



Truckless system - S11D

# Vale's Performance in 3Q18

Rio de Janeiro, October 25<sup>th</sup>, 2018



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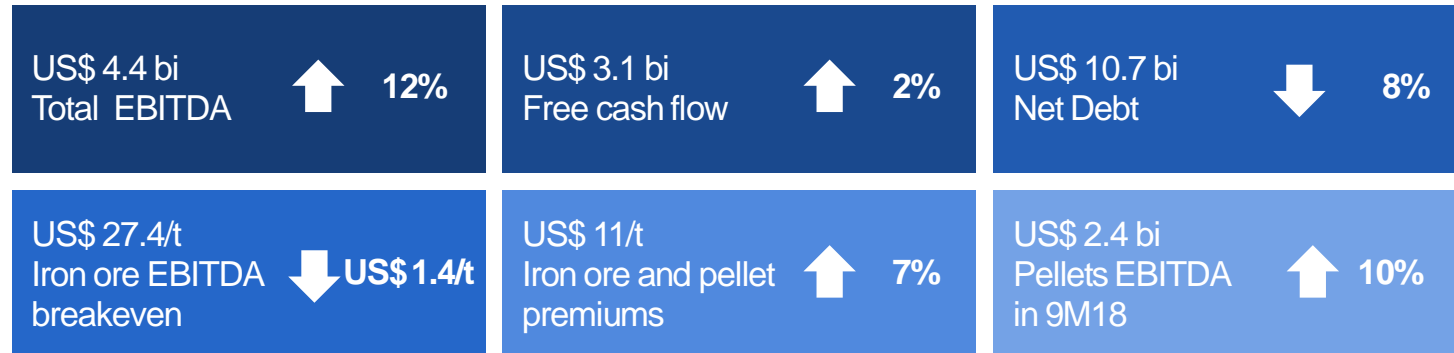
# Agenda

1. Highlights of Vale's performance in 3Q18
2. Capital Allocation
3. Business segment performance



**Highlights of Vale's  
performance in 3Q18**

## Delivering in every meaningful way



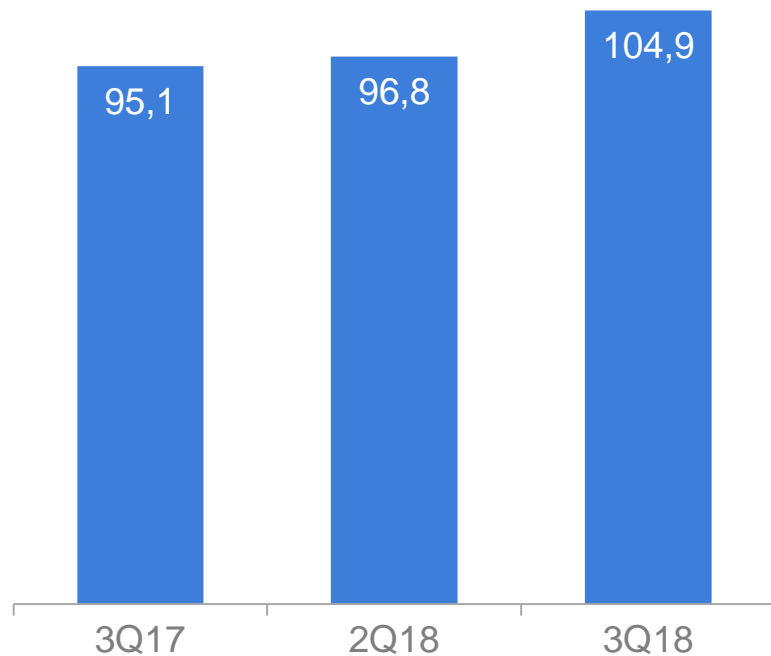
Chief Executive Officer, Mr. Fabio Schvartsman, commented on the 3Q18 results, *“The strong 3Q18 results showcase the structural change in the Chinese iron ore and steel markets. We are the mining company that is best suited to further benefit from the flight to quality given the increasing share of premium products.”* He concluded, *“We are turning Vale into a very predictable company by delivering sound operational performance, higher price realization, lower costs and rigorous capital allocation.”*



# Record production for iron ore and pellets supported by S11D ramp-up and by the decision to restart the three idle pellet plants

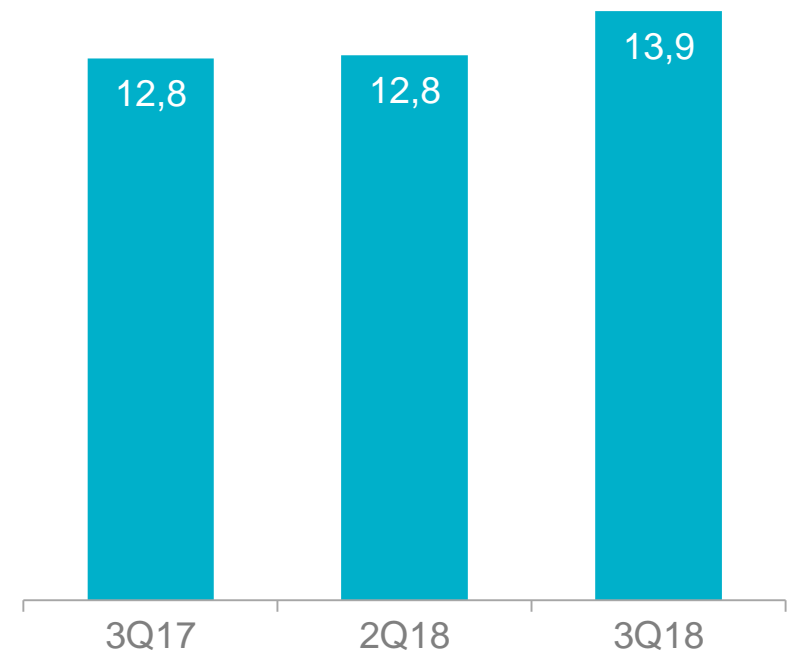
## Iron ore<sup>1</sup> production volumes

Mt



## Pellet production

Mt

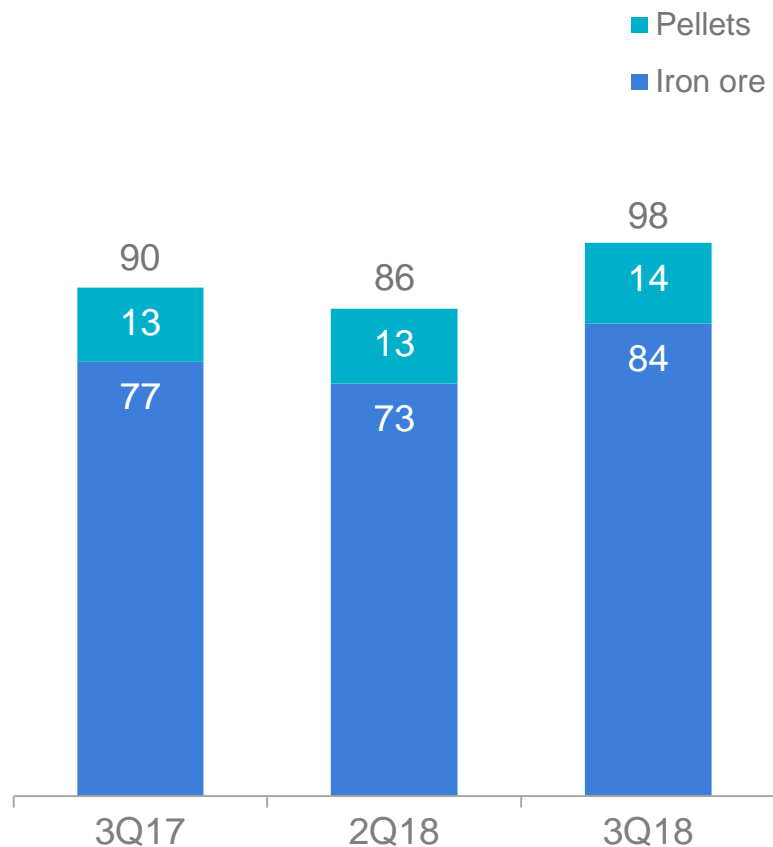


<sup>1</sup> Including third party purchases, run-of-mine and feed for pelletizing plants

# The flexible supply chain along with S11D and pellet plants ramp-ups led to record sales and increased share of premium products

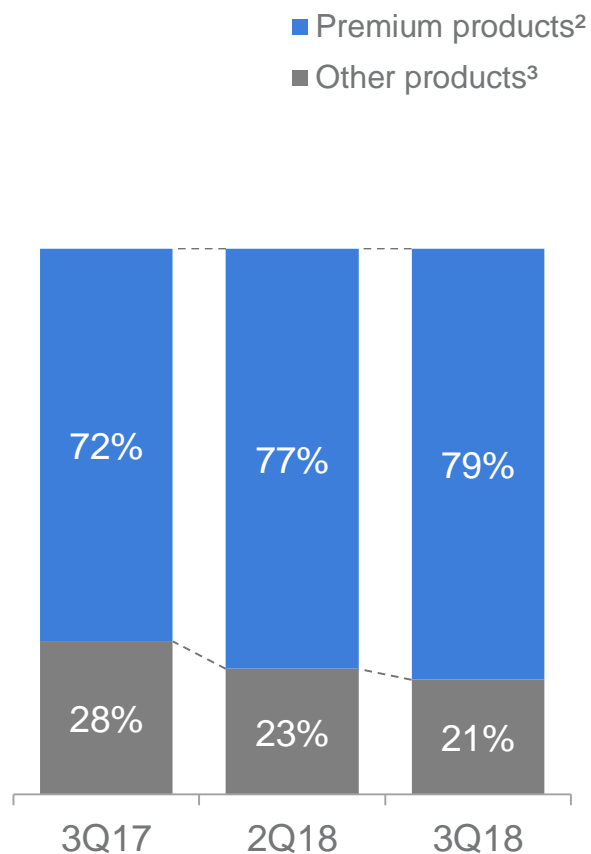
## Iron ore<sup>1</sup> and pellets sales volumes

Mt



## Sales composition

%



<sup>1</sup> Iron ore fines including ROM

<sup>2</sup> Composed by pellets, Carajás, Brazilian Blend Fines (BRBF), pellet feed and SFLA (sinter feed low alumina)

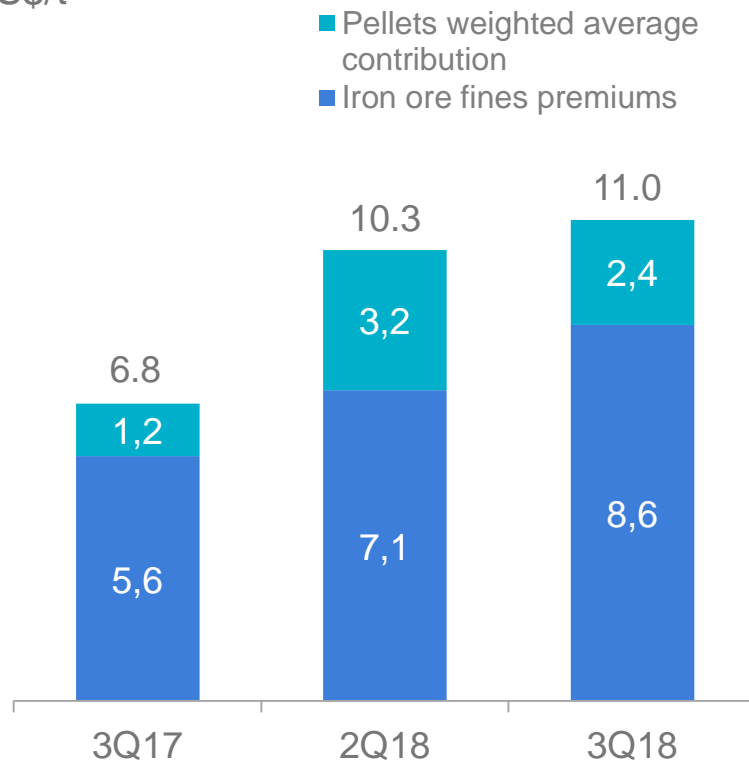
<sup>3</sup> Composed by standard sinter feed, lump and high silica



# Record premium of US\$ 11/t, due to the active optimization of the supply chain and the premium product portfolio

## Average premiums of iron ore fines and pellets<sup>1</sup>

US\$/t



## Highlights 3Q18

### Value over volume

**Differentiation strategy** capturing the benefits of the structural flight to quality trend

The record was a result of **marketing efforts to position Vale's premium product portfolio** and the dynamic supply chain management maximizing margins

Premiums added **US\$ 400 million** of EBITDA in 3Q18 vs. 3Q17

<sup>1</sup> Include the effects of Vale's higher Fe content, premiums for lower alumina and phosphorous, discounts and commercial conditions for iron ore fines and pellets.

