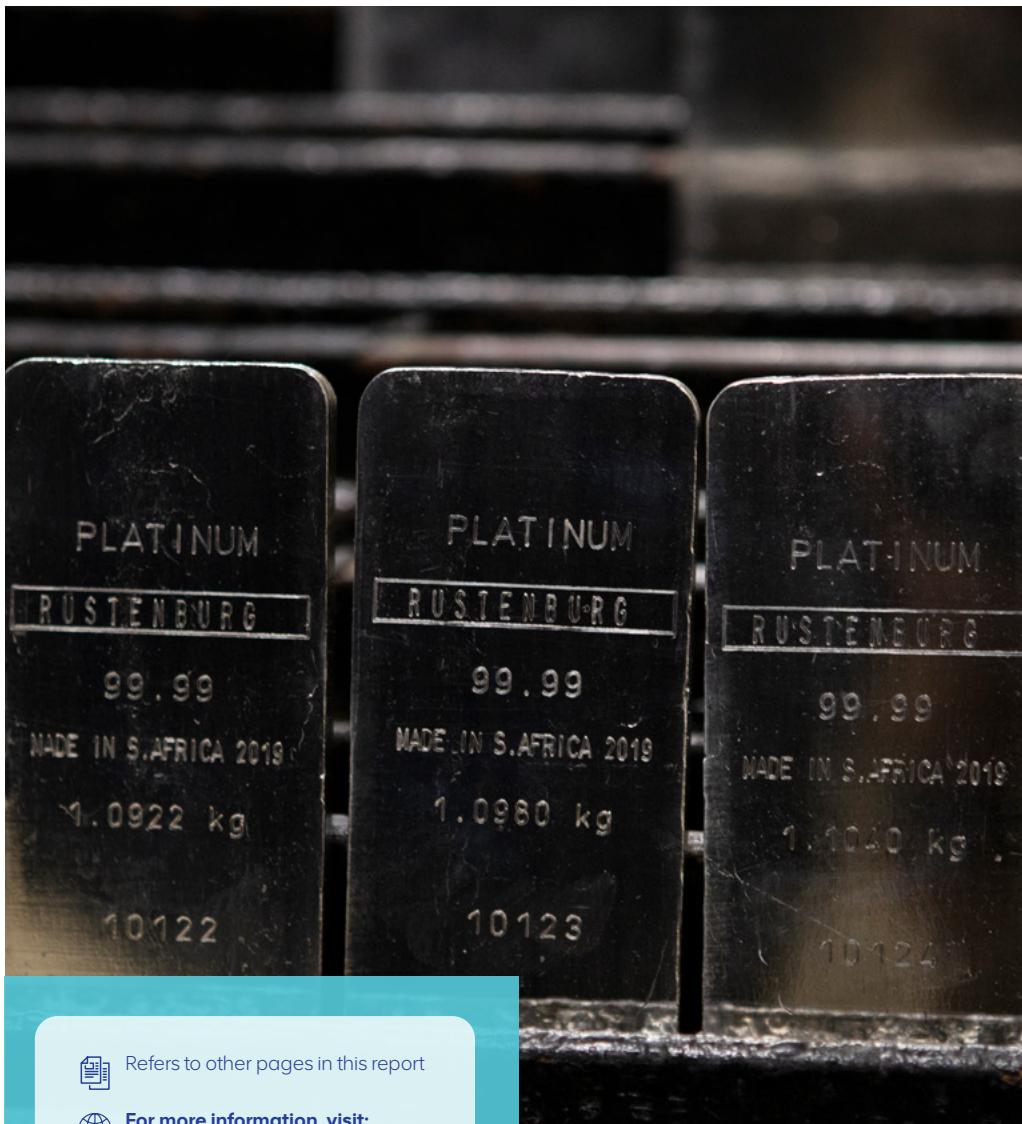




# Integrated report 2022

PLATINUM





Cover image: nuGen™ Hydrogen Truck  
at the crusher at Mogalakwena Mine

FutureSmart Mining™  
– owned by Anglo American plc  
nuGen™ – owned by Anglo American plc



Refers to other pages in this report



For more information, visit:  
[www.angloamericanplatinum.com/  
investors/annual-reporting](http://www.angloamericanplatinum.com/investors/annual-reporting)

Value creation

Value preservation

Value erosion

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Re-  
imagining  
mining to  
improve  
people's  
lives

See page 7



# Performance at a glance



## Operational performance

Strong mining results and successful mitigation of smelter challenges.

Dollar PGM  
basket price

\$2,551



## ESG performance

Continued strong safety performance, significant contributions to the economy and society and steady progress on the road to carbon neutrality.

Return on capital  
employed (ROCE)

111%

EBITDA

R74bn

Mining margin

57%

Safety

Lowest  
TRCFR in  
history

Net cash

R28bn

2022 dividend  
declared

R30bn  
R115 per share/  
62% payout

Economic  
contribution  
to society

R131bn

Taxes and  
royalties paid

R19bn

Production

Records at  
Unki and  
Mototolo

Environment

10% reduction  
in net GHG  
emissions  
(scope 1 and 2)

Potable water

Partner model  
for clean water  
to 318,000  
community  
members



# Our approach to reporting



## Dynamic materiality

Sustainability issues are integrated into all reports and are material from a financial and non-financial basis.

## Integrated reporting (IR)

Targets stakeholders assessing enterprise value (investors, lenders and creditors)

Balanced view of our progress against strategic priorities and prospects, considering risks, opportunities and trade-offs, as well as ESG matters material to creating enterprise value.

Focused on material issues – those with the greatest real or potential impact (positive and negative, internal and external) on achieving our business objectives.



## Sustainability reporting (SR)

Targets all stakeholders wanting to understand our sustainability impacts

Disclosure on material sustainability topics reflecting our most significant impacts (positive or negative) on society, the environment and the economy (people, planet and prosperity).

Covers all entities in our consolidated financial statements but excludes comprehensive non-financial data on our joint operations.



## Governance reporting (GR)

Targets stakeholders that are interested in our governance practices (investors, ESG rating agencies, employees, regulators, suppliers and members of society)

Disclosure of governance-related aspects. The information disclosed demonstrates how Anglo American Platinum does conduct itself according to sound governance practices and the highest standards of ethics, integrity, transparency and accountability. It contains our King IV application and disclosure.



This integrated annual report is one of our primary communications with stakeholders, particularly investors – creditors (providers of capital) and equity investors (shareholders). It is the result of a comprehensive reporting process that is overseen by the board, led by the platinum management committee (PMC) after company-wide collaboration, and assured through our combined assurance model.

We discuss how our integrated-thinking approach to decisions, management and reporting enables us to create and preserve value in fulfilling our purpose of re-imagining mining to improve people's lives. We also discuss the trade-offs that may temporarily erode value in one capital stock to benefit another (page 51), aiming for an optimal balance between long-term value creation and short-term outcomes.

In applying the best-practice principle of double materiality, financial materiality is balanced with commentary on sustainability risks (impact materiality) and opportunities for an integrated view. Our approach and the frameworks applied are illustrated below.



## Financial reporting (AFS)

Targets primarily investors and capital markets

Audited financial statements reflecting effects on enterprise value that have already taken place at the reporting date, or are included in future cash-flow projections.



## Ore Reserves and Mineral Resources reporting (ORMR)

Targets stakeholders, shareholders and potential investors of our mineral assets

Updated estimates and reconciliation of Ore Reserve and Mineral Resource statements for all assets in line with the SAMREC Code (2016) and section 12,13 of the JSE Listings Requirements and signed by the Competent Persons.



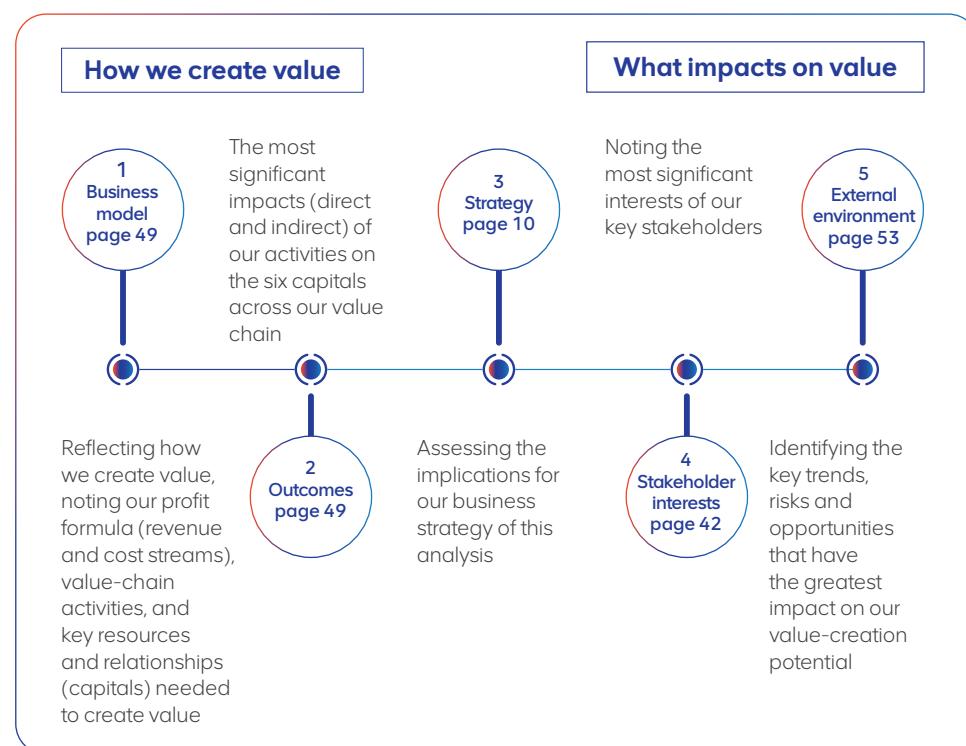
\* Copyright and trademarks are owned by the Institute of Directors in South Africa NPC and all of its rights are reserved. The board ensures that reports issued by the company, enable stakeholders to make informed assessments of Anglo American Platinum's performance and its short, medium and long-term prospects.



## Our approach to reporting continued

## Report content

We have enhanced our focus on balanced reporting by identifying how we create, preserve and erode value. To identify the material matters for inclusion in our integrated report (with detailed disclosure in our sustainability report), each year we commission an independently facilitated process to consider the following issues.



In this report, we also discuss our approach to governance, along with key decisions and outcomes in the review period ([page 31](#)) and progress against strategic priorities ([pages 11-44](#)). For completeness, we detail the interplay between external and internal factors that enable Anglo American Platinum to create value. In detailing the outlook for our operations, we again consider risks, opportunities and trade-offs to give readers a balanced view ([page 51](#)).

Our business model ([page 49](#)) illustrates how we consider the six capitals of the integrated reporting framework and related trade-offs in creating enterprise value:

## Our thinking on creating, preserving and eroding value

Value creation, preservation and erosion reflect how we apply and leverage our capitals in executing our strategy. Our actions determine how these capitals change over time, our financial performance as well as the outcomes for all stakeholders. Our purpose embeds the processes to create and preserve value, feeds into our business model and guides the way we think and make decisions. In our report, we use the icons below to identify the result:



## Value creation



## Value preservation



## Value erosion

Refer to business model ([page 49](#)), our trade-offs ([page 51](#)) and key results area tables ([page 22](#)).

## Determining the reporting boundary

Our reporting boundary is illustrated below. In determining this boundary, we work outward from the core legal entity, Anglo American Platinum, to consider risks, opportunities and outcomes associated with other entities or stakeholders that have a significant effect on our ability to create value.

## Financial reporting boundaries

This report includes disclosure on all entities in our consolidated financial statements but excludes comprehensive sustainability-related data on our joint operations. We disclose our performance across all PGMs (expressed as platinum, palladium, rhodium, iridium and ruthenium metal-in-concentrate, as well as gold) to better reflect the basket of metals we produce.

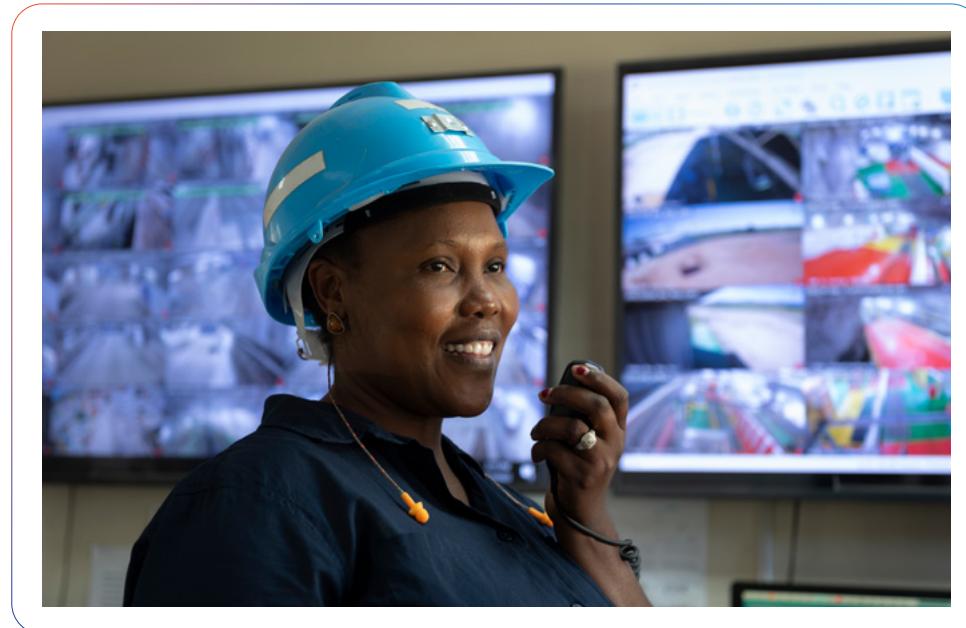
Refer to operating structure (**page 6**)

# Our approach to reporting continued

## Assurance

We ensure the integrity of our report in a number of ways. Ultimate approval vests with the board, as detailed under reporting process below. The board ensures the integrity of this report through our integrated reporting process, various approvals and sign-offs by PMC and its own final approval. It relies on our combined assurance model, overseen by the Anglo Business Assurance Services, which assesses and assures various aspects of our business operations and reporting. These assurances are provided by management and the board through rigorous internal reporting governed by the group's enterprise-wide risk management framework, internal audit and independent external sources.

