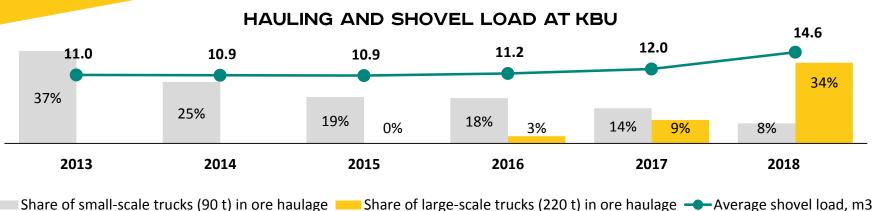


## MINING FLEET: FOCUS ON LARGE-SCALE MINING EQUIPMENT AT KBU

### **KEY HIGHLIGHTS**

- Polyus has already delivered all units of large-scale mining equipment planned for 2018.
  - Four WK-35 were introduced in 2018, gradually replacing small-scale OMZ EKG-10 with 10 m3 load and decreasing unit loading cost
  - 26 new 220t CAT-793D were introduced to haul higher mining volumes at Olimpiada and Blagodatnoye in 2018







## TOP EXAMPLES

# THICKENER UPGRADE AT KURANAKH



Polyus' technical team identified a possibility to boost throughput of the thickener by increasing the diameter of the feedwell

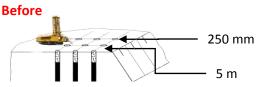
# CAPEX OPEX EFFECT ON EBITDA 2017 \$0.06 MLN \$0.9 MLN

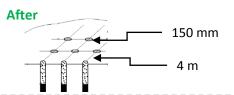
# BYPASS CONVEYOR INSTALLATION



At Mill-4, the installation of an additional conveyor to transport pebble to the large cone crusher bypassing the first stage pebble crusher. This initiative allowed to avoid a decrease in productivity during the first stage cone crusher downtimes and to stabilize the ore feed preparation process

# DRILLING PATTERN OPTIMIZATION





- Old drilling pattern at Alluvials required high explosive consumption at blasting stage
- Optimized drilling pattern allowed to improve blasting parameters and reduce explosive consumption (ammonium nitrate usage decreased by 37%). Other consumables usage at blasting stage remained stable or slightly decreased

CAPEX	OPEX	EFFECT ON EBITDA 2017
\$0.04 MLN	-	\$13.2 MLN

CAPEX	OPEX	EFFECT ON EBITDA 2017	
N/M	-	\$0.2 MLN	



# **COST CUTTING INITIATIVES**

# COST SAVINGS ON IMPROVED SITE INFRASTRUCTURE

# PREVIOUSLY

\_

NOW

FFECTS

Lack of strategic approach to infrastructure-related issues, adhoc maintenance of supporting mining facilities and high wear and tear as a result

Proactive infrastructure maintenance aimed at higher operating efficiency: quality road maintenance, reliable power supply, pits dewatering, etc.

- ca. 15% unit cost savings on trucks tires at KBU due to increased life of tyre
- increased utilization ratio of the mining equipment
- lower power costs



# CONSUMABLES USE OPTIMIZATION

- Suboptimal standard quality of consumables and relatively high usage rates
- Consumables costs reduction via I introduction of higher quality I and more efficient components I and re-usage of treated materials I
- up to 20% unit cost savings on grinding balls
- ca. 11% operating cost savings on quick lime consumption at KBU Mills-2.3



- OPTIMIZATION OF CONSUMABLES
  PROCUREMENT
- Consumables (e.g. diesel oil and ammonia nitrate) procured on spot basis, which is inefficient due to high price and transportation cost seasonality
- Consumables procured in the period of the lowest cost and are warehoused on site

- ca. 6% cost savings on the diesel fuel and ammonia nitrate (for KBU)
- risk of consumables shortage is significantly mitigated





## **NEW TECHNOLOGIES: MINE-TO-MILL**

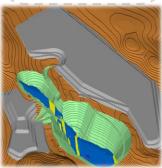
Mine-To-Mill technology aims to modify blasting and processing practices to achieve a more suitable mill feed size and can provide for an increase in throughput

