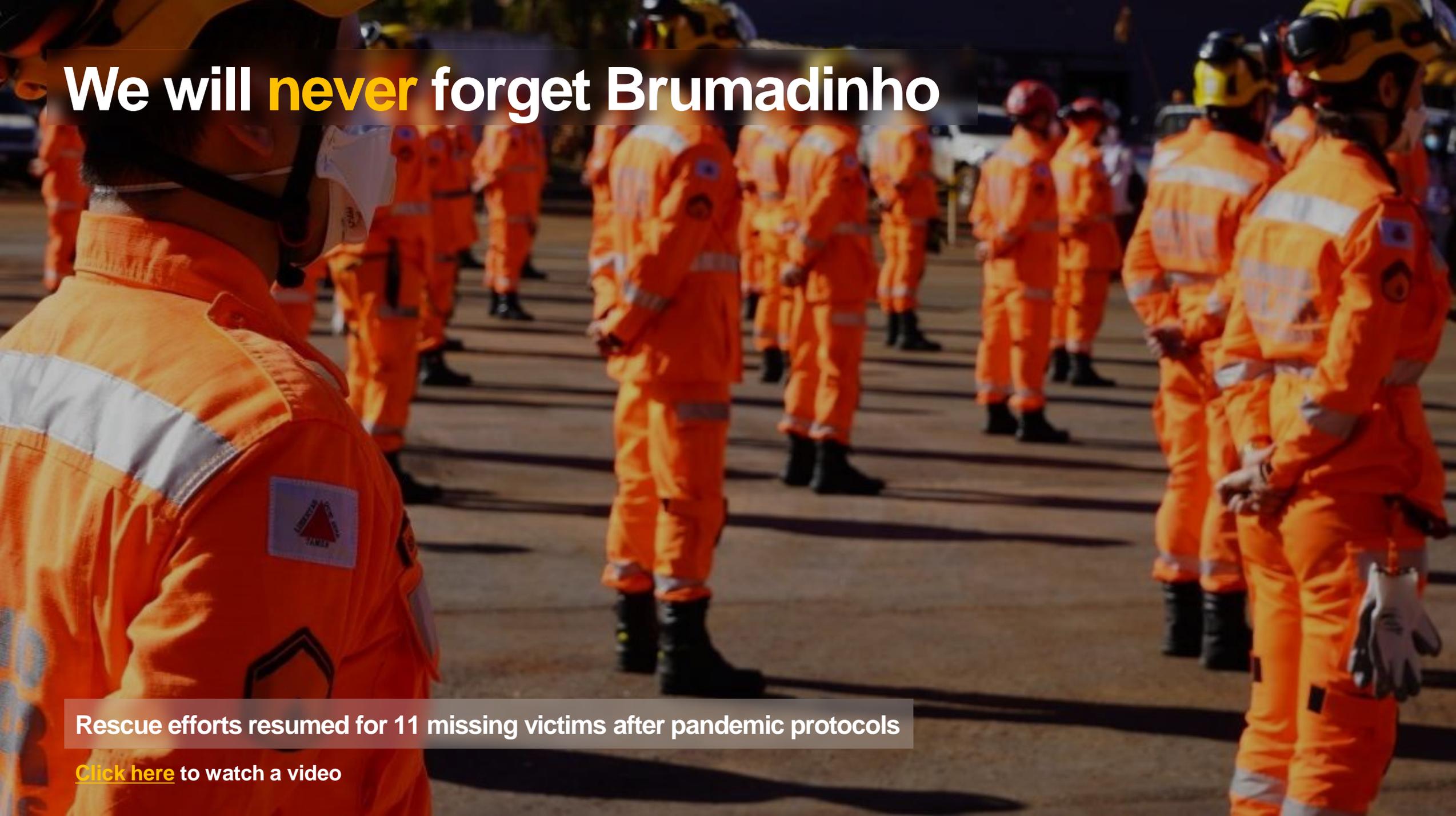




Vale 20
Day 20

We will **never** forget Brumadinho

A group of firefighters in orange uniforms and helmets are standing in a line outdoors. The scene is brightly lit, suggesting a sunny day. The firefighters are wearing reflective gear and some have patches on their uniforms. The background shows more firefighters and some equipment, but they are out of focus.

Rescue efforts resumed for 11 missing victims after pandemic protocols

[Click here](#) to watch a video

The reparation plan has evolved with over **US\$ 2.6 billion¹** spent



¹ Excludes dam de-characterization expenditures, approximate amount as of September 30th, 2020. ²e.g. Ground Zero. ³Approximate figures, referring to signed agreements (paid and payable, civil and labour), as of November 26th, 2020. ⁴ Submitted to the municipality of Brumadinho.

In 2019, we added two new pillars to our strategy

Safety and operational excellence

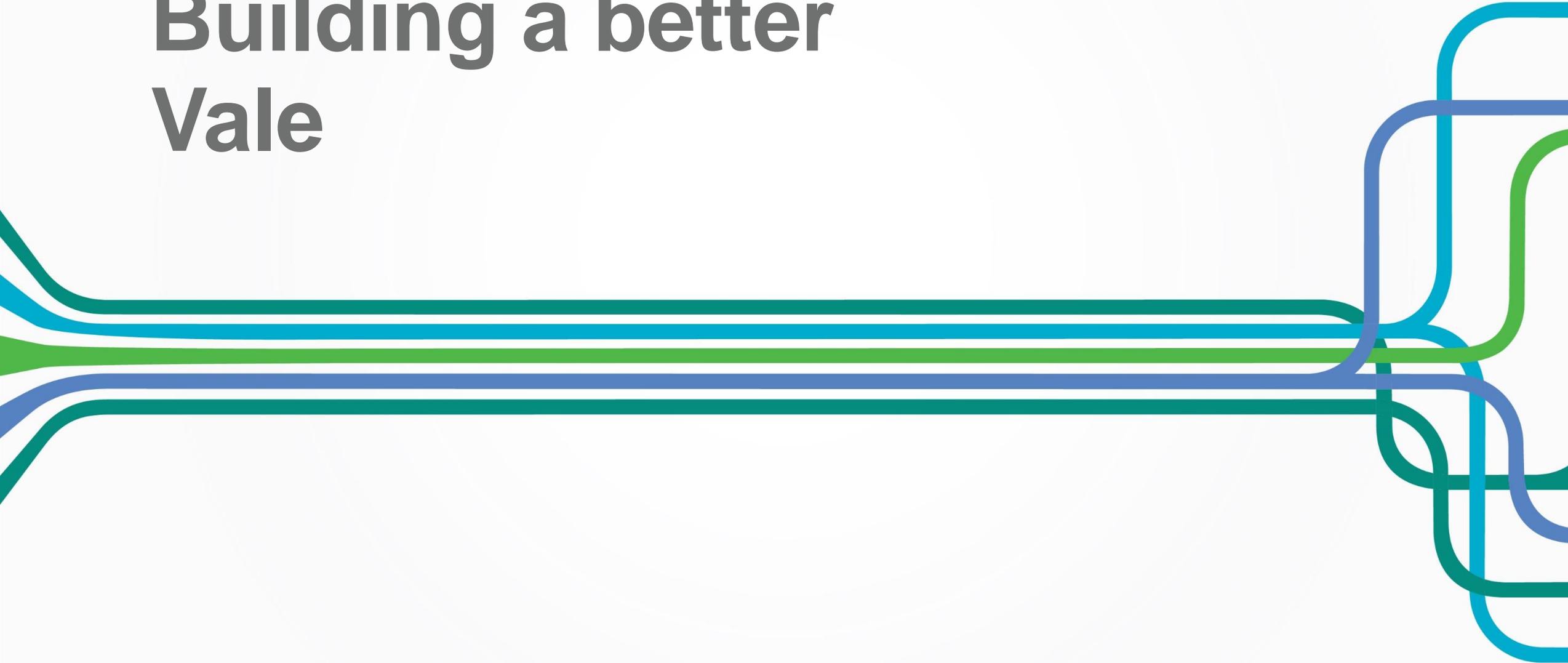
New pact with society

Maximize flight to quality in Iron Ore

Base Metals transformation

Discipline in capital allocation

Building a better Vale



We are taking important steps towards **building a better Vale**

- Our mission**

- Our ambitions**

- Our levers**

- Our key behaviors**

- Our culture**

- Our values**

To transform natural resources into prosperity and sustainable development

A great company **recognized** by society for being...

- Benchmark in **safety**
- Best in class **reliable** operator
- **Talent-driven** organization
- Leader in **low carbon** mining
- Reference in **creating and sharing value**

Safety	VPS	People	Innovation	ESG
▪ Obsession with Safety and Risk Management	▪ Open and transparent dialogue	▪ Empowerment w/ accountability	▪ Ownership for the whole	▪ Active listening to society

Learning together

- **Life** matters most
- Act with **integrity**
- Value **our people**
- Make **it happen**
- Respect our **planet and communities**

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To transform natural resources into prosperity and sustainable development

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Learning together

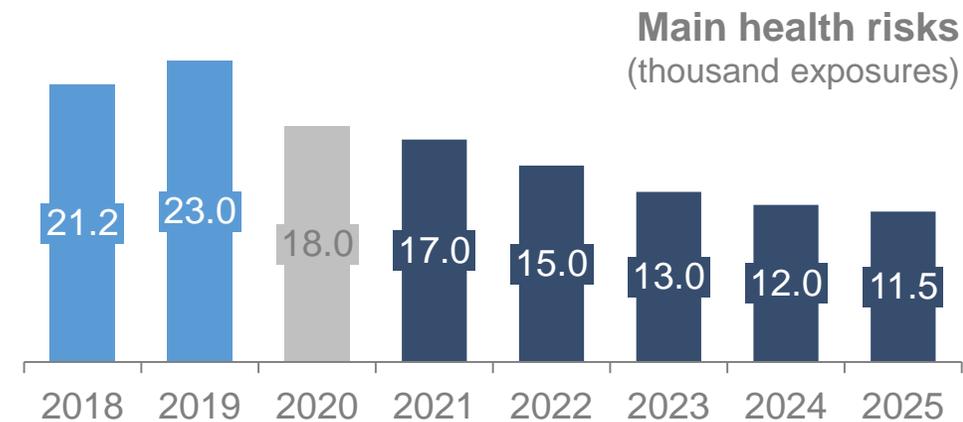
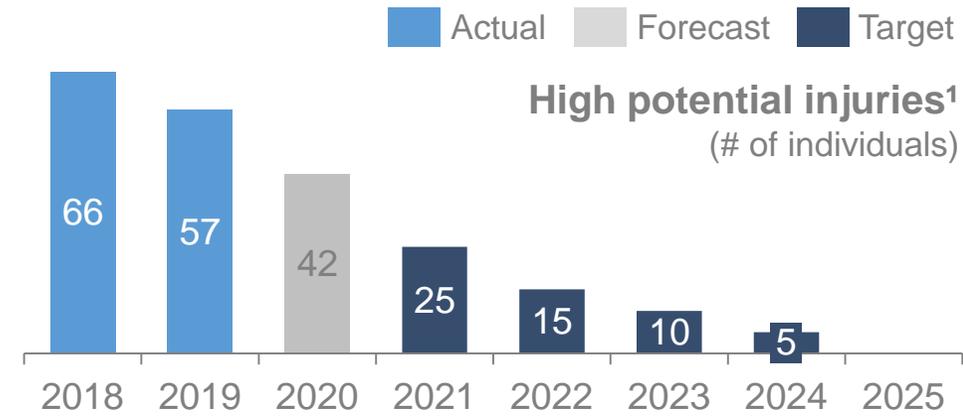
- Lead with integrity
- Listen and people
- Share & improve
- Respect our planet and communities

Clear safety targets



Long-term H&S targets:

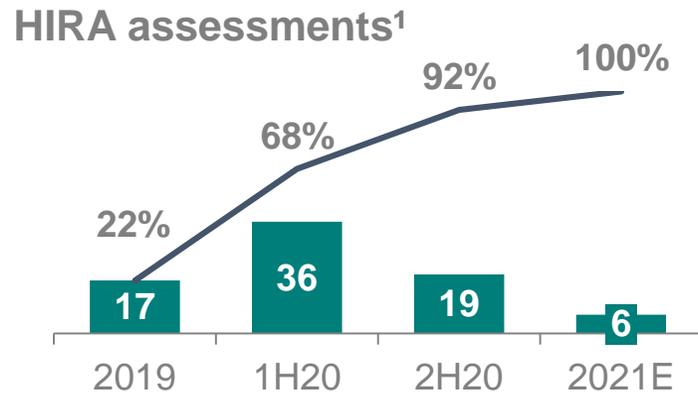
1. No high potential injuries¹
2. 50% reduction of employee exposure to main health risks²
3. Elimination of very high-risk scenarios³



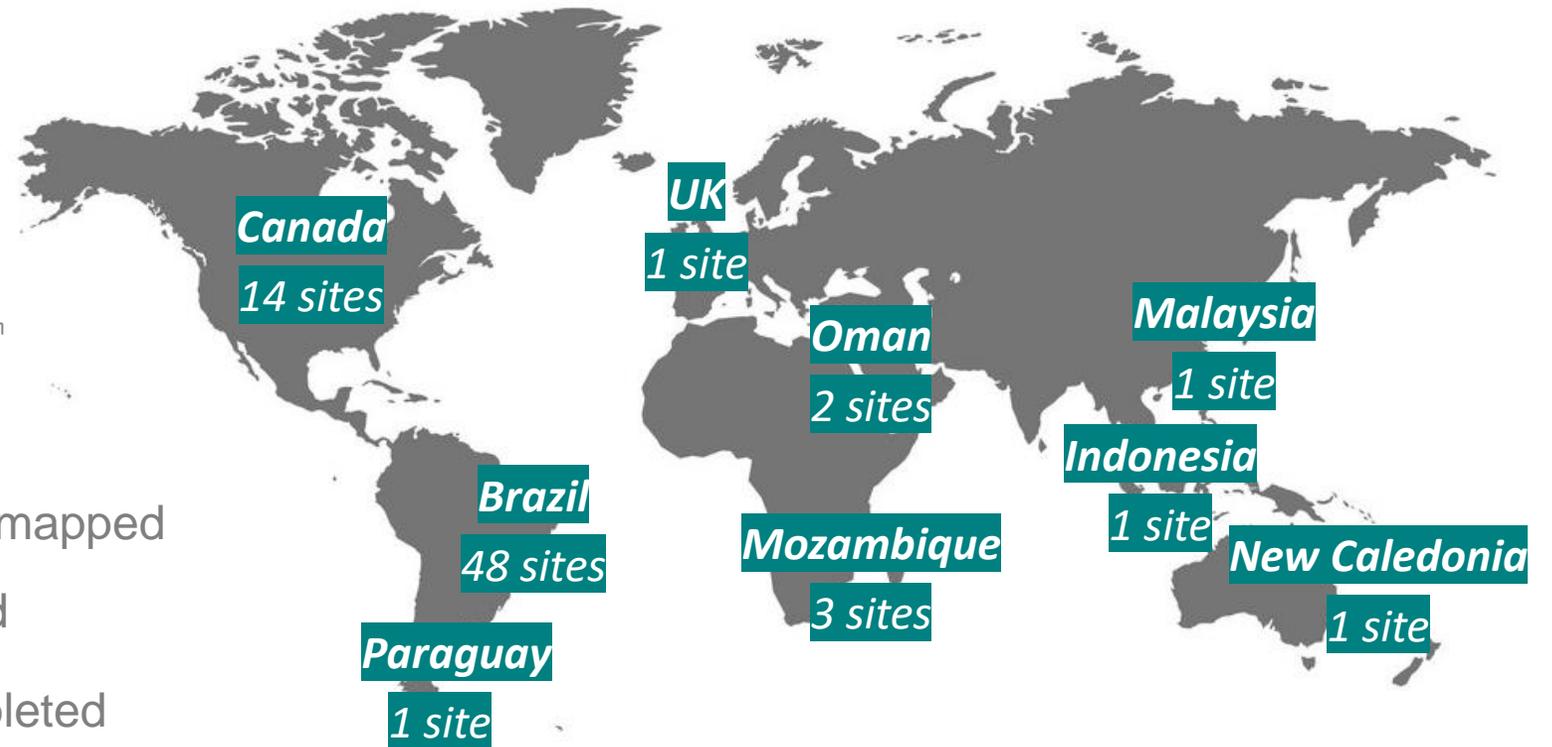
¹ Injuries which are considered as fatality precursors. ² Physical, chemical or biological risks. ³As per Vale's risk matrix.

