



18 October 2021

South32 Limited  
(Incorporated in Australia under the *Corporations Act 2001* (Cth))  
(ACN 093 732 597)  
ASX / LSE / JSE Share Code: S32 ADR: SOUHY  
ISIN: AU000000S320  
south32.net

## 2021 SOUTH32 SUSTAINABILITY BRIEFING

**South32 Limited (ASX, LSE, JSE: S32; ADR: SOUHY) (South32)** will be hosting a virtual Sustainability briefing at 4.00pm Australian Eastern Daylight Time.

A webcast of the event will be available to view live via the following link (<https://web.lumiagm.com/#/m/368288648>) using the 'guest' login. A recording of the session will be made available on the South32 website following its completion.

### About us

South32 is a globally diversified mining and metals company. Our purpose is to make a difference by developing natural resources, improving people's lives now and for generations to come. We are trusted by our owners and partners to realise the potential of their resources. We produce bauxite, alumina, aluminium, metallurgical coal, manganese, nickel, silver, lead and zinc at our operations in Australia, Southern Africa and South America. With a focus on growing our base metals exposure, we also have two development options in North America and several partnerships with junior explorers around the world.

### Investor Relations

---

#### Alex Volante

**T** +61 8 9324 9029  
**M** +61 403 328 408  
**E** Alex.Volante@south32.net

#### Susie Creswell

**T** +61 8 9324 9176  
**M** +61 418 933 792  
**E** Susie.Creswell@south32.net

### Media Relations

---

#### Miles Godfrey

**M** +61 415 325 906  
**E** Miles.Godfrey@south32.net

#### Jenny White

**T** +44 20 7798 1773  
**M** +44 7900 046 758  
**E** Jenny.White@south32.net

Further information on South32 can be found at [www.south32.net](http://www.south32.net).

Approved for release by Graham Kerr, Chief Executive Officer  
JSE Sponsor: UBS South Africa (Pty) Ltd  
18 October 2021

# SUSTAINABILITY BRIEFING

18 October 2021



# ACKNOWLEDGMENT OF COUNTRY

# AGENDA

1. Delivering on our purpose
2. Our approach to sustainability
3. Protecting and respecting our people
4. Addressing climate change
5. Operating ethically and responsibly
6. Partnering with local communities
7. Managing our environmental impact
8. Summary
9. Q&A



**KAREN WOOD**  
Chair



**GRAHAM KERR**  
Chief Executive Officer



**KELLY O'ROURKE**  
Chief Legal and External  
Affairs Officer



**VANESSA TORRES**  
Chief Technical Officer



**BRENDAN HARRIS**  
Chief Human Resources and  
Commercial Officer



**KATIE TOVICH**  
Chief Financial Officer

# IMPORTANT NOTICES



This presentation should be read in conjunction with the “2021 Sustainable Development Report” released on 3 September 2021, which is available on South32’s website ([www.south32.net](http://www.south32.net)).

Figures in italics indicate that an adjustment has been made since the figures were previously reported.

## **FORWARD-LOOKING STATEMENTS**

This presentation contains forward-looking statements, including statements about trends in commodity prices and currency exchange rates; demand for commodities; production forecasts; plans, strategies and objectives of management; capital costs and scheduling; operating costs; anticipated productive lives of projects, mines and facilities; and provisions and contingent liabilities. These forward-looking statements reflect expectations at the date of this presentation, however they are not guarantees or predictions of future performance or statements of fact. They involve known and unknown risks, uncertainties and other factors, many of which are beyond our control, and which may cause actual results to differ materially from those expressed in the statements contained in this presentation. Readers are cautioned not to put undue reliance on forward-looking statements. South32 makes no representation, assurance or guarantee as to the accuracy or likelihood or fulfilment of any forward-looking statement or any outcomes expressed or implied in any forward-looking statement. Except as required by applicable laws or regulations, the South32 Group does not undertake to publicly update or review any forward-looking statements, whether as a result of new information or future events. Past performance cannot be relied on as a guide to future performance. South32 cautions against reliance on any forward-looking statements or guidance, particularly in light of the current economic climate and the significant volatility, uncertainty and disruption arising in connection with COVID-19. The denotation “e” refers to an estimate or forecast year.

## **NON-IFRS FINANCIAL INFORMATION**

This presentation includes certain non-IFRS financial measures, including Underlying earnings, Underlying EBIT and Underlying EBITDA, Basic Underlying earnings per share, Underlying effective tax rate, Underlying EBIT margin, Underlying EBITDA margin, Underlying return on invested capital, Free cash flow, net debt, net cash, net operating assets and ROIC. These measures are used internally by management to assess the performance of our business, make decisions on the allocation of our resources and assess operational management. Non-IFRS measures have not been subject to audit or review and should not be considered as an indication of or alternative to an IFRS measure of profitability, financial performance or liquidity.

## **NO OFFER OF SECURITIES**

Nothing in this presentation should be read or understood as an offer or recommendation to buy or sell South32 securities, or be treated or relied upon as a recommendation or advice by South32.

## **RELIANCE ON THIRD PARTY INFORMATION**

Any information contained in this presentation that has been derived from publicly available sources (or views based on such information) has not been independently verified. The South32 Group does not make any representation or warranty about the accuracy, completeness or reliability of the information. This presentation should not be relied upon as a recommendation or forecast by South32.

## **NO FINANCIAL OR INVESTMENT ADVICE – SOUTH AFRICA**

South32 does not provide any financial or investment 'advice' as that term is defined in the South African Financial Advisory and Intermediary Services Act, 37 of 2002.

## **MINERAL RESOURCES AND RESERVES**

Information in this presentation that relates to Ore Reserve or Mineral Resource estimates was declared as part of South32’s annual Resource and Reserve declaration in the FY21 Annual Report ([www.south32.net](http://www.south32.net)) issued on 3 September 2021 and prepared by Competent Persons in accordance with the requirements of the JORC Code. South32 confirms that it is not aware of any new information or data that materially affects the information included in the original announcements. All material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. South32 confirms that the form and context in which the Competent Person’s findings are presented have not been materially modified from the original market announcement.

# OUR PURPOSE



**To make a difference by  
developing natural resources,  
improving people's lives now and  
for generations to come**

We are trusted by our owners and  
partners to realise the potential of  
their resources

# OUR STRATEGY

**Our purpose is underpinned by a simple strategy**



## OPTIMISE

our business by working safely, minimising our impact, consistently delivering stable and predictable performance and continually improving our competitiveness.



## UNLOCK

the full value of our business through our people, innovation, projects and technology.



## IDENTIFY

and pursue opportunities to sustainably reshape our business for the future, and create enduring social, environmental and economic value.

# OUR SUSTAINABILITY PILLARS

Our approach to sustainability focuses on five interconnected pillars that are material to our business and stakeholders, and which support the United Nations Sustainable Development Goals



# PROTECTING AND RESPECTING OUR PEOPLE

**By providing a safe, secure and inclusive workplace we are unlocking the full potential of our people**

## Our response to COVID-19

We remain committed to three key areas that have guided our response from the beginning of the pandemic

Keeping our people safe and well, maintaining safe and reliable operations, and supporting our communities

## Health and safety

In FY21 four of our operations recorded their lowest TRIF to date

However, we have more to do to achieve a step-change in our safety performance

## Inclusion and diversity

We're working to build an inclusive and diverse workforce that is representative of the countries and communities where we operate



# ADDRESSING CLIMATE CHANGE

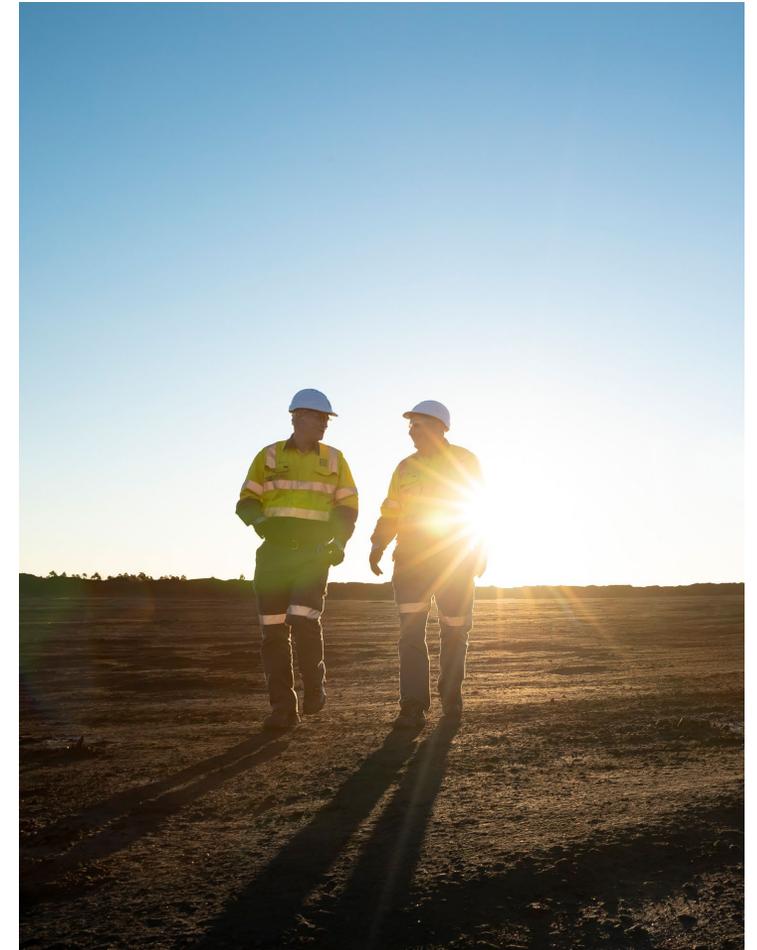
**We are decarbonising our operations, reshaping our portfolio and supporting the transition to a low carbon future**