- DETAILED
  EXPLORATION OF
  THE ORE BODY
- Review of detailed exploration data
- Selective testing of core material for hardness, fracturing & continuity
- BWi<sup>1</sup> testing of core samples
- Development of a 3D block model

- DRILLING
  OPTIMIZATION
- RC drilling with a pattern of 10\*10 m at a depth of up to 30 meters
- Samples for hardness and BWi tests every 2 meters
- The model is adjusted based on new data from RC drilling

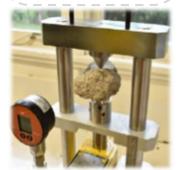
- BLASTING ANALYSIS
- Test explosions with varying parameters (drill holes diameter and pattern, rated explosives consumption) carried out on sites
- Data from the test explosions is imported into a mathematical model

- DETAILED MODELLING
- Mathematical modeling and development of a deposit model based on hardness, BWi and blastability indexes to plan mining operations
- MINE-TO-MILL
  IMPLEMENTATION
- Ore feed to the mill with consideration of hardness, BWi index and particle size distribution













## **MILLS AUTOMATION PROCESSES**

### **KEY HIGHLIGHTS**

- ➤ Automation introduced at Olimpiada Mills-1,2,3 in 2015-17 has paved the way for throughput increase and allowed to increase recovery, with the following automation processes involved:
  - Dispatched control over main equipment: conveyors, feeders, mills, pumps, agitators
  - Analysis of technological process parameters and equipment statistics
  - Diagnostics and emergency shutdowns

### PROCESSING DISPATCH CONTROL ROOM



Real-time data and analysis at operator screens

### **AUTOMATION FLOWSHEET AT OLIMPIADA MILLS-1,2,3**

# CRUSHING AND GRINDING

- Ore loading to crushers and grinding mills
- Water and sand flows in mills
- Water levels in pump tanks

# GRAVITATION AND CONCENTRATION

- Pumps pressure levels and throughputs
- Water flows rate to BIO
- Water levels in pump tanks

### **FLOTATION**

- Froth and airflows control
- Reagent flows rate control
- Thickeners operation control, density and flows rate from thickeners

### **HYDROMETALLURGY**

NaCN analyzer and automated dosage system provides optimal reagent concentration reducing its expense by 3-5%



## **NEW TECHNOLOGIES: FLASH FLOTATION**

### **FLASH FLOTATION**

- ➤ Unit operation designed to remove fine valuable mineral particles otherwise returned to a new processing cycle
- ➤ Minimizes overgrinding and improves overall mill throughput, recovery and optimizing water cycles
- ➤ Improves flotation output with more stable feed in the further flotation circuit and increasing metallurgical quality of the concentrate
- ➤ 1 SkimAir flash flotation unit has the same efficiency as 6 gravitation concentrators but requires much less space and is more economical
- Flash flotation units allow to halve gold content in recirculating flows increasing direct gold recovery



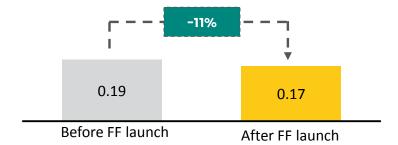
### **KEY BENEFITS**

Minimized overgrinding

Improved concentrate quality

Improved recovery

# CHANGE IN FLOTATION TAILS GOLD CONTENT AT BLAGODATNOYE, G/T



### **CURRENT STATUS**

- 2 flash flotation units were installed on the Mill-4
- The Company plans to commission flash flotation units at Olimpiada's Mills No. 1, 2 and 3 in 1H 2019

## **OLIMPIADA: FURTHER MILLS EXPANSION**

### **DEBOTTLENECKING INITIATIVES**

- Crushing:
  - Ore feed optimization via Mine-to-Mill
- Grinding:
  - Equipment modernization
- Gravitation / Flotation:
  - Introduction of flash flotation at Mills-1,2,3; ongoing flotation modernization
- BIO / Leaching:
  - Introduction of high-temperature alkaline conditioning
  - Separate antimony ore treatment at Mill-1 (more details starting p. 64)