Risk management program

Process safety



597 material unwanted events mapped
6,757 critical controls identified
1,298 immediate actions completed



¹ Hazard identification and risk assessment (HIRA). In 2019, 17 out of 78 operational sites had HIRA implemented. By the end of 2020, 72 out of 78 operational sites will have HIRA implemented.

More proactive approach on risk management

 Operations and projects preventively halted in 2020 for safety improvements

<i>Sossego operations</i>	<i>Onça Puma operations</i>	<i>Port Colborne refinery</i>
<i>Voisey's Bay operations</i>	<i>VNC refinery</i>	<i>VBME project</i>
<i>Simões Filho plant</i>	<i>Azul mine</i>	<i>Salobo III project</i>

Risk-informed performance-based approach on dam and tailings management

High adherence to GISTM¹


Benchmark in safety

3 geotechnical monitoring centers for over 100 dams

Non-exhaustive examples

Routine

-  New dam management policy
-  Responsibility assignment matrix revised
-  25 requirements and guidelines under preparation
-  Project governance revised
-  Periodic assessment by the assurance team

Performance

-  100% of dams (Brazil) with Engineer of Record designated
-  Continuous monitoring and inspections
-  Periodic and immediate reports to upper management
-  Extensive drilling to determine “As is” condition of all geotechnical structures

Risk assessment

-  100% dam portfolio covered by risk assessment (HIRA) by the end of 2022
-  100% integrated to Vale’s Enterprise Risk Management (ERM)
-  Rigorous enforcement of updated emergency level requirements

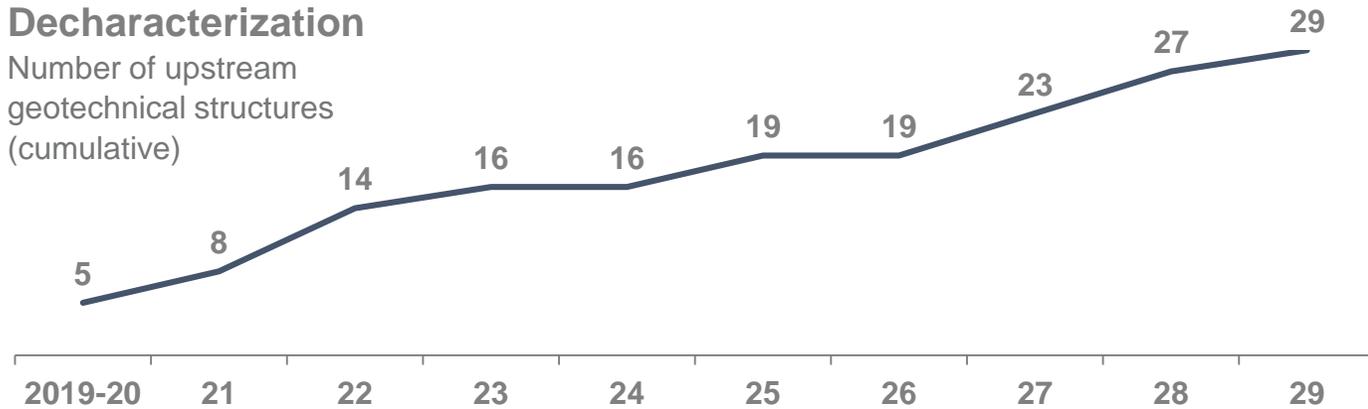
¹ Global Industry Standard on Tailings Management.

Improved overall care and reduction of uncertainties for upstream dams

All structures at satisfactory safety condition¹ by 2025

Decharacterization

Number of upstream geotechnical structures (cumulative)



Measures for upstream dams at critical safety conditions

	Sul Superior	B3/B4	Forquilhas
Back-up dam	2020 ✓	2020 ✓	2021
Safety Improvements	2025	2025	2024
Decharacterization	2029	2027	2028

[Click here](#) to watch a video

¹ Considering 33 structures at emergency level as of December 2nd, 2020.

Cultural transformation supported by the Vale Management System

23 p.p.
increment in
Vale's overall
maintenance
compliance



Kinesthetic training

Logbook with the
leadership critical
routines implemented

93%

preventive maintenance
activities with a Safe
Work Permit in Brazil

95%

adherence to Vale's
systematic maintenance
for critical assets¹

+65,000

Continuous
Improvement projects
by employees

[Click here](#) to watch a video

¹ 91% of critical assets are covered by maintenance plans.

We are transforming Vale to be a

talent-driven organization



Our *human capital management* is also evolving to support the culture we want



Technical expertise

228 additions to the geotechnical team¹

Leadership as the role model

59% renovation of Ferrous leadership²

Diversity and Inclusion

21% increase in female leadership³

Safety & Operational Excellence Office

49% of employees with <5 years' tenure⁴

Global trainee program

2nd place *top of mind* for young professionals in Brazil

Aligned compensation

60% linked to risk, health, safety, human capital and low carbon

¹ Includes geologists, geotechnicians, geoprocessing analysts, geology technicians, staff and leaders hired in the geotechnical department in 2019 and 2020. ² Considers lay offs, promotions and admissions for leadership positions in 2019. ³ From 13% in December 2019 to 15.8% in October 2020. ⁴ Distribution of years of service for the employees of the Operational and Excellence Office.

Our **New Pact** remains steady as we are vigilant and responsive to the needs of **Society**

[Click here](#) to watch a video on Low Carbon Agenda

2030 Commitments



Climate change

Reduce GHG emissions by 33% and be carbon neutral by 2050



Energy

100% global electricity consumption of clean energy



Forest

Recover and protect +500,000 ha



Socioeconomic contribution

Health care, education and income generation



Water

Reduce new water collection by 10%



ESG gaps

Eliminate main ESG gaps

Vale is committed to leading the transition to **net-zero mining** which presents both a significant opportunity and a challenge

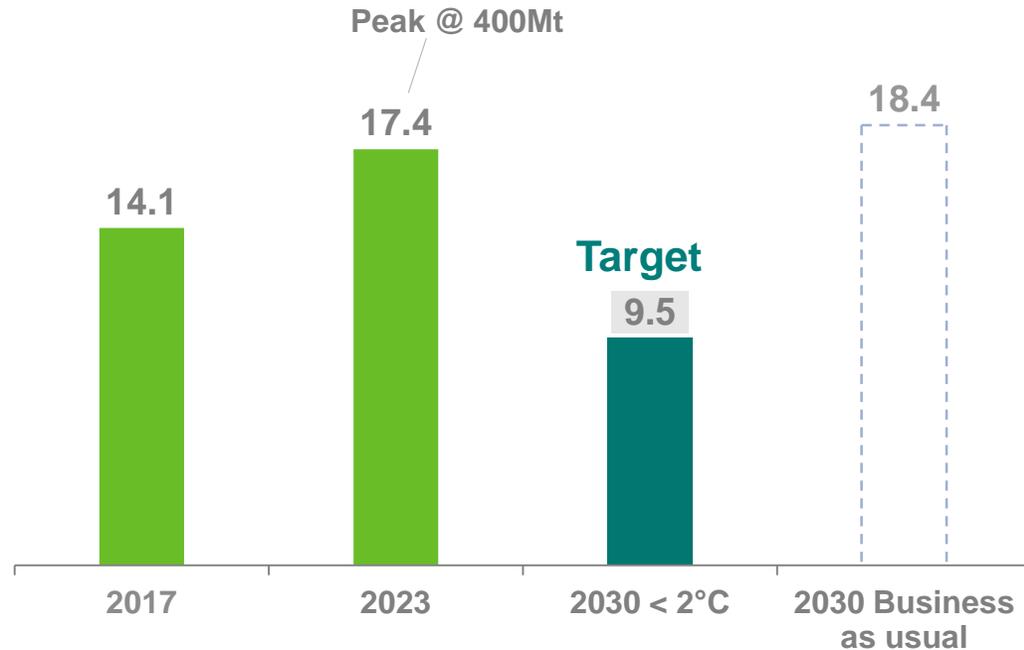


Renewable energy,
biofuels and
electrification

US\$ 50/ton shadow
carbon price

Short (10%) and long-term
(10%) compensation mainly
linked to low carbon agenda

Target to reduce 33%¹ of scope 1 and 2 absolute
emissions by 2030
(MtCO₂e)



¹ Baseline 2017.

**Electricity consumption is already 80% renewable
and we are on track to deliver our targets**

“Folha Larga Sul” project

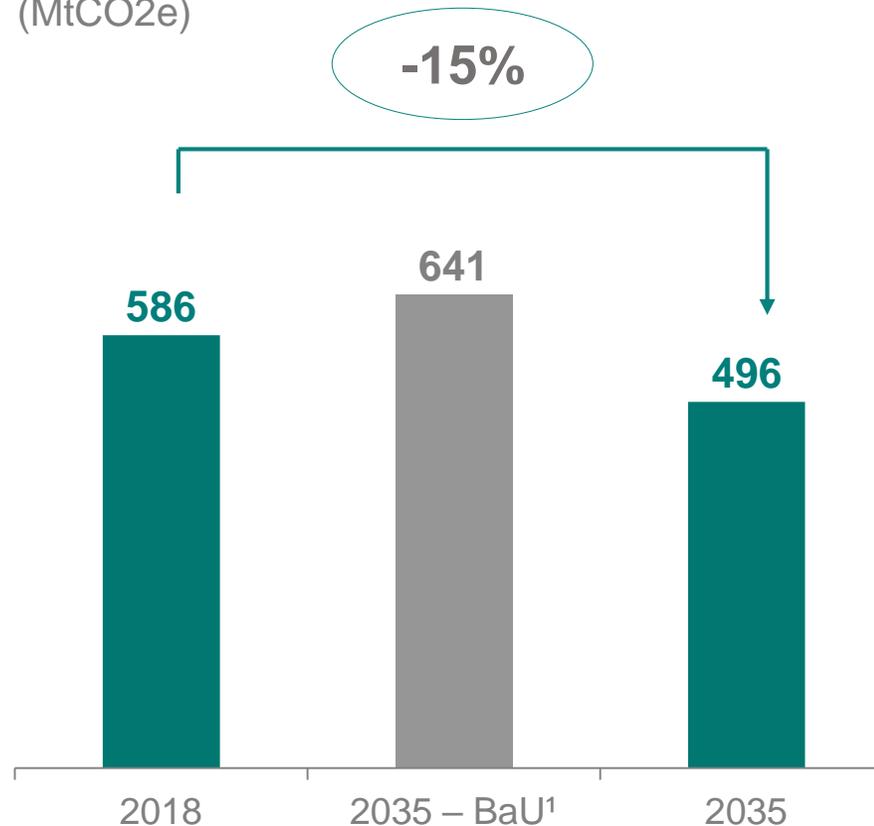
- 150 MW wind farm in Bahia, Brazil
- Full operation since Aug/2020
- Long-term energy supply contract
- Call option
- US\$ 76 million annual cost reduction

“Sol do Cerrado” project

- 766 MW solar energy installed capacity in Minas Gerais, Brazil
- Start up in October 2022
- 13% of Vale's self-production volume
- US\$ 70 million annual cost reduction

Vale's target is to reduce **15%** of **scope 3 net emissions** by **2035**

Absolute scope 3 net emissions (MtCO₂e)



¹BaU stands for business as usual. Scenario based on production of ~400Mtpy iron ore. Reduction target based on Science Based Target Setting tool for Scope 3, including offsets. Note: Vale is also committed to revising its scope 3 target in 2025 and every 5 years, in order to reevaluate technological developments and global climate policy advancements.

We will foster a portfolio of high-quality *products* and innovative *technologies* to provide scope 3 solutions

Vale's own initiatives

15-25%



- Direct-charge iron ore products
- Higher quality product mix
- New solutions for steelmaking
- Balance addressed by nature-based solutions and credible carbon markets

Partnership & engagement with clients and suppliers

75-85%



- Valemax 2G and Guaibamax fuel-efficient vessels
- Ecoshipping
- Reduce emissions intensity in 40% by 2030 and absolute emissions in 50% by 2050¹



- Engaging with clients to promote new technologies to reduce emissions
- Platforms for partnerships focused on steel decarbonization

¹Aligned with IMO targets Note: Harvey balls indicate abatement potential.