## Since demerger we have:

- ✓ Committed to supporting the objectives of the Paris Agreement
- ✓ Set our long-term goal of net zero operational carbon emissions by 2050
- ✓ Published our first TCFD-aligned climate change report in FY17
- ✓ Disclosed our resilience to transitional and physical risks of climate change
- ✓ Taken steps to reshape our portfolio, embedding growth options in base metals and exiting lower returning and carbon intensive businesses
- ✓ Achieved our first short-term emissions target and set a new, ambitious medium-term target

## We are committed to:

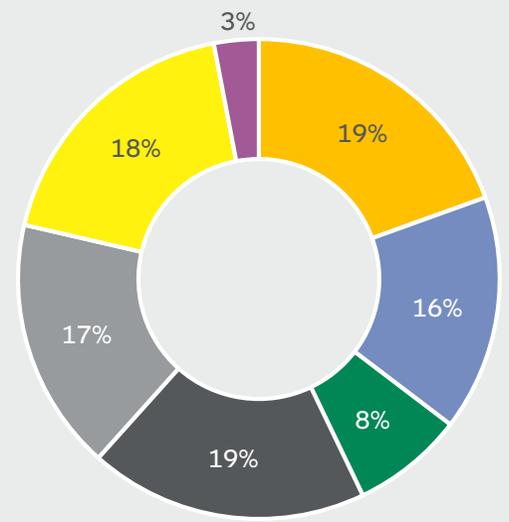
- Achieving a 50% reduction in our operational carbon emissions by 2035<sup>1</sup> and net zero by 2050
- Investing further in the base metals leveraged to a low carbon future
- Partnering with others to address value chain emissions and to support a just transition
- Aligning management remuneration with our approach to addressing climate change



# A PORTFOLIO FOR A LOW CARBON FUTURE

**We are actively reshaping our portfolio to increase our exposure to commodities important in a low carbon future**

South32 FY21 Underlying EBITDA<sup>2,3</sup>



- Copper
- Nickel
- Alumina
- Metallurgical coal
- Zinc-lead-silver
- Aluminium
- Manganese

## Commodities

## Applications

## Portfolio opportunities



**Base & precious metals**  
(43%)

Used in electric vehicles and renewable power infrastructure, transmission and storage



Multiple projects in execution at Cerro Matoso to add incremental nickel volumes from FY22



Progressing development studies for our zinc-lead-silver Taylor Deposit and manganese-zinc-silver Clark Deposit at Hermosa



Sierra Gorda de-bottlenecking and other brownfield opportunities<sup>4</sup>



High grade Arctic copper deposit at our Ambler Metals JV is progressing through PFS



>20 exploration projects targeting base and precious metals



**Aluminium value chain**  
(36%)

Light weight metal for electric vehicles and construction



Increasing our ownership in the green aluminium smelter, Mozal Aluminium<sup>5</sup>



Deploying AP3XLE technology at Mozal Aluminium and studying its roll-out at Hillside Aluminium



**Manganese**  
(18%)

Required for steel production and recycling, plus emerging demand in electric vehicle batteries



Progressing decarbonisation studies to support our carbon emissions reduction target of 50% by 2035<sup>1</sup>



**Metallurgical coal**  
(3%)

Our high quality metallurgical coal is required to support emissions reduction targets in the steel sector

# OUR OPERATIONAL CARBON EMISSIONS

**Our carbon emissions are concentrated in four operations and this is where our focus lies**

**Scope 1 and 2 carbon emissions**  
(% FY21, excluding SAEC and TEMCO)

## Mozal Aluminium

Primary source of emissions: Consumption of carbon anodes in aluminium smelting

Carbon intensity: First quartile, on green hydropower

## Hillside Aluminium

Primary source of emissions: Electricity consumption

Carbon intensity: Fourth quartile, with electricity from coal-dominated Eskom grid

## Worsley Alumina

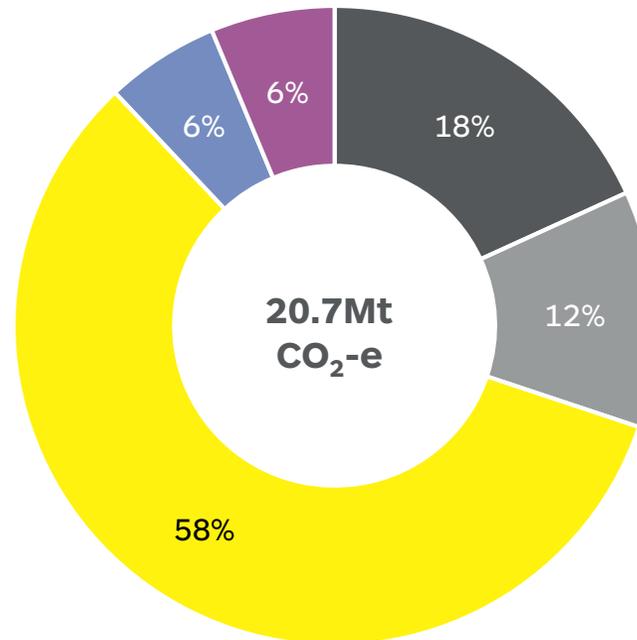
Primary source of emissions: Combustion of energy coal to generate steam for alumina refining

Carbon intensity: First quartile, benefitting from higher quality bauxite

## Illawarra Metallurgical Coal

Primary source of emissions: Fugitive emissions from underground mining

Carbon intensity: Third quartile, as Appin has relatively high gas and methane content



# OUR APPROACH TO CLIMATE CHANGE

## A simple approach that is embedded within our strategy

### Decarbonising our operations



#### 01 Efficiency projects

To reduce our emissions and target other benefits such as lower energy or material consumption

Progressing a pipeline through study phases

Mud-washing project at Worsley Alumina and AP3XLE energy efficiency at Hillside Aluminium are expected to reach key milestones in FY22

#### 03 Technology

A key driver in reaching net zero

We test options today and collaborate with industry to leverage our impact into the future

Current programs include processing technologies for alumina, fugitive emissions at Illawarra Metallurgical Coal, and the use of battery electric vehicles at our Cannington zinc-lead-silver mine

#### 02 Low-carbon energy

The transition to low-carbon energy represents the greatest opportunity for decarbonisation

Medium-term studies on Worsley Alumina from energy coal to natural gas as a transition step, while concurrently reviewing renewable energy options, and securing green energy for Hillside Aluminium

To reach net zero we will secure green energy as these options become feasible across our business

#### 04 Low-carbon design

Leveraging advances in electric vehicles and low-carbon energy systems

Ambition for our Taylor zinc-lead-silver deposit at Hermosa to be a carbon neutral development, our first 'Next Generation Mine'

### Reshaping our portfolio



#### Reshaping our portfolio through the lens of our climate commitments

Investing further in base metals important for a low carbon future

Assessing and responding to physical and transitional risks of climate change on our business

### Partnering with others



#### Addressing value chain emissions

Contributing to the decarbonisation of our value chain and reducing our total emissions footprint

#### Supporting a just transition

Working towards a fair and equitable transition for our people, communities and other stakeholders

# OUR DECARBONISATION PLANS

## A three phased approach to decarbonising our major exposures

	Short-term	Medium-term 50% by 2035 <sup>1</sup>	Long-term Net zero by 2050
<b>Worsley Alumina</b>	0 <sub>1</sub> Efficiency projects	0 <sub>2</sub> Coal to natural gas	0 <sub>2</sub> Natural gas to renewables 0 <sub>3</sub> Processing technologies
<b>Hillside Aluminium</b>	0 <sub>1</sub> AP3XLE feasibility study	0 <sub>2</sub> Secure green energy	0 <sub>3</sub> Processing technologies
<b>Mozal Aluminium</b>	0 <sub>1</sub> AP3XLE implementation	0 <sub>2</sub> Extend current hydropower contract beyond 2026	
<b>Illawarra Metallurgical Coal</b>	0 <sub>1</sub> Improved gas drainage	0 <sub>3</sub> Commercial solution for ventilation air methane	

## Transitioning to lower carbon energy for steam generation

### Q1 Efficiency projects

PFS for the mud-washing project expected to complete in H2 FY22  
Progressing pipeline of projects through study phases

### Q2 Low-carbon energy

Energy demand is driven by need for steam in the Bayer process<sup>(a)</sup>  
Renewables, such as solar and wind, do not generate steam directly  
Evaluating optimal transition from energy coal to natural gas, as an interim step, until longer term renewable options are viable