Report	Assurance	Reference
Annual financial statements	External auditor	Page 4
Sustainability	External assurer	Page 124
Ore Reserves and Mineral Resources	External assurer	Page 88



## Reporting process

The PMC is responsible for the preparation and presentation of this report, led by the Finance Director. The board chairman and chief executive officer (CEO) review and approve the suite of reports. In developing the reporting suite and ensuring its integrity, we took the following steps:

- A session/workshop with the board/PMC in October and identified areas for improvement based on developments in reporting frameworks and stakeholders' disclosure expectations
- Our material matters were determined through a robust independent process (sustainability report [page 27](#)) and confirmed by PMC. These results inform the board, executive and key management personnel on our most material matters that should feature in routine and strategic management decisions, and should also inform the content of our external reporting and future stakeholder communications processes
- Content on our strategic progress and management of material matters, risks and opportunities was drawn from board papers, budget presentations, governance and risk papers, as well as input from the board chairman and CEO
- The heads of various functions reviewed content during the drafting process. A specially convened committee, comprising selected PMC members and the FD, review the report when it is nearing completion, with a final review by the CEO and board.

## Approval of report

The board acknowledges its responsibility for ensuring the integrity of the integrated annual report, and has applied its collective mind to the preparation and presentation of this report. In our opinion, the 2022 integrated report is presented in accordance with the integrated reporting framework by addressing all material matters to offer a balanced view of our strategy and how it relates to the company's ability to create and preserve value in the short, medium and long term. The board believes that this report adequately addresses the company's use of and effects on the capitals, and how the availability of these capitals affects Anglo American Platinum's strategy and business model.

On behalf of the board

**Norman Mbazima**  
Chairman

**Natascha Viljoen**  
Chief executive officer

16 February 2023

CEO and the financial officer responsibility statement. This statement appears in the 2022 annual financial statements [page 3](#).



# Our business

As a leading primary producer of PGMs, we are committed to a safe, sustainable, competitive and profitable business that benefits our countries, communities, people and shareholders.

## Key disclosures in this section

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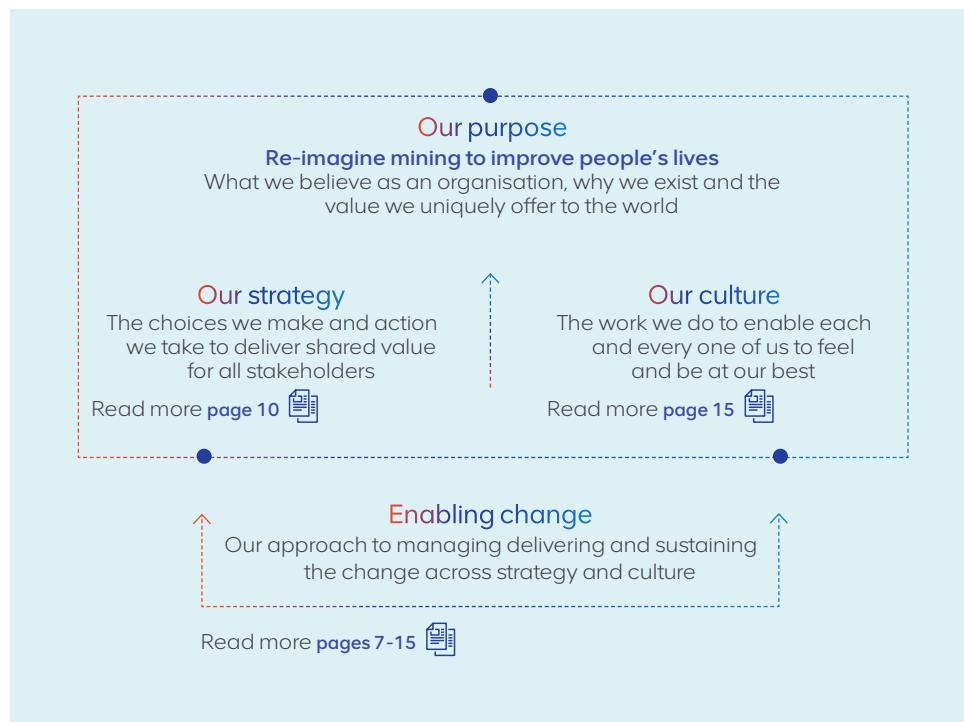


# Who we are

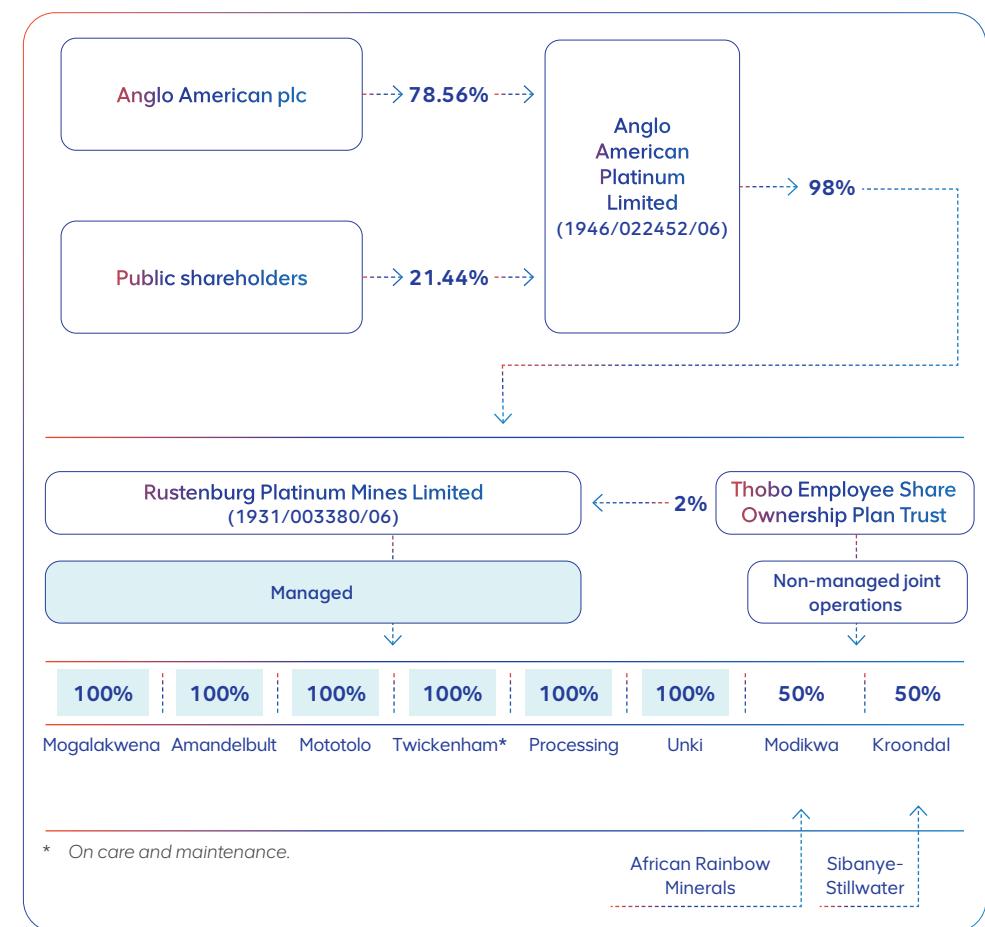
Anglo American Platinum is the world's leading primary producer of PGMs. We provide a complete resource-to-market service, supplying our network of global customers with a range of mined, recycled and traded products. Our business is at the heart of the broader southern African economic and social landscape and we are committed to working towards a safe, sustainable, competitive and profitable business that benefits our country, our communities, our people and our shareholders.

Anglo American Platinum operates across the entire value chain to produce the complete range of PGMs including platinum, palladium, rhodium, iridium, ruthenium and osmium, with different sites dedicated to each stage, as you can see below.

As illustrated below, our strategy and culture together define the work we do. Our choices and actions (strategy) and how we enable our people to feel and be at their best (culture) – are both managed, delivered and sustained intentionally (enabling change). These elements work in harmony to live up to our purpose.



## Our operating structure



# Our purpose

Re-imagining mining to improve people's lives. Our strategic priorities allow us to live up to our purpose (page 10).

## Accelerating our world towards a cleaner, greener, healthier tomorrow

We believe PGMs can accelerate our world towards a cleaner, greener, healthier tomorrow – helping to reduce the challenges of climate change.

**Our metals already play an essential role in daily life:** in healthcare products and equipment; vehicle components that reduce harmful gas emissions; jewellery; smartphones; and wind turbines.

The list of potential uses for our metals is growing, from hydrogen-fuelled vehicles and keeping food fresh for longer to more innovative healthcare solutions and lower-energy computing. We are leading the way in stimulating new markets and leveraging capabilities by investing in innovative applications for our metals across the globe towards a better future for all.



For more details, see our why invest section on [page 18](#).

## Transforming the mining value chain through safe, responsible production

While finding ways to make the world a better place through our metals, we ensure their sourcing and processing is done in a safe, responsible and sustainable way.

**We focus on exploring the full potential of our mining and processing operations, ensuring we use the resources entrusted to us with care, while delivering strong economic returns for our stakeholders.**

In the workplace, we want all our people to feel and be at their best. By building a purpose-led culture, guided by our values, and enabling high-performing teams, we are building the foundations to protect our colleagues' safety while increasing the productivity and the sustainability of our business. We drive efficiency to maximise value from our core assets by working to deliver a world-class performance, using innovative and sustainable methods through FutureSmart Mining.

**We are working on going beyond resilience to thrive through change, building an agile business that is able to respond safely to opportunities and challenges.**

To achieve this, we are enabling our people to align their thinking and approaches to their work, adapting our systems and reworking organisational and role structures to be fit for the future.

## Creating enduring value and sustainable economic development

The result of all this work is our high-quality products. These enable us to create enduring value and invest in sustainable economic development, benefiting our stakeholders and wider society in South Africa and Zimbabwe.

We believe the people of our host countries should benefit from the rich natural resources we mine, and the economic activity flowing from our operations. We are committed to this responsibility and work to stimulate infrastructure development, enable social process and drive economic growth in these countries. We are responsible for extracting maximum value from the metals we mine and we measure our success through the impact on the environment and broader society.

**One of our key priorities is to become a global leader in environmental, social and governance (ESG) performance.**

We have therefore set ambitious targets to reduce our environmental footprint and collaborate with our host communities and other stakeholders to develop more sustainable and healthier futures around our operations by improving access to employment, education and business opportunities.

**Our work is underpinned by our values – safety, collaboration, innovation, care and respect, integrity and accountability** – which we apply to our people, their families, local communities, our customers and other stakeholders and to the world at large. This way, we believe we can better connect the resources in the group to the people who need and value them, and make this better future a reality.

# Purpose to value

Our success depends on the extent to which we deliver value to our broader stakeholder groups. As such, it is important to understand our role in society and how society can be different and better because we are part of it. A deep understanding of our purpose guides our strategy and decisions, striving for an optimal balance between long-term value creation and short-term outcomes.



## Employees and unions

Our employees are key to making our company a great place to work. Motivated and skilled employees, along with efficient, innovative and value-creating solutions, services and operations, offer value to our customers and broader stakeholders. Equally, as part of society, our people contribute materially to the communities in which they live and work.

### Value created and preserved through ...

- Fair remuneration and appropriate recognition
- Enabling values – a culture that enables them to feel and be at their best in the workplace
- Supporting work environment – right equipment, tools and facilities available at the right time, with clarity of role and ways of working, and adequate service and support
- Development opportunities to learn and grow, and progress their careers
- For our unions – protecting colleague rights, co-creation and partnership, recognition and trust.



## Investors

The financial capital we source from our equity and debt investors and our retained earnings support business continuity and growth, including strategic investments.

### Value created and preserved through ...

- Growing shareholder returns
- Maintaining a strong balance sheet to protect against downside risk
- Sustainably investing in and growing our operations, resource base and people
- Following good ESG practices for a sustainable business
- Operating within our risk appetite.



## Government and regulators

Regulation reduces systemic risk and promotes the healthy functioning of an economy in which all stakeholders prosper. Our regulatory compliance supports investor confidence in our company.

The tax we pay and economic contributions to society (mandated or voluntary) are imperative for the economic and social development of the countries in which we operate.

### Value created and preserved through ...

- Complying with regulations as a minimum
- Being a good corporate citizen
- Supporting economic progress
- Supporting social progress
- Low impact on environment
- Constructive partnerships that drive economy and develop infrastructure
- Contributing to fiscal budgets through corporate taxes and employee taxes
- Paying royalties, licence fees and more support continued operations.



## Customers, suppliers and partners

We produce high-quality products to exacting specifications for leading customers around the world. We expect high standards from our suppliers and partners to enable us to meet customers' requirements.

### Value created and preserved through ...

- Honouring our commitments to rigorous standards
- Co-creating future solutions
- Ethical and sustainable value chains
- Investing in growth and innovation to stimulate market demand.



## Communities and society

For communities and society stakeholders around our operations, and at the heart of our social licence to operate, is the need and premise that they will benefit from the economic activity of the mine and beyond.