### **KEY METRICS**



Total capex1: ca. \$130 mln



Throughput capacity: up to 13.4 mtpa

Incremental volumes: ca. 110 koz

TO BE COMPLETED IN 2020

### **CURRENT STATUS**

- Further Olimpiada mills expansion is a complex set of small & medium-scale initiatives aimed on throughput capacity increase and recovery stabilization (more details on the next slide)
- ➤ In 2018, Olimpiada processing complex operated at 13.3 mtpa and below 80% recovery with 1,322 koz produced (incl. 256 koz of flotation concentrate)
- Introduction of high-temperature alkaline leaching is expected in 1Q 2019



1. At 60 \$ / RUB FX rate 62

# OLIMPIADA: FURTHER MILLS EXPANSION VIA SMALL & MEDIUM-SCALE INITIATIVES

1 CRUSHING

2

#### **GRINDING**

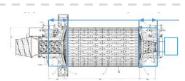
3

### GRAVITATION & FLOTATION

- Introduction of Lokotrack mobile crusher and cone crusher at Mill-2
- Mine-to-Mill introduction
- Replacement of SAG Mill at Mill-3
- Replacement of pumps and cyclones
- > Flash flotation at Mills-1,2,3s
- Installation of Jameson flotation cells













4

BIO

- BIO-1,2,3 modernization<sup>1</sup>
- Installation of additional concentrate regrinding mill
- Separate antimony ore treatment





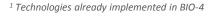
5

**LEACHING** 

- High-temperature alkaline conditioning
- > Installation of additional desorption unit







# **BLAGODATNOYE: MILL EXPANSION, STAGE 2**

### **DEBOTTLENECKING INITIATIVES**

- Blasting and Crushing:
  - Reconfiguration and increase of availability of existing equipment
  - Ore feed optimization via Mine-to-Mill
- Grinding:
  - Equipment modernization
- Gravitation / Flotation:
  - Installation of new small-scale high efficiency flotation equipment (flash flotation SkimAir; Jameson flotation cells)
  - Replacement of flotation concentrate regrinding mill

### **KEY METRICS**

Total capex1: c. \$40 mln



Throughput capacity: up to 9.0 mtpa

Incremental volumes: ca. 40 koz

TO BE COMPLETED IN 2019

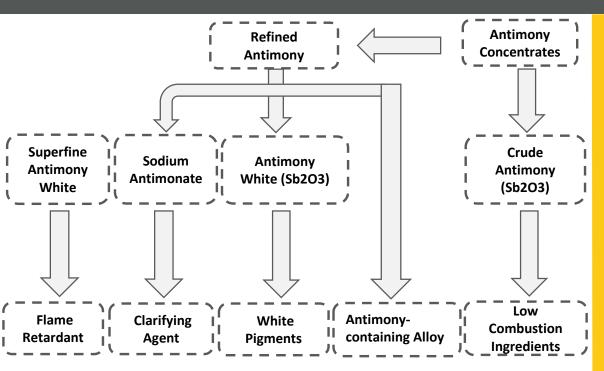
### **CURRENT STATUS**

- Blagodatnoye Mill operated at above 8.7 mtpa in 2018 with 416 koz produced
- Mine-to-Mill from 2018
- > 2 Flash flotation units were installed in 2018





# **ANTIMONY PROJECT: WHAT IS ANTIMONY?**



# GEOLOGY

- Minor metal, elementally a brittle silvery-white shiny metalloid
- The content of antimony in the earth crust is only 0.0001%.
- Antimony mainly occurs in deposits with lead, silver and gold.
- Antimony is a semiconductor and has a thermal conductivity lower than most metals

### **APPLICATION**

Antimony is broadly applied in \
fire-retardant materials, battery production, ceramics, glass, galvanizing, aircraft building \_\_\_\_industry\_etc.\_\_\_\_\_\_