*Carbon
Neutral*

Given the challenge to fully decarbonize, climate science recognizes the need for **offsetting emissions**, and we have a **unique advantage**

Protected forest¹
(thousand of ha)



[Click here](#) to watch a video

¹Compensation measures, voluntary initiatives and partnerships

+500 Community Engagement Plans

Sharing value



Active listening to continue sharing value and contributing to **territorial development**

Investments in urban infrastructure and education enable socioeconomic development



Sharing value

“Territórios da Paz” project, in Pará, North of Brazil



Expected to be concluded in Oct/21

370,000 people benefited **6** community centers

Strengthening public safety

92 Initiatives in public services, workshops, sports and leisure activities

Program for combating violence

Reduce illiteracy in Maranhão



70k children **4k** educators

1,000 schools **24** municipalities

130 million reais of investments

Every child at the right age literate by 2030

Itabira Technological Hub



Expected to be concluded in 2023

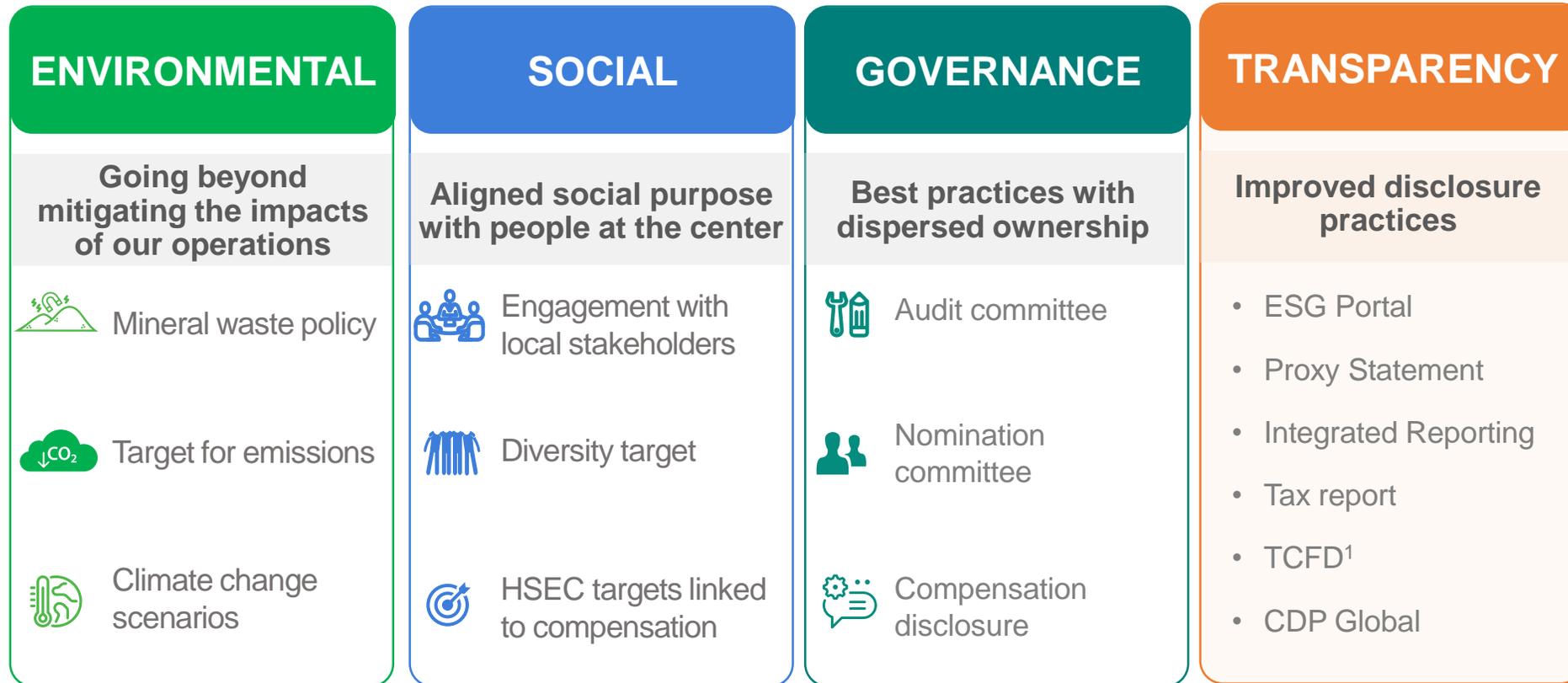
100 million reais university expansion **300k** people benefited

90 companies to be accelerated **450** new jobs

3,000 people to be trained **“Infinita” startup accelerator**

Scientific & Technological Center

We are advancing with our **ESG agenda** towards best practices, closing **33** out of 52 gaps



↑ Fitch Rating's upgrades (already investment grade)

↑ Moody's upgraded Vale to investment grade

↑ Sustainalytics ESG risk rating (from 54.9 to 42.5)

 Gaps expansion under evaluation

¹Task Force on Climate-related Financial Disclosures

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- Our key behaviors
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- Our values

To transform natural resources into prosperity and sustainable development

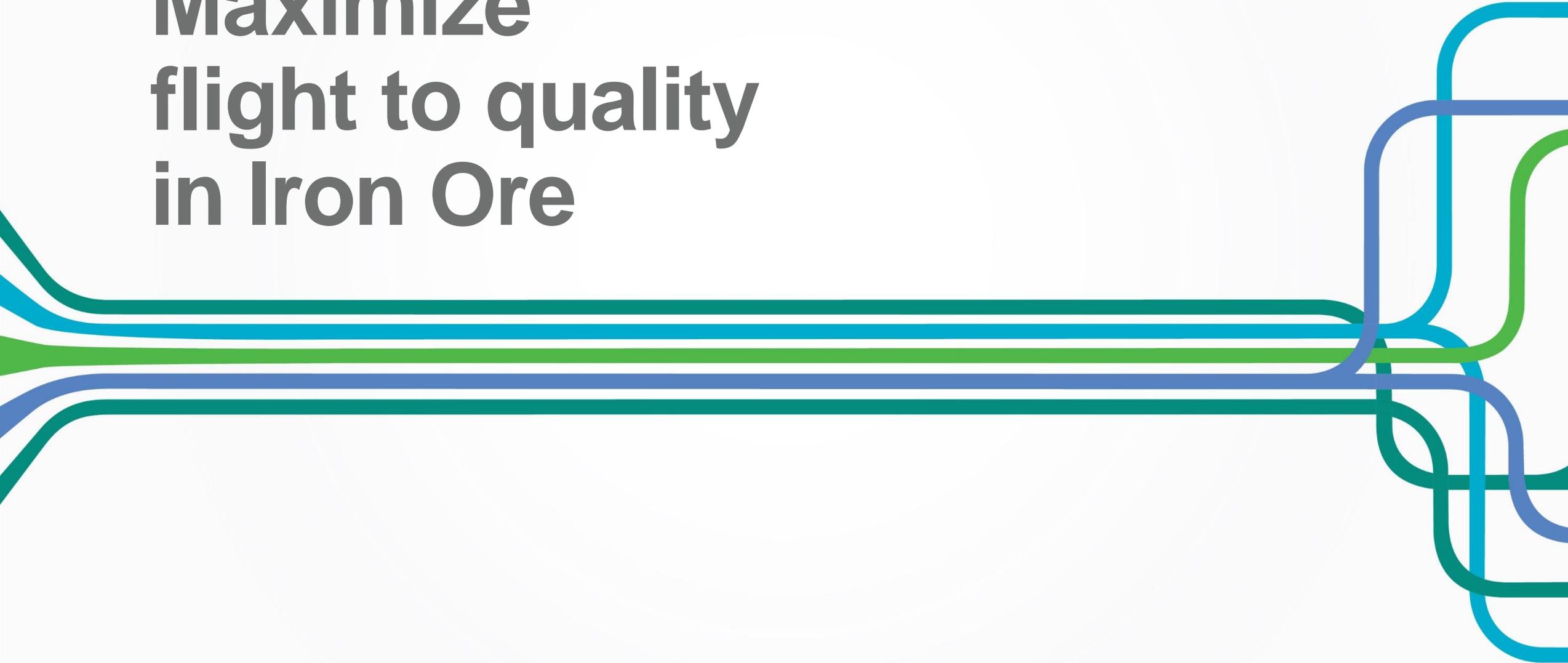
- Benchmark in **safety**
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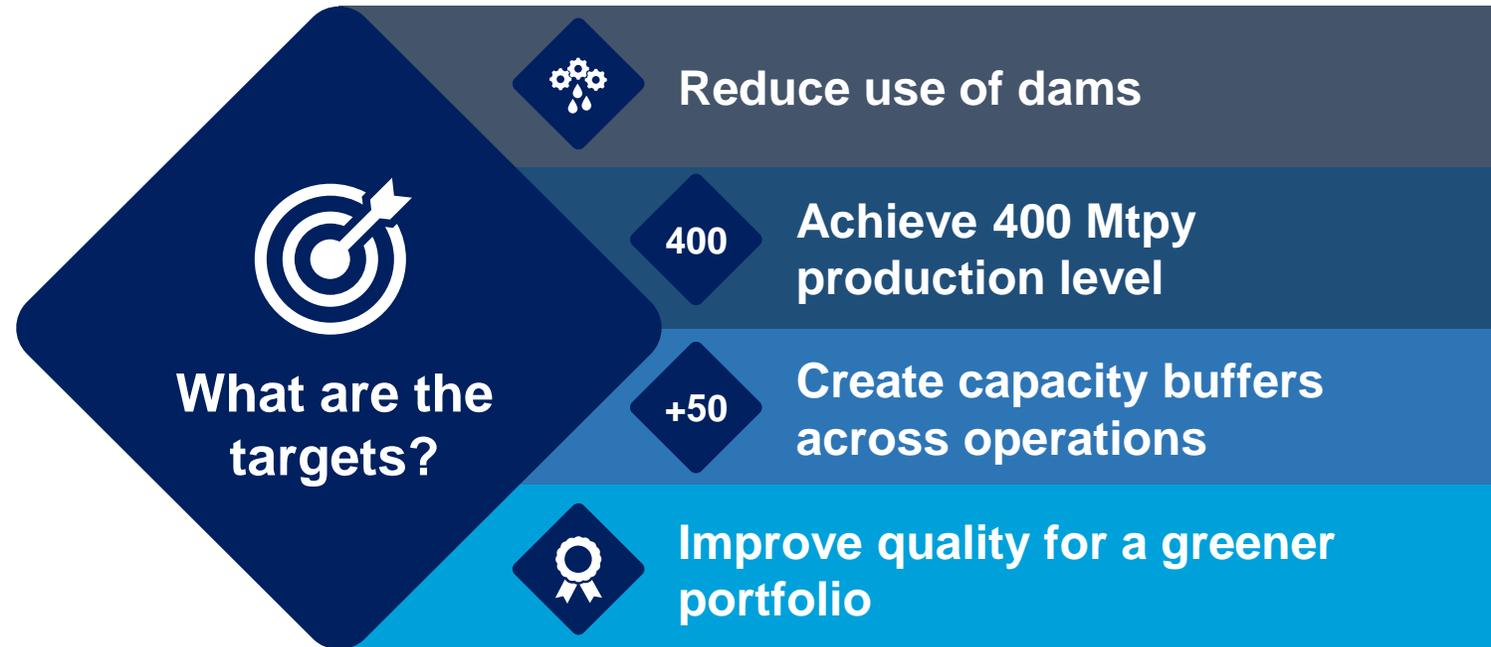
Learning together

- Live with integrity
- Act with integrity
- Value our people
- Make it happen
- Respect our planet and communities

**Maximize
flight to quality
in Iron Ore**



Maximize flight to quality in Iron Ore



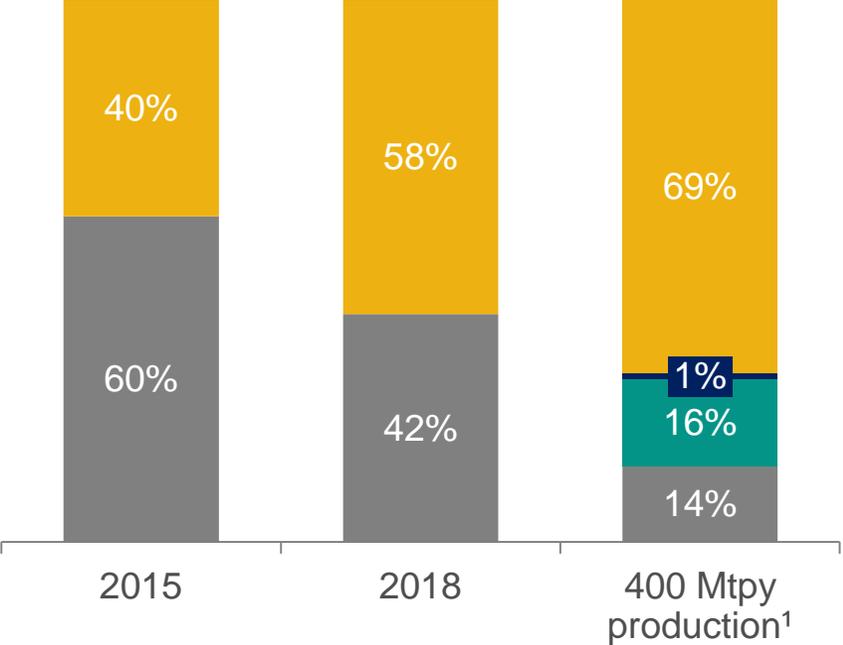


**Reduce use
of dams**

Vargem Grande Complex filtration plant works, Minas Gerais

Implementing solutions for a sustainable mining

Ore processing method



■ Dry processing ■ Filtration and dry stacking²
■ Dry concentration ■ Wet processing³

- 
Increasing dry processing production

 Blending strategy
 Production increase in Northern System
 Shift of Usina 1 in Serra Norte

- 
Developing dry concentration solutions

 New Steel plant with 1.5 Mtpy capacity
 approved with US\$ 125 MM CAPEX⁴

- 
Implementing tailings filtration systems

 Vargem Grande Complex
 Brucutu site
 Itabira Complex

[Click here](#) to watch a video

¹ After the Usina 1, located in Serra Norte, conversion to dry processing. ² The processing method is wet processing and tailings are filtered and dry stacked.
³ Tailing disposed in pits or tailings dams. ⁴ The plant will be located in Vargem Grande Complex and the start-up is expected to 2022.



Achieve 400 Mtpy production level
and **create buffers**

400 Mtpy run-rate capacity to be achieved at the end of 2022

	Capacity (Mtpy)			
	Today ¹	End of 2021	End of 2022	Long-term
Northern System	206	206	230	260
Southeastern System	61	77	101	106
Southern System	51	65	67	82
Midwestern System	2	2	2	2
 VALE	320	350	400	450
2020 production	300-305 Mt			
2021 production	315-335 Mt			

¹ End of 2020. Assumes actual capacity of the current operating assets.

Northern System

High-quality and low-cost growth platform



Ramp-up and open new mining fronts + 24 Mtpy¹



Develop filtering and dry stacking capacity



Solve interference of upstream dams

Path to 400 Mtpy

4Q21	Serra Leste: repower crushers	+2 Mtpy ²
2021	S11D: installation of new crushers to process jaspilite ore bodies	+2 Mtpy
1H22	Serra Norte: Start-up of Gelado project	+10 Mtpy
2H22	S11D: start-up of 100 Mtpy capacity project ³	+10 Mtpy

¹ Net addition. ² To 6 Mtpy from 4 Mtpy. ³ Considering the Northern System 240 Mtpy project. The achievement of 240 Mtpy production in Northern System also depends on applying for new licenses and opening of new mining pits in Serra Norte (10 Mtpy of net addition).