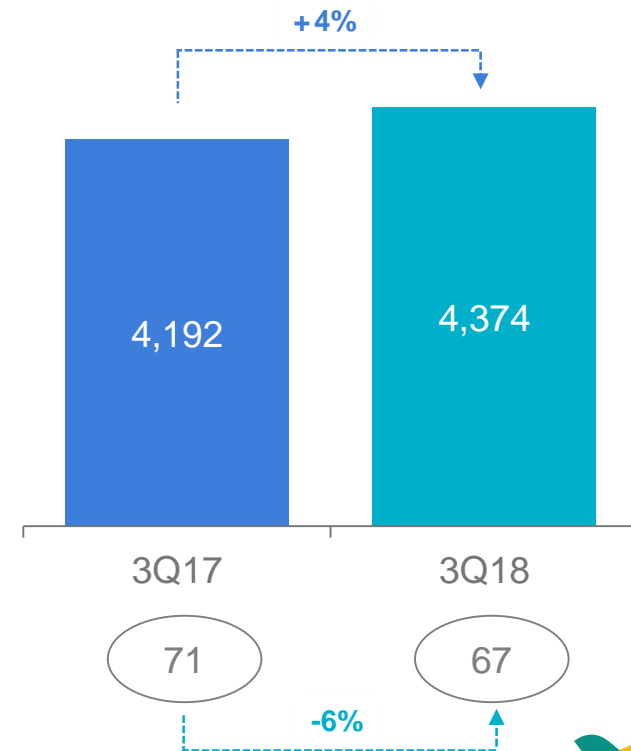
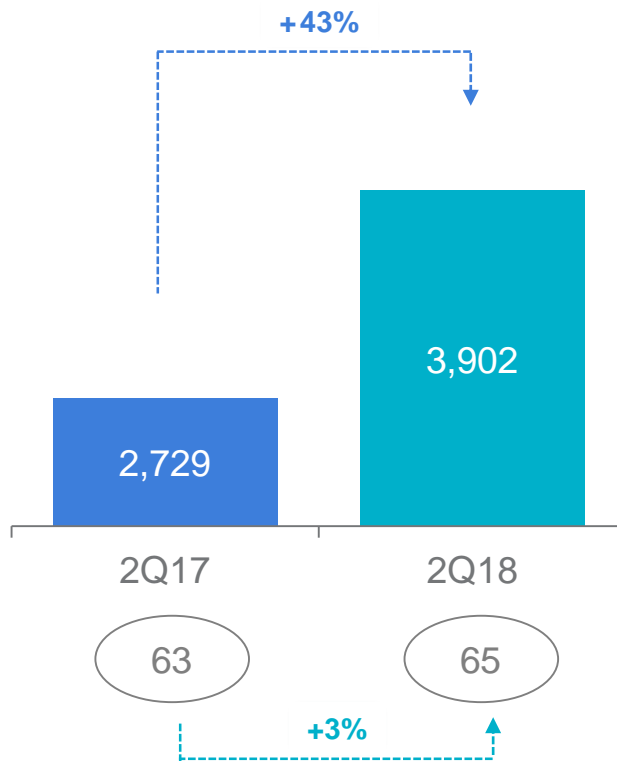


# Consistent quarterly EBITDA growth year-on-year, irrespective of reference price variation

## Adjusted EBITDA

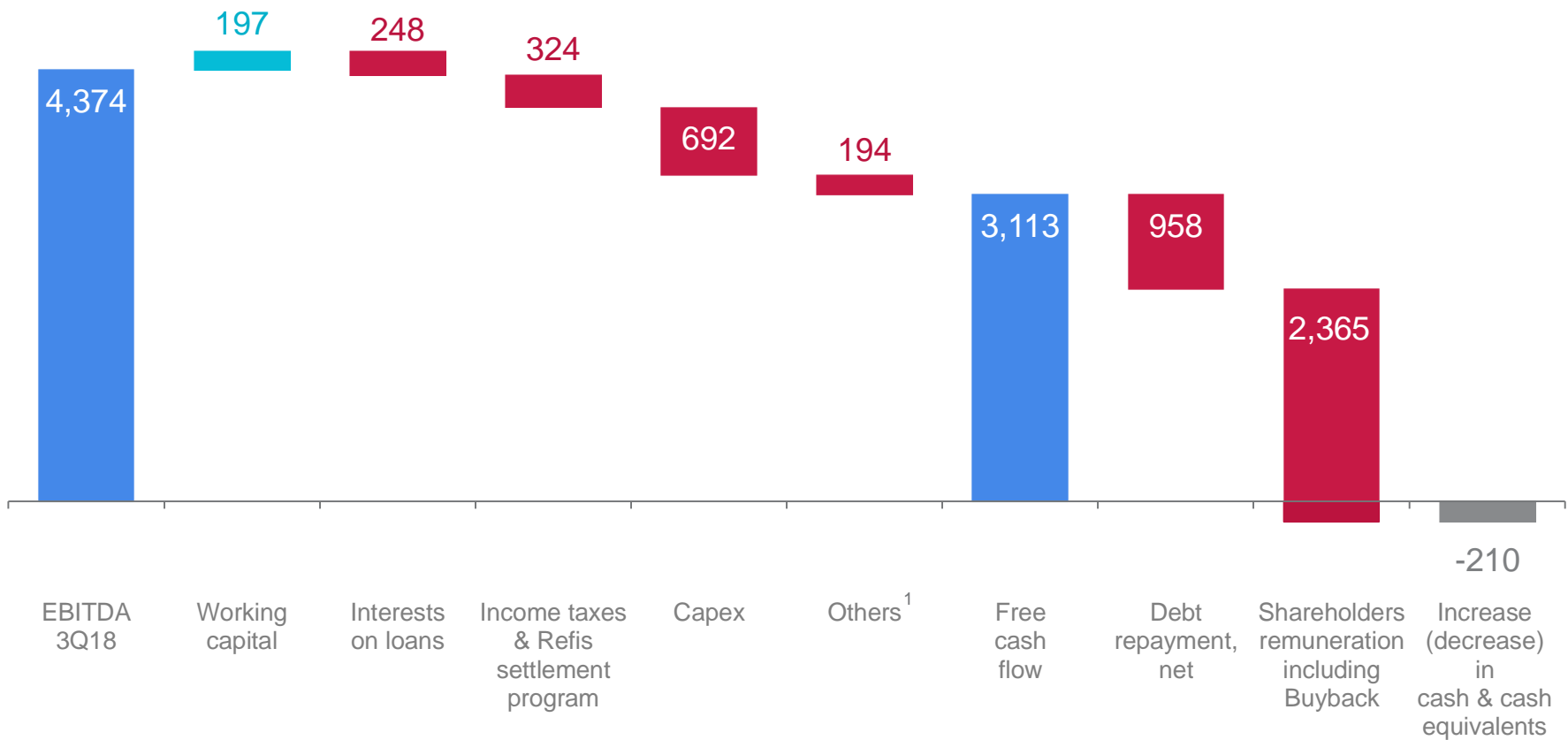
US\$ billion

○ Iron ore 62%  
reference price (US\$/t)



# The strong cash flow generation led Vale to virtually achieve its net debt target of US\$ 10 bi while returning US\$ 2.4 bi to shareholders

US\$ million

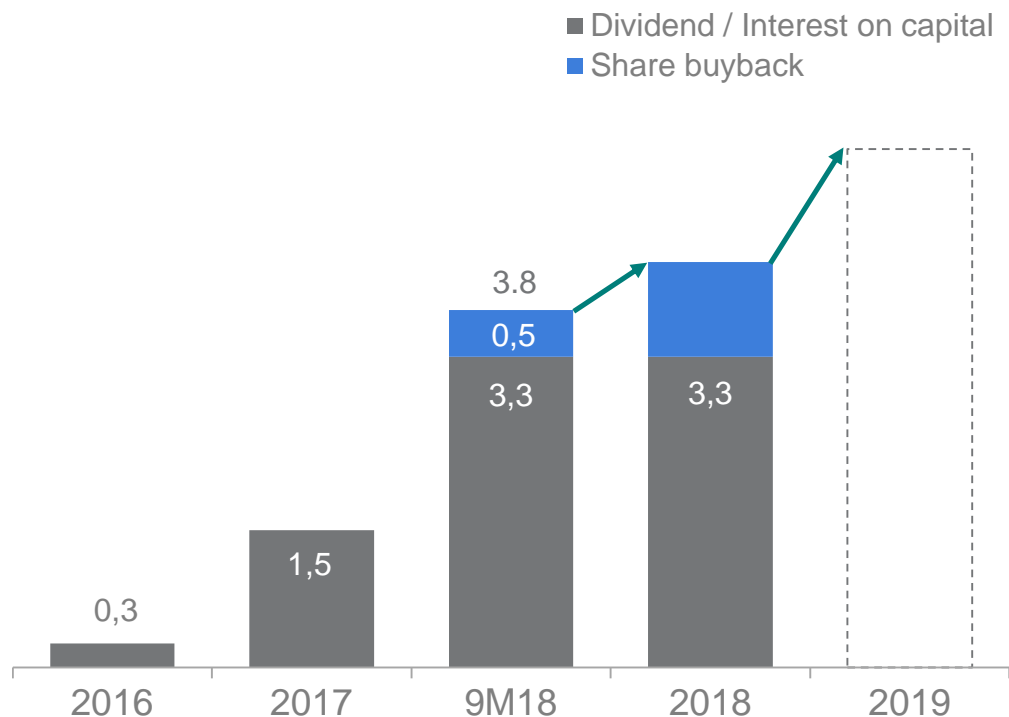


<sup>1</sup> Includes derivatives, Samarco, dividends and interest on capital paid to noncontrolling interest, net disposal of assets and others.

# Strong balance sheet sets the basis for starting a new era of shareholder remuneration

## Shareholder remuneration

US\$ billion



## Highlights

First payment pursuant to the **new dividend policy** that was designed to be **predictable**, **aggressive** and **sustainable** over a long period of time

Vale has **executed ~50%** of its **US\$ 1 billion share buyback** in 3Q18

**3Q18** results translated into a **minimum shareholder remuneration of US\$ 1.142 billion**. If we deliver the same results next quarter, minimum dividend related to 2H18 will be US\$ 2.3 billion, vs. US\$ 1.9 billion in 1H18