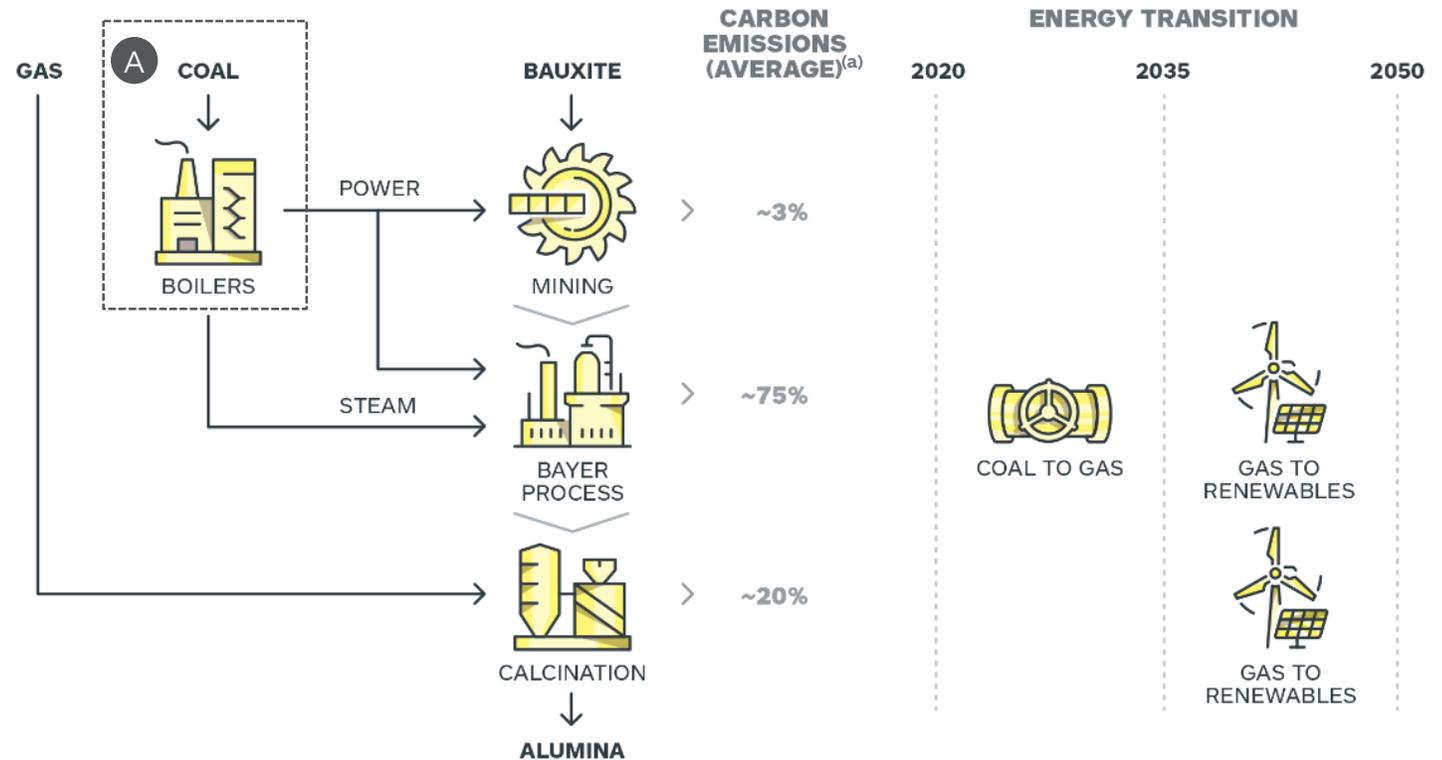
- Existing energy markets and infrastructure do not currently support renewables (such as hydrogen) or electrification
- We will work with government and industry to support the development of low-carbon energy markets in Western Australia
- We support the Just Transition plan for Collie, designed to create a sustainable future as industry shifts away from energy coal

### Q3 Technology

Studying processing technologies, including through the HILT CRC<sup>6</sup>

- Calcination: potential to use hydrogen instead of natural gas
- Steam generation: options to enable use of renewables

Scalable, economic alternatives required to enable low-carbon energy



**A** Comprises two power stations, one owned (Facility 110) and one subject to a long-term lease (Facility 112)  
Facility 110 comprises three coal-fired boilers. A PFS for conversion of the first of these boilers was recently completed

- Results indicate the technical feasibility to sequentially convert the boilers at Facility 110
- The first boiler conversion is forecast to reduce carbon emissions by approximately 185-195kt CO<sub>2</sub>e (~5% of FY21), with an estimated capital cost of approximately US\$10M

Studies to determine the optimal pathway to lower carbon energy - conversion of existing facilities or new infrastructure

Notes:

a. Chart does not depict other sources which represent ~2% of emissions. Emissions associated with the Bayer process are energy coal (~70%), plus natural gas, biomass and diesel.

## Working to identify options to secure green electricity and a sustainable future for the smelter

### Q1 Efficiency projects

Targeting further gains in energy efficiency, with Hillside's performance already below the current consumption requirements of EU Taxonomy

A trial of AP3XLE energy efficiency technology at Hillside is underway, with a feasibility study and final investment decision expected in FY22

### Q2 Low-carbon energy

Hillside's electricity is sourced from the Eskom grid

We are supportive of Eskom's plans to decarbonise, through investment in more efficient plant and new renewable energy capacity

We will work with the South African Government, Eskom and other potential partners to identify options to secure green electricity

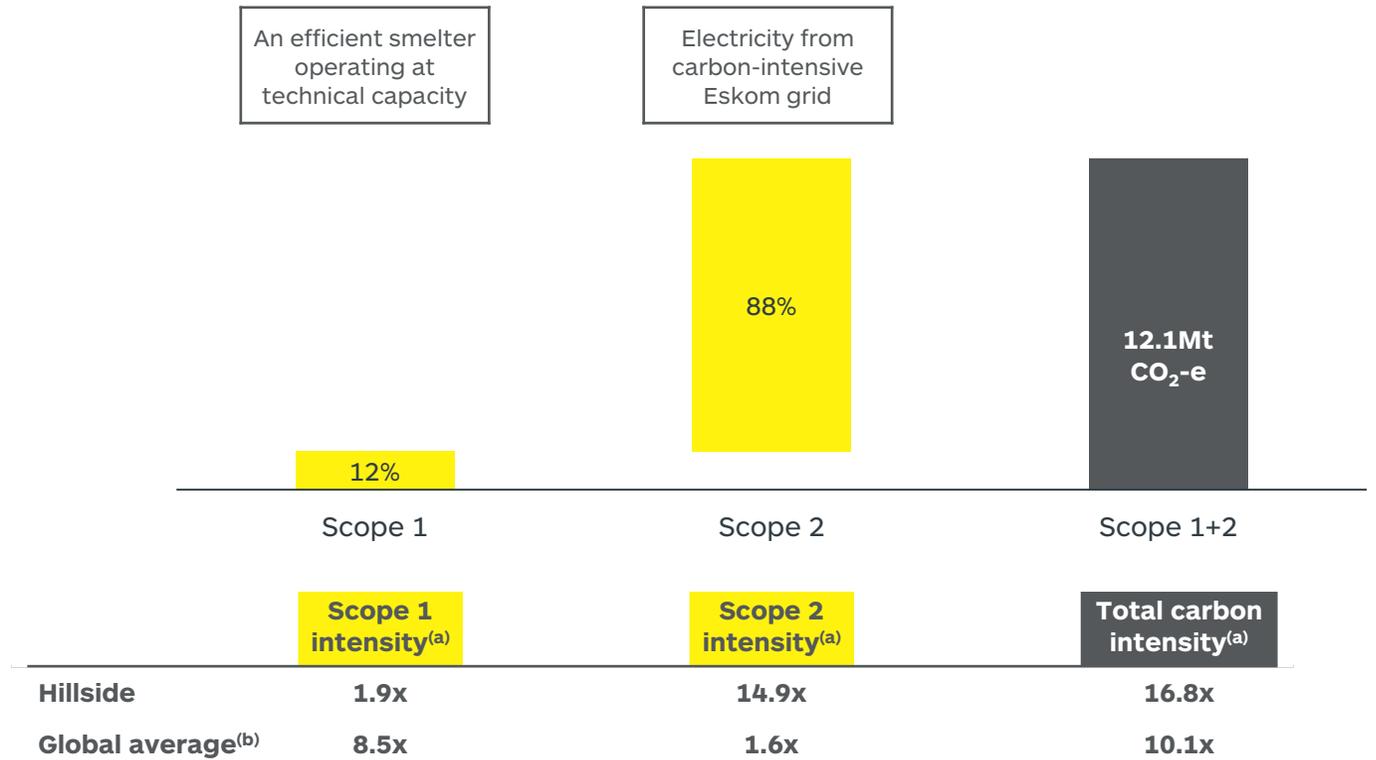
Initial study results indicate that renewables could be technically feasible, through new solar PV and wind capacity, combined with battery storage

Commenced just transition planning to support options if we are unable to secure affordable green electricity beyond the current 10 year contract

### Q3 Technology

Alternative processing technologies, such as inert anodes, required to achieve carbon-free aluminium smelting

### Hillside Aluminium carbon emissions



Notes:

a. Carbon intensity calculated as tCO<sub>2</sub>-e/t aluminium.

b. Source: Skarn Associates. The global average for Scope 1 includes smelters that generate electricity on-site, which is not directly comparable to Hillside Aluminium. The global average emissions from electricity consumption (on-site electricity and Scope 2) is approximately 7.6x. Hillside Aluminium's equivalent intensity of approximately 14.9x reflects the carbon-intensive Eskom grid.