### Value created and preserved through ...

- Respect and protection of human rights, culture and heritage
- Sustainable economic value
- Transparency and accountability
- Collaboration.

# Our value chain

The value chain has always played, and will continue to play, a critical role in society. Metals and minerals are essential inputs for a variety of industries. Turning mined raw materials into products is essential for modern society to keep moving forward. We have seen enormous advances in many fields of work and are moving towards a cleaner, greener global economy.

There has been significant progress in mining and the pace of change is accelerating. New techniques, technology, digitalisation and artificial intelligence are opening up opportunities for the industry to be safer, more efficient, and more environmentally and socially sustainable.



## 1 Ore Reserves and Mineral Resources

Our geologists search for and discover new sources of the minerals that make our modern lives possible. We benefit from developing and using world class expertise and leading technologies, often that we have developed ourselves, to find deposits we can develop and mine in a safe and sustainable way.

[Link to strategy](#)

## 2 Mining

Before we put a spade in the ground, our geologists and engineers work together using virtual mine planning systems to design the most effective, cost-efficient and environmentally sound construction and operational mine plan.

[Link to strategy](#)

## 3 Processing

In extracting the products that we all need in our daily lives, we draw on over 100 years of mining experience. Safety comes first: our whole way of working is focused on zero harm. We plan for the life cycle of the mine and beyond and use our own technologies for reducing waste and protecting environments.

[Link to strategy](#)

## 4 Sales and marketing

By processing, converting and refining our raw materials, we produce what our customers need and value. Our processing technologies also enable us to reduce energy and waste, recycle more water, increase efficiency drive innovation and, by adding value to our products, further support economic activity in the areas we mine.

[Link to strategy](#)

## 5 Market and product development

After processing, we then transport our metals and minerals to where they are needed, to our customers. We use the latest technologies to coordinate and optimise our global shipping needs. We use our scale and detailed knowledge of the demand and uses for our products to offer our customers a reliable supply to their exact specifications – adding value for them every step of the way and, ultimately, for billions of consumers who rely on our products every day.

[Link to strategy](#)

## 6 Rehabilitation and environmental stewardship

We do not only plan for the life cycle of the mine – we also take great care to look beyond and determine the rehabilitation of the site and the real benefits that will help sustain local communities, long after the site is closed.

[Link to strategy](#)



For more detail go to our business model and operational flowchart on [page 49](#).

# Our strategy

Our strategy defines the choices we make and actions we take to deliver shared value for all stakeholders. It drives long-term and sustainable value for all, guided by our purpose.

We describe the process of developing our strategy as ‘always-on’ – it is formulated to respond to the risks and opportunities that megatrends and uncertainties will cause in the markets and geographies in which we operate. We live in a fast-changing world, and we need a process that will allow us to be responsive and agile.

We believe this way will make our company and our strategic initiatives more adaptable to change and enable us to weather challenges more effectively by reshaping our business into one that is agile and future-fit. It will also enable us to better respond to opportunities to create long-term value for our stakeholders.

We are focused on four strategic priorities, each supported by clearly defined strategic initiatives. Our progress during the year and next steps are summarised in the table that follows.

## Our strategy

**A leader in ESG**  
We want to become a leader in ESG by protecting and sustaining a healthy environment, working collaboratively and listening openly to ensure the community groups around us are thriving, and taking action to become a trusted corporate leader for all stakeholders. We measure the success of our business through the lens of ESG.

**Stimulate new markets and leverage new capabilities**  
We stimulate new markets through our market-development activities to boost existing demand and leverage new capabilities to capture value from adjacent value-chain initiatives.

**Go beyond resilience, thrive through change**  
We strive to create an agile business that is always responsive to opportunities or disruptions that emerge. This means protecting our colleagues and operating at our best every day. As a company, we remain resilient, reliable, stable and capable despite challenges and change, adapting to adversity to become stronger.

**Maximise value from our core**  
We always maximise value from our core of competitive mining and processing assets, supporting and enabling progress and advancement at each of our sites through modernisation and innovative technology.

**Our strategic priorities are interdependent, and synergies will enhance overall outcomes.**

	A leader in ESG	Stimulate new markets and leverage new capabilities	Go beyond resilience, thrive through change	Maximise value from our core
	<ul style="list-style-type: none"> <li>Potential that local industry creation for communities could provide profitable adjacent businesses.</li> </ul>	<ul style="list-style-type: none"> <li>Employment creation from beneficiation provides opportunity to enhance sustainable livelihoods.</li> </ul>	<ul style="list-style-type: none"> <li>Resilience to climate change risks and regulatory changes</li> <li>Enhanced community relations decrease potential disruptions.</li> </ul>	<ul style="list-style-type: none"> <li>Increases the competitiveness of our products in the market.</li> </ul>
	<ul style="list-style-type: none"> <li>Employment creation from beneficiation provides opportunity to enhance sustainable livelihoods.</li> </ul>	<ul style="list-style-type: none"> <li>Leveraging digital and technological development to create demand for metals.</li> </ul>	<ul style="list-style-type: none"> <li>The position of our assets on the cost curve allows us to capture a greater share of the profit pool created through market and product development.</li> </ul>	
	<ul style="list-style-type: none"> <li>Ambitious carbon and community aspirations underpinned by our culture.</li> </ul>	<ul style="list-style-type: none"> <li>Requires an agile and innovative organisation to develop new businesses.</li> </ul>		<ul style="list-style-type: none"> <li>Safety, asset integrity, reliability and stability the foundation to maximise value from our core.</li> </ul>
		<ul style="list-style-type: none"> <li>Competitively placed assets will be positioned to capture new profit pools</li> <li>Integrated approach in processing will unlock value from all products.</li> </ul>	<ul style="list-style-type: none"> <li>Leverage our mineral endowment, processing infrastructure and leading capabilities.</li> </ul>	

# Our strategy continued

## Our strategic priorities

Strategic priority	Strategic initiatives	Strategy execution in 2022	Medium to long-term targets
A leader in ESG 	Pursue carbon neutrality	<ul style="list-style-type: none"> <li>Unveiled the hydrogen-powered haul truck, as part of our nuGen Zero Emission Haulage Solution</li> <li>Progressed our participation in the group regional renewable energy strategy (through Envusa Energy) with early-generation pipeline ready for construction in 2023.</li> </ul>	<p><b>Medium-term</b></p> <ul style="list-style-type: none"> <li>Pilot programmes for new economic development in our communities</li> <li>Implement energy-efficiency initiatives. Over 30% reduction by 2030 in carbon emissions</li> <li>All assets assessed against responsible mining standards.</li> </ul>
	Embed ESG at the centre of our strategy	<ul style="list-style-type: none"> <li>Strong management of ESG risk via various projects and programmes rewarded through accolades from major ESG global ratings agencies. See details of our performance in implementing targeted commitments of our sustainable mining plan in the sustainability report.</li> </ul>	<p><b>Long-term</b></p> <ul style="list-style-type: none"> <li>Recognised beyond mining industry as a leading sustainability driven organisation</li> <li>Carbon neutral by 2040 (Scope 1 and 2) and our ambition to reduce Scope 3 emissions by 50% by 2040</li> <li>Thriving communities with sustainable livelihoods and low dependence on our mines</li> <li>Support the creation of jobs off site for every job on site.</li> </ul>
	Reset social compacts with communities	<ul style="list-style-type: none"> <li>Launched Thobo, an industry-leading broad-based employee share ownership scheme. Through Thobo, employees receive Anglo American Platinum listed shares to the value of R8,000 each per year, in addition to participating in the evergreen ownership of 2% of Rustenburg Platinum Mines (RPM), our operating subsidiary. The estimated total value of employee share allocations over the life of the scheme is R1.8 billion and the estimated day one value of the 2% evergreen shares is R6.5 billion</li> <li>Concluded a ground-breaking five-year wage agreement with unions and our employees.</li> </ul>	

# Our strategy continued

## Our strategic priorities continued

Strategic priority	Strategic initiatives	Strategy execution in 2022	Medium to long-term targets
<b>Stimulate new markets and leverage new capabilities</b>  	<a href="#">Facilitate development of diversified markets for PGMs</a>	<ul style="list-style-type: none"> <li>We remain at the forefront of PGM market development for the industry and are developing several existing and new opportunity areas for our metals. These include hydrogen; battery and energy storage; carbon-neutral feedstocks; waste and pollution control; and medical and food technology. We continue to pursue a diverse end-use strategy to create resilience in the end market for all our metals. Refer detail provided on <a href="#">page 60</a>.</li> </ul>	<p><b>Medium-term</b></p> <ul style="list-style-type: none"> <li>Move beyond fatality-free to completely injury-free mining, where everybody returns home unharmed</li> <li>Encourage innovative work in a digital workplace</li> <li>A values-driven and inclusive organisation, characterised by trust and collaboration, collective stewardship of our assets and shared value with our communities</li> <li>Invest capital across our assets to improve their integrity and reliability.</li> </ul> <p><b>Long-term</b></p> <ul style="list-style-type: none"> <li>Transforming our physical and societal footprint from new ways of mining, including by using a number of precision mining technologies and data analytics</li> <li>A values-driven and inclusive organisation, characterised by trust and collaboration, collective stewardship of our assets and shared value with our communities</li> <li>Embed responsible asset stewardship.</li> </ul>
	<a href="#">Support local beneficiation</a>	<ul style="list-style-type: none"> <li>Certain of our market development initiatives are a stimulus to local beneficiation:             <ul style="list-style-type: none"> <li>We co-launched 7879, a jewellery e-commerce business to support our jewellery market development initiative. Through our partnership with 7879, we have introduced jewellery produced in South Africa to the UK market</li> </ul> </li> <li>PlatAfrica is our flagship market development programme. Hosted annually by our company, Metal Concentrators and Platinum Guild International (PGI) India, PlatAfrica aims to increase local beneficiation and position platinum as the jewellery metal of choice for discerning consumers. PlatAfrica continues to address three issues in the local jewellery market – access to metal, jewellery design and manufacturing skills, and access to market.</li> </ul>	

# Our strategy continued

## Our strategic priorities continued

Strategic priority	Strategic initiatives	Strategy execution in 2022	Medium to long-term targets
<b>Go beyond resilience, thrive through change</b> 	<b>Elimination of fatalities</b>	<ul style="list-style-type: none"> <li>As we near completion of most workstreams in the elimination-of-fatalities programme, we enter a sustaining phase focused on embedding and reinforcing the programme in the way we work.</li> </ul>	<b>Medium-term</b> <ul style="list-style-type: none"> <li>Stimulate PGM demand through uptake of fuel cell vehicles and jewellery consumption, and continue to nurture a broad range of PGM applications that supports the green transition, modern life, and wealth and growth</li> <li>Support local economic development and job creation in the geographies in which we operate through participation in further beneficiation.</li> </ul>
	<b>Embed the group operating model</b>	<ul style="list-style-type: none"> <li>We have gone live with the operating model at each site. This facilitates our goal of achieving stable and capable operations.</li> </ul>	
	<b>Organisational effectiveness</b>	<ul style="list-style-type: none"> <li>Applying our organisation model (an integrated set of structures, systems and processes that define the way we lead and work), we have restructured the operations leadership, corporate affairs and sustainable impact, human resources and security functions for greater impact.</li> </ul>	
	<b>Enhance asset integrity and reliability</b>	<ul style="list-style-type: none"> <li>We have conducted state-of-the-asset inspections of all our assets and are prioritising these assets through a Pareto-based framework</li> <li>Completed programme to maintain integrity of our processing assets, including furnace rebuilds at Polokwane smelter and slag-cleaning furnace, and ACP phase A rebuild.</li> </ul>	<b>Long-term</b> <ul style="list-style-type: none"> <li>Invest in new market opportunities and leverage new capabilities.</li> </ul>
	<b>Develop and deploy innovation from technology</b>	<ul style="list-style-type: none"> <li>In line with our FutureSmart programme, we launched an online platform, FutureNow, to guide our innovation activities through a series of 'challenges' to drive engagement across the business.</li> </ul>	
	<b>Develop and deploy innovation from digital</b>	<ul style="list-style-type: none"> <li>Digital implementation <ul style="list-style-type: none"> <li>Voxel – business structure process models deployed at three own mines and the smelters for digital operational planning (DOP) purposes</li> <li>Quarterly performance reports published using DOP tool</li> <li>Running DOP operating master schedule pilot to support embedding the operating model</li> </ul> </li> <li>Deployed predictive maintenance across all sites for critical assets: 548 potential downtime hours mitigated for 2022.</li> </ul>	

# Our strategy continued

## Our strategic priorities continued

Strategic priority	Strategic initiatives	Delivered in 2022	Medium to long-term targets
<b>Maximise value from our core</b>  	<b>Setting benchmark performance (P101)</b>	<p>P101 –</p> <ul style="list-style-type: none"> <li>At Mogalakwena, shovel fleet performance improved 8% from the previous year and haul-truck payloads now have exceeded the 300 tonnes/load mark. This led to an overall improvement in loading and hauling, shifting the mining constraint to drilling. The North concentrator runtime increased 55% against the previous year, improving throughput of tonnes milled</li> <li>At Unki, a 14% year-on-year improvement in concentrator throughput following the debottlenecking project</li> <li>Motolo improved concentrator throughput by 50% versus the prior year from the debottlenecking project</li> <li>Processing added value improvements in smelter operating factors and convertor availability.</li> </ul>	<p><b>Medium-term</b></p> <ul style="list-style-type: none"> <li>Deliver beyond bench-mark operational performance</li> <li>Extract the optimal value across the mining portfolio through the development of Der Brochen, Progressing the Future of Mogalakwena and Amandelbult.</li> </ul> <p><b>Long-term</b></p> <ul style="list-style-type: none"> <li>All owned mines in H1 of cost curve</li> <li>Maximise value from processing assets</li> <li>Average EBITDA margin of ~40% and ROCE of ~30%.</li> </ul>
	<b>Deliver the future of Mogalakwena</b>	Work progressed across six workstreams: <ul style="list-style-type: none"> <li>Open-pit mining continues to benefit from implementation of operating model and P101</li> <li>Sandsloot underground work and exploration drilling continues</li> <li>Scope completed for the third concentrator feasibility study. Work to date supports a project with robust economics. Timing of approval to be considered against current high inflationary environment and disrupted supply chains.</li> </ul>	
	<b>Deliver the future of Amandelbult</b>	The future of Amandelbult roadmap developed in 2022 – with studies progressing: <ul style="list-style-type: none"> <li>Approval of Tumela 1 sub-shaft and Middellaagte studies to prefeasibility</li> <li>Approval of early access development at Tumela 1 sub-shaft project</li> <li>Approval for execution of Dishaba ventilation shaft project</li> <li>Rescoping mechanisation project to drive safety and productivity.</li> </ul>	
	<b>Invest in the development of Der Brochen</b>	<ul style="list-style-type: none"> <li>Motolo – Concentrator debottlenecking project completed</li> <li>Der Brochen – Ground broken in February 2022 and project remains on track. Project execution will focus on further optimisation of the critical path.</li> </ul>	
	<b>Maximise the strategic value of processing</b>	<ul style="list-style-type: none"> <li>Downstream processing – Base Metals Refinery copper leach: execution continues on the project to increase copper recovery from around 90% by installing a dedicated pressurised oxidised copper leach autoclave section. Board approval obtained to progress execution of the ACP debottleneck project to process planned increased volumes of furnace matte.</li> </ul>	

# Our Culture in Action

Culture is essential to our success as an organisation and a real enabler of our strategy – working hand in hand to guide our actions and bring it to life. It enables each and every one of us to feel and be at our best in the workplace. We talk about ‘Culture in Action’ to remind ourselves that culture doesn’t stand still, and we are on an intentional journey towards the culture we desire.