Southeastern System

Key for pellet feed production



Ramp-up and open new mining fronts



Develop filtering and dry stacking capacity **+ 40 Mtpy¹**



Solve interference of upstream dams

Path to 400 Mtpy

1Q21	Timbopeba: final authorization to dispose of tailings at Timbopeba pit ² and conclusion of plant's adaptation	+7 Mtpy
4Q21	Brucutu: Torto dam start-up recovering capacity ³ and start-up of filtering plant in 2022 ⁴	+17 Mtpy
2021	Itabira: temporary tailings disposal restrictions due to limited disposal capacity ⁵	-9 Mtpy
2022	Itabira: start-up of filtering plants ⁶ and raising works of Itabiruçu dam ⁷ , solving tailings disposal restrictions	+24 Mtpy

¹ Net addition. ² Final authorization expected to be conceded by National Mining Agency (ANM). ³ Torto dam start-up depends on receiving operational licenses and declaration of stability. ⁴ Disposal of filtered tailings in tailings piles depends on receiving licenses. After the filtration start-up, Torto and Norte/Laranjeiras dam are expected to be used as contingency. ⁵ Itabira production capacity may fluctuate in 2021/2022 due to tailings disposal availability in Itabiruçu dam (at emergency level 1) and Onça/Periquito pits. ⁶ Disposal of filtered tailings in tailings piles depends on receiving licenses. After the filtration start-up, Itabiruçu dam is expected to be used as contingency. ⁷ After conclusion, the approval of Economic Development Plan is necessary by National Mining Agency (ANM).

Southern System

Precisely matches Vale's blending strategy



Ramp-up and open new mining fronts



Develop filtering and dry stacking capacity



Solve interference of upstream dams **+ 16 Mtpy¹**

Path to 400 Mtpy

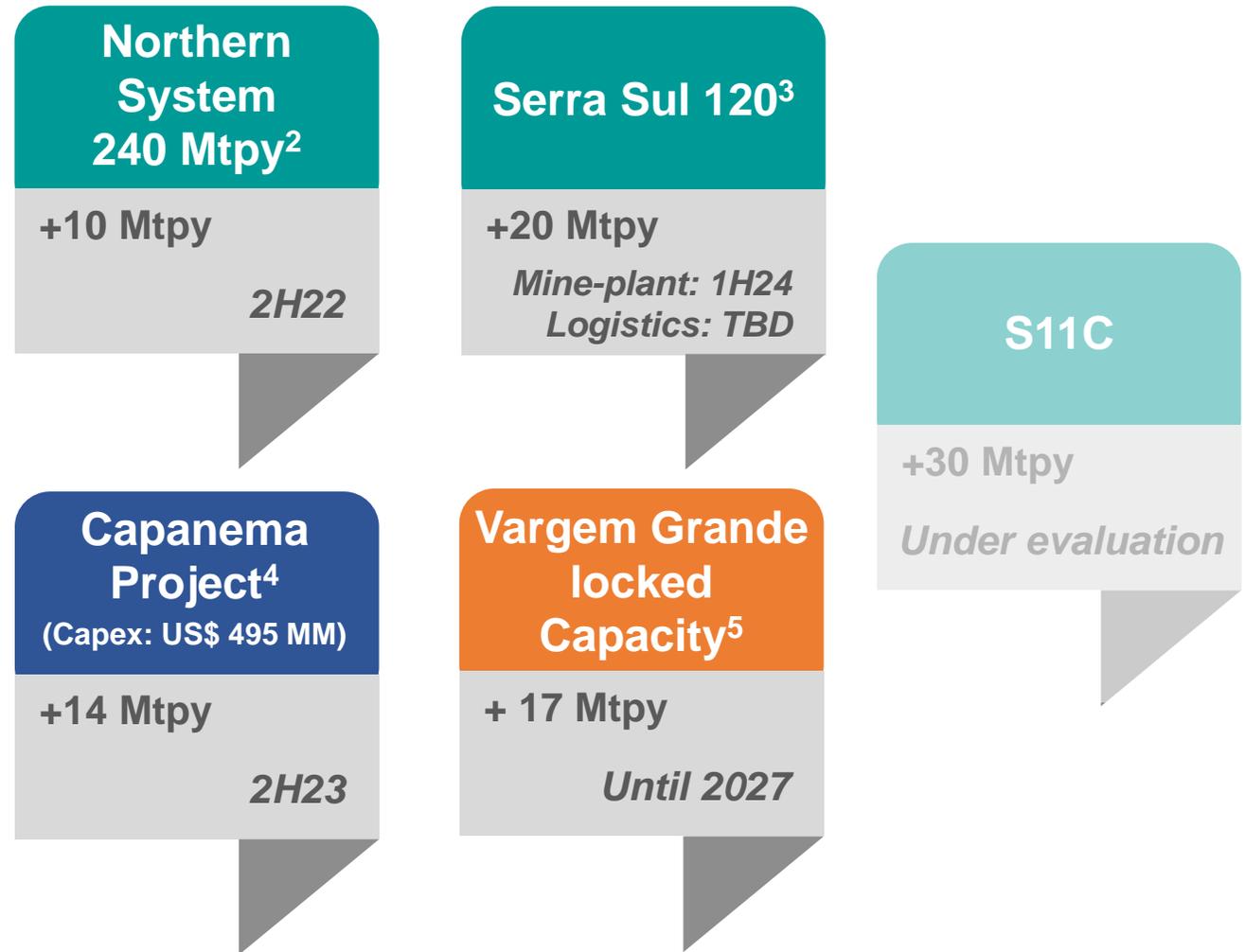
2Q21 Fábrica: conclude vibration tests² and conclude Forquilha V dam's tailings pipeline **+6 Mtpy**

2Q21 Vargem Grande: conclude Maravilhas III dam construction³ and start-up filtering plant⁴ **+3 Mtpy**

2Q21 Vargem Grande: unlock conveyor belt capacity⁵, progressing on VGR dam de-characterization and license of new mining areas **+6 Mtpy**

¹ Net addition. ² Vibration tests are necessary to certify the absence of impacts on the site's structures. After the conclusion, an evaluation by external auditors and National Mining Agency (ANM) is required. ³ The receipt of positive stability declaration is necessary to start operation. ⁴ Disposal of filtered tailings in tailings piles depends on receiving licenses. ⁵ Resumption of conveyor belt relies on external approvals by National Mining Agency (ANM) and external auditors.

Vale reinforces its flexibility by creating over **50 Mtpy¹** capacity buffer next years

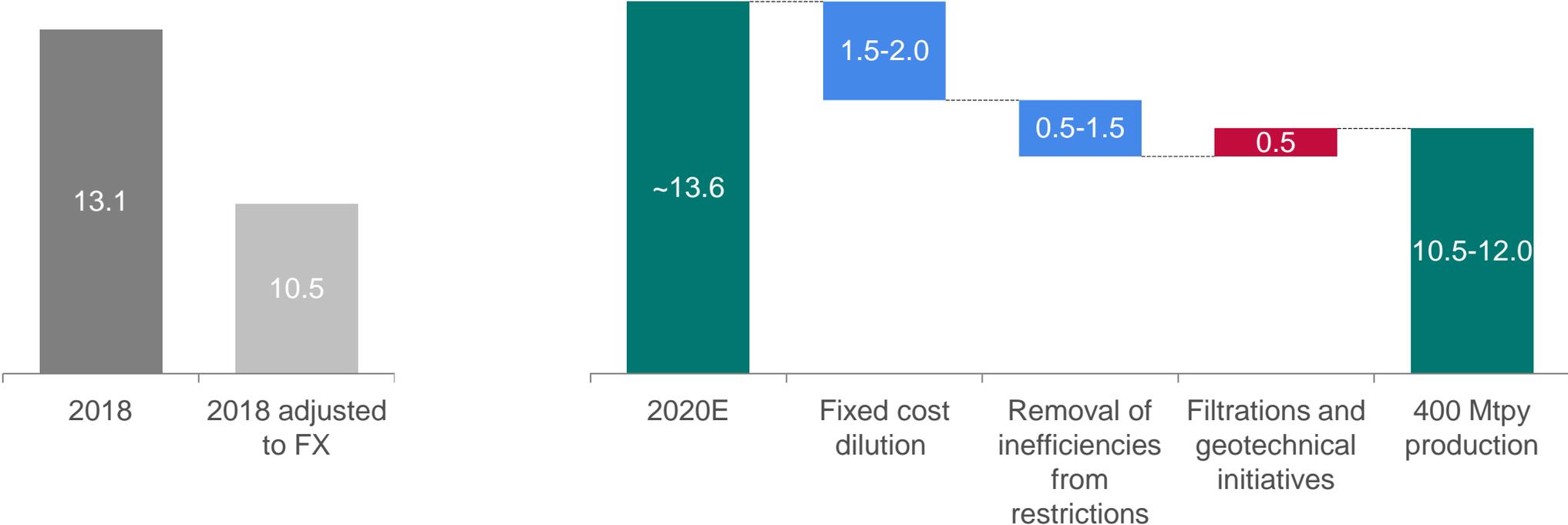


¹ Net capacity increase. ² The achievement of 240 Mtpy production in Northern System also depends on applying for new licenses and opening of new mining pits in Serra Norte (10 Mtpy of net addition).

³ Mine-plant capacity approved in Aug/20. Pending the approval of logistics solution. ⁴ To be approved in Dec/20 with an expected investment of US\$ 495 MM. The project has a capacity of 18 Mt and it is expected to add 14 Mtpy to Timbopeba site in the first years. ⁵ Advance in studies to elevate automated train productivity while decreasing emergency levels of Forquilhas and Grupo dams, which today limits capacity Vargem Grande Complex capacity.

Progressing on C1 stabilization

C1 cash cost without 3rd party purchase (US\$/t)

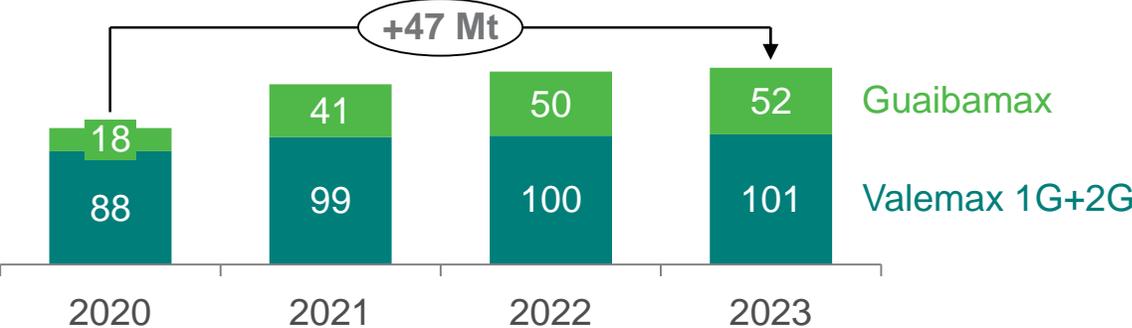


Note: FX BRL/USD of 5.1.

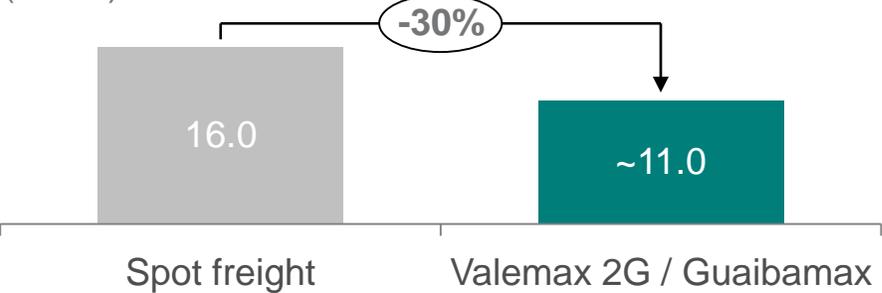
Committed to a safe, green and efficient shipping portfolio



Volumes transported in Valemax/Guaibamax volumes (Mt)



Average (2021-23) freight cost Brazil - China² (US\$/t)



¹ Dedicated scrubbers + HSFO-linked. ² Spot freight based on the 5TC FFA curve; bunker prices based on forward curves.

Ecoshipping

Open innovation and partnerships

67
technologies
already identified



Short-term:
Energy efficiency



Medium term:
Alternative fuels

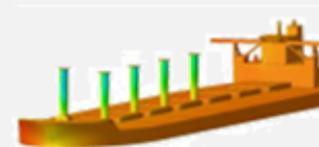


Long-term:
**Alternative fuels /
Innovative propulsion**

Pilot projects under implementation



Hull cleaning with robots
Emissions reduction¹: 1%
Start test: 2020



Rotor sails
Emissions reduction¹: 5-8%
Start test: 2021



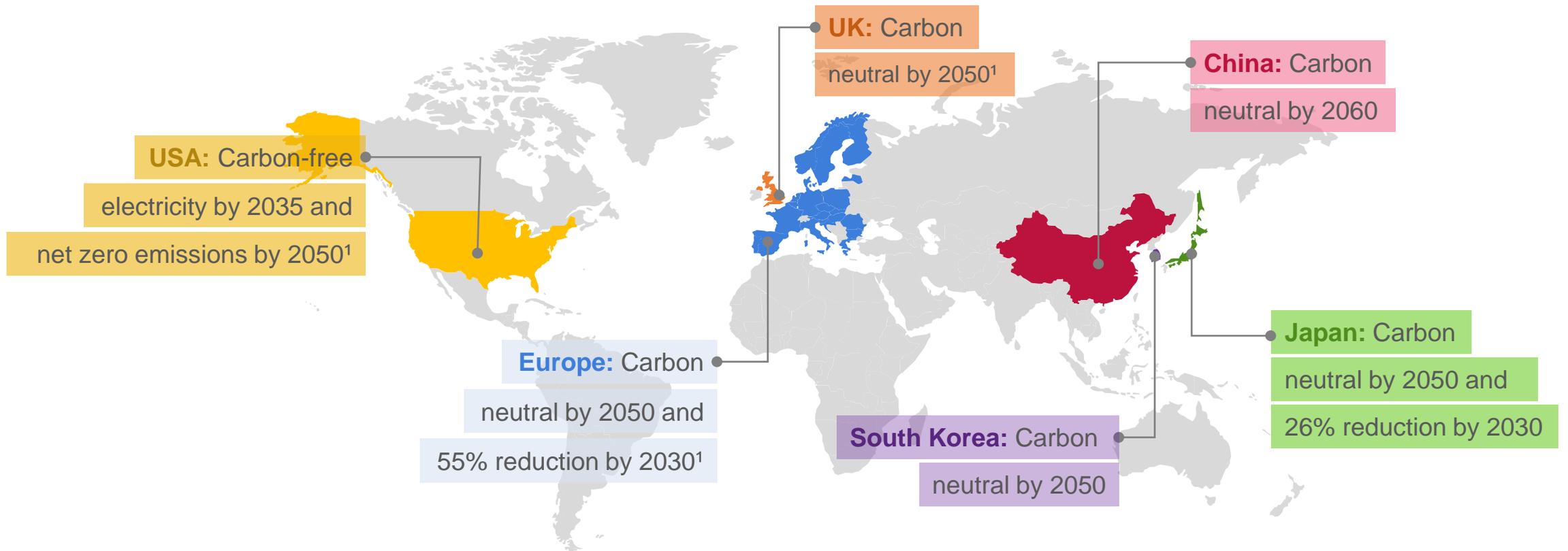
Air lubrication
Emissions reduction¹: 4-8%
Start test: 2021

¹ Estimated reduction of ship emissions.