# ILLAWARRA METALLURGICAL COAL

## An assessment of options is underway to determine the preferred pathway for Illawarra Metallurgical Coal

### Development options

Following the NSW Independent Planning Commission (IPC) refusal of our application for Dendrobium Next Domain (DND) in Q3 FY21, we are examining potential options for the complex. We expect to provide a further update by the end of calendar year 2021

#### Potential options under assessment

	Original DND mine plan	DND Adapt	Appin only
Annual metallurgical coal production beyond FY25 <sup>7</sup>	~7.6Mt	7.5-8.0Mt	~4.5Mt
FY22-25 average annual safe and reliable capital expenditure <sup>8</sup>	~US\$190M (includes ventilation, coal clearance and shield set investment at Appin)		
Total DND life extension investment amount <sup>9</sup>	US\$700-900M (FY22-25)	US\$700-800M (FY23-27)	N/A
Other		Optimises mine plan, responds to IPC concerns, delivers highest quality coal	

### Decarbonisation plans

#### 01 Efficiency

Targeting an increase in post-drainage capture efficiency at Appin from 61% in FY21 to 67% by FY24, building on recent activity to lift capture efficiency (56.5% in FY20)

#### 03 Technology

In partnership with CSIRO, we are supporting the development of ventilation air methane (VAM) technologies

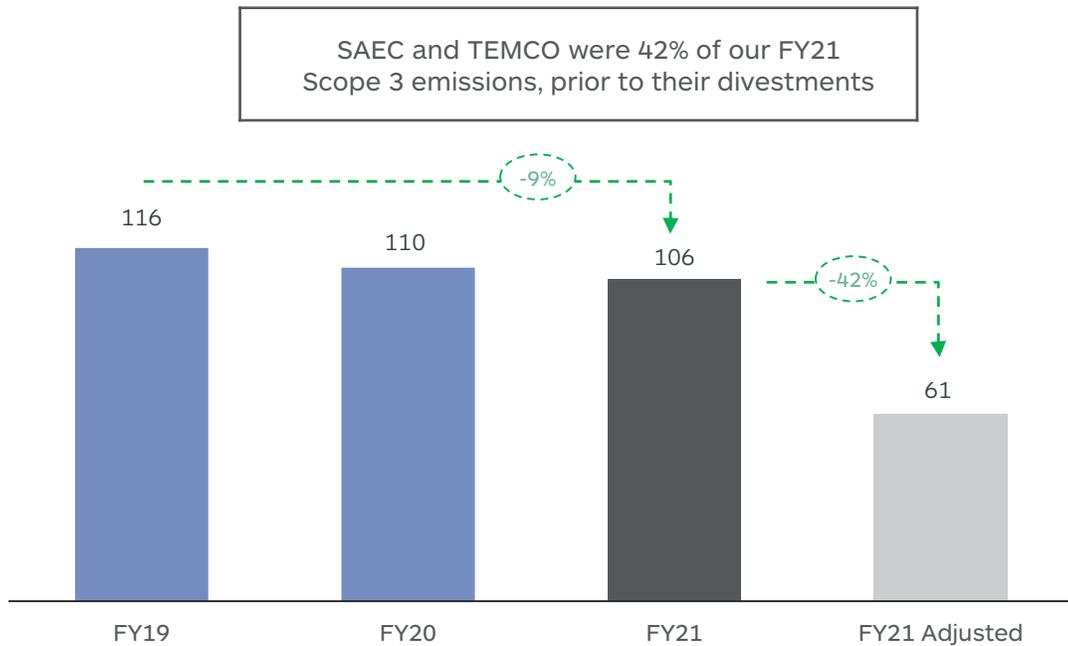
A commercial solution for VAM would be a significant advancement for the industry

A trial of CSIRO's VAMMIT technology is expected to be completed in H2 FY22

# OUR SCOPE 3 CARBON EMISSIONS

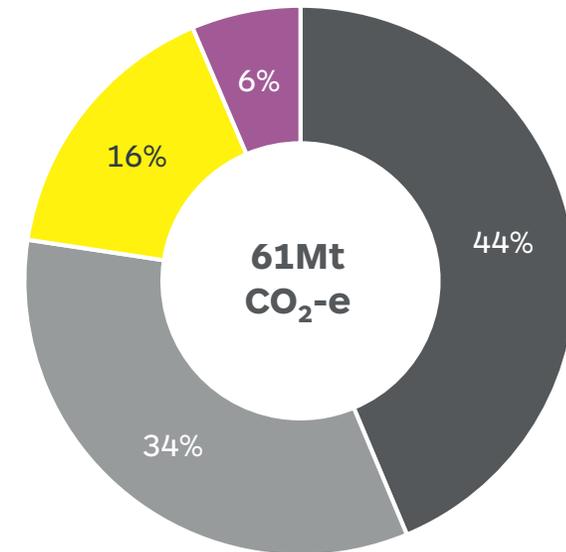
**Our focus is on partnerships, industry engagement and innovation to address value chain emissions**

**Scope 3 carbon emissions**  
(Mt CO<sub>2</sub>-e)



**Scope 3 carbon emissions**  
(% FY21, excluding SAEC and TEMCO)

We continue to assess a Scope 3 target within the context of our future plans for Illawarra Metallurgical Coal



Aluminium value chain<sup>(a)</sup>
 Metallurgical Coal<sup>(b)</sup>  
 Manganese ore
  Other

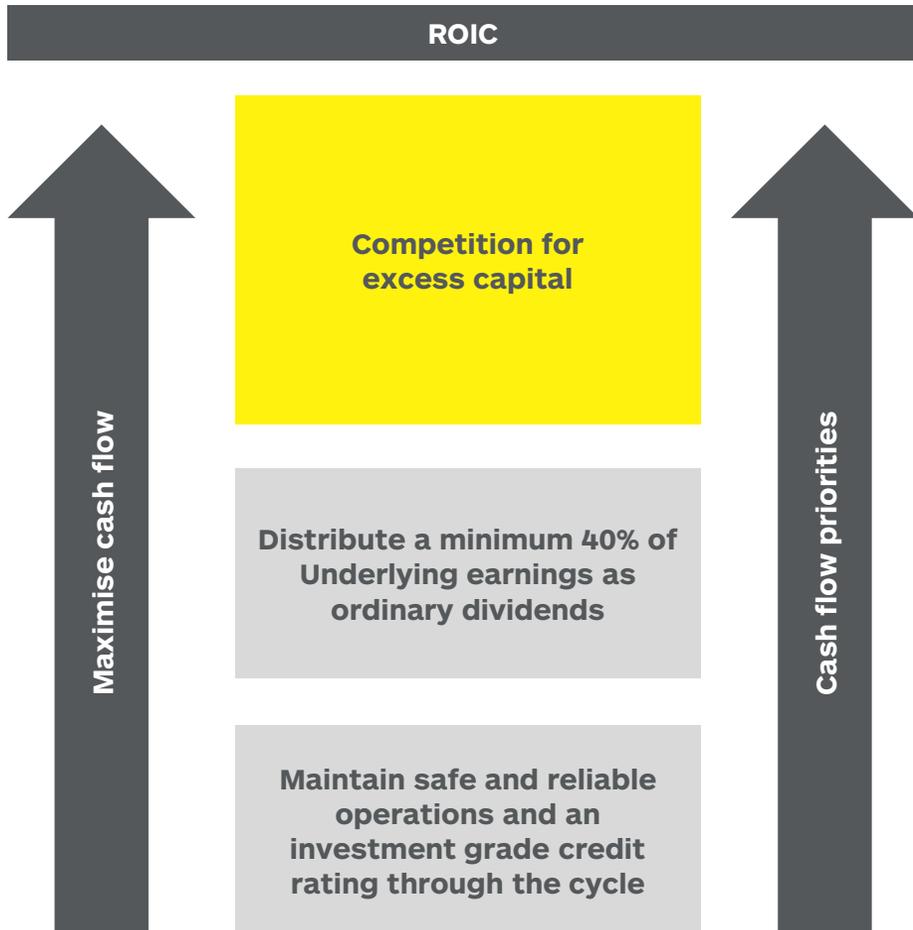


Notes:

- a. Predominantly Worsley Alumina and Brazil Alumina.
- b. Metallurgical coal refers to Illawarra Metallurgical Coal, including by-products.

# OUR CAPITAL MANAGEMENT FRAMEWORK

**Our disciplined approach to capital allocation can deliver shareholder value and support our climate commitments**



- Decarbonisation projects assessed on a range of factors including emissions abatement, return on investment and value at risk
- US\$40-50M targeted spend over FY22 and FY23
- Expected to increase this decade as more projects move to execution, but remain modest relative to Group expenditure
- Our energy intensive smelters and refineries present as attractive offtake for third party infrastructure investment
- Acquisitions to improve our portfolio are screened through the lens of a low carbon future
- Greenfield exploration is focused on base metals leveraged to the green energy transition

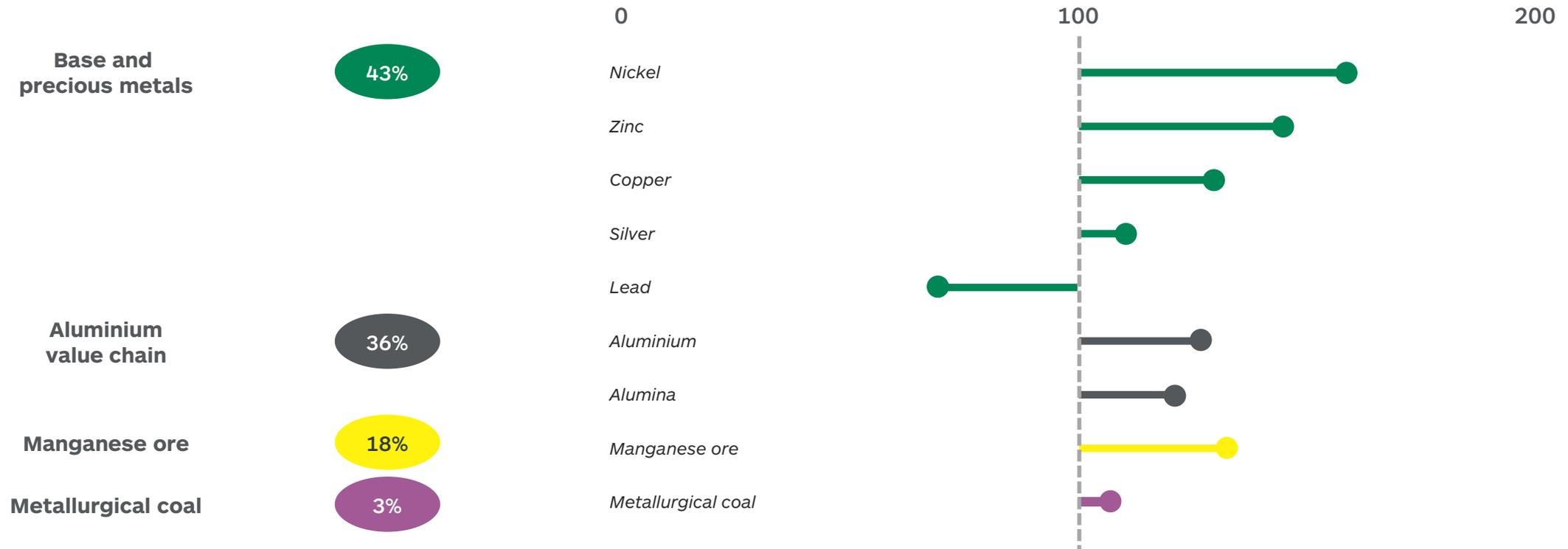
- Some projects will be assessed within safe and reliable capital, for example if required to mitigate physical risks of climate change or to comply with regulatory requirements
- Past examples include our investment in desalination plants at our aluminium smelters and water infrastructure at Worsley Alumina