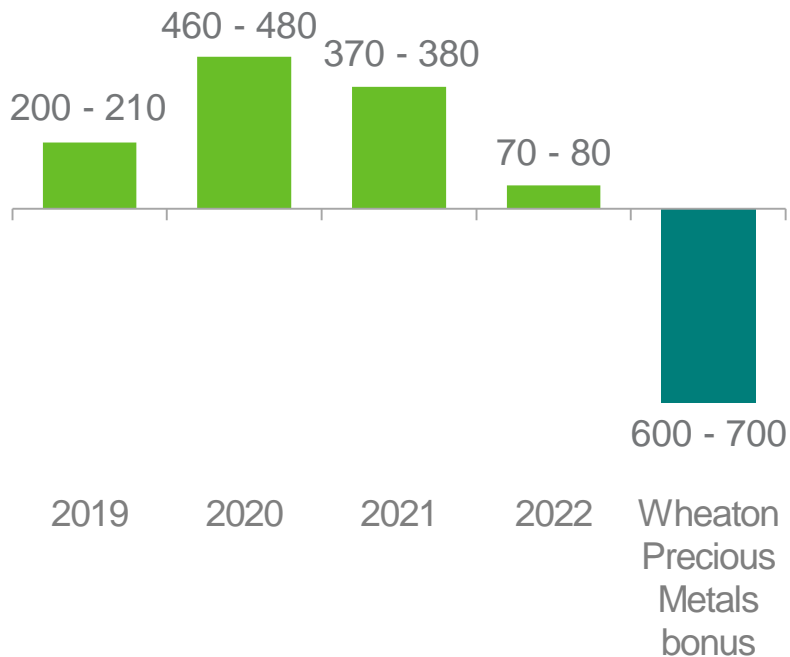
2

**Capital allocation**

# Consistent with the rigorous capital allocation strategy, Vale approved two high return investments

## Copper: Salobo III Capex

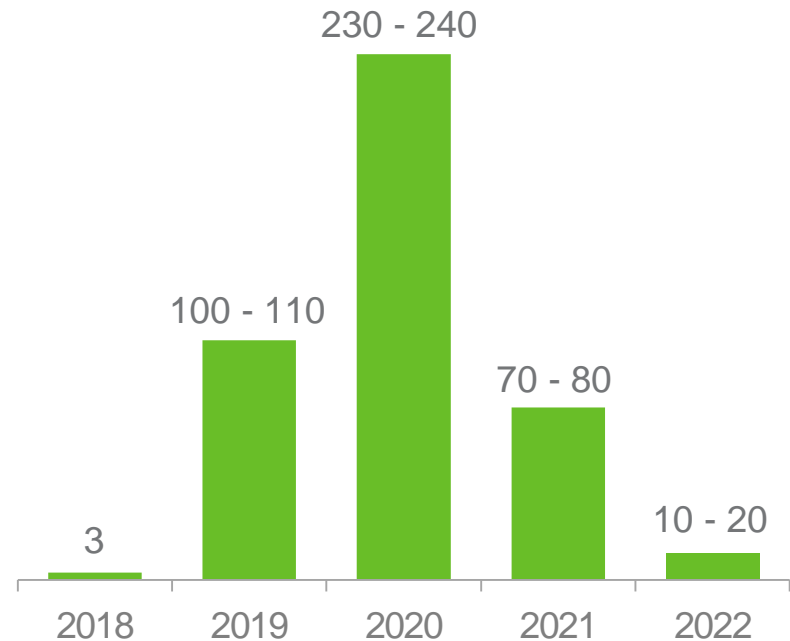
US\$ millions



- Growth capex of US\$ 1.1 billion
- Start-up 1H22
- Production up to 2052

## Pellet feed: Gelado Capex

US\$ millions

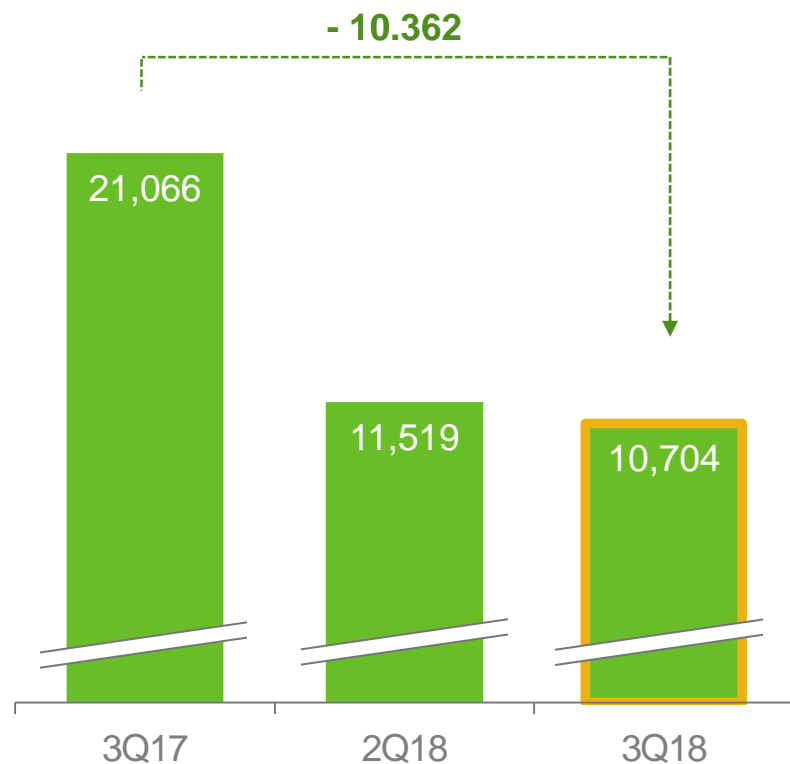


- Sustaining capex of US\$ 428 million
- Start-up 2H21
- Production up to 2031

# Vale has continued to trim its net debt and virtually achieved the US\$ 10 billion net debt target

## Net debt

US\$ billion



## Highlights

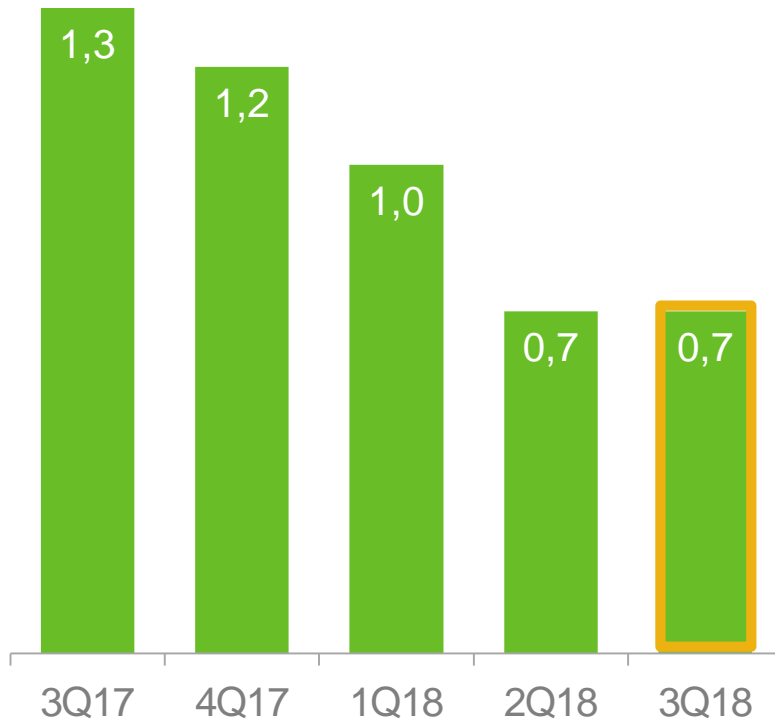
**Cash position** on September 30<sup>th</sup>, 2018 of **US\$ 6.106 billion**

**Net debt** has reached the **lowest level since 3Q09**, **reducing** by more than **US\$ 10 billion** over the last **12 months**

Vale can already perceive the benefits of carrying lower indebtedness on its **gross interest**, which were **reduced by 35%** to US\$ 272 million in 3Q18 from about US\$ 417 million in 3Q17

# Leverage was 0.7x and will reduce further as net debt target of US\$ 10 bi is reached in the short term

## Net debt / LTM<sup>1</sup> EBITDA Ratio



Net debt in 3Q18: US\$ 10.704 billion

LTM EBITDA / LTM gross interest: 12.8x

Average maturity: 9.1 years

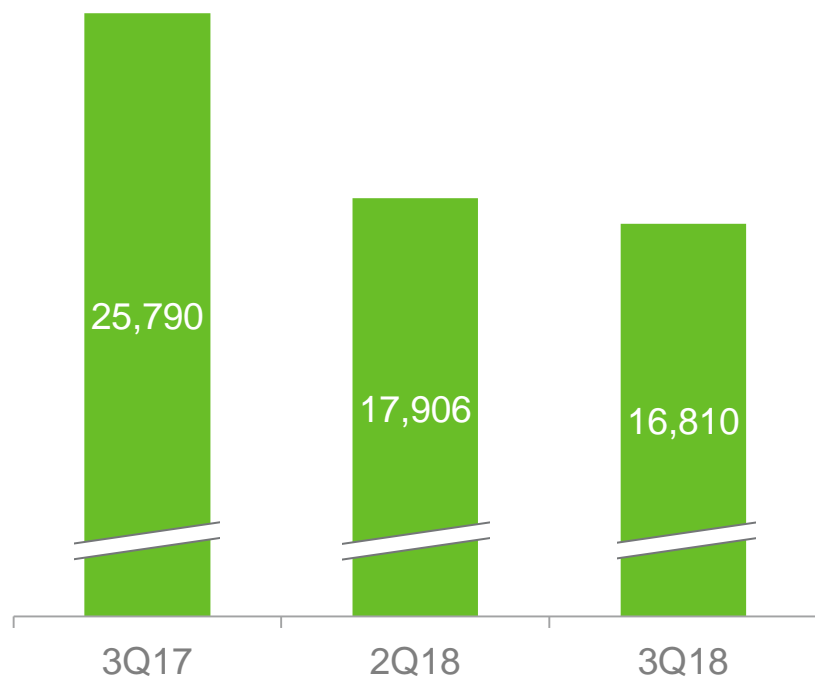
Average cost of debt: 5.09% per annum



# The decrease in gross debt against the end of last quarter was mainly due to repayments of US\$ 1.2 billion<sup>1</sup> in 3Q18