#### **NATIVE ANTIMONY**



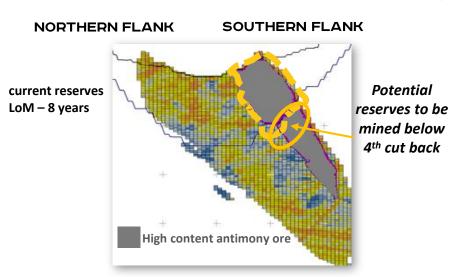
METALLIC ANTIMONY





### ANTIMONY PROJECT: POLYUS PRODUCTION VARIABILITY

# VOSTOCHNY PIT GEOLOGICAL SCHEME



Mill-2,3 ore processing Mill-1 ore processing (gravitation and flotation) (gravitation and flotation) Concentrate **Flotation tailings BIO** and hydrometallurgy Filtration and packaging

**Dore Gold** 

Low content antimony ore

PROCESSING FLOWSHEET\*

Au-Sb FC for Sale

Au-Sb FC

High content antimony ore

- Mineralogical ore properties at Vostochny pit deeper horizons envisage increase in the amount of high content antimony ore
- > Total amount of high content antimony ore Olimpiada conservatively mined estimated at 11 mln t in 2017-2026 combined
- Olimpiada plant to switch to a processing flowsheet with more profitable combined Au-Sb flotation concentrate (FC) production at Mill-1

**Tailings** 

No additional capital or operational expenses

Mineral	Content
Au, g/t	50-100
Ag, g/t	<1.5
Sb, %	20-40
As, %	<3
S, %	~15
Fe, %	~8
C, %	4-4.5

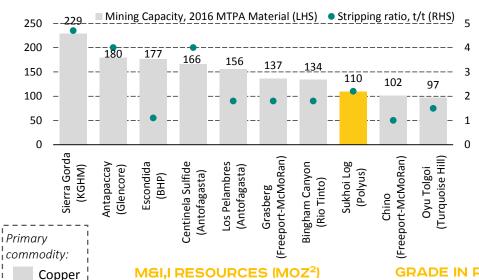
PRODUCTION OF COMBINED AU-SB FC EXPECTED TO REACH UP TO 200 KOZ OF GOLD AND UP TO 15-20 KT OF SB CONTAINED. THE GROUP'S TCC ARE EXPECTED TO DECREASE \$10-15 PER OUNCE.



# SUKHOI LOG VS PORPHYRY ASSETS

ADDITIONALLY, SUKHOI LOG IS SOMEWHAT SIMILAR IN GEOLOGICAL FEATURES AND SIZE OF OPERATIONS TO PORPHYRY DEPOSITS DEMONSTRATING SUPERIOR QUALITY AMONG SUCH PEERS

## GLOBAL LARGEST PORPHYRY ASSETS BY MINING

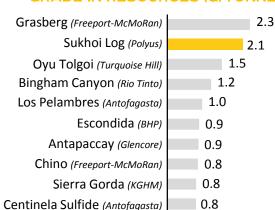


### Similarly to porphyry deposits, Sukhoi Log has the following features:

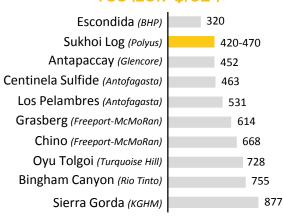
- Disseminated quartz-sulphide mineralization in carbonaceous shales
- Large and giant scale of the mineralization
- The mineralization is limited to the orogene
- The style of mineralization is mostly veinletsdisseminated and/or stockwork
- The mineralization is located mostly in the areas of alteration
- The content of the oregenetic minerals is very similar (pyrite, chalcopyrite, arsenopyrite)

### GRADE IN RESOURCES (G/TONNE<sup>2</sup>)

#### Escondida (BHP) // 756 Grasberg (Freeport-McMoRan) 281 Oyu Tolgoi (Turquoise Hill) 209 Los Pelambres (Antofagasta) 189 Centinela Sulfide (Antofagasta) 85 Sukhoi Log (Polyus) 63 Sierra Gorda (кднм) 46 Bingham Canyon (Rio Tinto) 30 Antapaccay (Glencore) 22 Chino (Freeport-McMoRan)



### TCC (2017 \$/0Z2)





Gold