## Our desired culture

At Anglo American, we say that our desired culture is ...

### Purpose-led

Everything we do, and every decision we make is driven by our purpose:

Re-imagining mining to improve people's lives

### Values-driven

Our actions and behaviours are guided by our six Anglo American values:



Safety



Care and respect



Integrity



Accountability



Collaboration



Innovation

### High-performance

We work together to achieve something greater than we could individually:

Taking safe and purposeful actions together to consistently deliver above and beyond expectations

## Our commitments

There are three foundational actions we need to consistently focus on as a platinum team at this point in time to unlock our desired culture and live our values. We call these our commitments:

Treat one another with trust and respect

Listen to all voices with fairness and humility

Live up to our promises with positive accountability

## The global colleague survey results

The global colleague survey, held in October 2022, had a total of 12,610 Anglo American Platinum employees respond (60%) and provided useful insights into our Culture in Action.

Continued elements of development in 2023 are:

### 1 Engagement and recognition

- Focus on helping colleagues feel connected to our purpose, appreciated for their contribution and believing they have opportunities for development and training.

### 2 Accountability, clarity and prioritisation

- Leaders to complete focused training to drive performance and team effectiveness
- Raise awareness on performance improvement policy to equip leaders to manage underperformance.

### 3 Employee development

- Develop frontline supervisors to strengthen technical and leadership competencies at all sites.

### 4 Physical and psychological safety

- Build on high physical safety index so every colleague feels comfortable in stopping a job due to a safety concern. Continue improving psychological safety index by genuinely listening to colleagues' views.

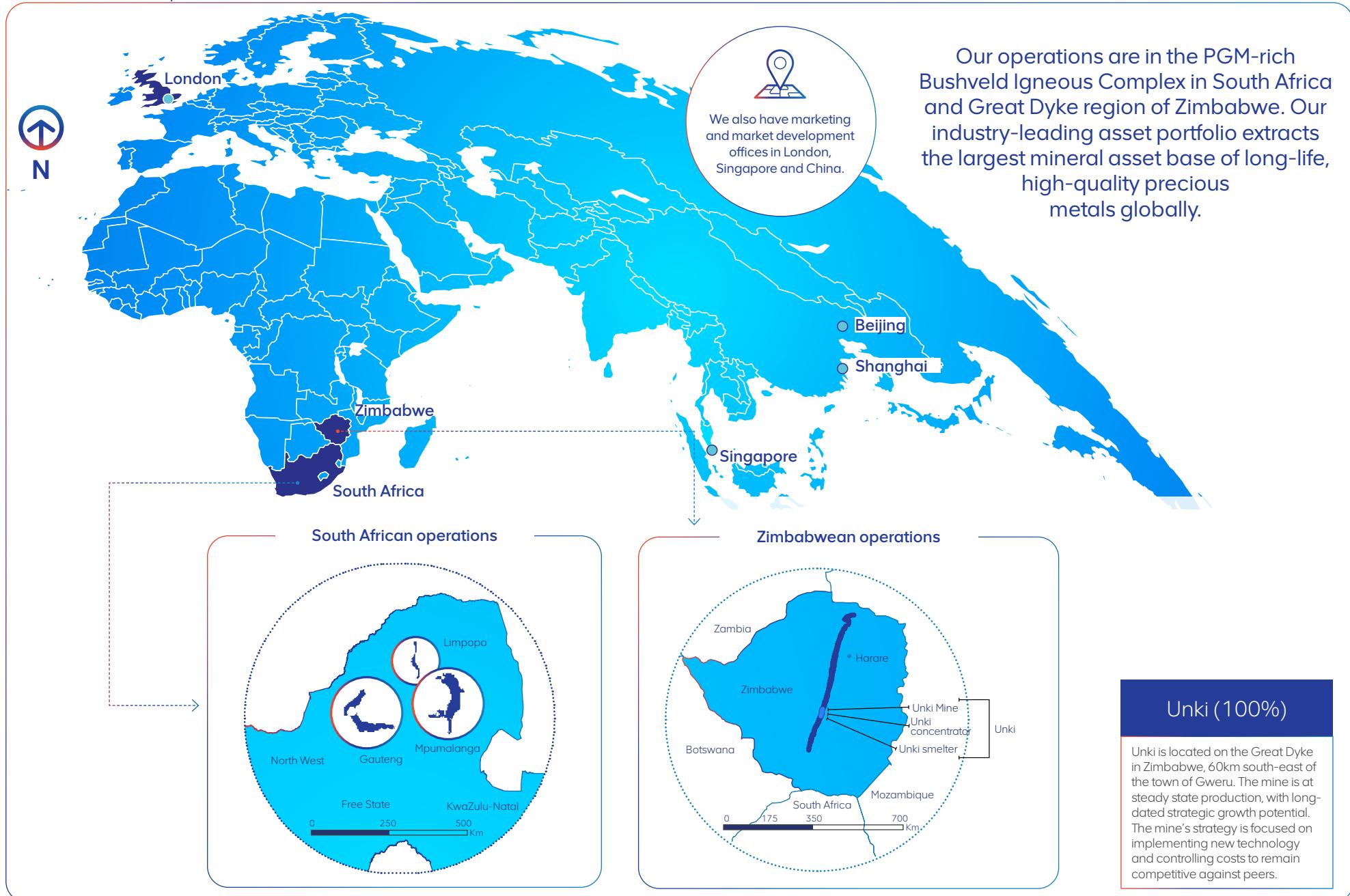
### 5 Sustainability and ethical conduct

- Achieve an average of 75% or more on implementation of sustainable mining plans commitments
- Mining operations align to IRMA requirements and complete stage 2 audits
- Heighten awareness and understanding of sustainability.

### 6 Resilience, adaptability and change

- Embed leader-led safety practices in daily activities by implementing the framework that defines the practices expected of managers, supervisors and all our employees.

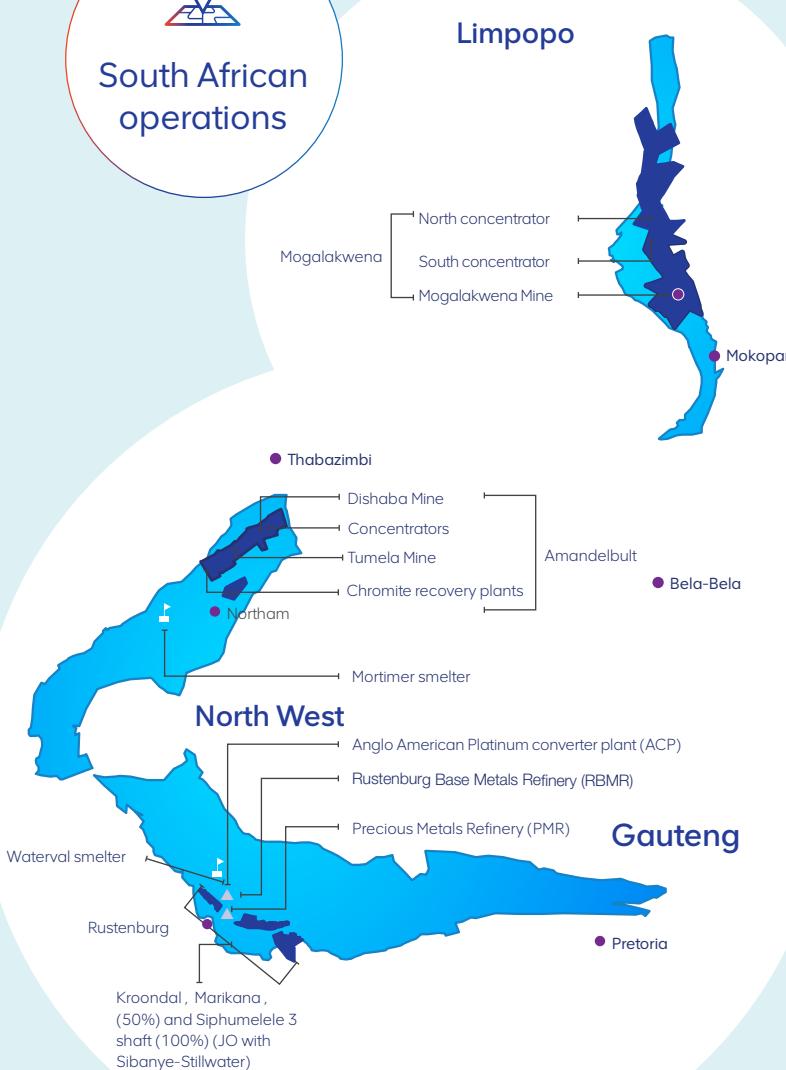
# Our footprint





## Our footprint continued

### South African operations



### Mogalakwena (100%)

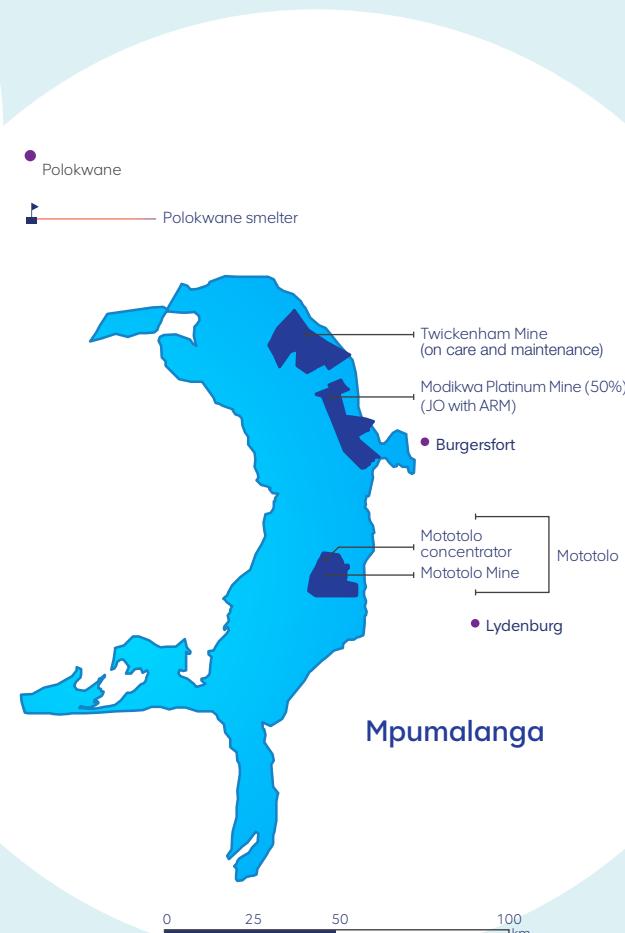
Mogalakwena Mine is 30km north-west of the town of Mokopane in Limpopo province and operates under a mining right covering 372km<sup>2</sup>. Current infrastructure comprises five open pits (Sandslot, Zwartfontein, Mogalakwena south, central and north). The mining method is truck-and-shovel, and current operating pit depths vary from 0m to 280m.

### Amandelbult (100%)

Amandelbult is in Limpopo, between the towns of Northam and Thabazimbi, on the North-western Limb of the Bushveld Complex. It operates under a mining right covering 141km<sup>2</sup>. The layout is a combination of conventional scattered breast mining with strike pillars, mechanised mining pillars and open pits.

### Mototolo (100%)

Situated in Limpopo, Mototolo Mine is 30km west of the town of Burgersfort in the Eastern Limb of the Bushveld Complex and operates under a mining right covering 96.28km<sup>2</sup>. Current infrastructure comprises two decline shafts, Lebowa and Borwa, and a concentrator. A fully mechanised mine using bord-and-pillar mining methods.