# COMMODITIES FOR A LOW CARBON FUTURE

**Demand for most of our commodities would grow significantly with the uptake of low carbon technologies**

FY21 Underlying EBITDA<sup>2,3</sup>

2029-2050 average commodity demand in 1.5°C scenario vs. base case<sup>10</sup>



Notes: Base case = 100. Base metal demand references primary demand. Metallurgical coal refers to total global metallurgical coal, excluding PCI (pulverised coal injection).

# ALUMINIUM AND ALUMINA

## Aluminium is a key metal for a low carbon future

### Demand

Aluminium intensity in the auto sector will continue to rise as vehicle fleets move to electric

Power infrastructure and renewable energy will see increased utilisation of aluminium

Aluminium to benefit from elimination of single use fossil fuel-based plastics

### Supply

Scrap and recycling will increase but won't be sufficient to meet demand

Aluminium smelters will need to move to low carbon energy

Alumina refinery decarbonisation will likely require technology solutions

### Economics of supply

Rise in demand will require new smelters and refineries to be built

These will utilise renewable energy sources

Technology will need to play a role to enable stable power supply with increased penetration of renewables



# MANGANESE

## Ongoing requirement in steel production and recycling, and rapidly growing battery market

### Demand

Manganese demand supported by modest rise in primary steel demand

With rising electric vehicle production and batteries penetration, manganese demand in batteries is expected to become more material from 2040

### Supply

Manganese needs to be continually replaced in steel making

New mine supply will need to be added

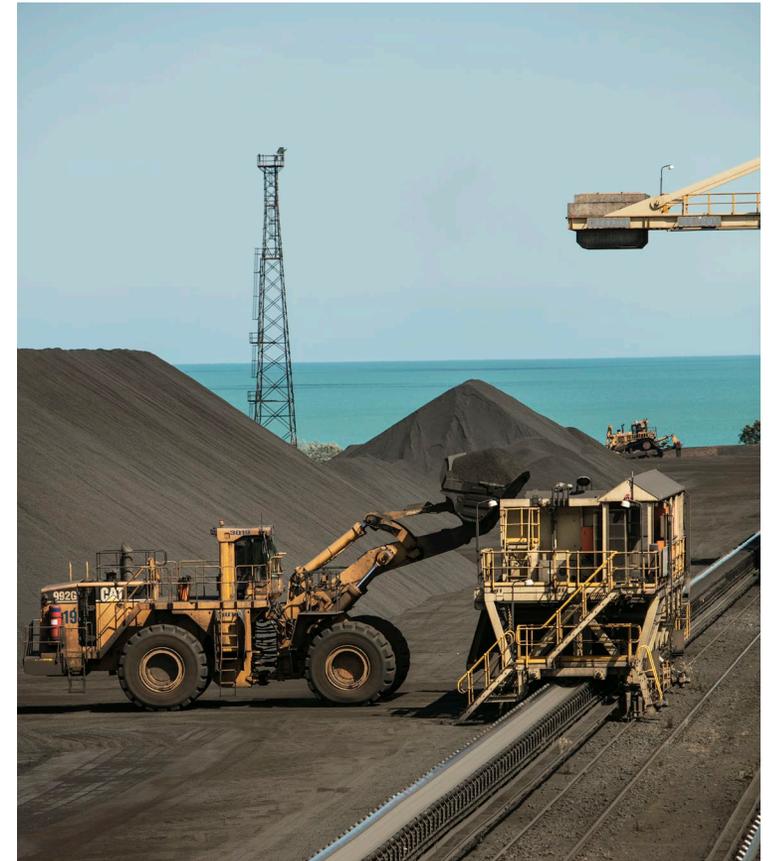
Existing basins will fill the majority of incremental demand

Will likely incentivise processing of lower grade ores, supporting higher prices

### Economics of supply

Industry to move to incentive pricing to meet need for new supply, led by lower grade underground mines in South Africa

Battery grade manganese feedstock economics will be determined by orebody and processing intensity



# OPERATING ETHICALLY AND RESPONSIBLY

## Respecting human rights is at the core of our sustainability approach

### Our approach

We respect all internationally recognised human rights  
We focus our efforts on people most vulnerable to harm

### Human rights due diligence

Completed five human rights impact assessments on our communities in three countries in FY21  
Updated our vetting processes for risks to seafarers and provided monetary and in-kind support during COVID-19  
Working towards improved collaboration between shipowners and charterers through the Neptune Declaration and the Sustainable Shipping Initiative

### Modern slavery

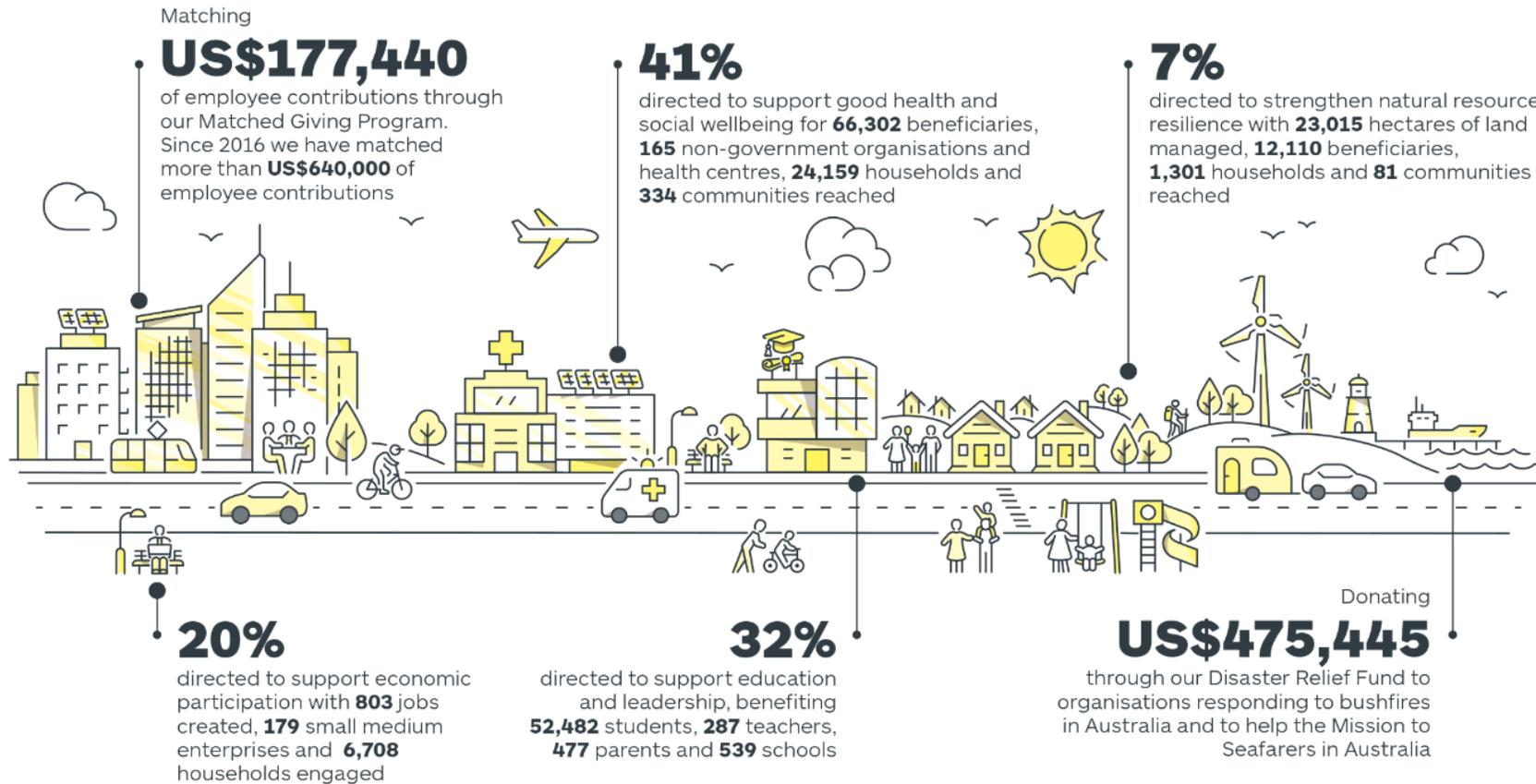
We have implemented an enhanced supplier screening platform and mapped 5,354 suppliers for modern slavery country and industry risks, completing 14 independent audits in FY21