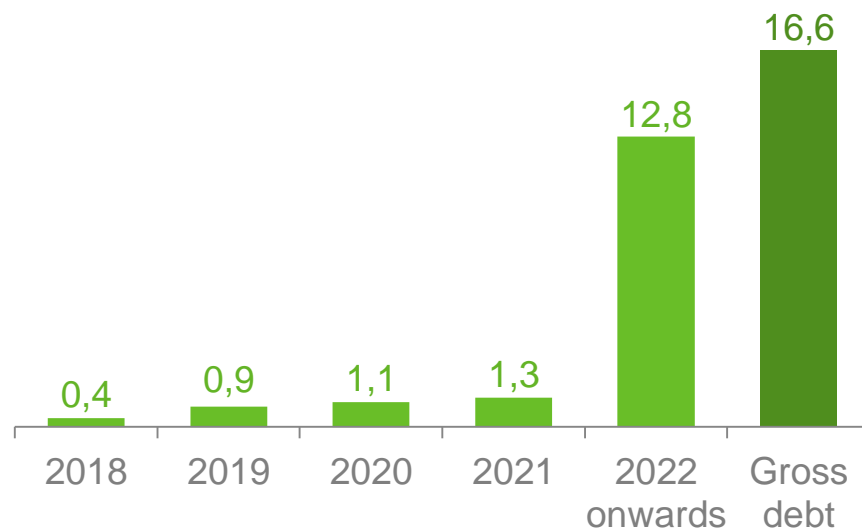
## Gross debt

US\$ billion



## Gross debt amortization schedule<sup>2</sup>

US\$ billion



**77% of our debt maturity will occur after 2022**

<sup>1</sup> Debt repayments less debt additions. Include interest payments

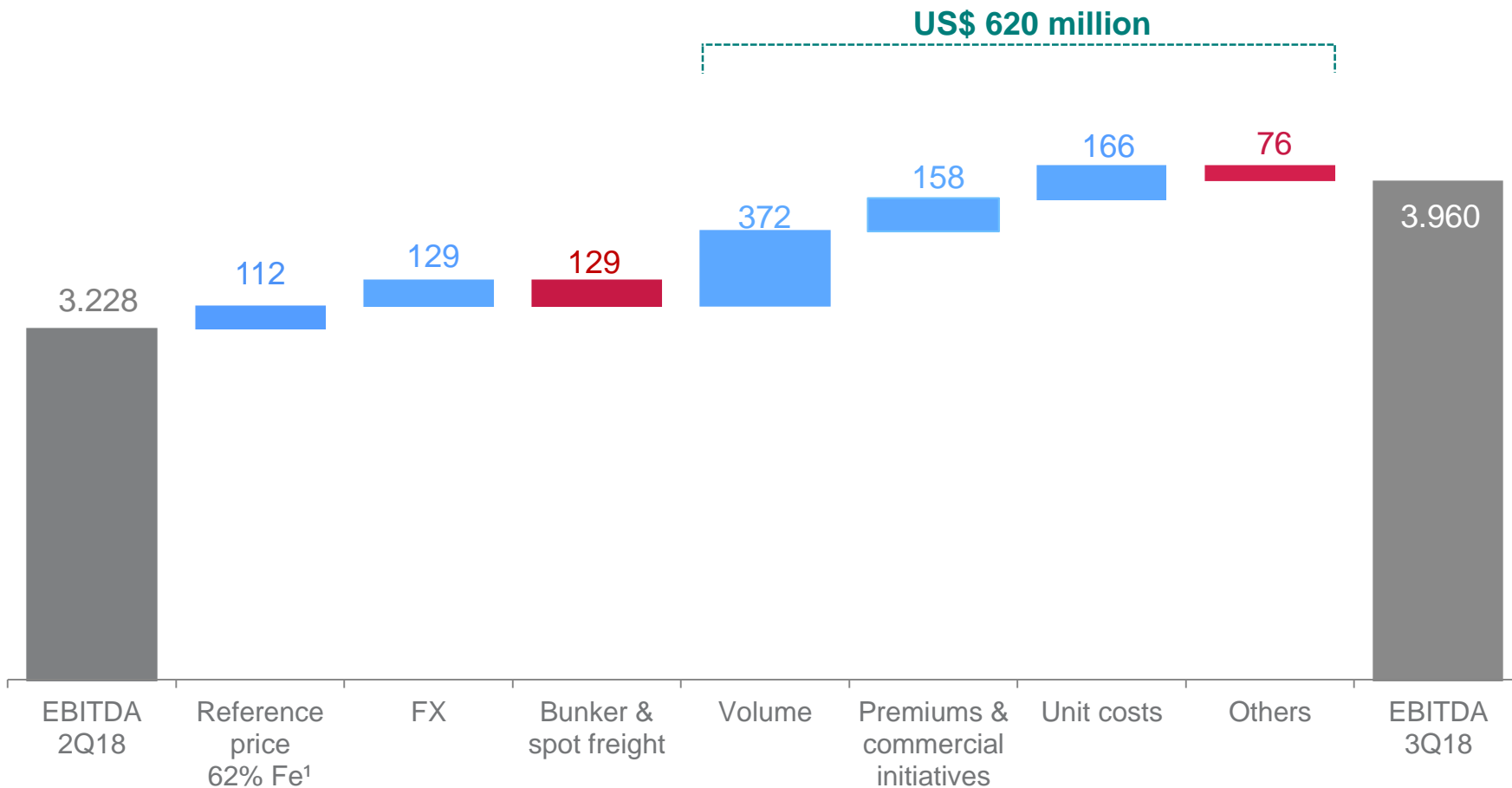
<sup>2</sup> As of September 30<sup>th</sup>, 2018. Does not include accrued charges.



**Business segment  
performance**

# Ferrous Minerals EBITDA was higher than Vale's total in 2Q18 mainly due to higher sales volumes, lower unit costs and higher premiums

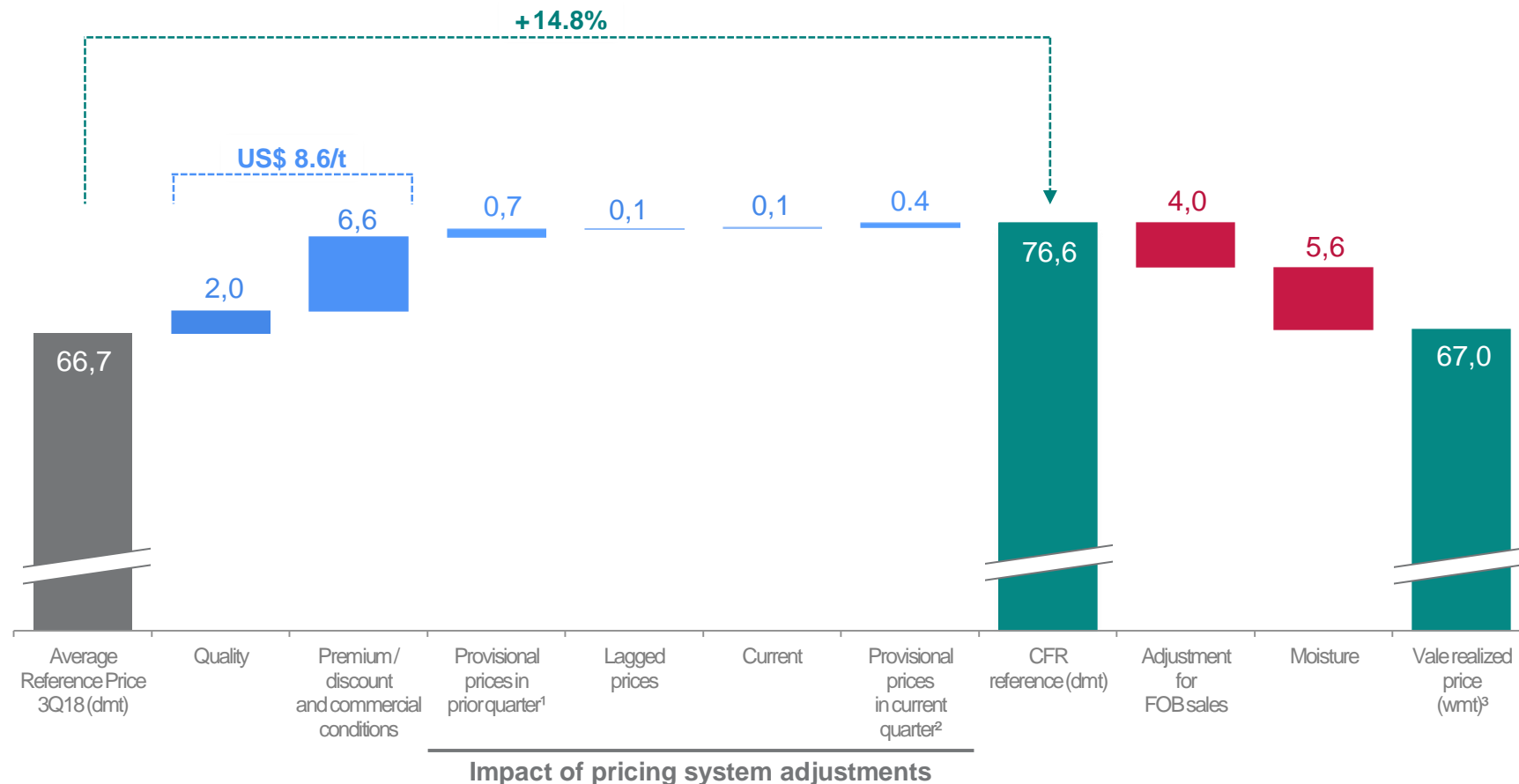
US\$ million



<sup>1</sup> Reference price 62% Fe net effect in both revenues (US\$ 126 million) and cost (-US\$14 million)

# Vale's iron ore CFR realized price was US\$ 9.9/t higher than the market reference for the 62% Fe content, totaling US\$ 76.6/t in 3Q18

US\$/t, 3Q18



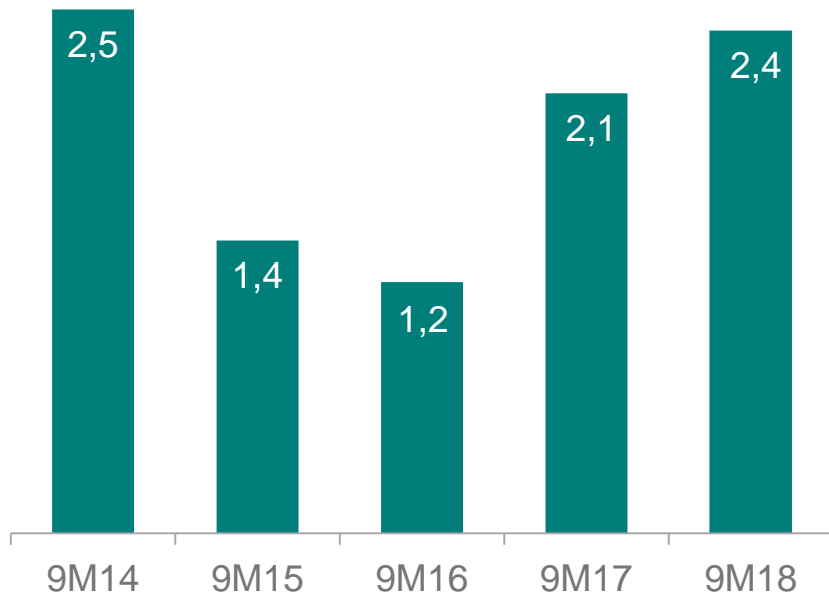
<sup>1</sup> Adjustment as a result of provisional prices booked in 2Q18 at US\$ 64.0/t.

<sup>2</sup> Difference between the weighted average of the prices provisionally set at the end of 3Q18 at US\$ 68.0/t based on forward curves and US\$ 66.7/t from the 3Q18 62% Fe reference price.

<sup>3</sup> Vale price is net of taxes.

## 9M18 pellets EBITDA represented 19% of Vale's total EBITDA and being on track to achieve more than US\$ 3 billion in 2018

US\$ billion



### Highlights

**9M18** pellets EBITDA reached a **record level since 9M14**

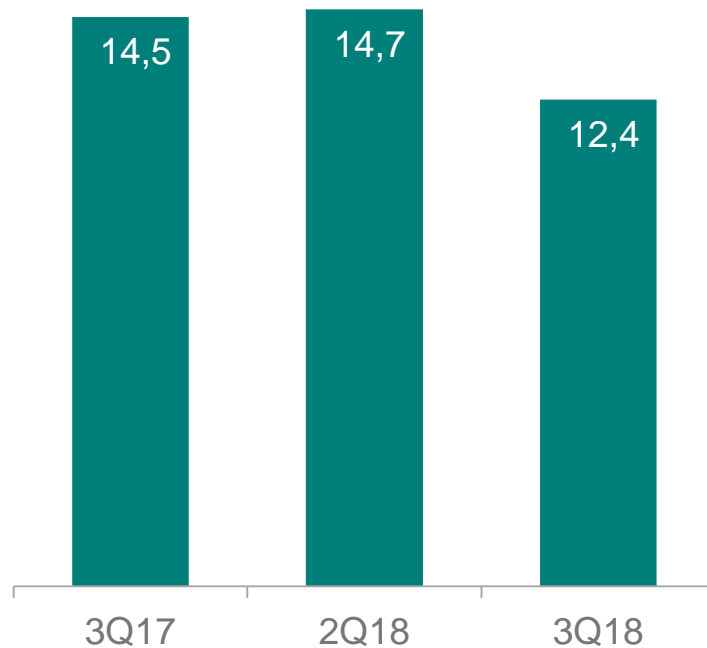
**3Q18** pellets EBITDA was **US\$ 800 million**, in line with 2Q18, **despite lower dividends received**, which follow a seasonality of payments in the second and fourth quarters