# Why invest in us

Anglo American Platinum is a leading PGM producer differentiated precious metals investment



The world needs our metals – enabling a greener and healthier future

Climate change action will accelerate decarbonisation and demand

## Industry-leading asset portfolio

Diverse, high-quality and long-life mining and processing assets with optionality to grow

## Safe, stable and capable operations

Operating our integrated value chain at its full potential, fully modernised and mechanised

## Disciplined capital allocation that delivers returns – return on capital employed (ROCE) >25% through the cycle

Value-focused approach to capital allocation to deliver industry-leading returns

## Leading capabilities across our value chain

Achieving operational excellence, technology deployment and market and product

## Delivering shared value

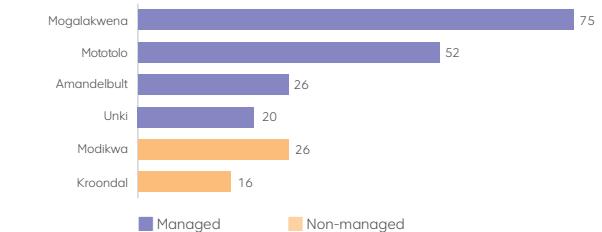
Become a trusted corporate leader, co-creating thriving communities and healthy environment

Transforming the mining value chain through safe, responsible production

## Industry-leading asset portfolio

- Diverse, high-quality and long-life mining and processing assets with optionality to grow
- Focus on ensuring all operations are in the bottom half of the cost curve to ensure through-the-cycle returns.

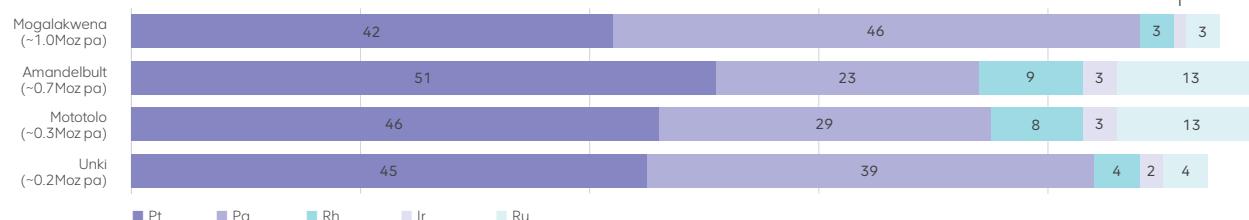
### Life-of-asset (years)



## A world-class integrated portfolio of assets



### Leading capabilities, achieving operational excellence and deploying technology (FutureSmart Mining) (% PGM production)

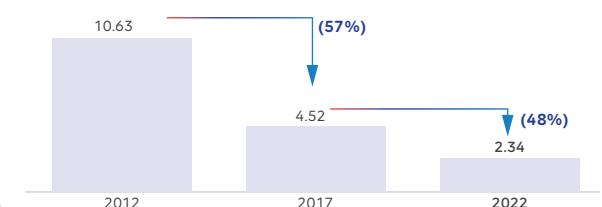


## Zero fatalities at managed operations – focus on protecting our people

Focus on behaviours – particularly during period of disruption and change.

### Lowest recorded number of safety incidents

Total recordable cases frequency rate (per million hours)



## Why invest in us continued

Accelerating our world towards a cleaner,  
greener, healthier tomorrow

### Facilitating the development of diversified markets for PGMs

Through active market development we nurture new demand for PGMs to broaden the number of applications that our metals are used in, tapping into and developing innovation and development in key global trends such as emission-free transport, decarbonisation and clean energy production, as well as undiscovered capabilities and opportunities.

### A holistic approach to drive PGM demand

Shaping businesses in three steps:

- Nurture ideas – find and nurture ideas that can make viable propositions
- Commercialise concepts – support the commercialisation of the strongest propositions
- Engineer growth – collaborate for scale in emerging and existing treatments.

At the same time shaping the operating environment of those businesses through active communication and policy advocacy activities.

#### Developing markets

Refer to our market and product development section on [page 60](#).

#### Global recognition

Anglo American Platinum has continued to demonstrate leading ESG performance in 2022, with our strong management of environmental, social and governance issues reflected in global rankings by leading agencies:



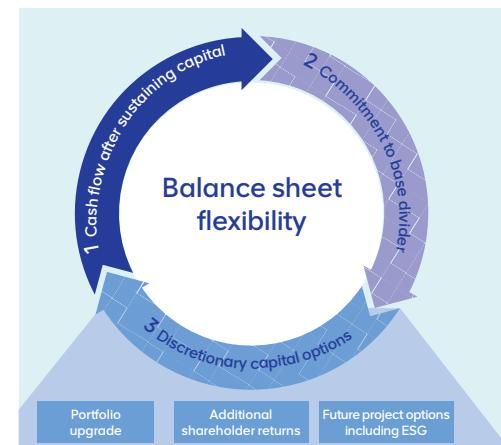
Value preservation

Creating enduring value and sustainable  
economic development

### Delivering strong financial returns and value to our stakeholders

		2030 target 100%
1	Mechanised and modernised operations, % of own-mine PGM production	100%
2	Cost curve position, (out of four mines)	All mines in H1
3	Mining EBITDA margin, %	35-40%
4	ROCE, %	25-35%
5	Communities, jobs support	Five jobs off-site for every one on site
6	Net reduction in CO <sub>2</sub> emissions, % off 2016 baseline	Carbon neutral by 2040
		88%
		Three out of four mines
		Achieved 57%
		Achieved 111%
		Six off site for every one on-site
		5% reduction against baseline

### Disciplined capital allocation framework



# How we reward performance

Anglo American Platinum's reward strategy evolves with the business landscape and our company progress. We believe it is crucial our remuneration value proposition ensures alignment to our strategic priorities and that we remain a sustainable and viable investment to shareholders.

Extending beyond the strategic business element, we continue to ensure that our attraction and retention strategies remain effective while being cognisant of the balancing principles of fair and responsible remuneration. Our remuneration policy has direct links to an integrated people strategy to drive the desired results and support the short and long-term business strategy. Our remuneration instruments and processes are structured to support the key principles that underpin our remuneration policy and align with the strategy, values and purpose of our business.

To ensure executive director performance outcomes align to shareholder interests, the mix of total remuneration earning potential is weighted heavily to variable remuneration. Executive director variable remuneration comprises a cash incentive, deferred Bonus Share Plan (BSP), which vests over a three-year period (one-third vesting after two years and two-thirds vesting after three years) and a long-term incentive (LTI) that vests over three years. The variable remuneration at risk is assessed against performance conditions aligned to the business strategy, business plan and shareholder value-creation metrics. The vesting of the deferred BSP is not subject to further performance conditions after award, and is used as a retention element in executive remuneration.

The annual bonus is determined against the performance of a mix of financial, operational, safety and strategic measures assessed over a one-year period. For the CEO and FD, 70% of the annual bonus is assessed against financial, operational (production and cost) and safety, health and environment (SHE) measures. The remaining 30% is assessed against strategic and individual measures aligned to business priorities which include maximising value from our core, embedding ESG, requirements for being a responsible corporate citizen and driving maximum value in the business unit. Long-term incentives are measured over a three-year performance period against a mix of financial and non-financial measures, the latter focused on environmental, social and governance measures.

 Refer to the remuneration report in our governance report.

## Guiding principles of remuneration

### Principle

Attract, motivate and retain highly competent individuals from a global talent pool who can motivate and lead high-performing teams and drive change in our business through specialised skills, knowledge and experience.

### Link to strategy



### Link to stakeholders

Our stakeholders are as much part of our business as our employees. It is therefore necessary that we attract and retain the right people with the necessary skills and expertise to effectively execute our business strategy, lead high-performing teams, create value for shareholders and integrate and enhance the lives of the communities where we operate.

### Principle

Reward structures are designed to support our company purpose and ambition, align with our business values, link our performance to reward and ensure we provide sustained value for shareholders.

### Link to strategy



### Link to stakeholders

We have a responsibility to our stakeholders when we design remuneration structures. We consider employee safety, the environment in which we operate and its impact on communities alongside the investment value for our shareholders. This enables us to remain a good corporate citizen and a leader in implementing good ESG practices through sustainable mining.

# How we reward performance continued

## Guiding principles of remuneration continued

### Principle

Ensure remuneration that is fair (equitable), responsible and ethical.

### Link to strategy



### Link to stakeholders

Our business is made up of a diverse workforce. It is critical to remunerate our employees fairly and without discrimination.

It is necessary to assure our shareholders that our remuneration policy has the necessary governance in place to fairly remunerate employees, aligned to our business performance outcomes.

## Executive directors scorecard summary

	Impact on remuneration	Total remuneration element impacted	Impact on earning potential
<b>Financial and operational performance</b>			
<b>Financials</b> <b>Link to strategy</b> 	Performance measures within the annual bonus and LTIP.	Performance measures within annual bonus and LTIP. CEO maximum annual bonus opportunity is 250%; with 50% of that deferred into cash. CEO maximum LTIP opportunity is 150% for company LTIP, and a further 100% for group LTIP.	22% of annual bonus and 80% of LTIP awards are linked to financial measures.
<b>Production</b> <b>Link to strategy</b> 	Performance measures within the annual bonus.	Performance measures within annual bonus. CEO maximum annual bonus opportunity is 250%; with 50% of that deferred into cash.	22% of annual bonus is linked to cost and production measures.
<b>Cost</b> <b>Link to strategy</b> 	Performance measures within the annual bonus.	Performance measures within annual bonus. CEO maximum annual bonus opportunity is 250%; with 50% of that deferred into cash.	22% of annual bonus is linked to cost and production measures
<b>Safety, health and environment</b> <b>Link to strategy</b> 	Performance measures within the annual bonus and LTIP.	Performance measures within annual bonus and LTIP. CEO maximum annual bonus opportunity is 250%; with 50% of that deferred into cash. CEO maximum LTIP opportunity is 150% for company LTIP, and further 100% for group LTIP.	20% of annual bonus and 20% of LTIP awards linked to SHE and ESG measures respectively.

Weighted total of scorecard = 70%

### Critical tasks

Critical tasks were those required to be implemented in 2022 to ensure delivery against the strategic priorities. They are objectively assessed, and set annually depending on the operating and business context.

Weighted total of scorecard = 30%



Sandsloot underground project decline tunnel excavated using mobile tunnel borer (MTB)

# Performance measures

The key performance indicators listed below provide an overview of how we measure our progress towards executing our strategic priorities and the link to how we remunerate performance.

 Fully achieved  Partially achieved  Not achieved

KPIs	Outcome vs 2022 target	2022 actuals	2021 actuals
<b>Leader in ESG</b>			
Water efficiency <sup>1</sup>		<b>68.9%</b>	63.6%
Freshwater withdrawals (ML) <sup>2</sup>		<b>9,278</b>	9,644
Potable water intensity (m <sup>3</sup> /t milled)		<b>0.248</b>	0.267
Energy intensity (GJ/tonne milled) below 0.824 (2022 target)*		<b>0.733</b>	0.841
CO <sub>2</sub> emissions below 4.599 million tonnes CO <sub>2</sub> equivalent emissions (2022 target)*		<b>4.088</b>	4.522
Maintain zero waste to landfill status		<b>0<sup>†</sup></b>	0 <sup>†</sup>
Completion of biodiversity management programme requirements		<b>100%</b>	–
Anglo social way – level 4-5 social incidents with consequences		<b>0</b>	–
Renewable energy**			–
<b>Critical tasks</b>			
Sustainable mine plan: all assets to achieve 90% compliance to plan for the 2022 focus areas*			–
<b>Go beyond resilience, thrive through change</b>			
Zero work-related losses of life		<b>0</b>	1 <sup>#</sup>
Total recordable injury frequency rate (TRIFR) per million hours lower than 2.13 (2022 target)		<b>2.34</b>	2.60
Elimination-of-fatalities sustainability process completion to plan*		<b>100%</b>	–
62.5% of employees to have a personal and confidential health assessment in the form of a wellness score with supporting explanations and analysis		<b>90%</b>	–
<b>Critical tasks</b>			
80% compliance to operating model programme at each site by end of 2022			–

<sup>1</sup> Excluding smelters and operations on care and maintenance.

<sup>2</sup> Excluding operations on care and maintenance.

\* Linked to remuneration.

\*\* New target to be measured from 2023/2024.

† 2022: 40.48t Vanadium Pentoxide and 26.94t base emulsion (waste streams without re-use/recycling solutions) were excluded from the ZW2L target.

2021: 14.7 tonnes base emulsion (waste stream without re-use/recycling solution) and 7.72 tonnes asbestos waste (landfilling mandatory in terms of SA legislation) were excluded from the ZW2L target.

# Restated.

## Performance measures continued

 Fully achieved  Partially achieved  Not achieved

KPIs continued	Outcome vs 2022 target	2022 actuals	2021 actuals
 Maximise value from core			
EBITDA margin (%)		<b>45.0</b>	50.5
EBITDA (R billion)		<b>73.9</b>	108.4
EBITDA at fixed prices (R billion)		<b>40.8</b>	55.1
Mining margin		<b>57%</b>	65%
Unit cost (R/PGM oz)		<b>15,338</b>	12,831
PGM produced M&C oz (000)		<b>4,024</b>	4,299
PGM refined production oz excluding tolling (000)		<b>3,831</b>	5,138
Sold oz (000)		<b>3,861</b>	5214
ROCE		<b>111%</b>	183%
Sustaining operating free cash flow (R billion)		<b>46.7</b>	114.3
Trade working capital (R billion)		<b>8.8</b>	(4.2)
Critical tasks			
All assets to achieve 90% compliance for 2022.			
80% compliance to Anglo operating model.			
Effective programme management of the P101 portfolio to support delivery*.			
Future of Mogalakwena: compliance roadmap for ACP C and slag cleaning furnace 2, progress the UG decline in line x budget*.			
Future of Amandelbult: Deliver against plan by end 2022*.			
Asset maturity framework compliance to achieve an average score of 4 across sites by end 2022*.			
 Stimulate new markets and leverage new capabilities			
Jewellery demand – enhance direct engagement and value accrual to Anglo American Platinum			
Investment – support WPIC and deliver against plan			
PGM in hydrogen economy – stimulate product and technology adoption			
New opportunity areas – nurture PGM applications for green transition, modern life, wealth and growth			

\* Linked to remuneration.