Improve quality for a
greener portfolio

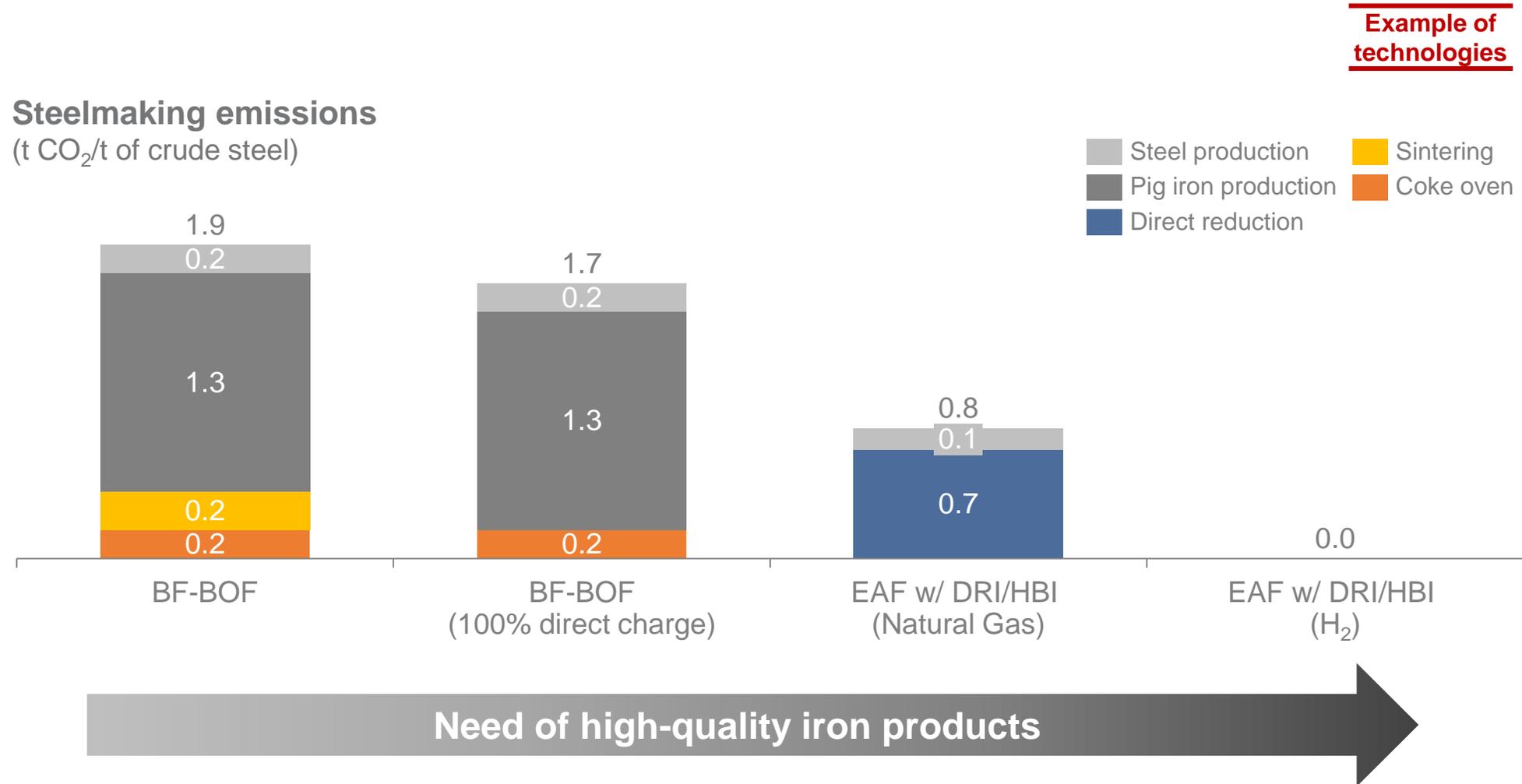
Making our **green commitment** in the context of targets made by governments



To enable the extensive effort required, government support both in mitigating risks and providing long term regulatory certainty regarding **carbon pricing will be decisive**

¹ Likely to be announced.

Steel industry decarbonization will value high quality products



Supplier of choice for high quality products

~90% share of high-quality products in portfolio by 2024

US\$10/t of portfolio premiums expected in mid-term¹

 High-quality sinter feed	Increasing Northern System high-quality production
 New Steel	Enabling the production of 67% Fe content from low Fe ores
 Direct charge products	Leading world's pellet production and developing new products
 Metallics	Working with partners on an asset light platform to supply low-CO2 solutions

¹ Portfolio premium considered in Vale's breakeven cost (Quality and Pellet adjustments)

Creating solutions close to clients

Blending strategy



- Portfolio optimization and readiness to deliver volumes
- 17 ports in China and 1 distribution center in Malaysia

**180 Mtpy of BRBF sales
in mid term**

Grinding facilities



- First grinding plant launched in 2020 with 3 Mtpy capacity
- Start-up expected to more 2 plant in 2021

**Up to 30 Mt of GF88 in the mid
term according to market demand**

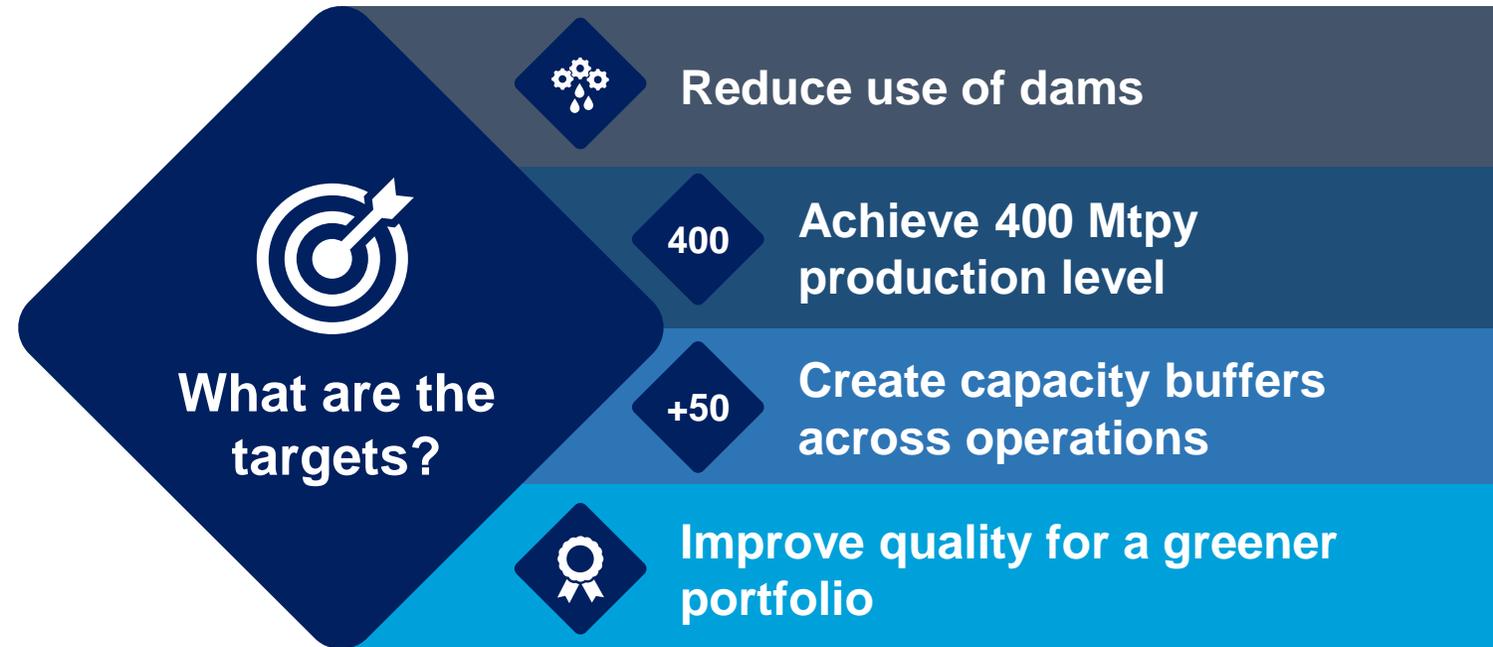
Strategic partnerships



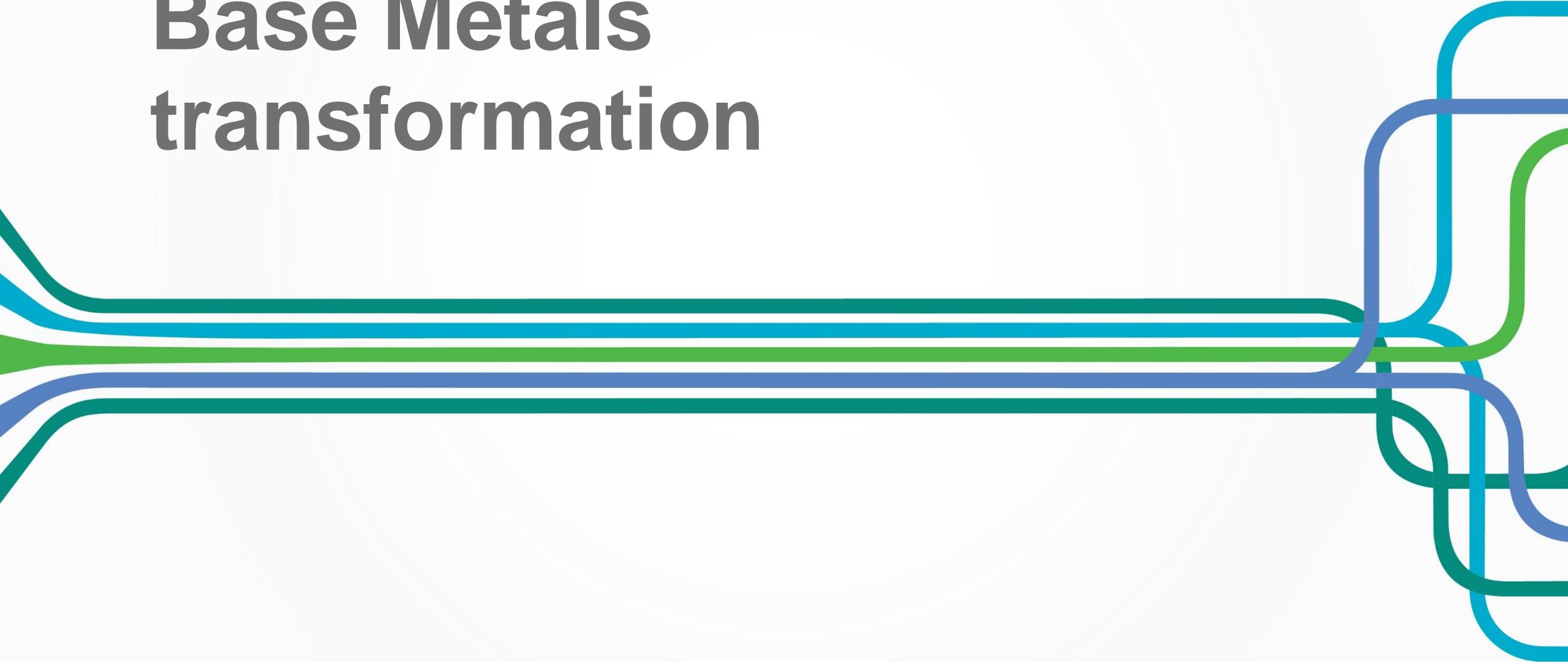
- 20 Mtpy of strategic port capacity secured with West III Project
- Capacity to berth Valemax and close to Yantze river

**Enhancing business leverages
with key Chinese partners**

Progressing in our plan to **improve iron ore business**



Base Metals transformation





Carajás is our platform

to grow in **copper**

We will reach ~500 ktpy with projects already in the pipeline

Salobo III



Expansion project



Start-up in 2022

Cu

~30-40 ktpy



US\$ 570-670 M streaming
from Wheaton

Alemão



Growth project



Start-up in 2024-25¹

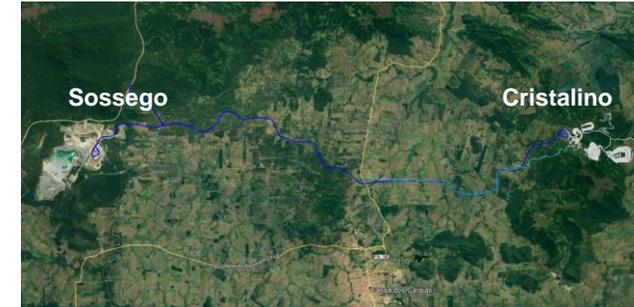
Cu

~60 ktpy



High gold by-product
Opportunity for streaming

Cristalino



Replacement project



Start-up in 2024-25¹

Cu

~80 ktpy



Maintain Sossiego's plant
operating at full capacity

¹Expected approval in 2021.