**Higher sales volumes and lower costs** partially **offset** the **lower dividends received** in 3Q18

# As anticipated in 2Q18, our iron ore C1 cash cost decreased to a level distinctly lower than US\$ 13.0/t

## Iron ore fines C1 cash costs

US\$/t



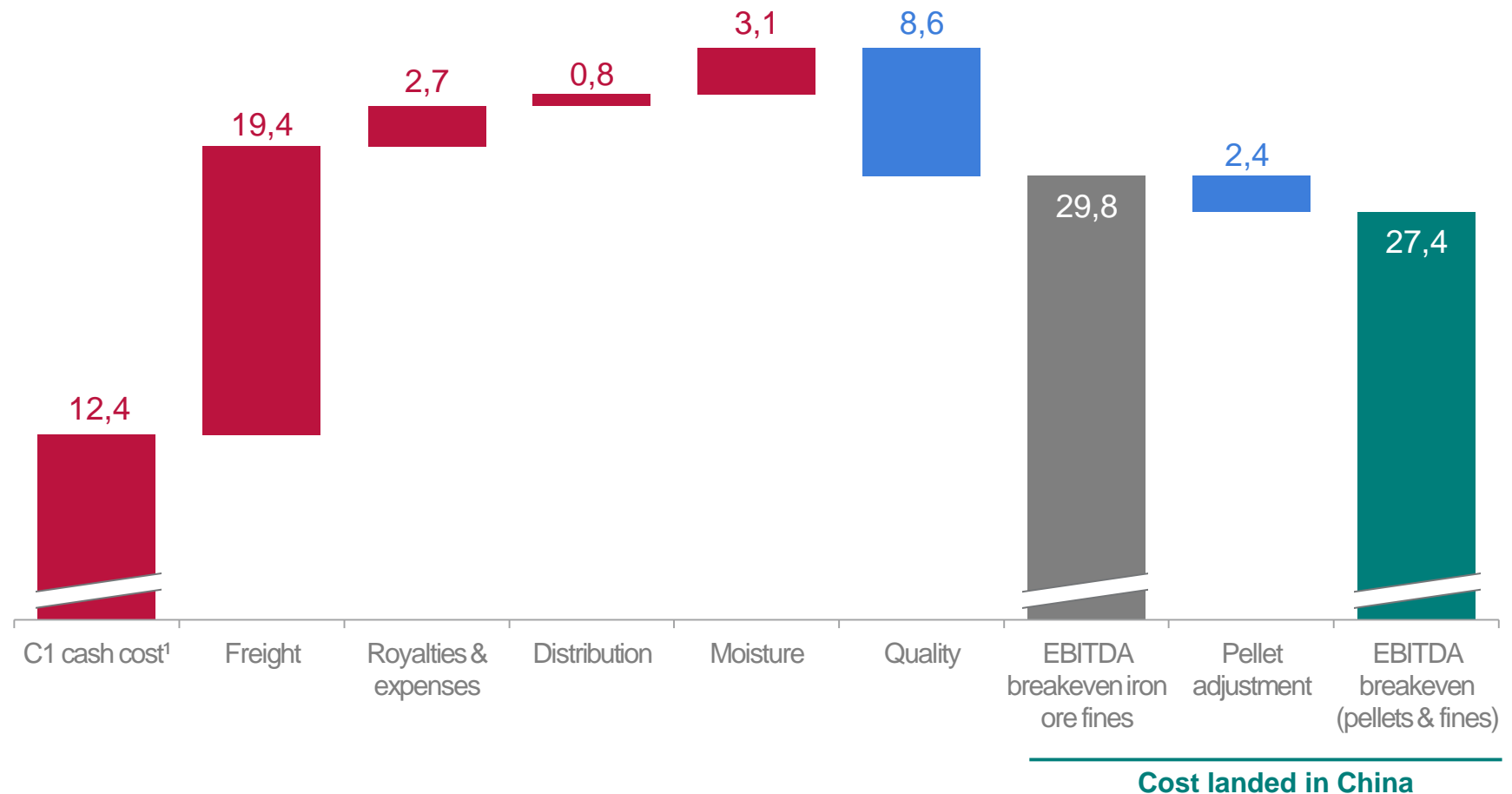
## Highlights 3Q18

The **reduction of US\$ 2.3/t vs. 2Q18** was due to the successful **ramp-up of S11D, higher productivity, higher dilution of fixed costs** on higher production volumes, **exchange rate** variations and **lower service and demurrage costs** as forecasted in 2Q18 Earnings Release

C1 cash cost **savings** contributed with **US\$ 166 million** to EBITDA

# EBITDA breakeven reached the lowest level ever, despite the inflationary pressures of freight and bunker

Iron ore and pellets EBITDA breakeven  
US\$/t, 3Q18



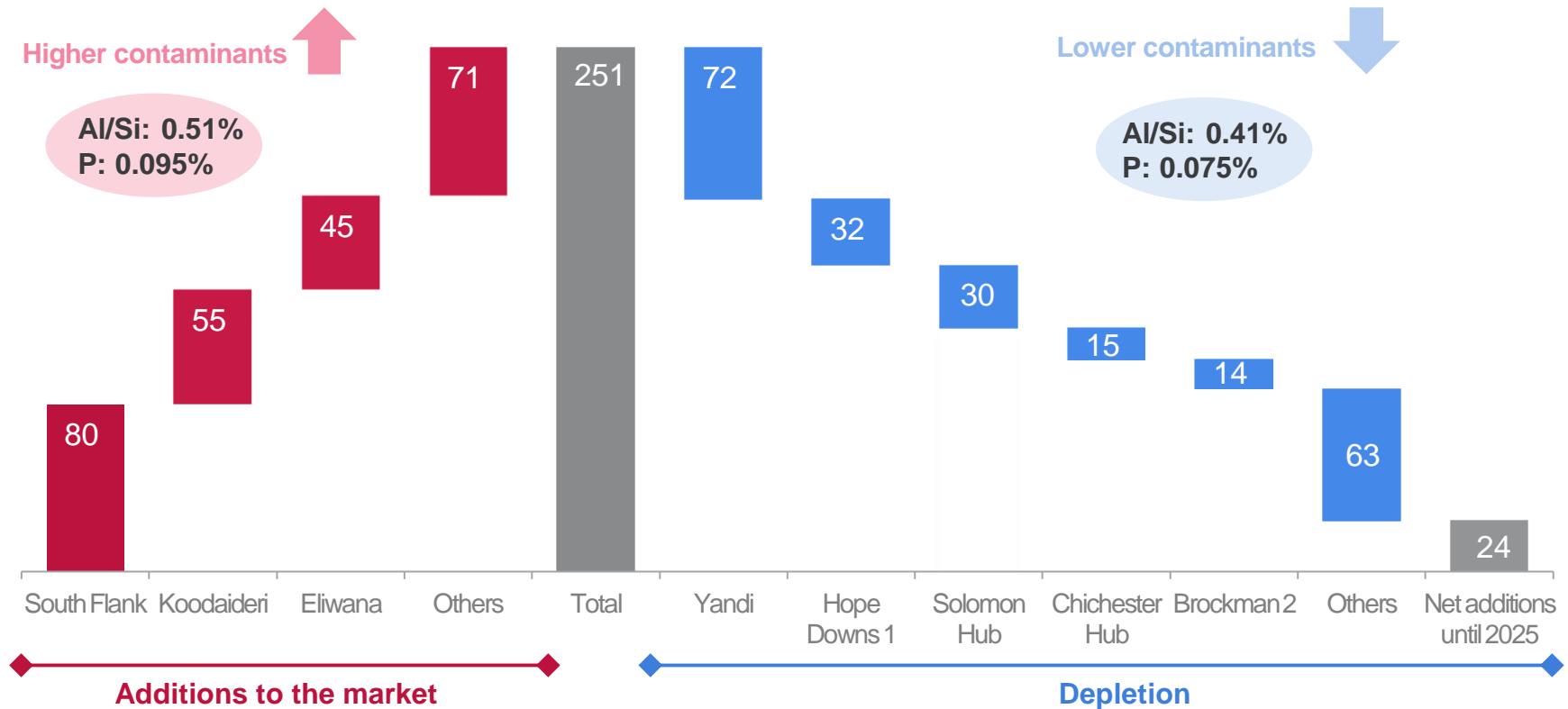
<sup>1</sup> Ex-ROM



# Incoming supply from peers will not replace the quality of current production which is presently being depleted

## Supply profile<sup>1</sup> 2018 vs. 2025

Mtpy



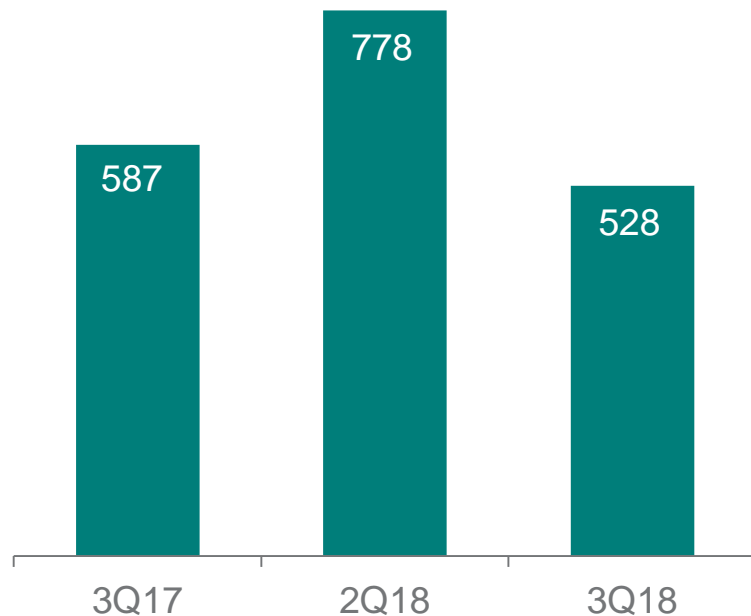
<sup>1</sup> Seaborne excluding Brazil

Source: Vale database, info is based on marketing rounds with technical consultants

## 3Q18 results represented a tipping point for Base Metals in the process of creating the basis to generate strong cash flow

### Base Metals EBITDA

US\$ million



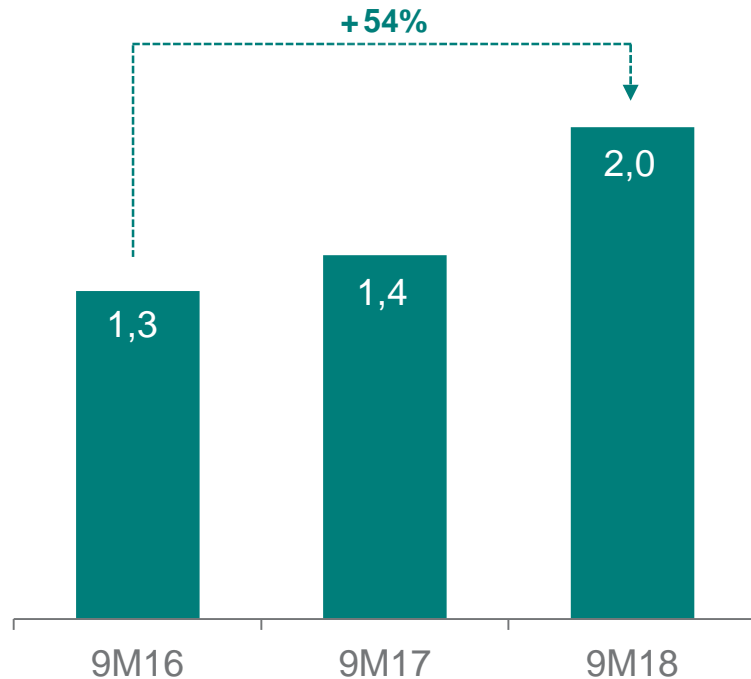
### Highlights 3Q18

As previously disclosed, Vale's **Base Metals results reflected planned one-off effects** derived from Sudbury's scheduled maintenance shutdown and Thompson's transition to a mine-mill operation

About **65%** of the **decrease** in 3Q18 is related to the **exogenous factor of lower prices** of nickel, copper and cobalt, and **35%** mainly associated with **Sudbury's annual scheduled maintenance shutdown** and its effects on lower by-product volumes and higher costs