# Board governance

## Oversight

The board has overall responsibility for the governance of the company and assumes collective responsibility for steering and setting its direction. In fulfilling its responsibilities, the board provides an oversight and monitoring function of the following areas:

Company strategy and performance	Organisational ethics	Responsible corporate citizenship	Risk governance
Establishes the company's purpose, values and strategy and has satisfied itself that these and its culture are aligned.	Oversees the application of the company's ethical standards in the way the business is conducted with regard to, inter alia, conflicts of interests, code of conduct, ethical value chains, contractor management, intermediaries, process of recruitment and performance.	The concept of responsible corporate citizenship is integrated into our company strategy. This includes the oversight of safety, wellbeing and livelihoods of our employees, contractors and communities.	Determines the nature and extent of acceptable risks in achieving the company's strategic priorities.
Company strategy and performance	Organisational ethics	Responsible corporate citizenship	Risk governance
Oversees our framework for IT governance aligned to the IT Governance Institute and control objects for information and related technology (COBIT).	Considers compliance with the Companies Act, JSE Listings Requirements and all applicable legal and regulatory requirements, including company policies.	Oversees a combined assurance framework, which incorporates a number of assurance activities to adequately cover significant risk and material matters.	Assesses shareholder and stakeholder interests from the perspective of the long-term sustainable success of the company.

## Accountability

Accountability is one of our values, it means that we own our decisions, actions and performance and we are empowered to make choices and learn from our experiences. The board is accountable to all stakeholders affected by its decisions for the outcomes of their desired strategy and ultimately the achievement of our purpose to "Re-imagining mining to improve people's lives". We do this by the effective delegation to management and hold to account such delegation through the establishment of appropriate assurances (combined assurance model) and our accountability framework (performance management). The board remains accountable for what it has delegated and responsible for the company's performance as a whole.

The Boards accountability is demonstrated through reporting on our governance activities including the boards own performance. Our integrated suite of reports aim to report to our stakeholders on the linkages and interdependencies between factors that enable the company to create value. It includes details on our business model and strategy; how we respond to our external environment; risks and opportunities; how we identify and respond to the legitimate needs and interests of key stakeholders; activities and performance; as well as the outlook in the medium to long term.

**100%**

attendance at  
board engagements

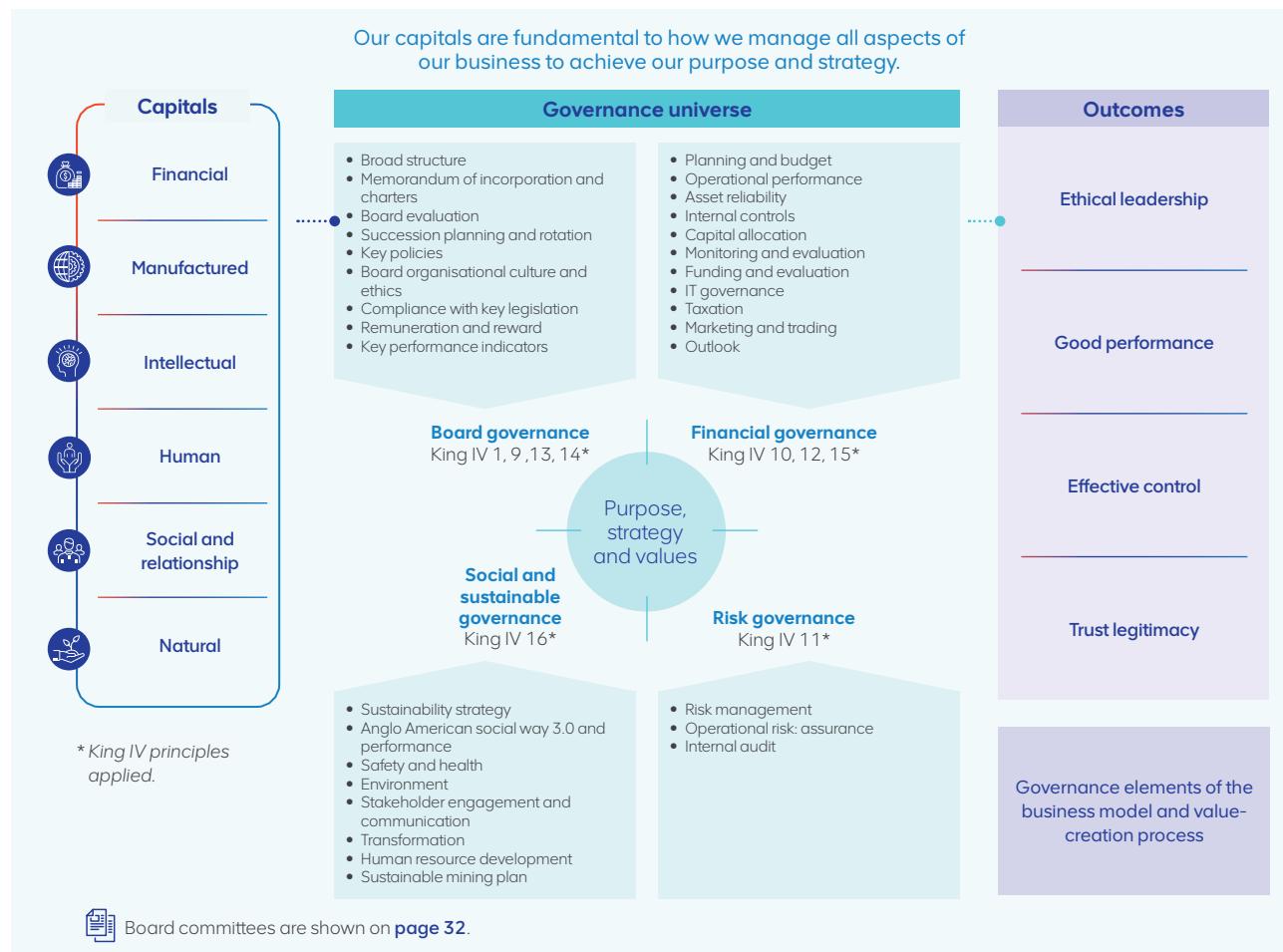


Refer to the governance report for more detail.

# Board governance continued

## Governance at a glance

Through purpose-led leadership, and underpinned by our culture and values, the board sets the tone at the top. This is supported by our strategy and the four strategic priorities that will allow us to achieve our purpose and ambitions for all stakeholders within a governance framework that instils ethical leadership, accountability, transparency and legitimacy.

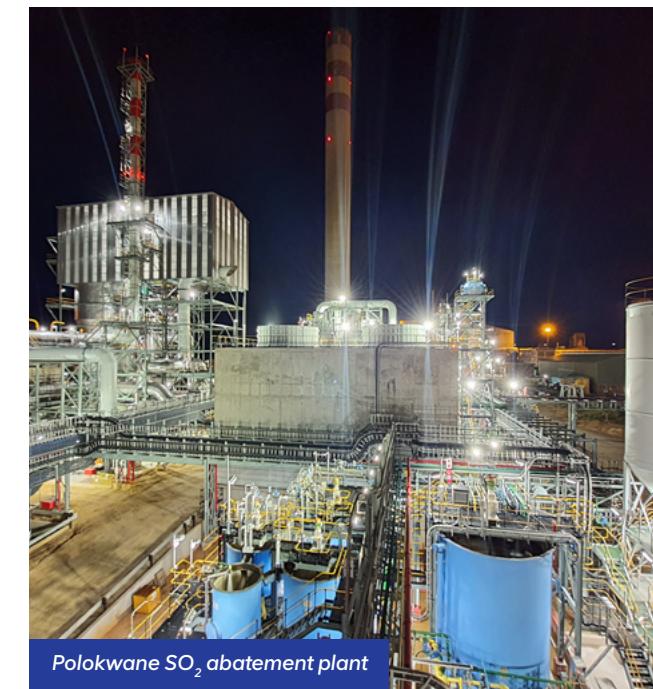


## Governance philosophy

At Anglo American Platinum, we are committed to the highest standards of corporate governance. Our governance framework ensures that all aspects of our business are managed to achieve our desired governance outcomes. This framework informs our governance universe.

The board is the focal point for and custodian of the company's governance framework.

Our governance universe illustrates how the capitals are managed via four segments – board, finance, risk, social and sustainability. The elements in each segment are governed by appropriate processes, systems and resources to ensure we achieve our governance outcome.



## Board governance continued

### Ethical leadership

The board oversees the ethics of the organisation in a way that supports establishing an ethical culture. Anglo American Platinum is committed to a policy of fair dealing and integrity in conducting its business. Actively endorsed by the board, this commitment is based on a fundamental belief that business should be conducted honestly, fairly, legally and responsibly. The board expects all employees to share its commitment to high moral, ethical and legal standards and sound business principles. The board sets the tone from the top and subscribes to the ethical standards detailed in the Anglo American Platinum code of conduct and business integrity policy. It seeks to lead by example in engaging with all stakeholders in its deliberations and decisions, and by monitoring the ethical culture and compliance in the group. In addition to the approval and oversight of our code of conduct and business integrity policies, the board has oversight of the delegation-of-authority policy, conflicts of interest and share-dealing policy and, through the governance committee, the compliance framework policy.

The compliance function is supported by the compliance and ethics committee, which reports to the governance committee annually on its activities and monitoring plan. The compliance and ethics committee, chaired by the finance director and attended by executives and senior managers, convenes quarterly to review implementation of compliance and ethics programmes in the company. Its purpose is to assist the board and PMC to drive a culture of compliance to support Anglo American Platinum in delivering on its core strategic priorities in an ethical manner, and to reshape the business into one that is agile and future-fit. For more information on our compliance and ethics committee, refer to the sustainability report on [pages 48-50](#).

We seek to associate with suppliers that share our values, and we expect our suppliers to conduct themselves with integrity and uphold the highest standards of ethical conduct. For more information on the ethical value chain, please refer to the sustainability report on [pages 112-113](#).

The board governs compliance with applicable laws, and adopted non-binding rules, codes and standards that support the company to be ethical and a good corporate citizen. Compliance with the Companies Act, JSE Listings Requirements, legislation for the mining industry and the company's governance policies is monitored and tracked through internal monitoring and reporting systems, and reviewed by internal and external audits.



# Our leadership team

## Board

### Independent non-executive



**Norman Mbazima (64)**  
Independent chairman

**Qualifications:** FCCA, FZICA

**Four years on the board**

**Key strengths:** strategic planning, global expertise, financial and commercial performance, domestic affairs senior corporate leadership

N SD S



**Roger Dixon (73)**  
Independent non-executive director

**Qualifications:** PrEng, BSc (hons) Mining FSAIMM

**Over two years on the board**

**Key strengths:** mining and mining technology, industrial sector experience, global expertise, domestic affairs, senior corporate leadership

G SD



**Thabi Leoka (44)**  
Independent non-executive director

**Qualifications:** BA (hons), MA, MSc Economics and Economic History, PhD Economics

**Over two years on the board**

**Key strengths:** global expertise, financial and commercial performance, domestic affairs, senior corporate leadership

R SD S



**Peter Mageza (68)**  
Lead independent director, chair governance committee

**Qualifications:** FCCA (UK)

**Nine years on the board**

**Key strengths:** strategic planning, global expertise, financial and commercial performance domestic affairs, senior corporate leadership

R N G



**Nombulelo Moholi (63)**  
Chair remuneration and social, ethics and transformation committees

**Qualifications:** BSc (engineering)

**Nine years on the board**

**Key strengths:** industrial sector experience, global expertise, domestic affairs, sales and marketing, senior corporate leadership

R G SD S



**Dhanasagree Naidoo (50)**  
Independent non-executive director

**Qualifications:** BCom, CA(SA), Masters in Accounting (taxation)

**Nine years on the board**

**Key strengths:** financial and commercial performance, senior corporate leadership

A G



For more information on directors' key strengths and other skills sets, please refer to [page 30](#).

Board committees on [page 32](#).

A	Audit and risk committee
G	Governance committee
N	Nomination committee
R	Remuneration committee
SD	Safety and sustainable development committee
S	Social, ethics and transformation committee
	Committee chair

# Our leadership team continued

## Board continued

### Independent non-executive continued



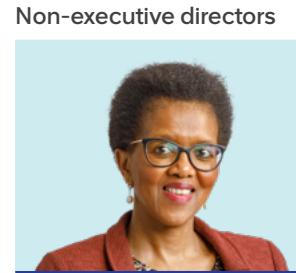
**John Vice (70)**  
Chair audit and risk committee

**Qualifications:** BCom, CA(SA)

**Ten years on the board**

**Key strengths:** strategic planning, global expertise, financial and commercial performance, senior corporate leadership

A G SD



**Nolitha Fakude (58)**  
Non-executive director

**Qualifications:** BA (hons) Psychology

**Over one year on the board**

**Key strengths:** strategic planning, global experience, domestic affairs, senior corporate leadership

R SD



**Anik Michaud (55)**  
Non-executive director

**Qualifications:** LL.L (law)

**Over one year on the board**

**Key strengths:** strategic planning, industrial sector experience, senior corporate leadership

S SD



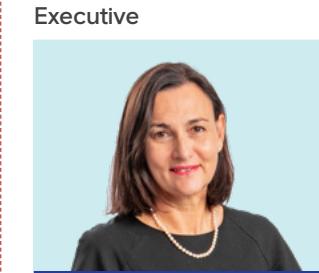
**Duncan Wanblad (54)**  
Non-executive director

**Qualifications:** BSC (Eng) Mech, GDE (Eng management)

**Less than one year on the board**

**Key strengths:** strategic planning, mining, mining technology, industrial sector experience, global expertise, senior corporate leadership

N



**Natascha Viljoen (52)**  
Chief executive officer

**Qualifications:** BEng (extractive metallurgy), MBA

**Over two years on the board**

**Key strengths:** mining and mining technology, domestic affairs, sales and marketing, senior corporate leadership

SD



**Craig Miller (49)**  
Finance director

**Qualifications:** BCompt (hons), CA(SA)

**Three years on the board**

**Key strengths:** financial and commercial performance, senior corporate leadership and global finance experience

For more information on directors' key strengths and other skills sets, please refer to [page 30](#).