Vale uncovered 1.9 Mt¹ of Cu equivalent in the last 2 years that will support future growth

Carajás



North Hub with 3 main copper deposits

- Paulo Afonso, Polo and Furnas (70-100 ktpy) from 2030+

Synergies with the iron ore business

- Production of pellet feed from Cristalino stripping
- Pellet feed production from Salobo and Sossego tailings dams

South Hub upside

- Potential Sossego 2 plant with additional 40-60 ktpy through development of small deposits from 2027+

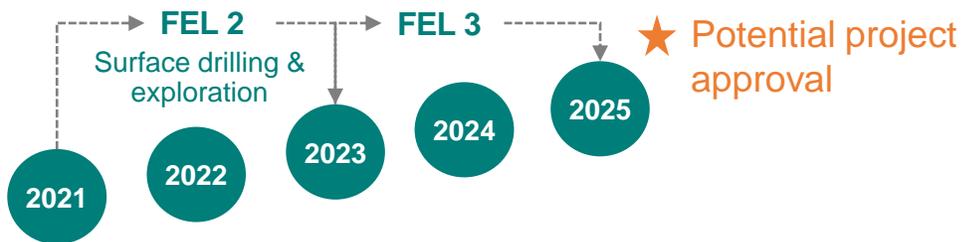
Salobo upside

- Potential Salobo 4 (30 ktpy) from 2027+



¹ Considering additional resources of 355Mt @ 0.55% Cu near Sossego and Salobo operations.

Recent studies on Hu'u indicate the potential for a **larger resource and higher production**



Potential to be a Tier 1 asset

Good grades, large tonnage with 1st quartile cost competitiveness



+45 years of life of mine

Recent drilling confirms the deposit extends >500m below the previously defined depth of mineralization



Cleaner energy options

Liquefied Natural Gas with potential for geothermal and pyrite roasting heat recovery systems



IAGI 2020² Best Discovery winner

Recent drilling success with significant intercepts which rank up with the worlds best

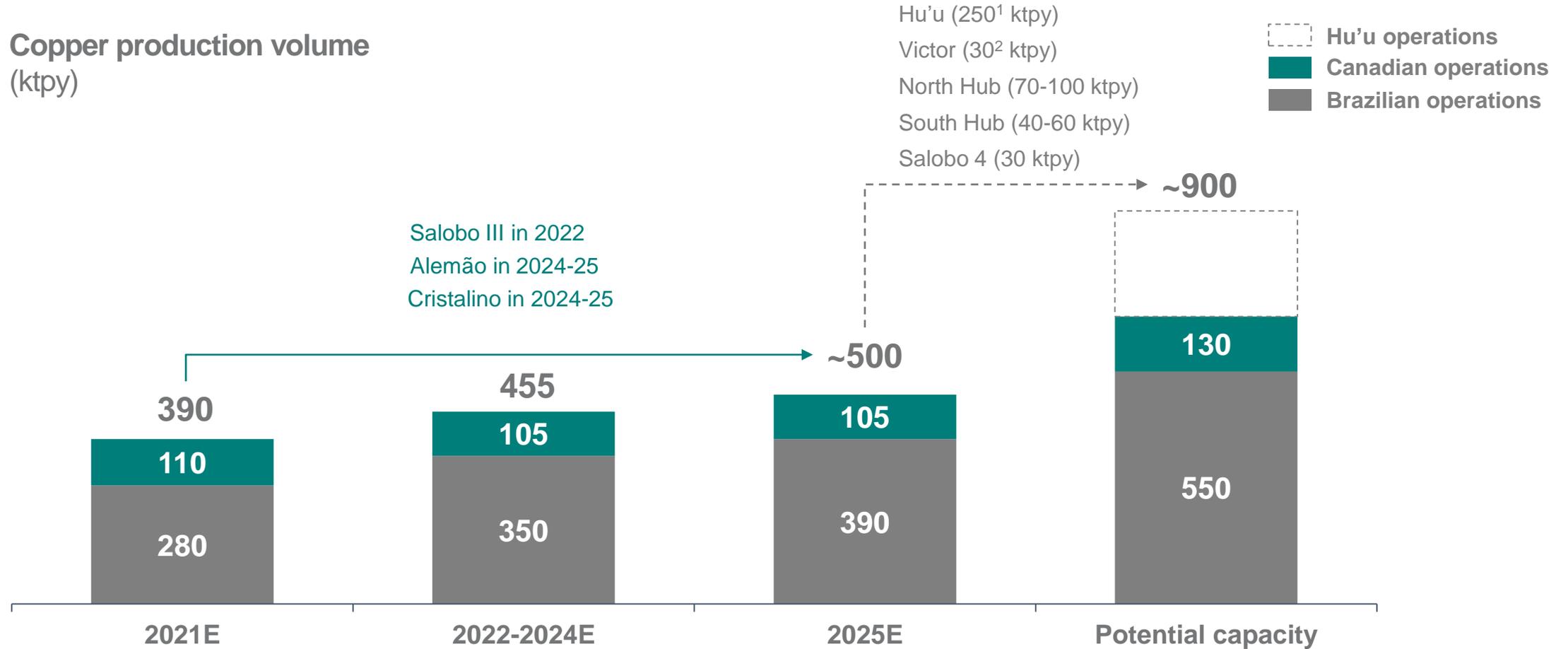


Partnership through **JVs³**

¹Considering full equity in Sumbawa Timur Mining and based on initial studies arising from the ongoing prefeasibility study; ² Indonesian Society of Geologists; ³ The Hu'u Project is owned by PT Sumbawa Timur Mining (STM), a privately-owned Indonesian company which holds a 7th Generation Contract of Work (CoW). The shares in STM are owned by Eastern Star Resources Pty Ltd (ESR), a 100% Vale SA-owned subsidiary, and PT Aneka Tambang Tbk (Antam). ESR owns 80% of STM and Antam owns the remaining 20%. ⁴ The December 2019 STM resource estimate reports a total Indicated resource of 0.76 Bt @ 0.93% Cu and 0.56 g/t Au and a total Inferred resource of 0.96 Bt @ 0.87% Cu and 0.44 g/t Au

Potential to deliver organic growth and robust cash generation placing Vale in the top tier of the copper industry

Copper production volume (ktpy)



¹Considers 100% production. ²Vale's share in the project.

We are **leaders** in
providing **nickel**
for a sustainable
energy transition...



...and we will go further by
improving our sustainable
way to operate



Our Class 1 Nickel places us in a unique position with environmental-friendly operations in the North Atlantic

We have already done



Copper Cliff Smelter in Sudbury

- US\$ 1.5 bn investment
- Reduction in emissions
 - 40% GHG from the smelter
 - 85% sulphur oxide
 - 40% metals particulate

We are evolving...



Underground electric vehicles

- 25 EVs operating underground
- 40 expected by the end of 2021
 - Reduces diesel exhausts and particulates
 - Reduces underground heat and noise

...and we will get greener



Base Metals Low Carbon Agenda

- Recycling EV batteries (Blackmass)
- Decarbonization of the RKEFs
- Clean energy electrification
- Use of biofuels and biomass

North Atlantic will increase production and generate cash after investment period



North Atlantic

Stability with increase to **110 ktpy** while improving productivity with replacement projects

High value-added by-products

VBME

Start-up: 4Q21

Capacity: 45 ktpy

Capex: US\$ 1.6 bn

CCM1

Start-up: 4Q21

Capacity: 10 ktpy

Capex: US\$ 710 mn

Voisey's Bay operations



Copper Cliff Mine



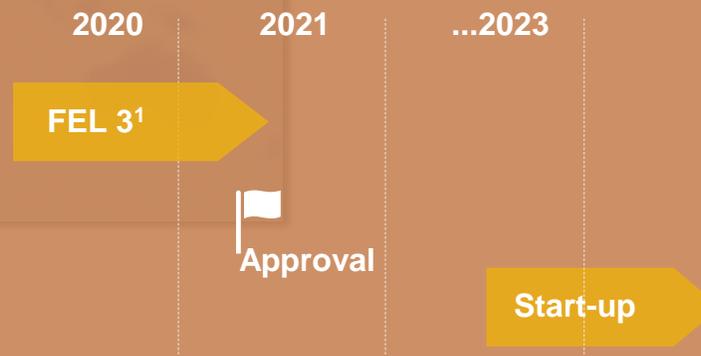
- Thompson turnaround underway aiming productivity improvements
- Leverage incremental value of small-midsized deposits as well as mineralized waste stockpiles
- Partners for non-core assets to maximize value

Onça Puma will generate US\$ 40-50M EBITDA¹ per quarter with the stabilization of operations post-maintenance



South Atlantic

We will competitively add capacity with the **second furnace**



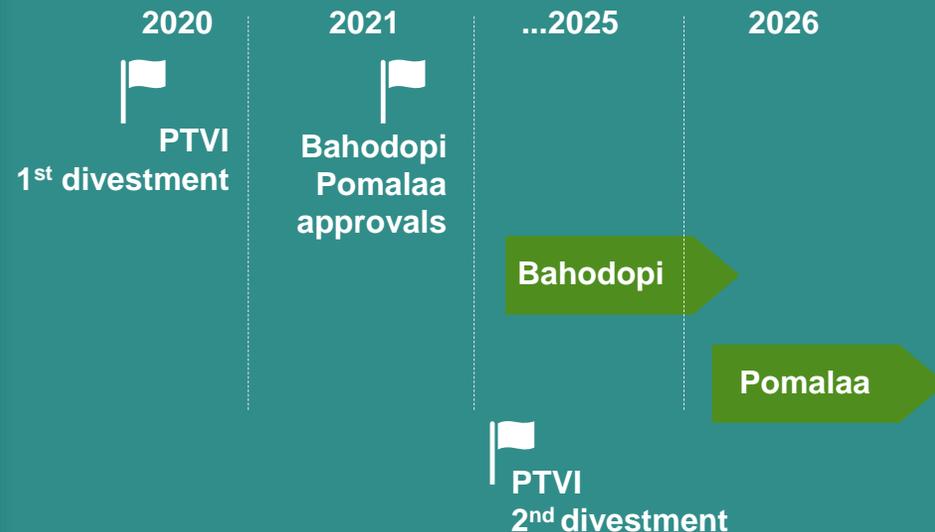
- Over 50 years of life-of-mine
- Low capital intensity, high return
- Future site capacity: 40 ktpy
- Capex: US\$ 320 million

¹Considers nickel price at US\$ 15,000/t.

Opportunities to participate in investments in Indonesia through JVs in Bahodopi e Pomalaa projects

Indonesia

Optionality in projects with **110 ktpy**¹ capacity



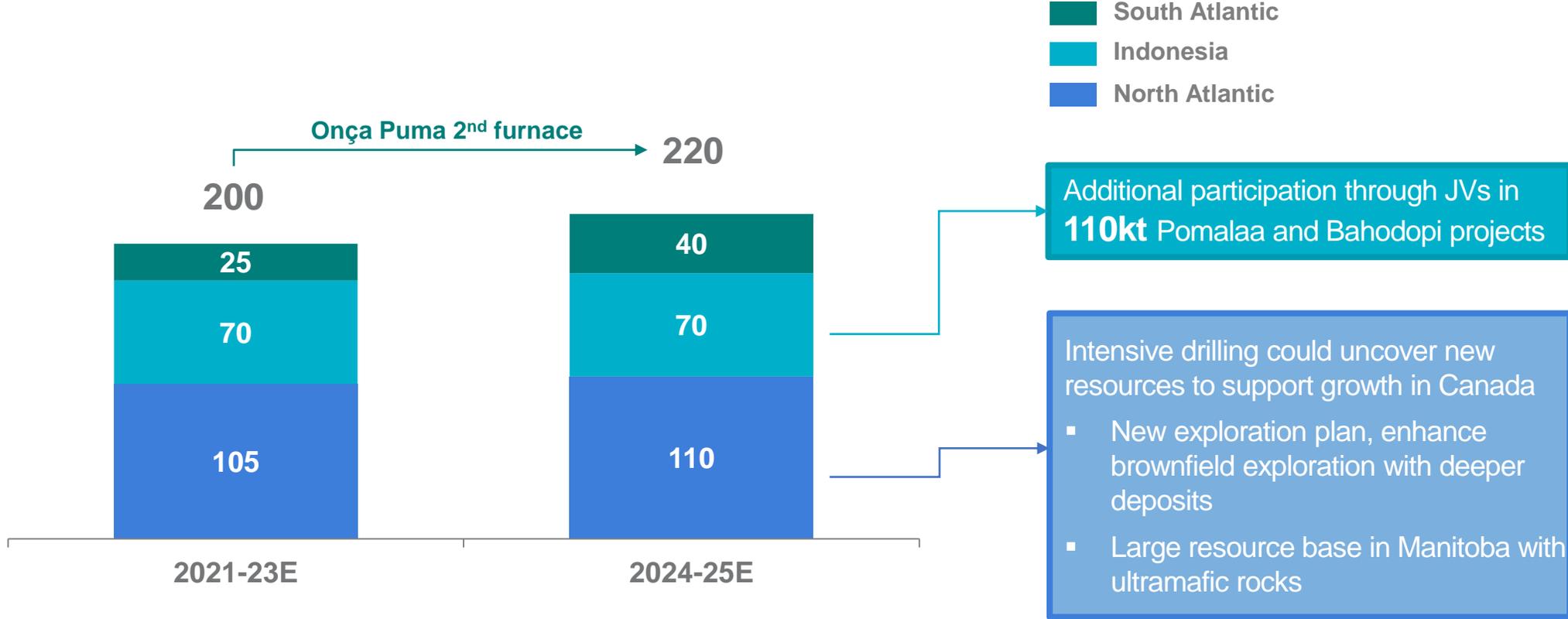
- World class laterite ore deposits
- Partnering process through JVs



¹Considers 100% production for Pomalaa and Bahodopi projects.