# Base Metals EBITDA in 9M18 was significantly higher than 9M17 and 9M16

US\$ billion



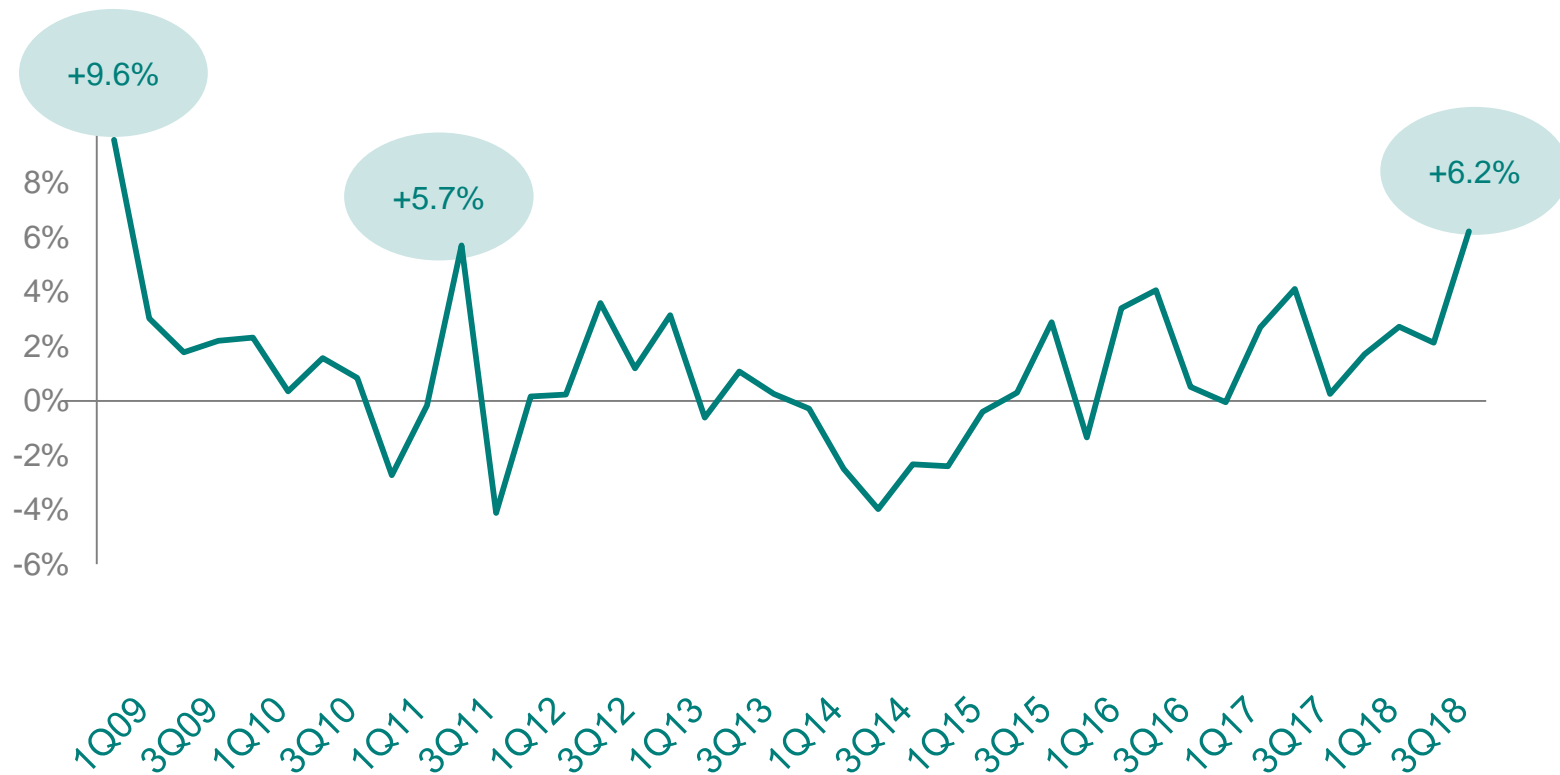
## Highlights

The performance of the Base Metals business will be **improved based on the operational stabilization** plan of its new management team along with the **tailwind of EV** demand for battery-suitable nickel as a catalyst in the **medium to long term**

# Nickel realized price was 6.2% above LME prices, the highest percentage above the benchmark in the last 10 years

## Nickel realized price / LME price

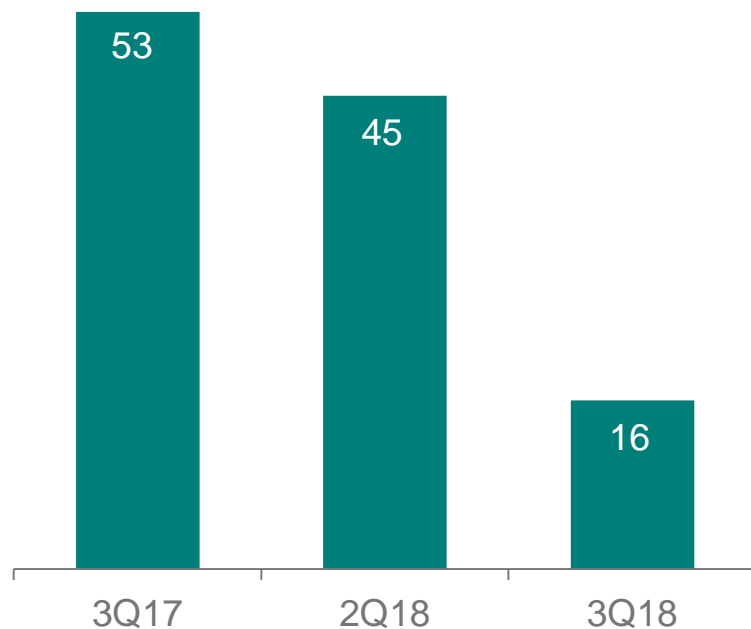
%



# Coal EBITDA was mainly impacted by lower realized prices of metallurgical coal

## Coal Adjusted EBITDA

US\$ million



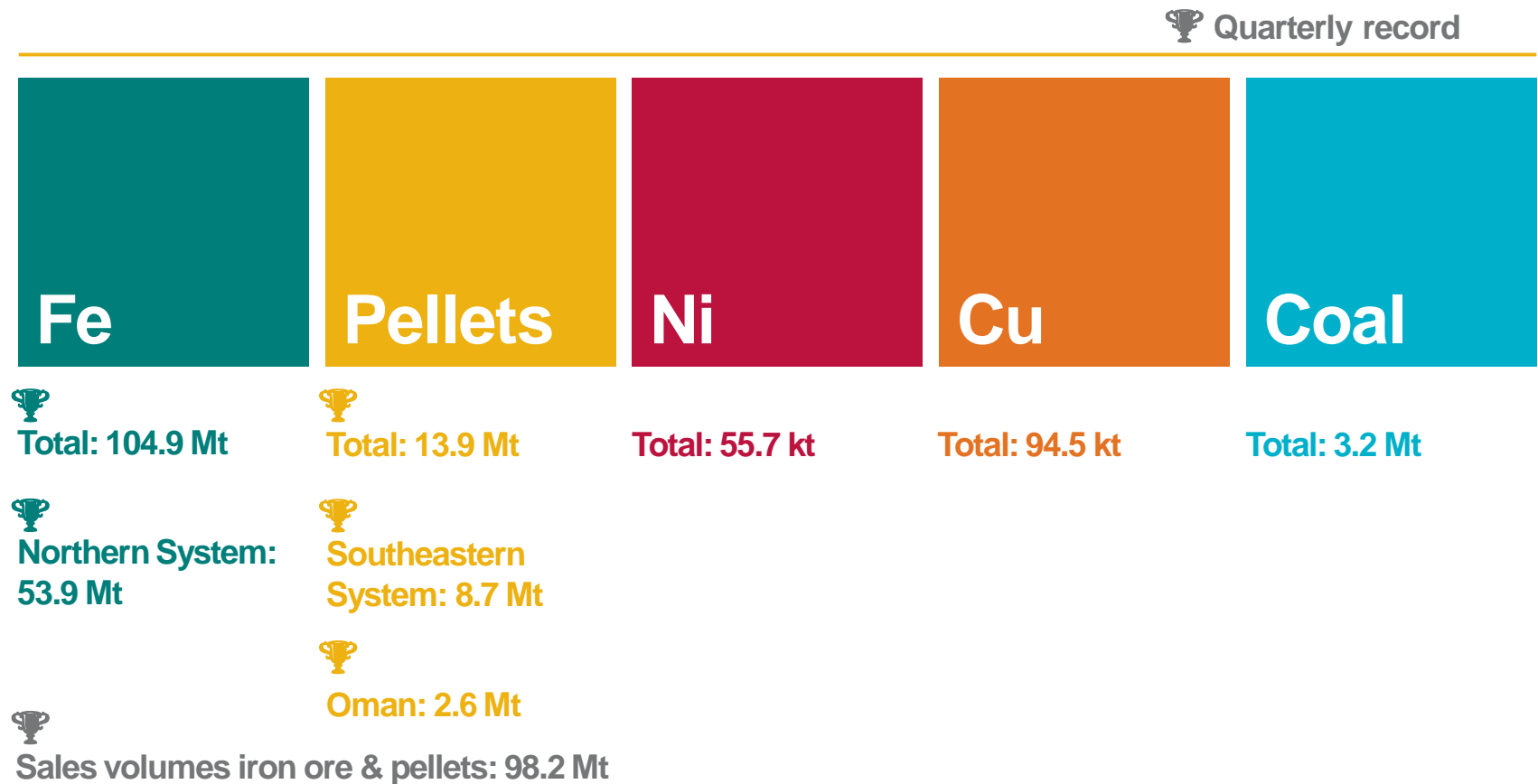
## Highlights 3Q18

Met coal **price realization of 93% of market index** in 3Q18, mainly due to lower allocation in September, when market prices were higher, while lagged index sales were priced based on previous months lower prices, increased freight rates to Asia and widening spread between premium and non-premium indices

Unit **costs** were US\$ 28 million **higher** than 2Q18, mainly due to the implementation of initiatives associated with the **structural changes** in the coal segment, **which will ensure a sustainable ramp-up from 2019 onwards**

**Additional  
information**

# Production and sales records for a 3Q breaking the emblematic production barrier of 100 Mt of iron ore fines in a quarter

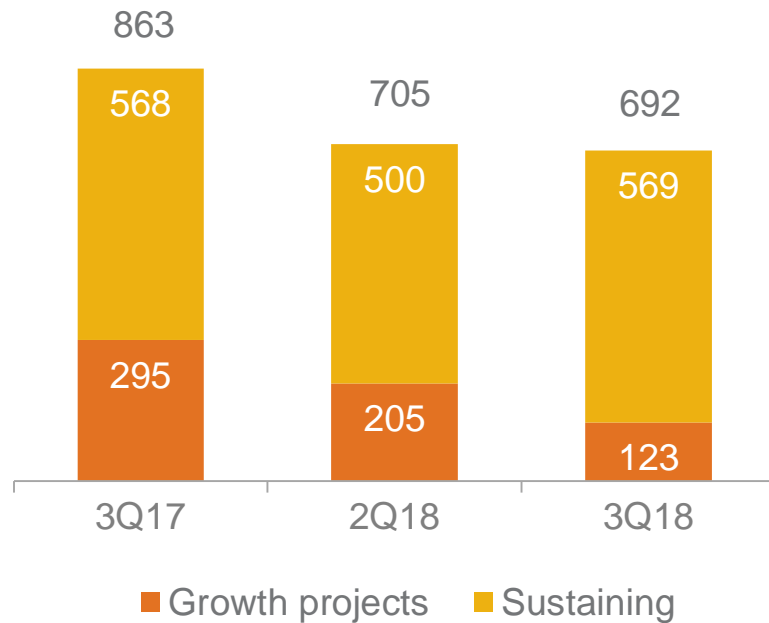




# As a result of Vale's more rigorous capital allocation approach, capital expenditures decreased by 20% year-on-year

## Project and sustaining capex

US\$ million



## 3Q18 Highlights

Total capex of **US\$ 692 million in 3Q18**

Vale's Board of Directors approved the investment of **US\$ 1.1 billion in the Salobo III copper project and US\$ 428 million for the Gelado project in the Northern System**