# PARTNERING WITH LOCAL COMMUNITIES

**We invest in our local communities, in collaboration with them, to reflect their priorities**

## FY21 community investment<sup>11</sup> US\$22.2M



# OUR APPROACH TO CULTURAL HERITAGE

**We have a critical role to play in preserving cultural heritage across our global footprint**

**Our approach is aligned with global standards**

**Our senior leaders are responsible for cultural heritage**

**We are implementing improvement actions identified in our review of cultural heritage management**

## FY21 Highlights

- Worked with Indigenous and Tribal Peoples groups to update 'Our Approach to Aboriginal and Torres Strait Islander Peoples' Cultural Heritage'
- Reviewed our Australian cultural heritage performance to improve alignment with international standards
- Commenced a data migration project to collate cultural heritage agreements into our planning system
- Implemented action plans for cultural heritage in Australia

## FY22 Plan

- Complete global cultural heritage reviews and data migration
- Develop additional approaches to cultural heritage in Colombia, the United States and Southern Africa



# MANAGING OUR ENVIRONMENTAL IMPACT

**We are committed to protecting natural resources as well as the surrounding ecosystems**

## Water

Our approach is centred on promoting better water use, effective catchment management and improved water security

We have taken action to address our exposure to water risk, investing in infrastructure and minimising our impact

## Biodiversity

We are committed to protecting ecosystems and minimising biodiversity impacts where we operate

We have effective systems for designating protected areas and integrated land use

## Tailings

We view the safe and reliable management of tailings dams as part of our license to operate

We comply with international guidelines and are implementing the Global Industry Standard on Tailings Management



# SUMMARY

**Our purpose is to make a difference by developing natural resources, improving people's lives now and for generations to come. We are trusted by our owners and partners to realise the potential of their resources**

**Sustainable development is at the heart of our purpose**

**We are committed to managing our impact and continually improving our sustainability performance**

**We aim to create enduring social, environmental and economic value**

For more information please refer to our 2021 Annual Reporting Suite



[Annual Report](#)



[Sustainable Development Report](#)



[Sustainability Databook](#)



[Corporate Governance Statement](#)



[Modern Slavery Statement](#)



[Tax Transparency & Payments to Governments Report](#)

We will now be opening the session up to questions

If you would like to ask a question **please pause the broadcast and click the link for audio questions**

Note that there may be a short delay in switching between the broadcast and audio platforms

If you experience any problems then please disconnect the audio line, return to the video broadcast and submit your questions via the textbox

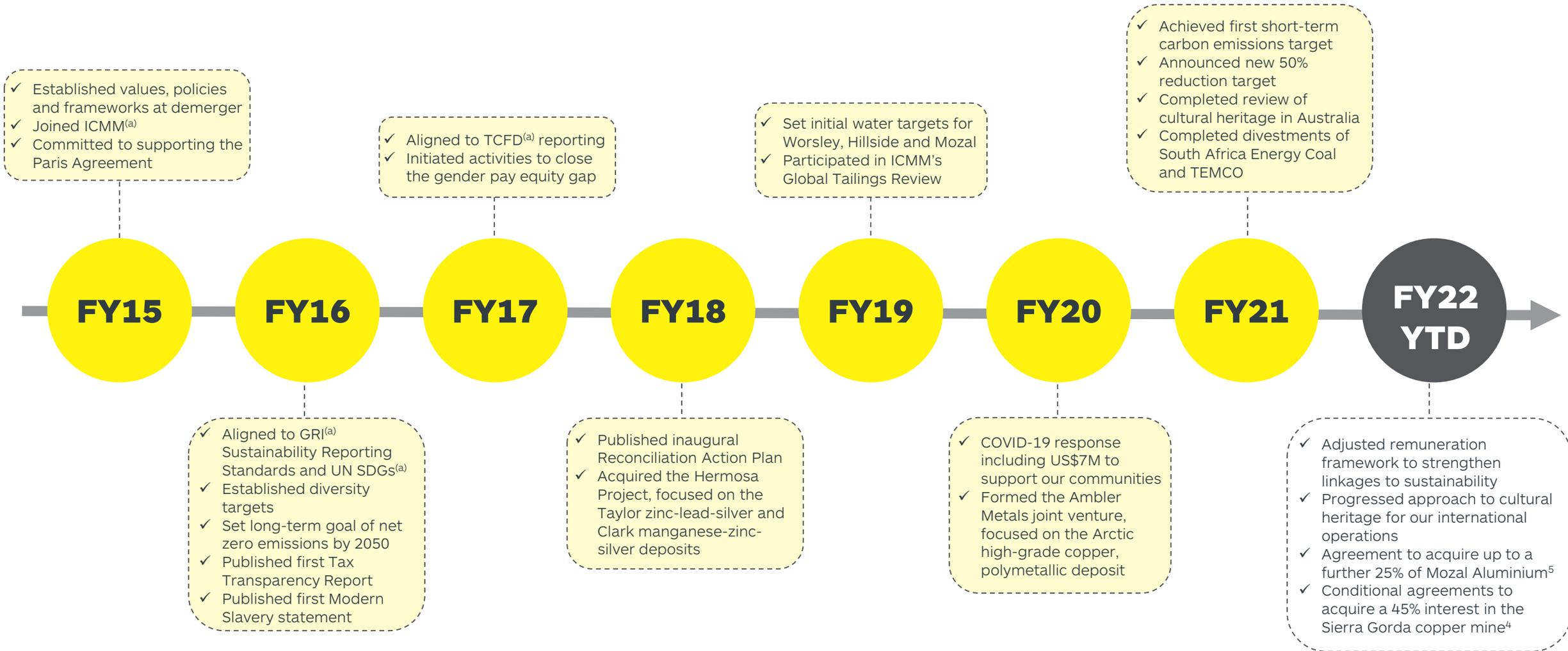


# SUPPLEMENTARY INFORMATION



# BUILDING A SUSTAINABLE FUTURE

## Sustainable development has been a focus since demerger



Notes:

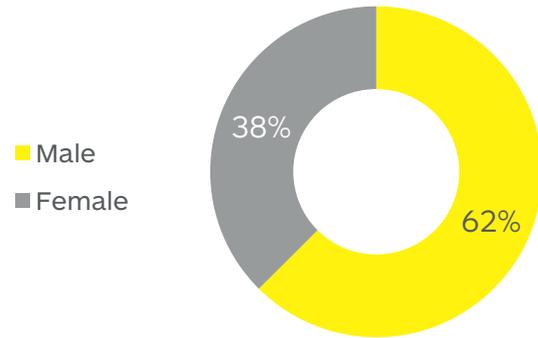
a. ICMM (International Council on Mining & Metals); GRI (Global Reporting Initiative); UN SDGs (United Nations Sustainable Development Goals); TCFD (Task Force on Climate-related Financial Disclosures)

# OUR BOARD

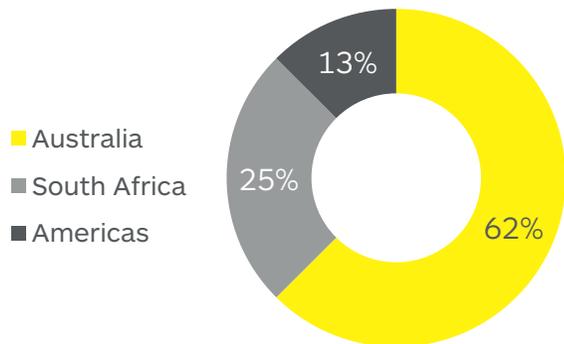
**We have a skilled, experienced and diverse board to provide oversight of sustainability**