Board committees on [page 32](#).

A	Audit and risk committee
G	Governance committee
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S	Social, ethics and transformation committee
	Committee chair

### Resigned during the year

**Mark Cutifani**  
Non-executive director

### Appointed post year end

**Suresh Kana**  
Independent non-executive director

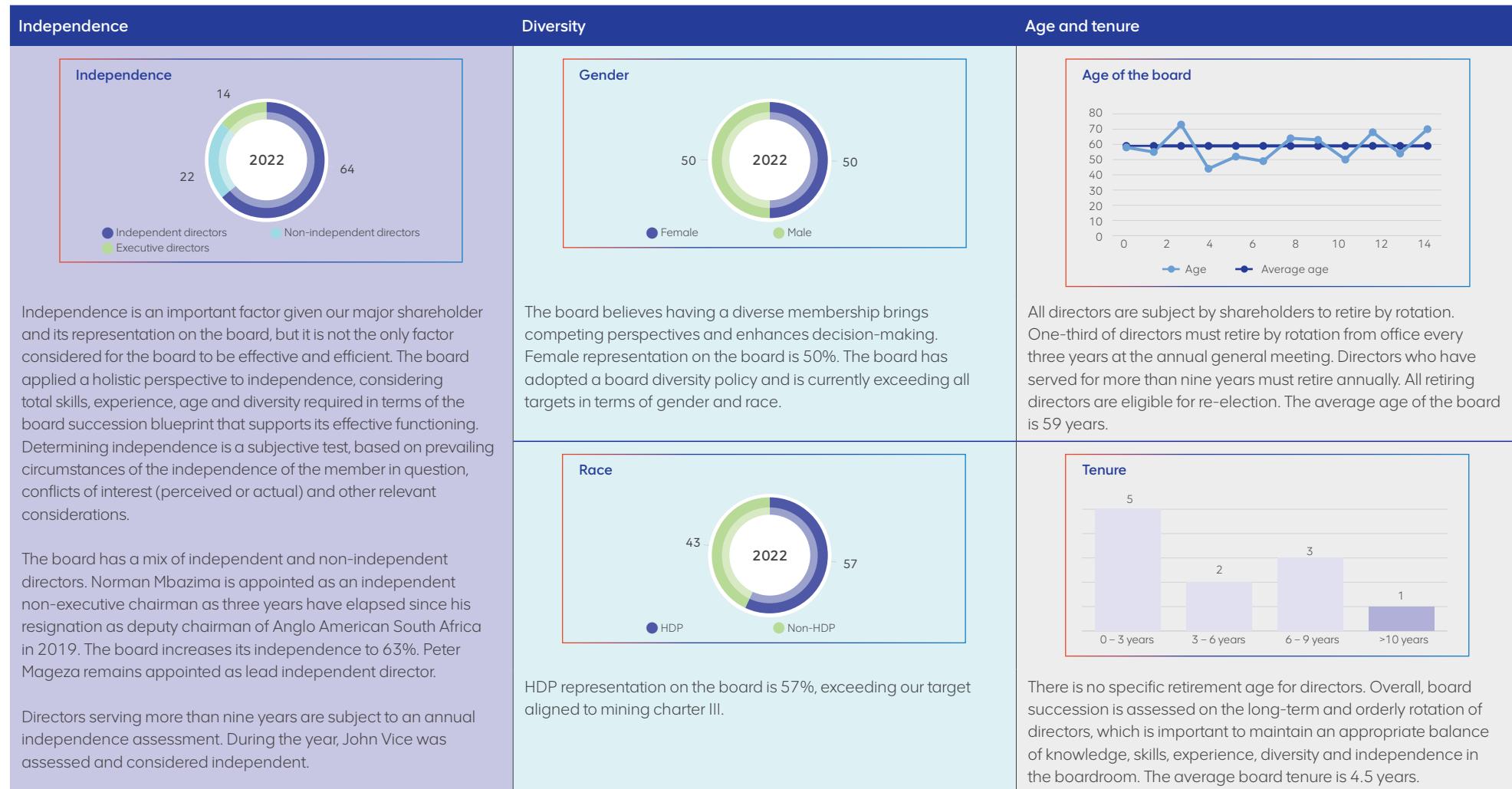
**Lwazi Bam**  
Independent non-executive director

**Thevendrie Brewer**  
Independent non-executive director

# Our leadership team continued

## Our board profile

Anglo American Platinum is a diverse company with impactful demands from areas such as industrial processes, markets, product and applications. Over the past three years, we have strengthened our independence, diversity and skills through an orderly board-succession plan. The board has a unitary structure and currently comprises 12 members.



# Our leadership team continued

## Board evaluation

Following the detailed board-effectiveness and culture diagnostic in 2021, the board conducted two internal surveys for the 2022 financial year to gain insight on its meeting effectiveness and areas of improvement. The outcome confirmed that board and committee meetings were highly effective, with a suggestion that more time be assigned to safety and sustainable development committee meetings. Quality of materials provided were found to give sufficient context and detail, with information provided in a reasonable timeframe to fully prepare for meetings.

In addition, the nomination committee commissioned an in-depth evaluation of the board composition, skill set, competency and skills definitions as a measure of the board's commitment to the company, its stakeholders and management team. The board has invested resources in thoroughly considering how to optimise its structure, process, composition and performance.

Key strategic themes and focus areas emerging from the evaluation included:

- Sustainable value creation
- Investment and growth
- Innovation and marketing development
- Enhancing the technical foundation of the business.

The outcome of the board's handling of strategic priorities and risks was largely positive, mainly citing overall good governance, informed decision-making, effective prioritisation of issues, smooth transitioning of leadership at executive and board levels.

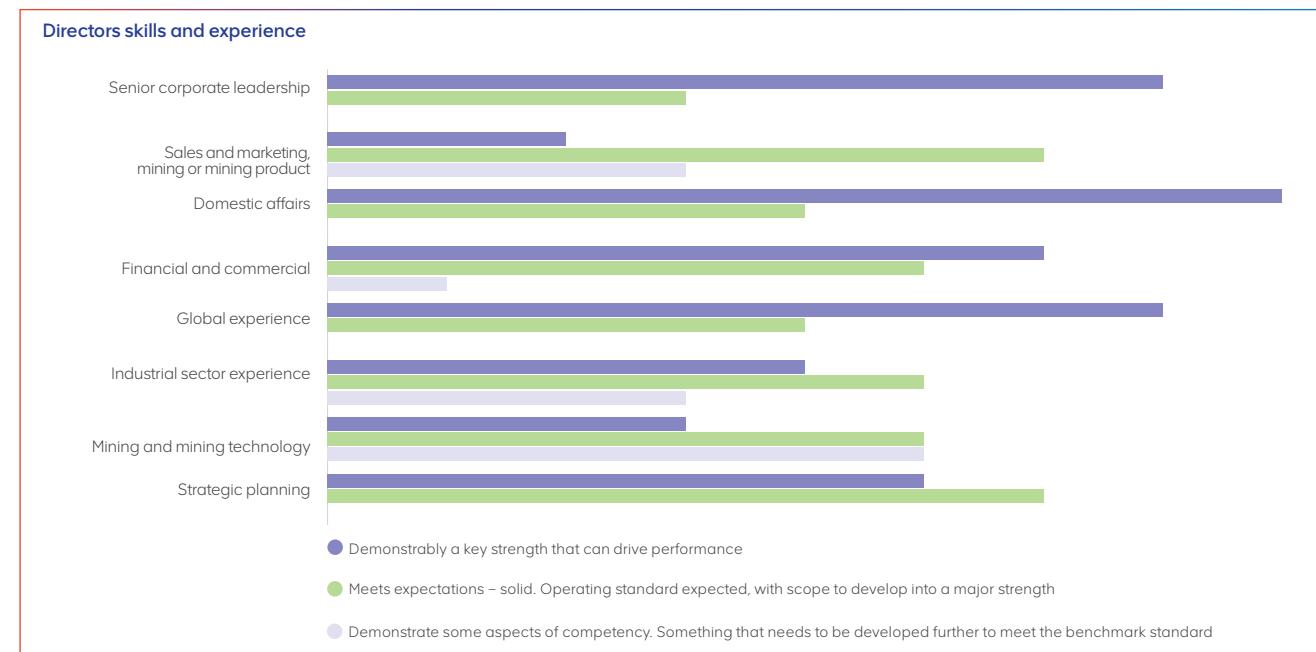
Some development areas were identified, which included bolstering the board with mining and mining technology skills after the departure of Mark Cutifani, in the current year, and Tony O'Neill in the prior year.

## Skills

The evaluation process further focused on board composition, size, skills and attributes, as well as orderly succession of long-standing directors. Individual levels of competencies were assessed against refreshed skill and competency definitions. A desktop research study was conducted to formulate a perspective on leadership skills and competencies required for the future, in line with the company's strategy. The assessment was done on an 'exceeds', 'meets' or 'emerging' basis.

A number of skills have been identified for enhancement, namely mining and mining technology and sales and marketing. Innovative business and growth optimisation and managing change in line with evolving marketing conditions will be included in skills definitions for further assessment.

## Skills legend



For the skills legend, see our governance report on [page 10](#).

# Our leadership team continued

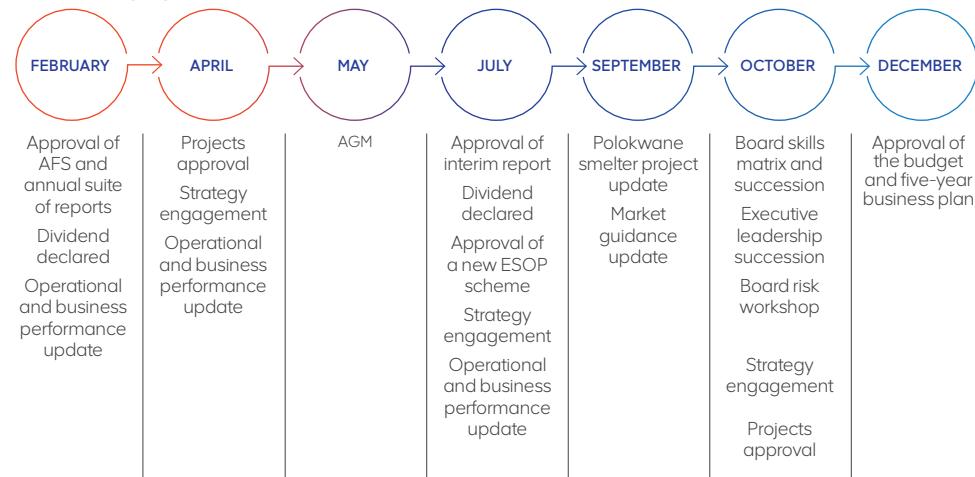
## Key board focus areas

Key focus areas for the board during the year were:

<b>Strategic agenda and 2022 imperatives</b>	Strategic imperatives were identified as focus areas for board engagement, covering progress on execution and highlighting risks. The board considered the following imperatives through its 'always-on' approach: <ul style="list-style-type: none"> <li>Evaluating potentially disruptive, compounding trends to update the industry outlook and implications for the business, portfolio and investment decisions</li> <li>De-risking the portfolio in response to the uncertainty in demand</li> <li>Refining pathways to the full potential for the portfolio of assets in the integrated value chain</li> <li>Adding further specificity on PGM recycling and participation models.</li> </ul>
<b>Global industry standard on tailings management</b>	The global industry standard on tailings management (GISTM), the first global standard on tailings management, was published in August 2020. The company is committed to complying with this standard and takes responsibility by prioritising the safety of our tailings facilities through the mine life cycle. The board monitored and received reports on progress towards conformance to GISTM.
<b>Projects portfolio</b>	Monitored progress against the five-year capital budget and project pipeline across growth, lifex, breakthrough and stay-in-business, and provided required approvals for the projects, aligned to the delegation-of-authority framework.
<b>Employee share ownership plan</b>	The board approved implementation of an employee share-ownership plan. The board recognises that employees remain crucial to the success of the company. The scheme provides an opportunity for the company to empower these employees through share ownership, which will further drive the objective of an inclusive economy in addition to remuneration and retention purposes.
<b>Asset review</b>	<ul style="list-style-type: none"> <li>The board reviewed in detail the future of Amandelbult (FoA) with a focus on contribution to the portfolio, strategy for the complex, modernisation and mechanisation of mining areas</li> <li>The board also visited Mogalakwena in October 2022. The purpose of the site visit was for the board to experience the operation and receive an update on strategic work being executed</li> <li>Considered developments in the rebuild of Polokwane smelter that resulted in a delay.</li> </ul>
<b>Talent management and succession plan</b>	The board received an overview of the internal executive leadership succession pipeline at PMC and general manager at asset levels, which are critical to the success of the business. The overview provided insights on talent available across the Anglo American group which could be deployed or appointed across these two levels of work.