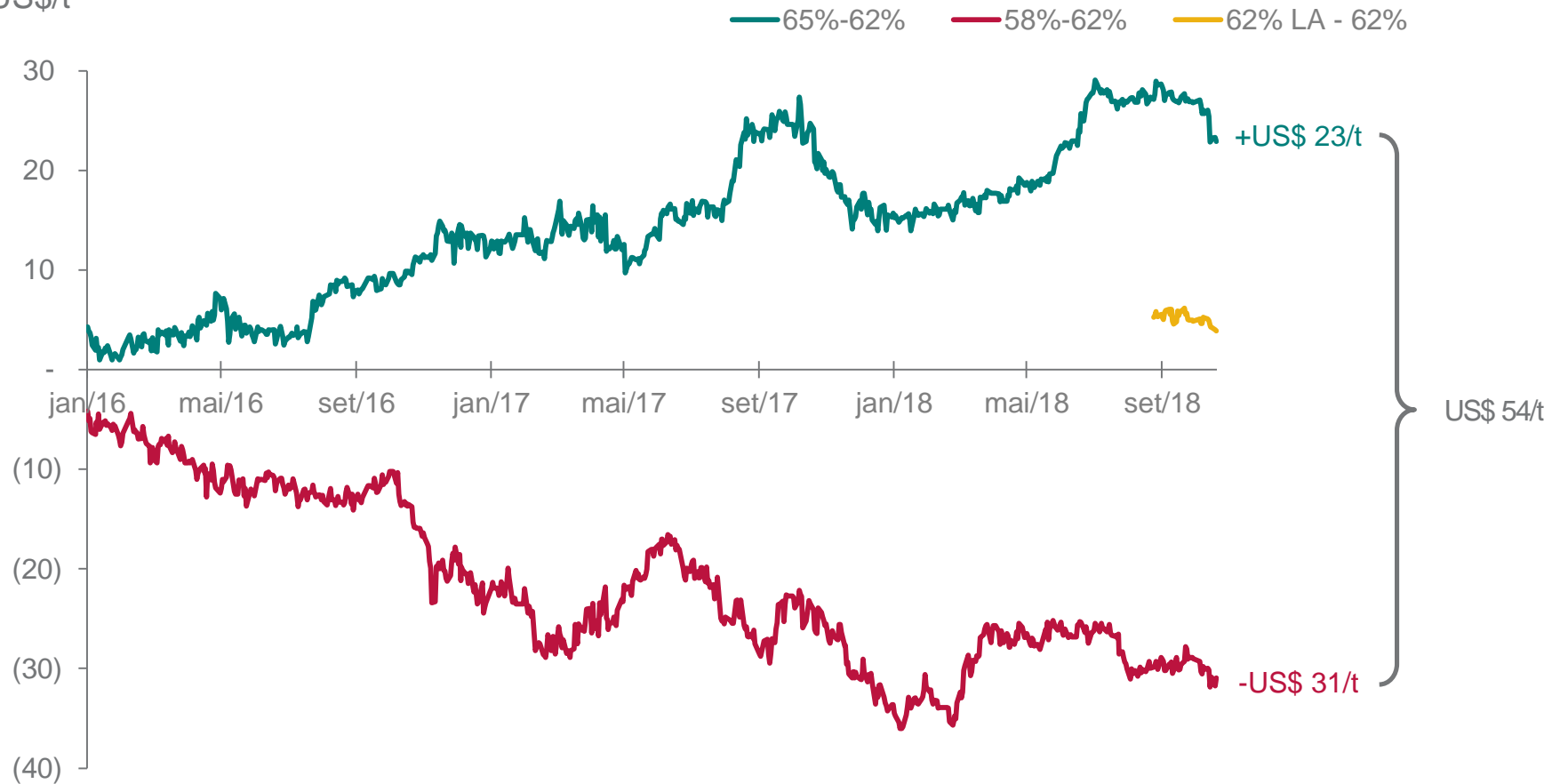
**A new governance process in the implementation of sustaining projects** led to a reengineering of some projects included in the 2018 investment budget

The new governance will lead to a **concentration of disbursements in 4Q18**, which together with the usual seasonality of disbursements translates in to **a very high expenditure in the last quarter**

# Vale's portfolio is benefiting from the increase in the flight to quality structural trend

## Premiums and discounts (daily basis)

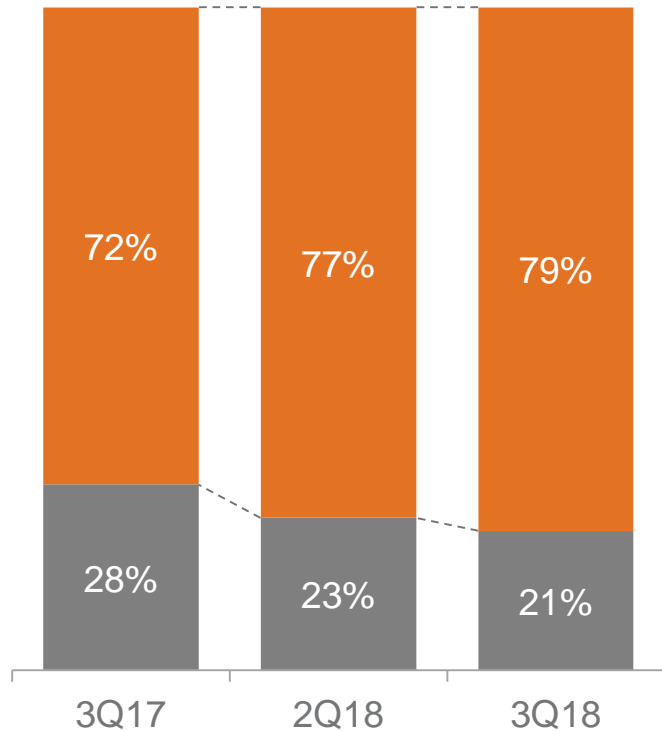
US\$/t



# Vale continues to improve its sales mix composition in 3Q18

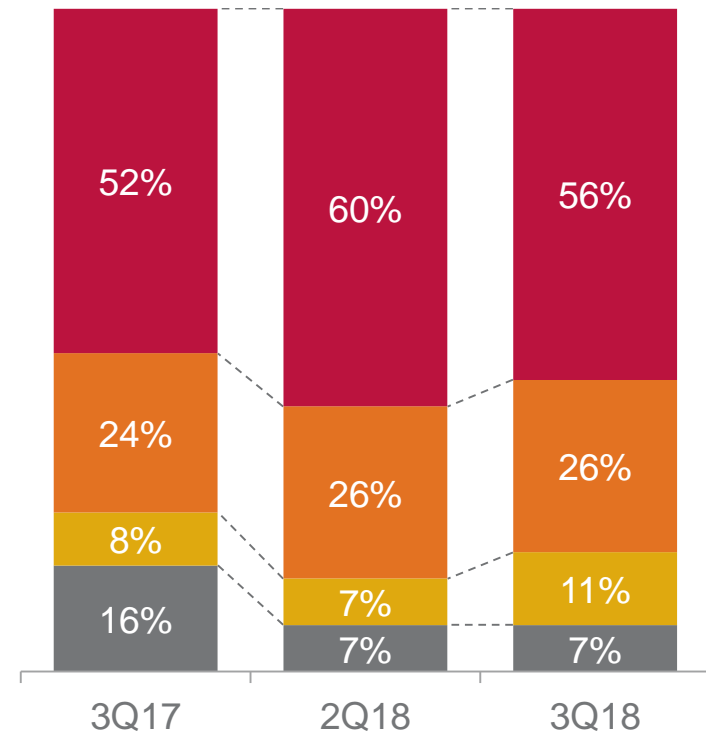
## Iron ore sales product mix (%)

- Premium products<sup>1</sup>
- Other products<sup>2</sup>



## Nickel sales product mix (%)

- Class I
- Class II battery-suitable
- Class II
- Intermediates

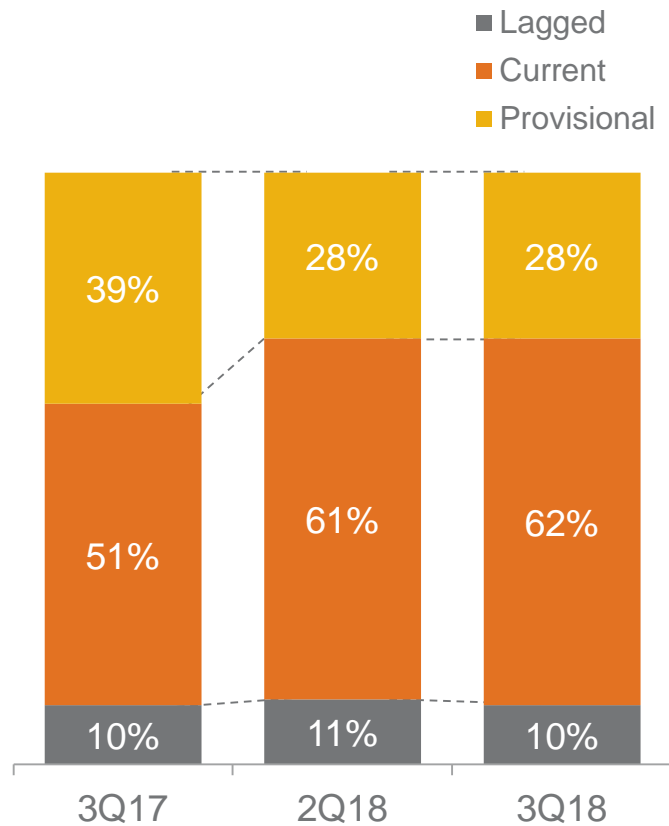


<sup>1</sup> Composed by pellets, Carajás, Brazilian Blend Fines (BRBF), pellet feed and Sinter Feed Low Alumina (SFLA)