## Board composition

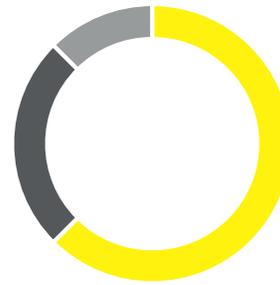
### Gender diversity



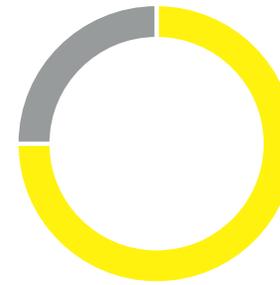
### Region of nationality



## Sustainability board skills matrix



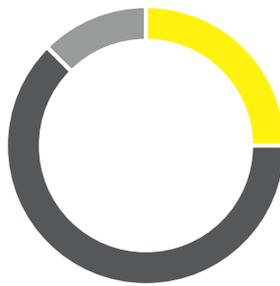
Risk management



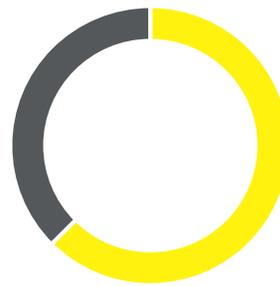
Health and safety



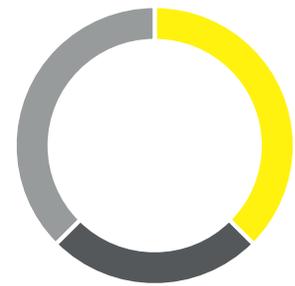
Environment and climate change



Regulatory and legal compliance



People and remuneration



Social performance, community and human rights

■ Highly skilled ■ Skilled ■ Knowledgeable

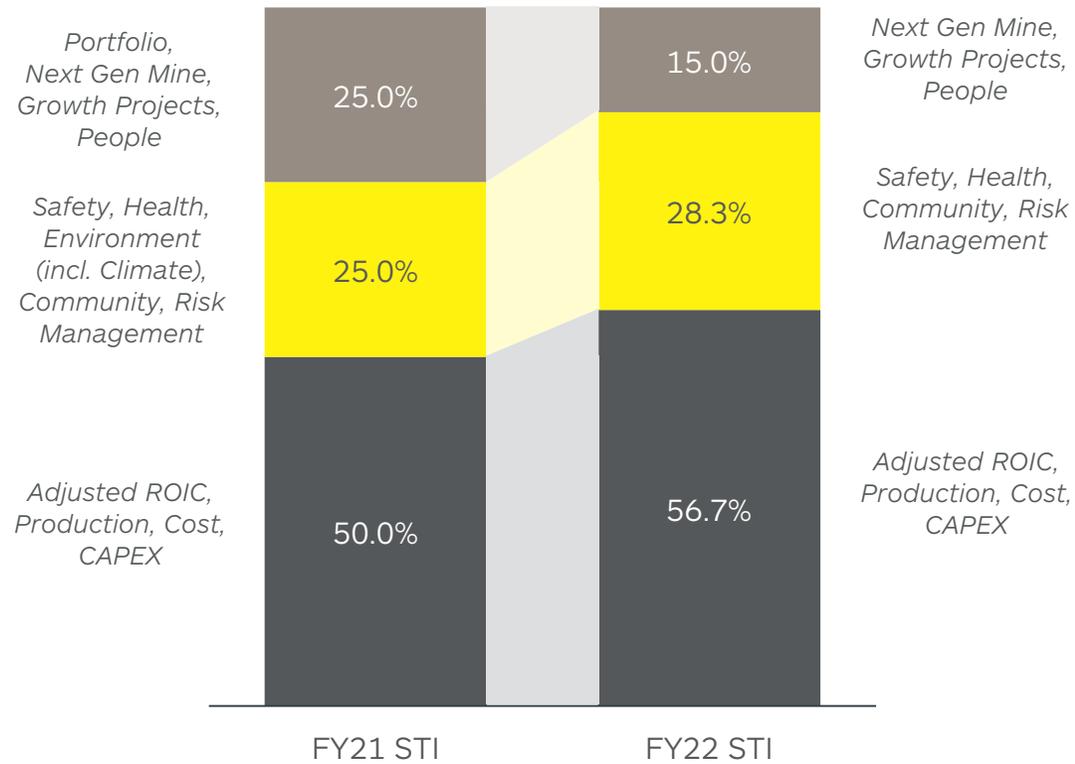
# REMUNERATION FRAMEWORK

**We have enhanced our remuneration framework to align with our commitment to decarbonise and reshape the portfolio**

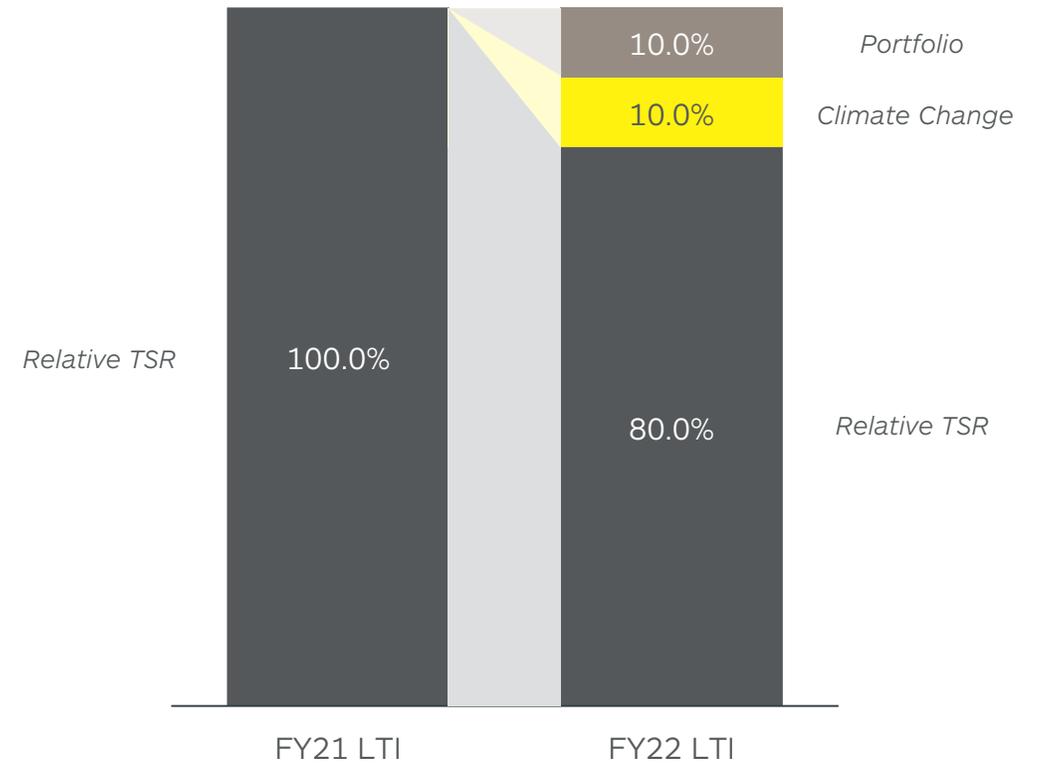
**We have increased the sustainability and finance weightings in our STI, with no LTI overlap**

**We have modified our long-term incentive plan to include performance on our climate change and portfolio commitments**

**STI performance metric weighting (%)**



**LTI performance metric weighting (%)**



# OUR APPROACH TO WATER

**We are taking action to address our exposure to water risk, investing in infrastructure and minimising our impact**

## We have set contextual water targets

- Worsley Alumina: 10% reduction in water demand by FY28
- Hillside Aluminium: improve catchment knowledge by December 2022 to aid water-related collective action
- Mozal Aluminium: identify opportunities to improve community access to water of the Boane District by June 2022
- Developing targets for Illawarra Metallurgical Coal and South Africa Manganese in FY22

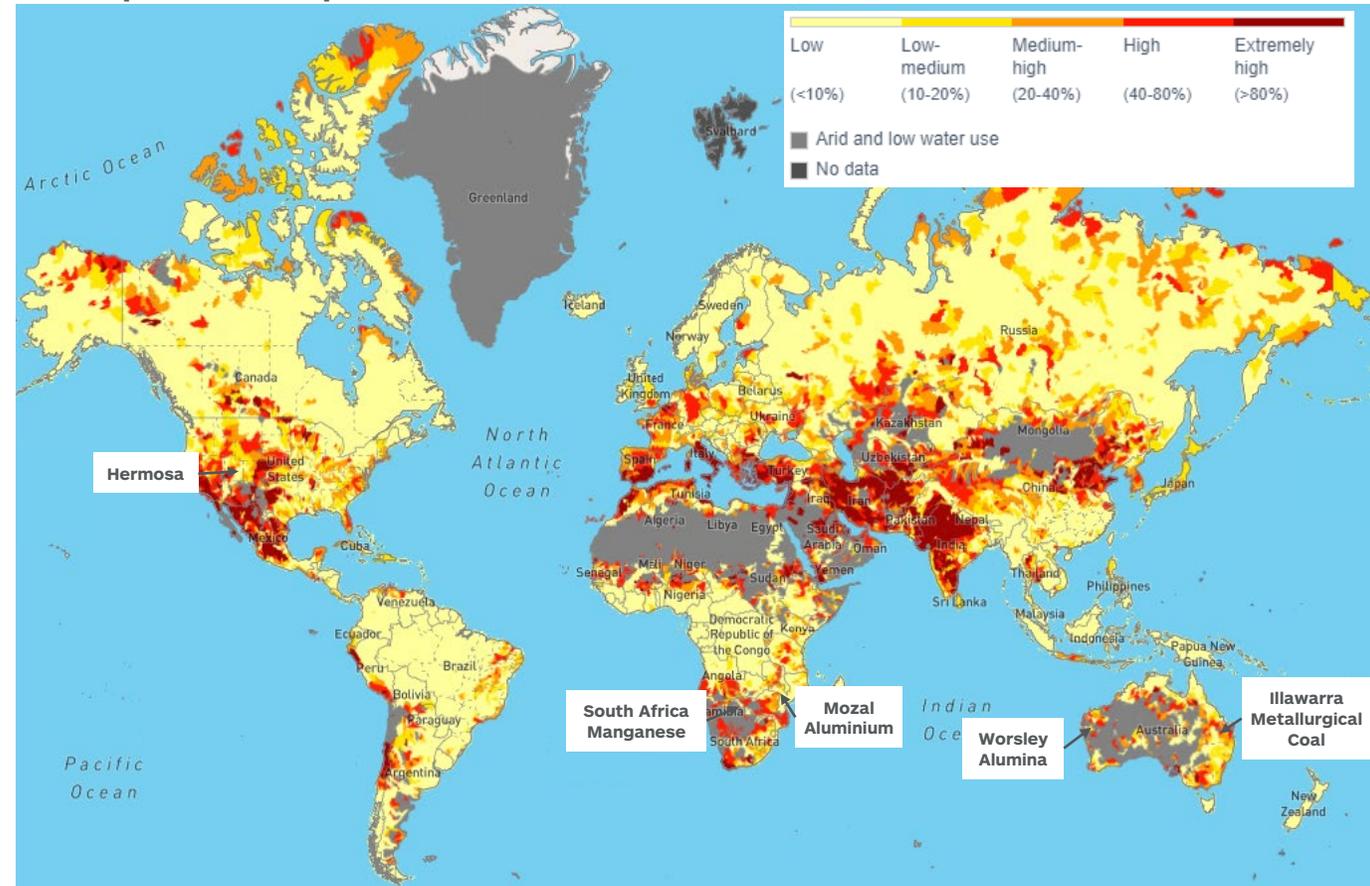
## We have invested to improve our infrastructure

- Desalination plants installed at Hillside Aluminium and Mozal Aluminium
- Pipeline constructed to take non-potable water from Wellington Dam to Worsley Alumina's refinery

## We are minimising our impact

- In FY21, we recycled or reused (93,040 ML) which was more than our total water input (83,632 ML)
- We are progressing studies aimed at further reducing water consumption at Worsley Alumina
- Invested in water treatment plants at Illawarra Metallurgical Coal to increase our reuse of water and improve the quality of discharge water

## Our operations exposed to water stress<sup>(a)</sup>



Notes:

a. Classification determined through annual assessment using the World Resources Institute's Aqeduct tool, which is then subject to internal verification that considers local context and catchment conditions.