Focus on de-risking with stabilized production and growth potential in South Atlantic and Indonesia

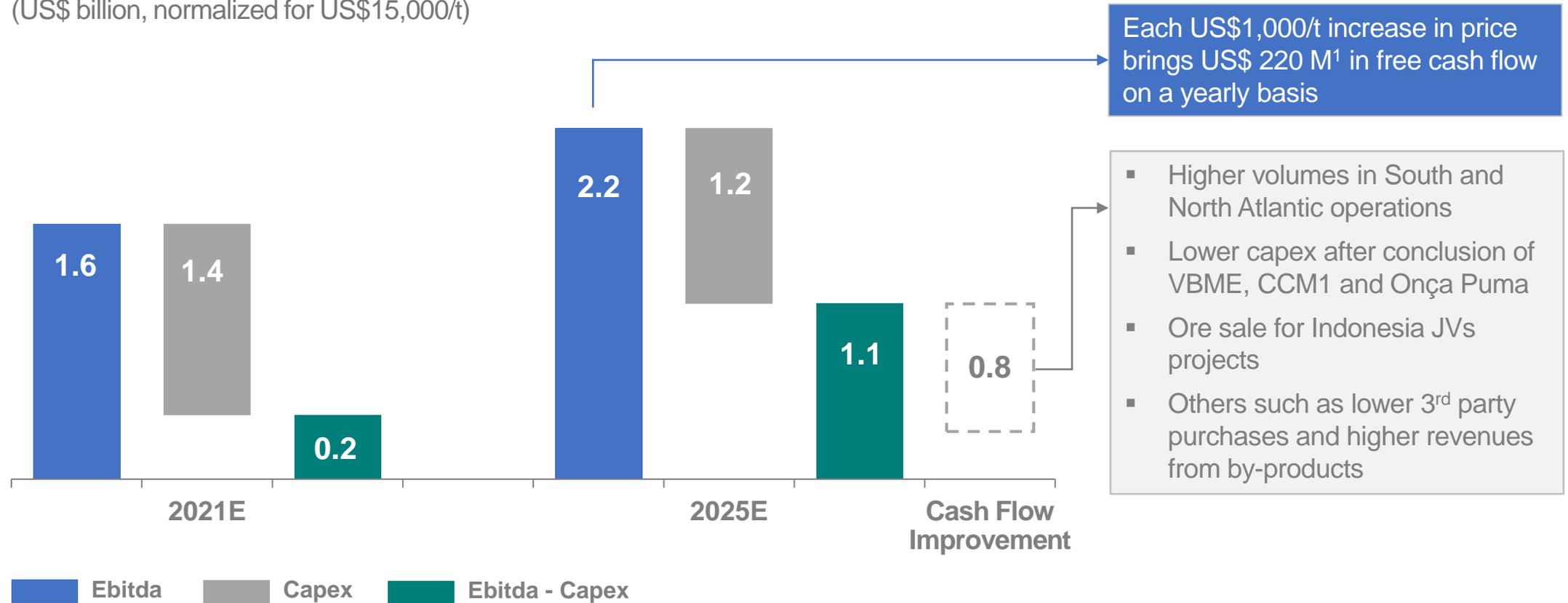
Nickel production volume (ktpy)



Nickel business will present strong cash generation after the conclusion of the investment cycle

Nickel cash generation

(US\$ billion, normalized for US\$15,000/t)



¹Considering 200 kt and 220 kt of nickel sales volumes in 2021 and 2025, respectively.

Discipline in capital allocation



The equity story for Vale

De-risking



- Brumadinho
- Dam safety
- Robust ESG Practices
- Production resumption

Reshaping



- Focus on core business
- Control of cash drains
- Growth opportunities

Re-rating



- Benchmark in safety
- Best-in-class reliable operator
- Talent-driven organization
- Leader in low-carbon mining
- Reference in creating and sharing value

Sound cash flow generation

Discipline in capital allocation

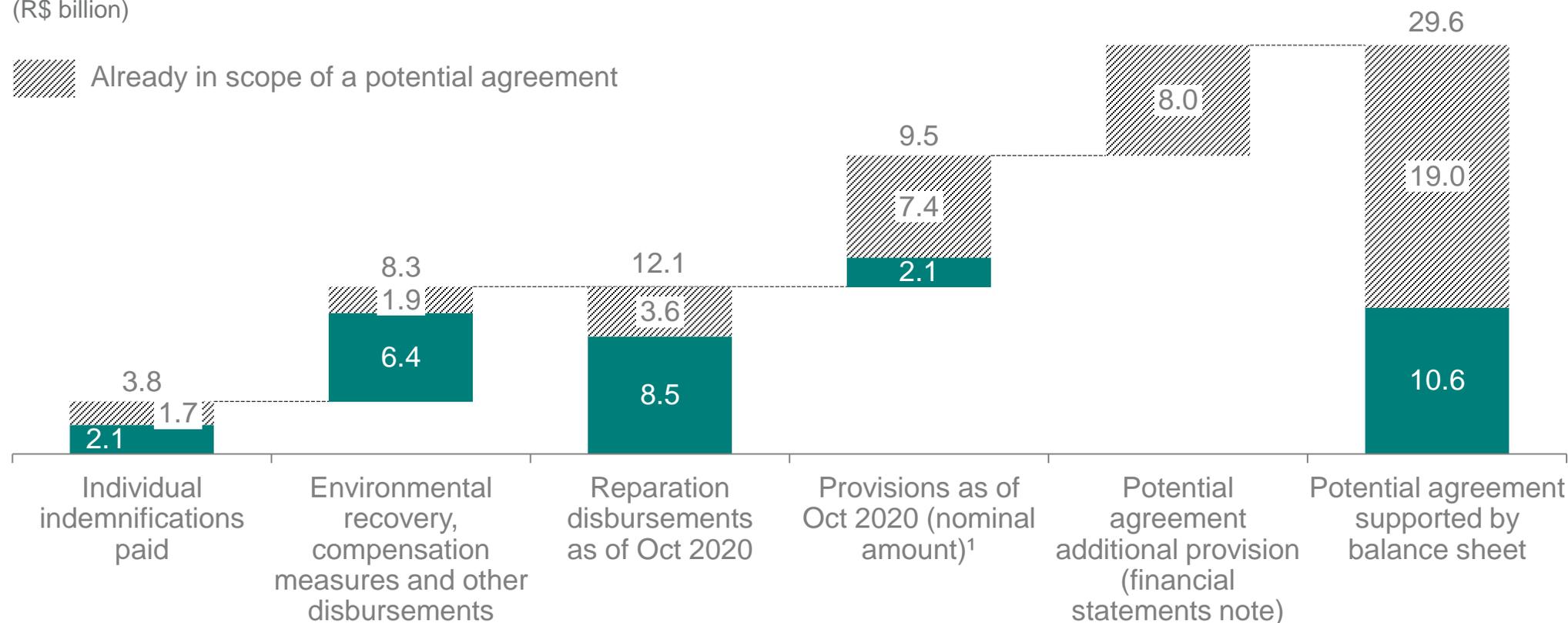
Balance sheet provisions are consistent with a potential framework agreement for Brumadinho reparation

De-risking



Full reparation of Brumadinho (R\$ billion)

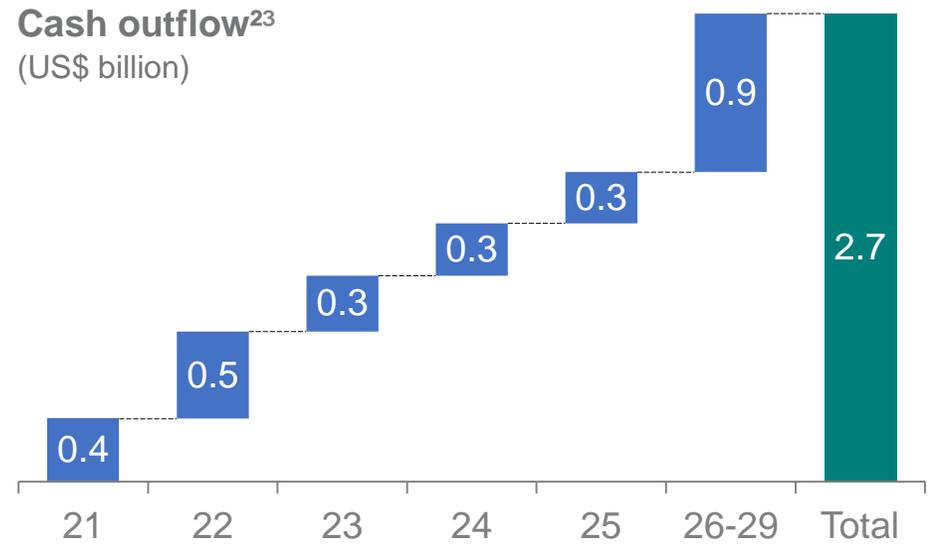
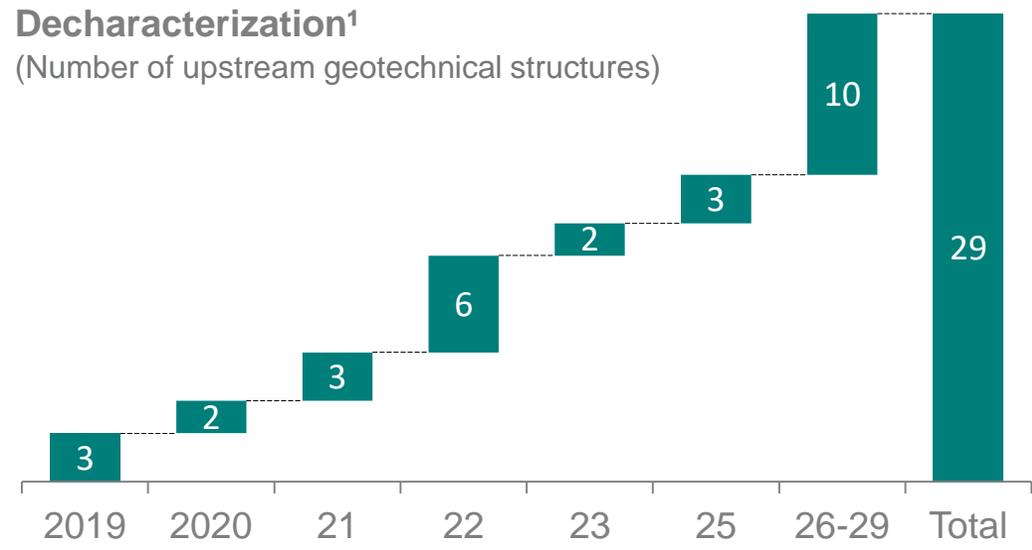
 Already in scope of a potential agreement



¹ For accounting purposes, the R\$ 9.5 billion is discounted at present value based on the expected timing of the cash outflows.

Moving forward with initiatives for dam safety

~US\$ 670 million⁴
in additional provision for project adjustments and safety improvement works



¹ As per the decharacterization plan for upstream structures disclosed at www.vale.com/esg. Estimate figures for the 2020-2029 period. ² Estimate cash outflow for the 2021-2029 period, given BRL-USD exchange rates of 5.11 (2021) and 4.77 (2022-29). ³ Nominal amount. ⁴ Given BRL-USD exchange rate of 5.3317 on November 30, 2020. Exchange rate subject to review in due course for recording in the company's 4Q20 financial statements. Total provision estimated at R\$ 12.824 billion on December 31, 2020, subject to review.

Fixing our cash drains

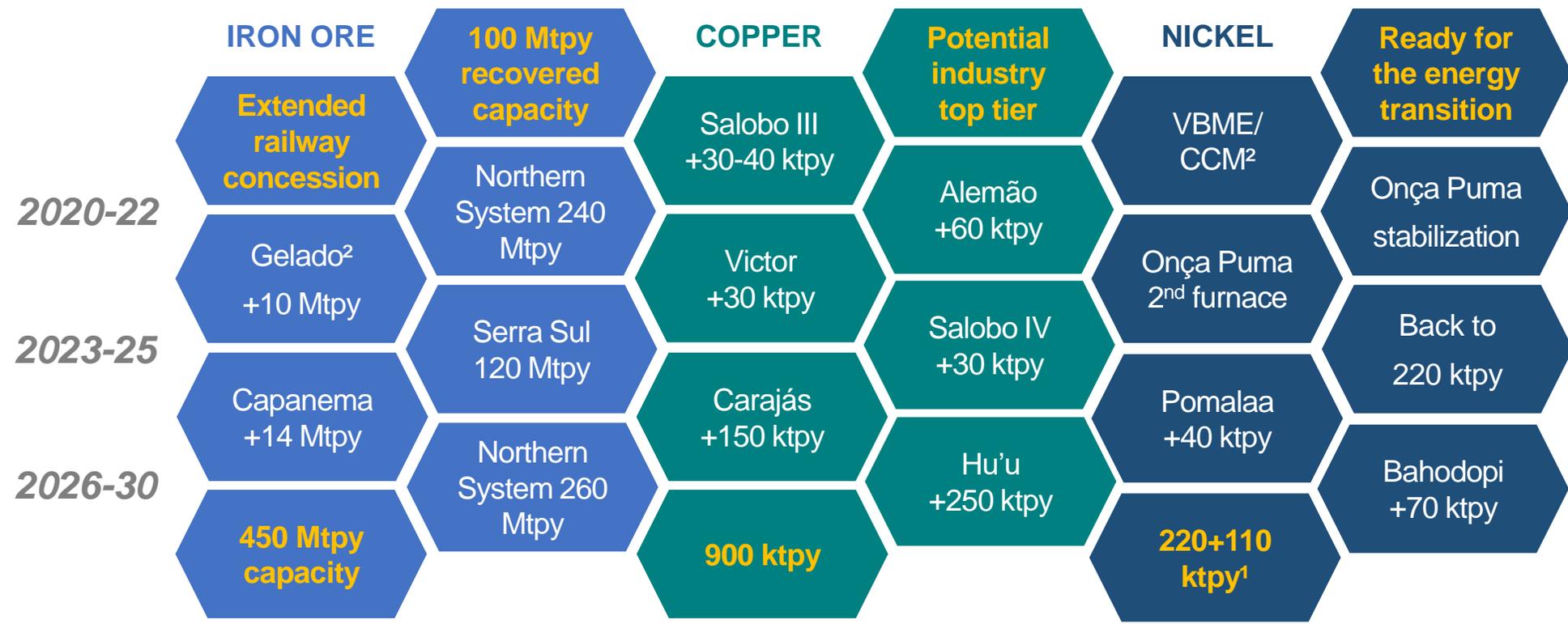
Reshaping



US\$ million	Milestones achieved	Ongoing measures	Cash flow profile ¹		
			2020	2021	2022
Samarco	Operational resumption approved by authorities	Works to resume operations in the coming weeks	200	50	50
Coal	Plant revamp started in November 2020	Revamp works to complete by 1H21	1,100	640	200
VNC	VNC refinery was shut down in 2Q20	Exit transaction or care & maintenance in 2021	380	350	80
Renova	Indemnification agreements with five communities	Renegotiation clause may help streamline agreement with authorities	400	550	250

¹ Average BRL/USD exchange rate of 5.21 (2020), 5.10 (2021) and 4.77 (2022).