<sup>2</sup> Composed by standard sinter feed, lump and high silica

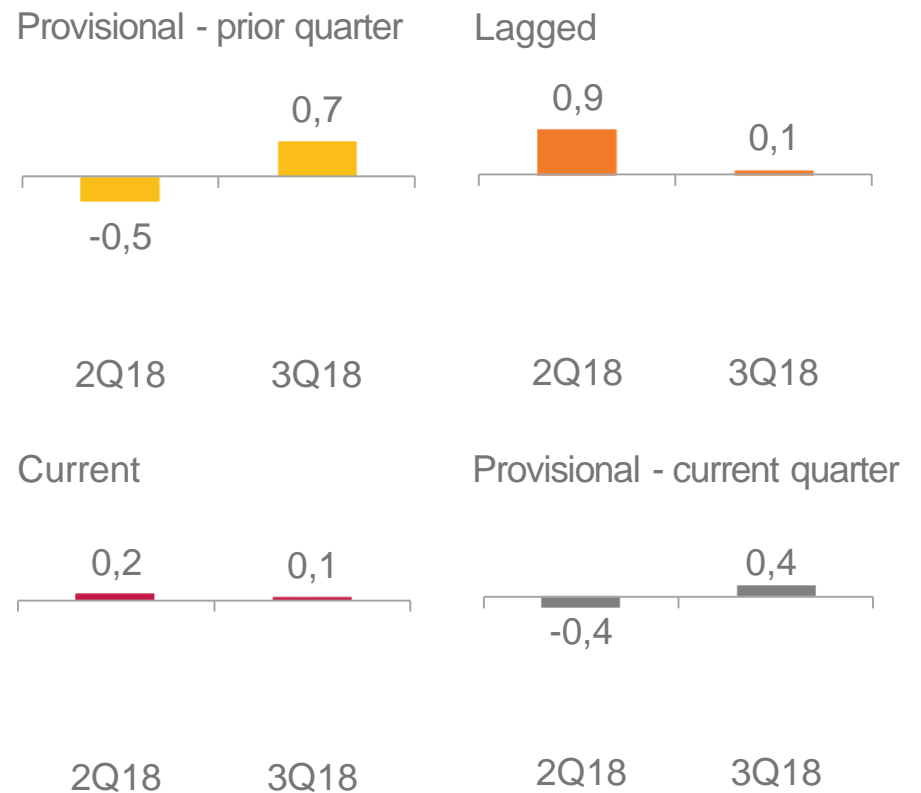
# Iron ore pricing systems

## Pricing system breakdown (%)



## Impact of pricing mechanisms

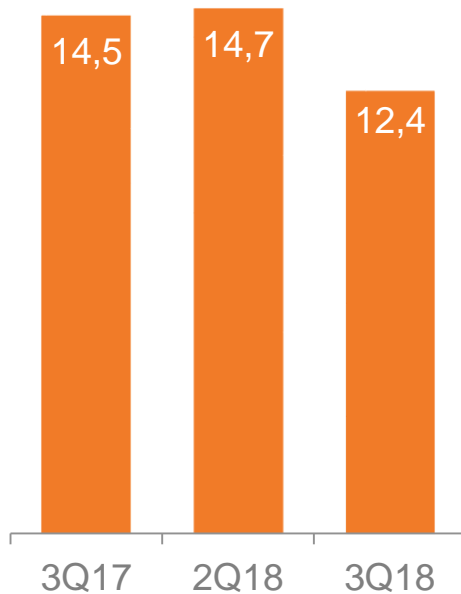
US\$/t



# Evolution of iron ore fines cash cost, freight and expenses

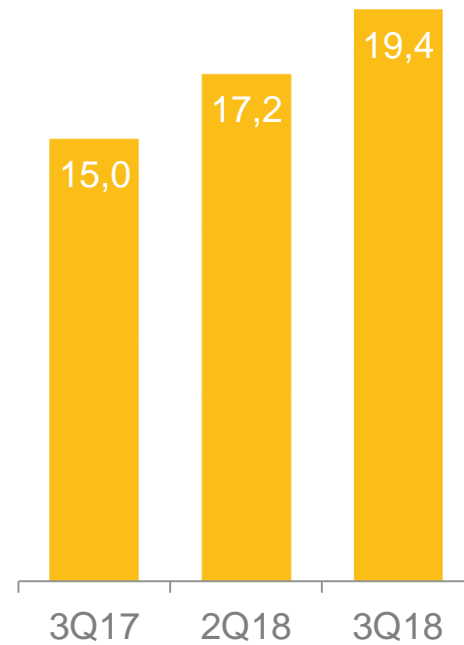
## C1 cash cost FOB port<sup>1</sup>

US\$/t



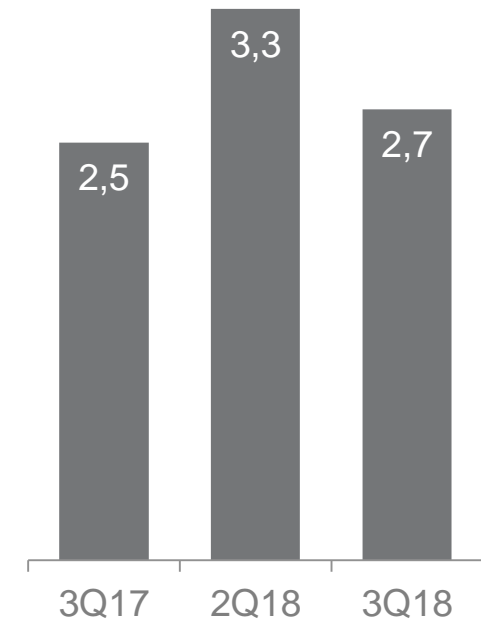
## Freight

US\$/t



## Expenses<sup>2</sup> & royalties

US\$/t

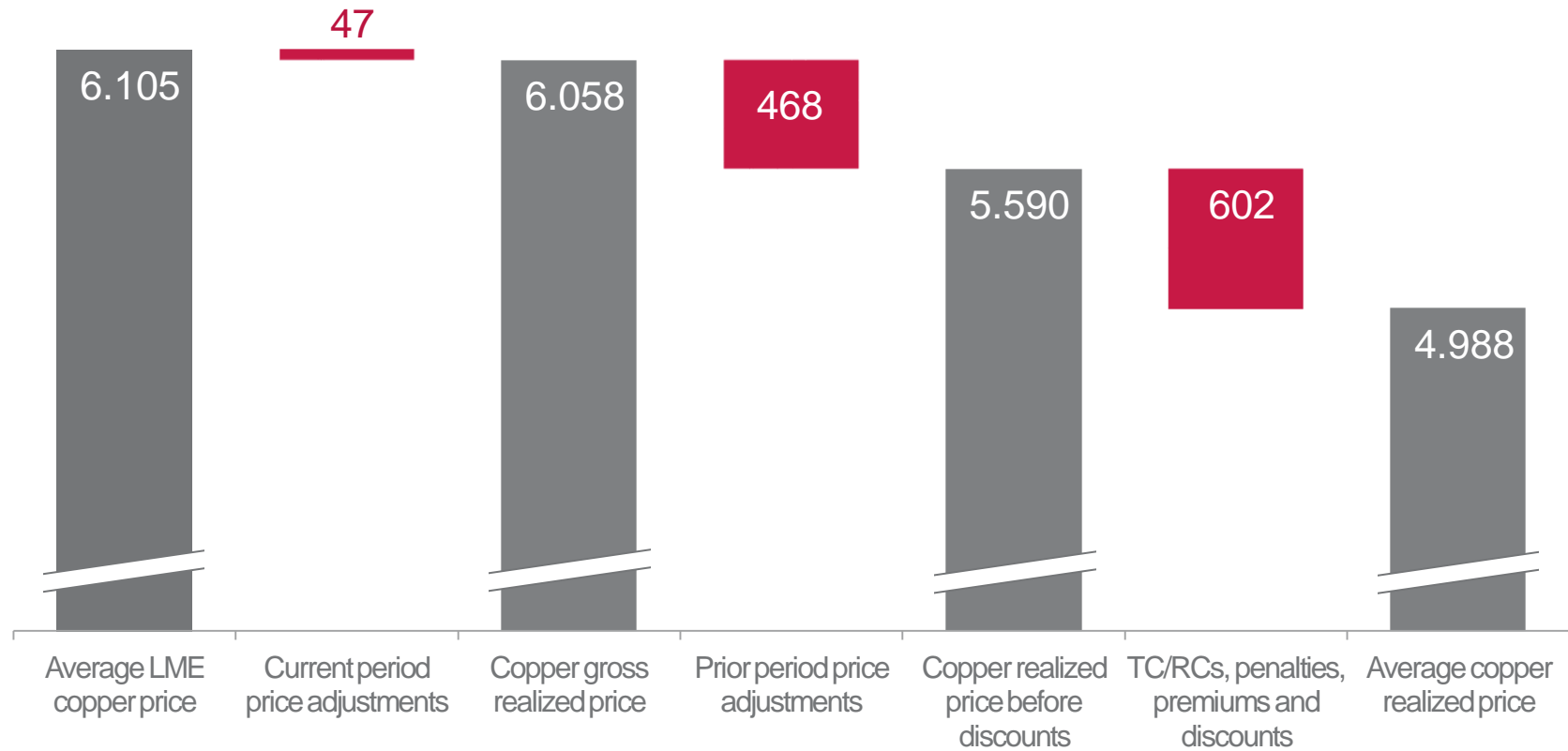


<sup>1</sup> Ex-ROM and ex-royalties.

<sup>2</sup> Including dividends received. Net of depreciation.

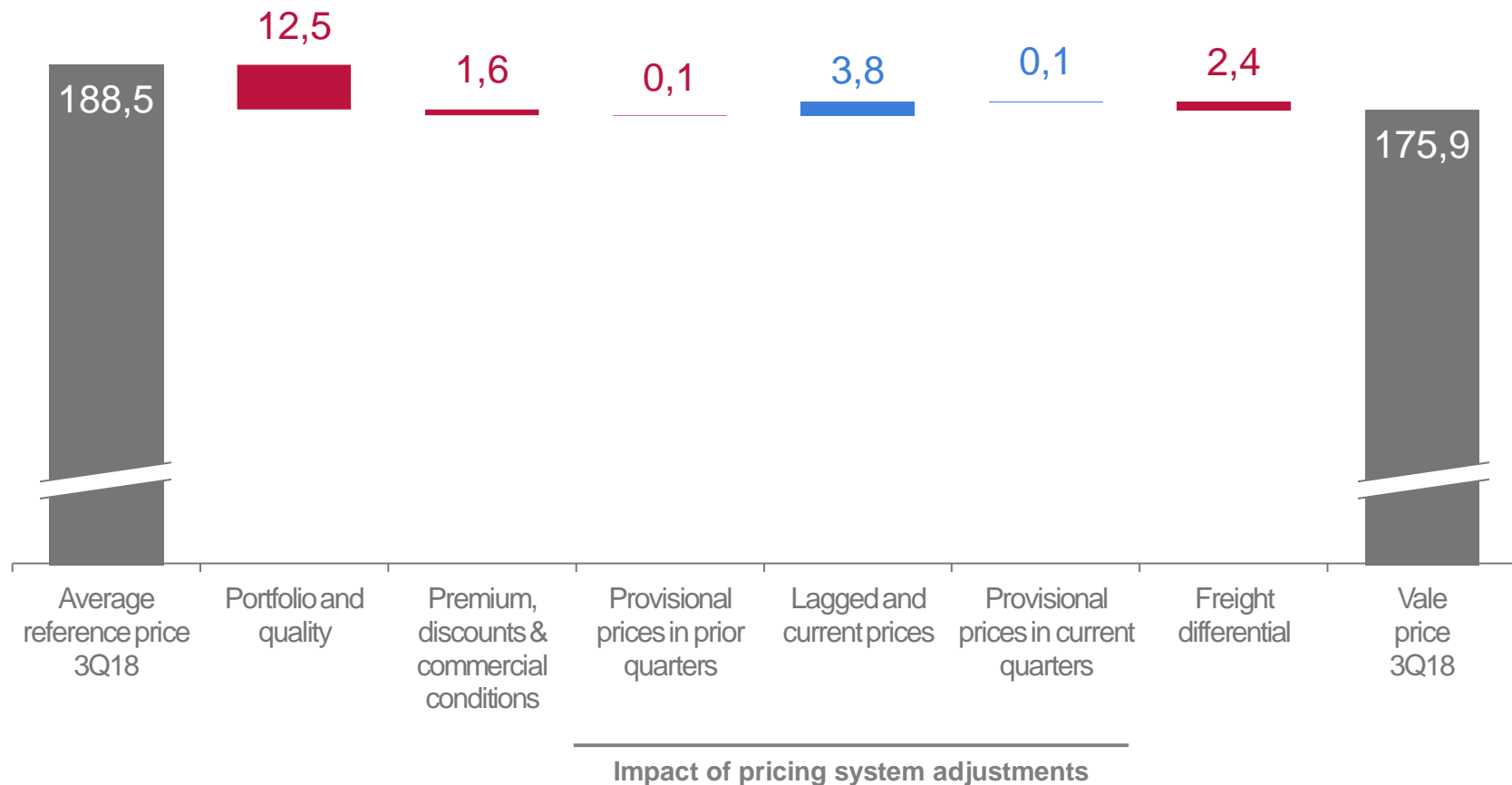
# Price realization copper operations

US\$/t, 3Q18



# Price realization – metallurgical coal from Mozambique

US\$/t, 3Q18



# Price realization – Thermal coal from Mozambique

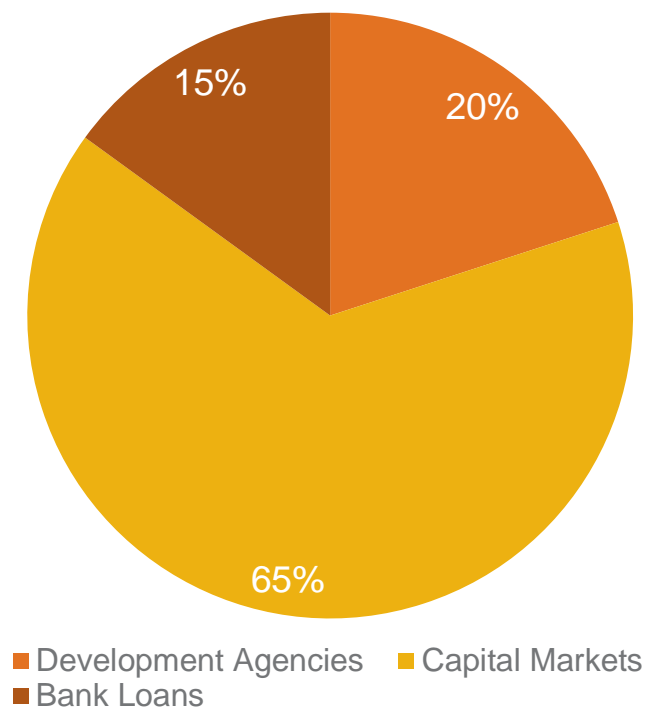
US\$/t, 3Q18



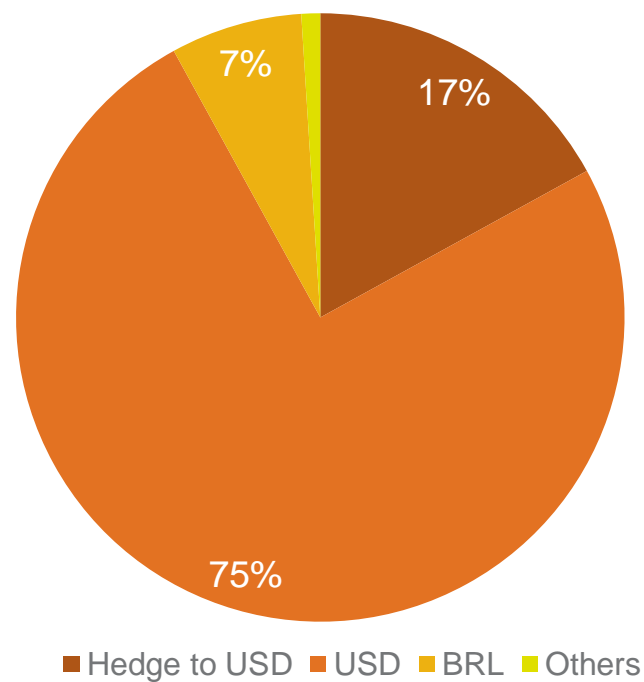


# Debt position breakdown

Debt breakdown by instrument (%)



Debt breakdown by currency (after hedge) (%)





VALE