# OUR APPROACH TO TAILINGS MANAGEMENT

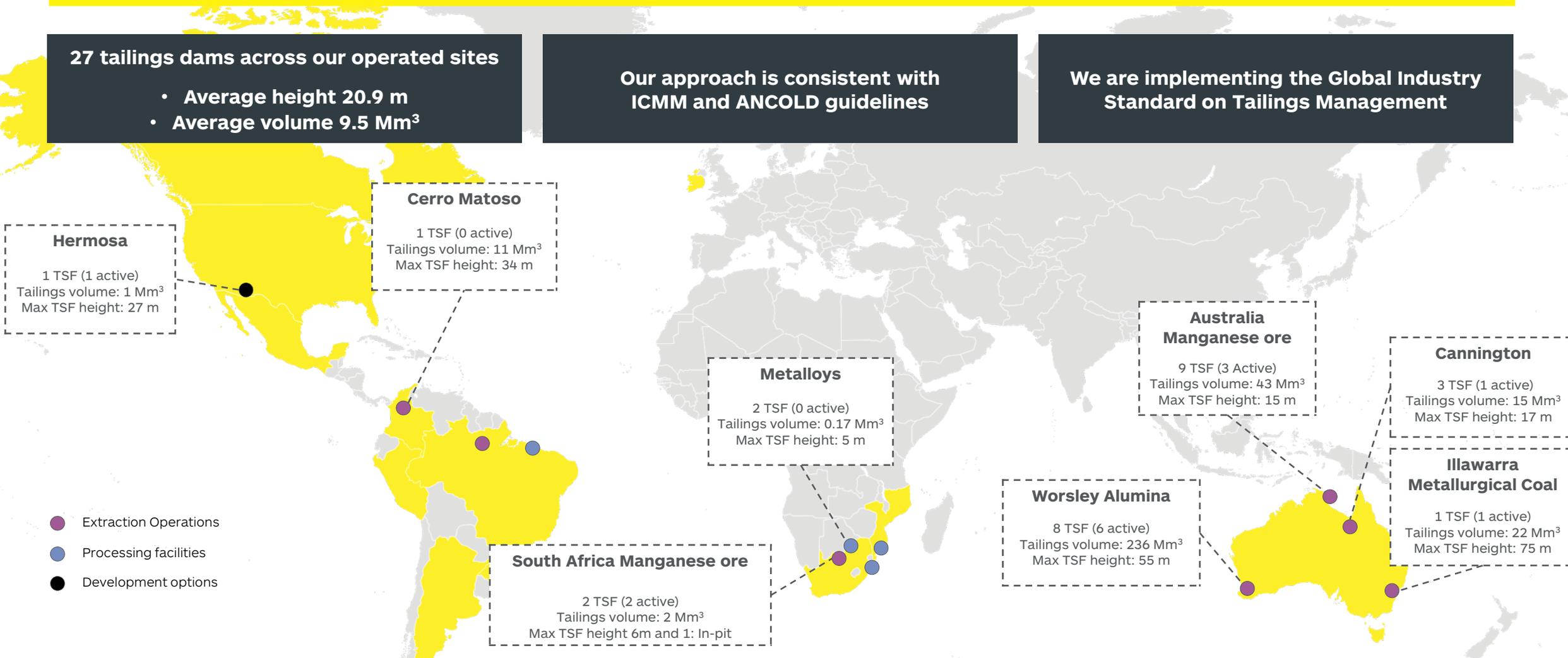
**We view the safe and reliable management of tailings dams as part of our license to operate**

**27 tailings dams across our operated sites**

- Average height 20.9 m
- Average volume 9.5 Mm<sup>3</sup>

**Our approach is consistent with ICMM and ANCOLD guidelines**

**We are implementing the Global Industry Standard on Tailings Management**



Protecting and respecting our people	Operating ethically and responsibly	Partnering with local communities	Managing our environmental impact	Addressing climate change
--------------------------------------	-------------------------------------	-----------------------------------	-----------------------------------	---------------------------

# OUR APPROACH TO TAILINGS MANAGEMENT

**Our operations use various techniques to achieve dry and dense tailings**

**We have undertaken significant work to understand the properties of our tailings**

**We use state-of-the-art monitoring tools to proactively manage our dams**

## Operational performance dashboard informed by InSAR monitoring, drone survey and instrumentation on real time telemetry



**Inclinometers and vibrating wire piezometers on telemetry**

**Research into tailings behaviour and viscous flow**

**InSAR satellite monitoring, drone surveys**

**Lidar/laser scan surveys**

**Active supernatant TSF pond monitoring and management**

**Active historical research at active and closed facilities to understand our dams**

# FOOTNOTES

1. Compared to our FY21 baseline of 20.7Mt. The FY21 baseline is actual emissions of 21.6Mt less South Africa Energy Coal and TEMCO (0.9Mt) which were divested in the period. The baseline will be adjusted for any other material acquisitions or divestments.
2. Underlying EBIT is profit before net finance costs, tax and any earnings adjustment items, including impairments. Underlying EBIT is reported inclusive of South32's share of net finance costs and tax of equity accounted investments. Underlying EBITDA is Underlying EBIT, before depreciation and amortisation. Underlying earnings is Profit/(loss) after tax and earnings adjustment items. Underlying earnings is the key measure that South32 uses to assess the performance of the South32 Group, make decisions on the allocation of resources and assess senior management's performance. In addition, the performance of each of the South32 operations and operational management is assessed based on Underlying EBIT. In order to calculate Underlying earnings, Underlying EBIT and Underlying EBITDA, the following items are adjusted as applicable each period, irrespective of materiality:
  - Exchange rate (gains)/losses on restatement of monetary items;
  - Impairment losses/(reversals);
  - Net (gains)/losses on disposal and consolidation of interests in businesses;
  - (Gains)/losses on non-trading derivative instruments and other investments measured at fair value through profit or loss;
  - Major corporate restructures;
  - Earnings adjustments included in profit/(loss) of equity accounted investments;
  - Exchange rate variations on net debt; and
  - Tax effect of earnings adjustments.
3. Pro-forma financial information is unaudited and for illustrative purposes only. Copper represents Sierra Gorda, including by-products. Refer to market release "South32 to acquire a 45% interest in the Sierra Gorda copper mine" dated 14 October 2021. Excludes South Africa Energy Coal, manganese alloys, Hermosa and Group and unallocated costs. Metallurgical coal comprises Illawarra Metallurgical Coal, including energy coal by-product volumes. The Brazil Alumina aluminium smelter is included in alumina. Excludes the impact of our pre-emptive right to acquire up to an additional 25% in Mozal Aluminium - refer to market release "South32 to acquire up to an additional 25% of Mozal Aluminium" dated 30 September 2021.
4. Refer to market release "South32 to acquire a 45% interest in the Sierra Gorda copper mine" dated 14 October 2021.
5. Refer to market release "South32 to acquire up to an additional 25% of Mozal Aluminium" dated 30 September 2021.
6. South32 is a founding member of the Heavy Industry Low-Carbon Transition (HILT) Cooperative Research Centre (CRC).
7. The information in this presentation that refers to the Production target is based on Proved and Probable Coal Reserves and Measured, Indicated and Inferred Coal Resources for Illawarra Metallurgical Coal as provided in the FY21 Annual Report. The proportion of resource and reserve from each category required to meet each of the targets mentioned in the Presentation is included in Appendix B, in the FY21 Results Presentation. The information in this presentation that relates to the Coal Resources for the Illawarra Metallurgical Coal is presented on a 100% basis, represents an estimate as at 30 June 2021, and is based on information compiled by Mr. M Krejci. The information in this report that relates to the Coal Reserves for the Illawarra Metallurgical Coal is presented on a 100% basis, represents an estimate as at 30 June 2021, and is based on information compiled by Mr. M Rose. Mr. Krejci and Mr. Rose are full-time employees of South32 and are members of the Australasian Institute of Mining and Metallurgy. Both Competent Persons have sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activities being undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. The Competent Person consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.
8. Assumes AUD:USD exchange rate of 0.75.
9. The total investment amount of the "Original DND mine plan" option refers to prior guidance at a rebased AUD:USD exchange rate of 0.75
10. In FY21, we developed a scenario in which global warming is assumed to be limited to 1.5°C above pre-industrial levels, and analysed the potential impacts on commodity demand. In this scenario the world transitions to a low carbon economy at a much faster rate than in our base case (which is a probable trajectory of at least 2°C warming). The chart illustrates projected long-term commodity demand in the 1.5°C scenario compared to our base case. Further detail on this scenario and assumptions are available in our FY21 Sustainable Development Report.
11. Community investment consists of direct investment, in-kind support and administrative costs.

The denotation (e) refers to an estimate or forecast year.

The following abbreviations have been used throughout this presentation: capital expenditure (CAPEX); carbon dioxide equivalent (CO<sub>2</sub>-e); Commonwealth Scientific and Industrial Research Organisation (CSIRO); long-term incentive (LTI); million tonnes (Mt); pre-feasibility study (PFS); return on invested capital (ROIC); short-term incentive (STI); South Africa Energy Coal (SAEC); tailings storage facility (TSF); Tasmanian Electro Metallurgical Company (TEMCO); total recordable injury frequency (TRIF); and total shareholder return (TSR).