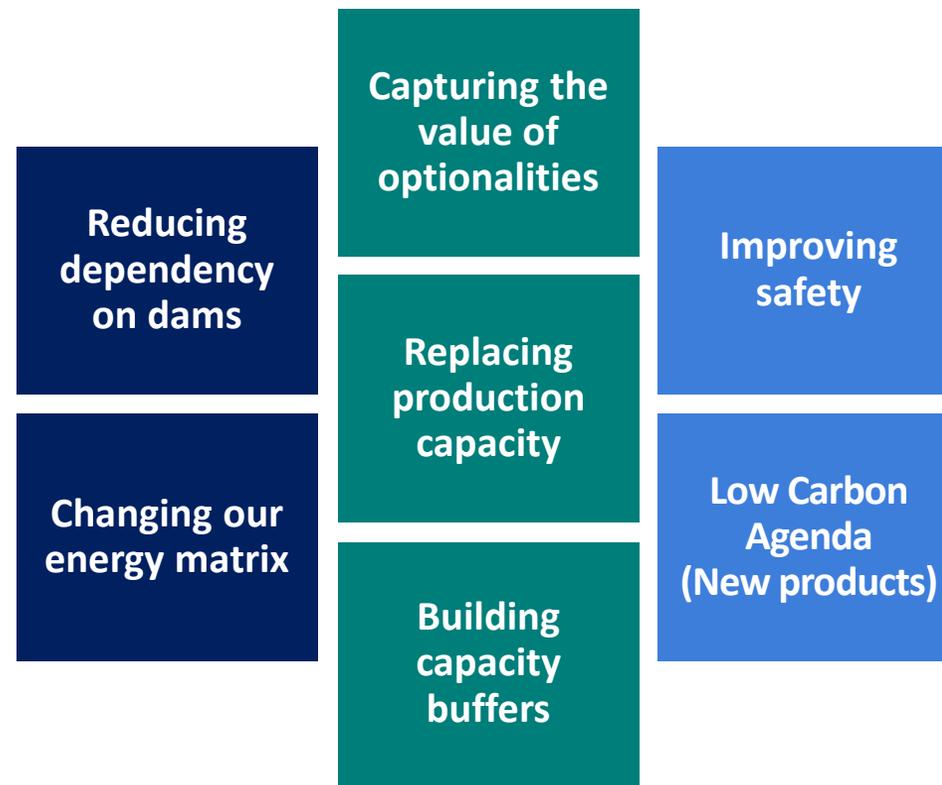
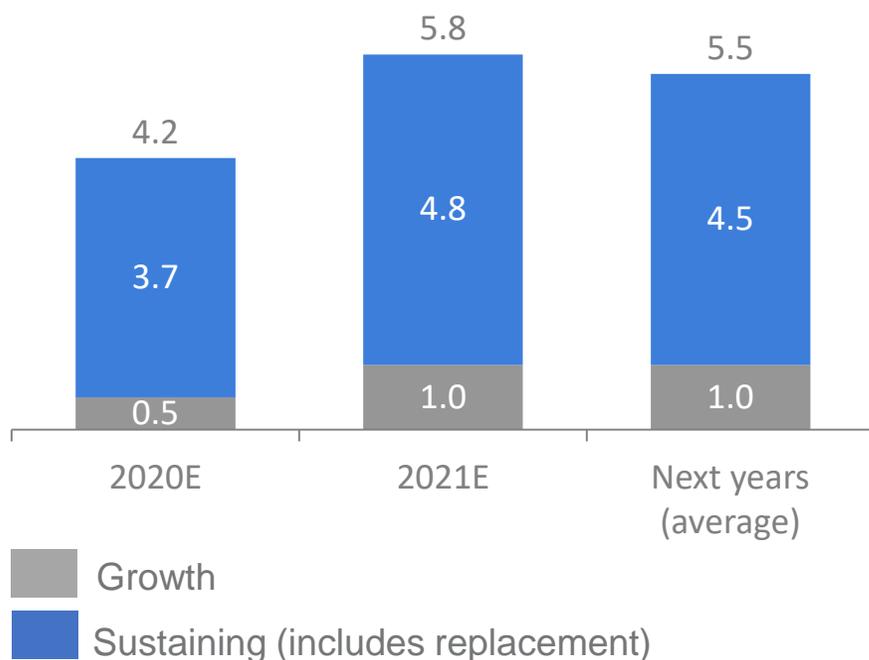
Seizing the opportunities for a solid future



¹ 220 ktpy from own operations and 110 ktpy from joint-venture operations. ² Replacement projects.

The new Capex profile captures the details of the strategic lead

Investments¹
(US\$ billion)



¹ Excludes expenditure with the anticipated renewal of railway concessions in Brazil and associated obligations. Average BRL/USD exchange rate of 5.21 (2020), 5.10 (2021) and 4.77 (next years).

Generating sound cash flow

EBITDA 2023¹² (US\$ billion)

Iron ore price (US\$/t) ³	Nickel price (US\$/t) ³		
	14,000	17,000	20,000
70	~17.4	~18.1	~18.7
85	~22.9	~22.5	~24.1
100	~28.3	~28.9	~29.6

Annual Free Cash Flow Yield 2021-23⁴ (% p.a.)

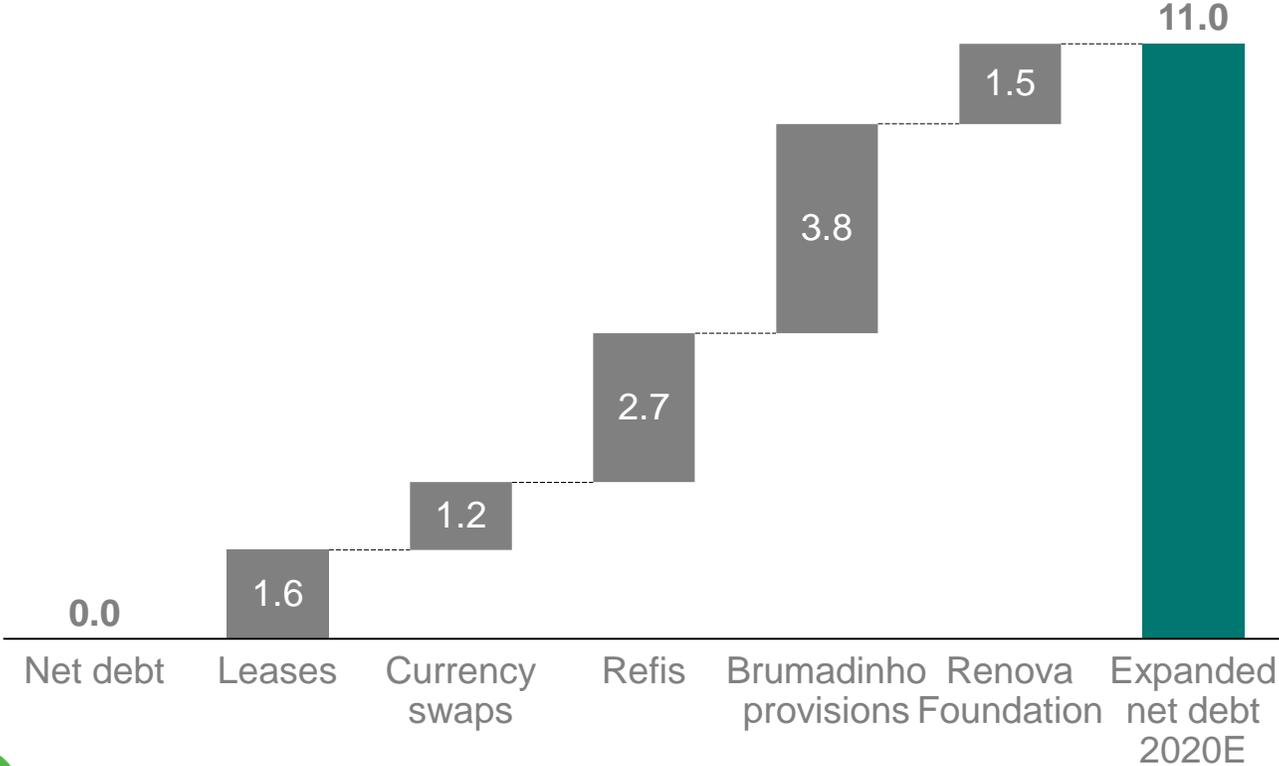
Iron ore price (US\$/t) ³	Nickel price (US\$/t) ³		
	14,000	17,000	20,000
70	~4.4%	~5.1%	~5.8%
85	~9.4%	~10.1%	~10.8%
100	~14.3%	~15.0%	~15.7%

¹ It does not consider any additional provisions. ² In 2023, average BRL/USD exchange rate of and 4.77, average copper price (LME) of US\$ 6,600/t and average high and low sulfur bunker at US\$ 323/t. ³ Price ranges do not constitute any guidance by Vale. ⁴ The Free cash flow estimated does not consider dividends, buybacks and acquisitions. It considers the inflow derived from the Salobo III gold stream completion in 2022. It considers the market capitalization of November, 26th

Capital allocation – Balance sheet allows full cash flow returns

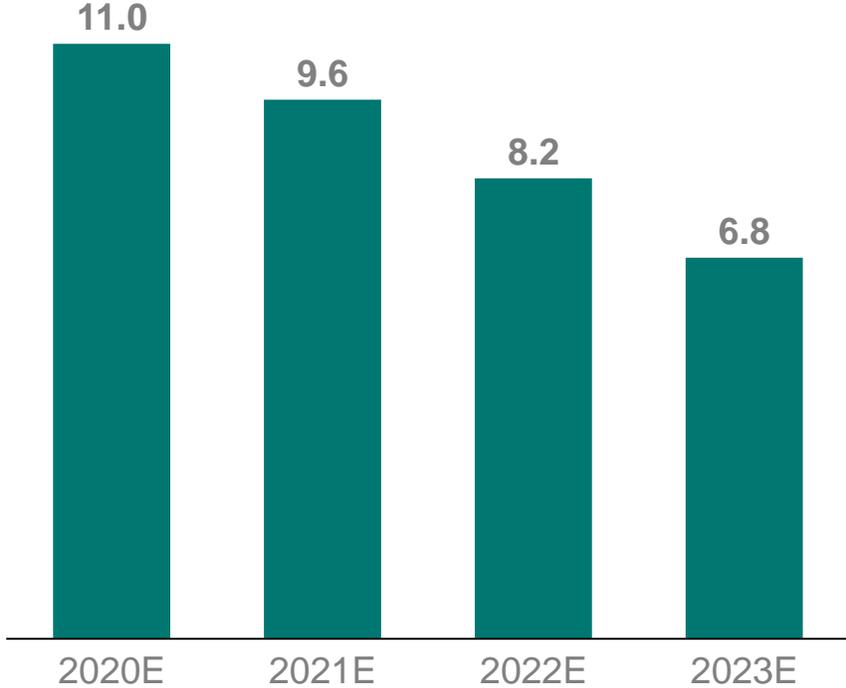
Expanded Net Debt 2020E¹

(US\$ billion)



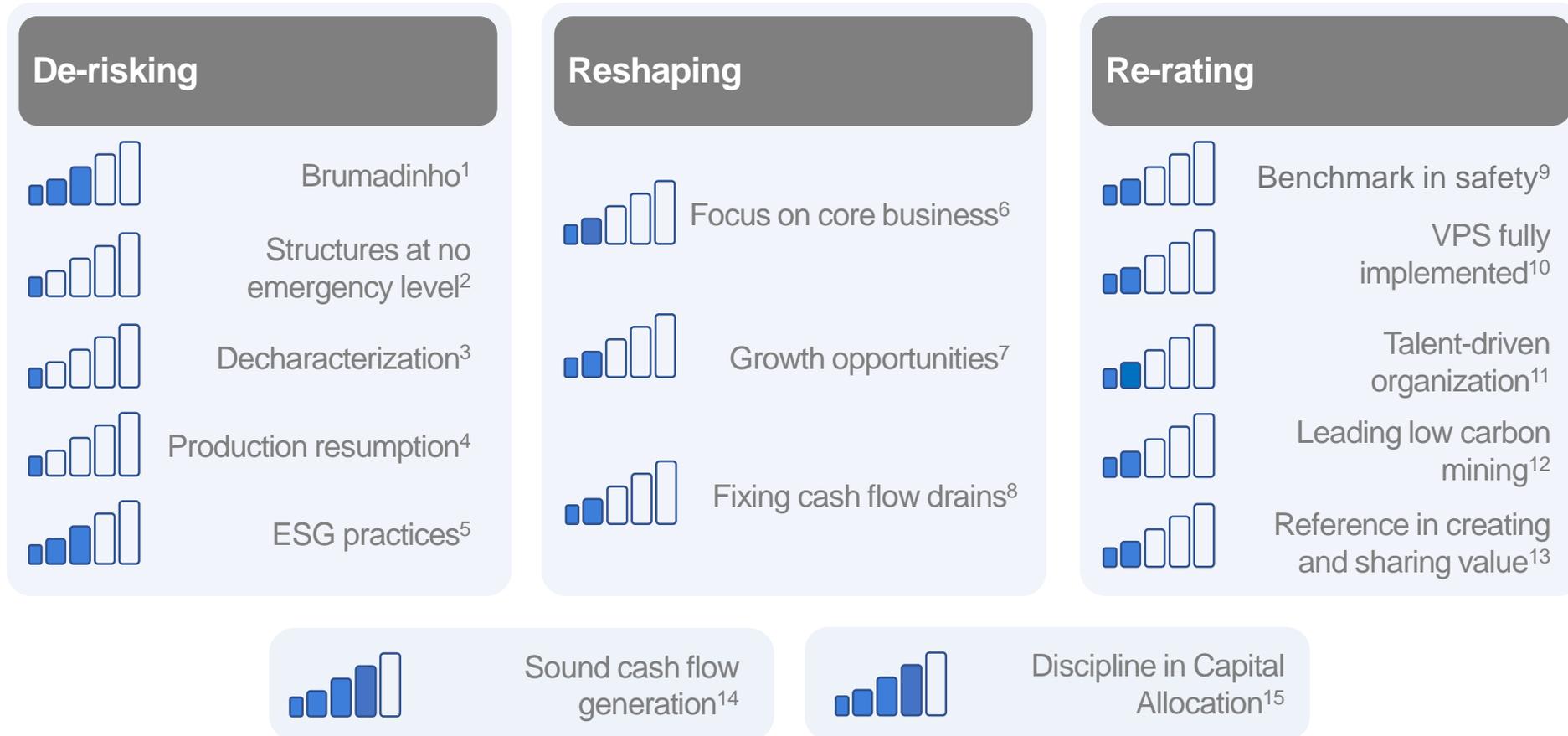
Expanded Net Debt with 100% cash flow distribution¹

(US\$ billion)



¹ It considers the additional dam decharacterization provision.

The roadmap for creating and sharing value



¹ Considering provisions disbursed as of 3Q20 ²Considering 33 structures at emergency level, as per ANM's records. ³ 3 structures out of 29, according to the Decharacterization Plan. ⁴Considering production currently performed and the 400Mtpy capacity expected by the end of 2022. ⁵33 gaps completed out of 52 gaps mapped by Vale. ⁶Given the exits of Zhuhai, Longyu and Biopalma, and future divestments. ⁷Given actual progress of growth project portfolio. ⁸Given actual progress of cash drains pipeline. ⁹Considering safety targets. ¹⁰Considering VPS implementation and maturity plan. ¹¹Considering workforce development, diversity and inclusion targets. ¹²Considering climate-related targets and current progress. ¹³Considering current and potential cash flow generation and current and potential improvements in ratings. ¹⁴ EBITDA conversion into FCF. ¹⁵Marginal investments, driven by ESG aspects, with cash flow conversion into shareholder return.



VALE