<b>Budget, business plan and corporate transaction approval</b>	<ul style="list-style-type: none"> <li>Approved 2023 and five-year business plan</li> <li>Received updates on corporate transactions aimed at continued value creation. The board approved the conclusion of a 20-year wheeled renewable energy offtake agreement with Envusa Energy to a total value of R39bn.</li> </ul>
<b>Risk review</b>	Reviewed the executive risk landscape noting the materiality process integration and considered opportunities and emerging risks, thought leadership and peer analysis as well as key operational risks. The board agreed risk appetite and tolerance levels.
<b>Annual financial statements, interim statement and integrated annual report</b>	Assessed key accounting matters and disclosures impacting the financial statements and integrated suite of reports. Approved dividend declarations in line with dividend policy as well as solvency and liquidity assessments.
<b>Supplier contract approvals</b>	Approved material contracts having significant commercial, strategic value or technical innovation, as appropriate, in accordance with the delegation-of-authority framework.

## Board engagements



Value creation

Value preservation

Value erosion

# Our leadership team continued

## Committees of the board

The board has formed committees to assist in discharging its duties. The roles and responsibilities of these committees are formally defined to determine how authority is exercised and decisions are taken. Each committee has terms of reference delegating specific responsibilities and authority on behalf of the board. The chairs of these committees report on their activities at each quarterly board meeting. All terms of reference are reviewed annually. The committees are interrelated and provide feedback to each other on salient matters as these apply to their remits. The activities of the committees are reported separately in our governance report on [pages 20 – 61](#).

### Board committees

**S**

#### Social, ethics and transformation



- Monitors and oversees establishment of an ethical culture and good corporate citizenship
- Reviews transformation initiatives
- Reports to shareholders on developments and progress
- Oversees social and labour plan implementation.

**SD**

#### Safety and sustainable development



- Develops frameworks, policies and guidelines for S&SD management and ensures implementation
- Monitors the safety and health of employees and the impact of company operations on the environment.

**N**

#### Nomination



- Makes recommendations on appointments to the board and succession planning.

**G**

#### Governance



- Monitors status of governance in the company, particularly:
  - Related-party transactions and funding arrangements with the major shareholder
  - Any unresolved disputes under master services agreement between Anglo American Platinum and major shareholder
  - Issues involving a conflict of interest
- The committee comprises solely independent non-executive directors, led by Peter Mageza, lead independent non-executive director. It meets twice a year or more often as required.

**R**

#### Remuneration



- Establishes principles of remuneration and determines remuneration of executive directors and executive heads
- Considers, reviews and approves group policy on fair and responsible remuneration practices across the company and communicates this to stakeholders in the integrated annual report.

**A**

#### Audit and risk



- Monitors adequacy of financial controls and reporting
- Reviews audit plans and adherence by external and internal auditors
- Ascertain reliability of the audit
- Ensures financial reporting complies with International Financial Reporting Standards and the Companies Act
- Reviews and makes recommendations on all financial matters
- Nominates auditors for appointment
- Monitors the company's appetite for risk and tolerance
- Assess independence of external auditors.



See our committee reports in the governance report.

# Chairman's review

In a year characterised by ongoing uncertainty and volatility, we continue to prove the value of a dynamic strategy that enables Anglo American Platinum to remain resilient in the face of external and internal headwinds.

**0**  
Work-related fatalities at managed mines and strongest safety performance on record

Refined PGM production down **25%** to 3.8 million ounces

EBITDA of **R74bn** and mining EBITDA margin of **57%**

Industry-leading returns to shareholders of **R30bn** with payout ratio of **62%**

Economic contribution to society of **R131bn**

The past year introduced a level of global financial market volatility not seen since 2008. Coming so soon after pandemic disruptions, the geopolitical tensions sparked by Russia's invasion of Ukraine in February rippled across the world, with massive effects on commodity prices and supply chains that in turn reignited inflation and depressed global economic growth rates. In South Africa, the impact of these challenges was exacerbated by record levels of power instability and adverse weather.

Against this background, Anglo American Platinum has produced commendable results, reflecting the hard work of committed teams to ensure the company's resilience in the face of diverse challenges. At the same time, we made good progress towards the strategic objectives (detailed on [page 10](#)) that collectively position the company to create enduring value for all stakeholders.

As a board – cognisant of the company's potential as a force for good in driving socio-economic and environmental change – we are particularly pleased with the progress made to embed environmental, social and governance (ESG) issues at the core of our strategy and our way of working. Our approach to sustainability acknowledges the urgency of addressing our impact on the natural environment and communities.

It is increasingly clear that we need to change the way we work and live, the way we consume finite resources and the way we monitor that our actions have a net-positive impact on the world.

The urgency with which we need to act to limit the potentially devastating impact of climate change was highlighted by UN secretary-general Antonio Guterres at the start of the COP27 summit in November 2022: "We are on a highway to climate hell with our foot on the accelerator."

Achieving the goal of limiting the rise in global temperatures to less than 1.5°C above pre-industrial levels calls for coordinated efforts focused on net-zero emissions by 2050. Importantly, we can only achieve this together – collaboratively as countries and their governments, companies and individuals.

According to the International Energy Agency, a concerted effort to reach the goals of the Paris Agreement would mean quadrupling mineral and metal requirements for clean-energy technologies by 2040. These metals include PGMs, which are key to solutions that are changing the way we produce and use energy, from hydrogen and fuel-cell electric vehicles to carbon-neutral chemicals and fuels. A low-carbon future will require a range of energy generation, storage and transport solutions and PGMs have an important role in many of these, detailed on [page 58](#).

At board level, we keenly understand that creating shared value depends on building the resilience of our company through a dynamic strategy that enhances the lives of our communities



**Norman Mbazima**  
Chairman

**Commendable results from hardworking teams focused on ensuring the company's resilience amid diverse challenges.**

and other key stakeholders. We can only achieve this ambition if we deliver on our strategic priorities to stimulate new markets, maximise value from our core business, lead in ESG practices, and go beyond resilience and thrive through change.

By understanding the global and local context that affects our business, the board can more effectively determine our corporate strategy and monitor management's delivery of initiatives supporting our strategic priorities.



## Chairman's review continued

Amid global uncertainty, we continually deploy the collective expertise of board and management members to address challenges while capitalising on opportunities, in the best interests of the company and its stakeholders. As a mining group focused on sustainability, we view our communities as key stakeholders – our social licence to operate depends on these relationships as much as our regulatory licences depend on sound governance.

In South Africa, our operations are clustered in the Limpopo and North West provinces, where communities are largely traditional as opposed to urban. Decades of poor service delivery have eroded their trust in provincial and local authorities which, by extension, includes mining companies.

We are fundamentally changing the way in which we engage with and support our communities, centred on respect. We aim to co-create a shared vision of sustainable livelihoods, grounded in a shared view and understanding of what our communities need and why.

We believe communities should benefit from our presence in the region, so we support community development, stimulate employment opportunities and supplier development. From tackling systemic underdevelopment and unemployment to promoting the inclusive growth that is key to unlocking South Africa and Zimbabwe's potential, our goal is to support the development of an economy that is not directly reliant on mining. As detailed in our sustainability report, our total economic contribution to society in 2022 was R131 billion.

Our people are our business – treating them fairly and developing their full potential are fundamental to our purpose. We compete for skills in a global market, and our ability to continue to attract, retain and develop the right skills to deliver on our business strategy is a material issue for Anglo American Platinum, as detailed in the sustainability report.

### Year in review

The CEO and finance director detail our operational and financial performance in the review period ([pages 87–95](#)). Salient features from the board's perspective include:

- Record safety performance, with zero fatalities at our managed

For more information see our sustainability report.

operations. We did, however, lose a colleague during the year after injuries sustained in November 2021. We reported one fatality at the independently managed Modikwa joint venture. The total recordable case frequency rate (TRCFR) improved to 2.34, our lowest ever, from 2.60 last year. Our goal remains zero harm – this is a key initiative for our company, and a performance metric for the CEO and finance director ([page 22](#)).

- We concluded a landmark five-year wage agreement that signals a strong relationship with our unions, with an average 6.6% increase per annum.
- We launched our third employee share option plan, which ensures our colleagues benefit directly from the company's performance, both through dividends declared and share price appreciation. Qualifying employees will each be allocated Anglo American Platinum listed shares of R8,000 per year, with each tranche vesting three years after allocation. They will also participate in the evergreen ownership of 2% of Rustenburg Platinum Mines, an operating subsidiary. The estimated total value of share allocations over the life of the scheme is R1.8 billion, while the value of the evergreen component is estimated at R6.5 billion.
- Testimony to our focus on sustainability, we commissioned the first hydrogen-powered fuel-cell mine haul truck, part of our zero-emissions haulage project at Mogalakwena. As part of this project, construction is set to start in 2023 on a 100MW solar photovoltaic (PV) project at the mine, while we are also busy with the permitting process to build a larger hydrogen electrolyser plant on-site.
- In June, we held our first annual sustainability day to highlight the significance of sustainability developments and provide more visibility of the work underway in line with our strategy and sustainable mine plan. Underscoring the company – wide commitment, members of the safety and sustainable development committee and the board participated in this initiative.
- We published our first stand-alone climate change report, in line with global good practice in ESG reporting
- Anglo American Platinum is a partner in the Olifants Management Model programme, a R25 billion public-private partnership to address water supply and sanitation

infrastructure challenges in Limpopo. The project will bring potable water to 380,000 people, while supplying mining operations and supporting economic development.

- The board declared a second-half cash dividend of R9 billion or R34 per share, bringing the total 2022 dividend to R30 billion or R115 per share, equivalent to a payout ratio of 62% of 2022 headline earnings. The dividend is payable to shareholders on 3 April 2023.

In addition to over R6 billion in capital projects approved last year, the board approved key projects and transactions in 2022 ([page 31](#)):

- Outright purchase of Middellaagte portion, adjacent to the Amandelbult mining right, for an upfront payment of R100 million and a rand/tonne mined from the underground section of the property. The development of the Middellaagte portion, and down-dip extension into the existing Amandelbult right area, is being studied as part of the future of Amandelbult programme.

In addition, the sale of Bokoni Mine to African Rainbow Minerals was finalised, with proceeds of R3.5 billion received in September 2022. We have ensured Bokoni's sustainability by selling it to an operator with the technical and operational capability and access to funding to successfully restart and operate the mine. This is expected to benefit employees, host communities, broader stakeholders and the regional economy, and allow employees and communities to participate in a new ownership structure.

### Policy environment

A year of record loadshedding by the South African national power utility, Eskom, has underscored the importance of a reliable energy supply to the country's investment case. Given much discussion but limited progress on the state's efforts to address issues at Eskom during the year, unreliable supply and the spiralling cost of electricity remain major concerns for corporate South Africa. For our company, loadshedding and load curtailment resulted in the loss of around 22,000 PGM ounces from our 2022 production.

However, there has been progress from the government on the time it takes to register private renewable energy projects and access Eskom's grid, as well as the relaxation of environmental permitting, but there are still unnecessary bottlenecks delaying

For more information see operating context [page 53](#).



## Chairman's review continued

investments. According to the Minerals Council, its members' 6.5GW of embedded energy projects in the pipeline will ease demand pressures on Eskom, enabling the utility to conduct vital maintenance programmes. These 89 projects by 29 mining companies are worth more than R100 billion and include our 100MW solar PV plant at Mogalakwena, in turn part of a 330MW solar PV project across our operations. At macro level, we were a founding member of the Energy Council of South Africa, a CEO-led initiative that brings together key public and private stakeholders and local development finance institutions that actively participate in the energy sector.

The Anglo American group has set an ambitious target to meet 100% of its operational electricity requirements in South Africa through renewable energy electricity by 2030. To achieve this, the group aims to implement up to 5GW of renewable energy and storage over the next decade in South Africa. This additional capacity will also reduce pressure on Eskom and improve energy security in the country.

As noted in recent years, the economies of South Africa and Zimbabwe desperately need investment to grow. Mining investment in particular drives growth in other sectors. We hope the momentum lost on South African policy reform in recent years can be reignited as the government looks to rebuild the country's economy.

### Developing PGM markets

As the world grapples with the impacts of climate change, the unique properties of PGMs are contributing to multiple applications that mitigate environmental impact.

For Anglo American Platinum, key developments that will in future impact our company include electrification of the drivetrain, which will affect demand for our metals, and the emerging hydrogen economy, a key growth area.

Our results reflect lower US dollar PGM prices in 2022. However, a broad-based recovery in automotive production and faltering supply side have supported PGM prices in recent months, even though a stronger dollar capped gains for platinum. We continue to believe that demand from existing applications, new demand from applications being developed, and our extensive stimulatory measures to expand the broader PGM markets will support sustainable demand and long-term growth.

For more information see our market development section on [page 60](#).

### Creating new engines of activity in the low-carbon economy

Hydrogen is enjoying unprecedented momentum as governments around the world set out their aspirations for the important role they would like it to play in delivering their broader decarbonisation strategies. The question is: how do we ensure these ambitions manifest themselves into actual projects capable of delivering on hydrogen's potential?

Recognising the role green hydrogen can play in shaping a lower-carbon energy sector, we have for some years been working on establishing the right ecosystem to successfully develop, scale and deploy hydrogen-fuelled solutions. This includes investing in innovative ventures and enabling technologies, as well as forging wide-ranging collaborations across industry.

South Africa is a country with real promise in this area, courtesy of its world-leading solar and wind resources, and access to PGMs. It is primed to capitalise on both hydrogen generation and consumption.

This potential was recently reinforced by a collaboration – led by South Africa's Department of Science and Innovation (DSI), together with Anglo American Platinum, the South African National Energy Development Institute (SANEDI), Engie, and Bambili Energy – exploring the opportunity to create new engines of economic activity through hydrogen. The resultant feasibility study, released in October 2021, outlined the potential of establishing a hydrogen valley and identified three possible hubs – Johannesburg, extending to Rustenburg and Pretoria; Durban, encompassing the city and Richards Bay; and Limpopo province centred around our Mogalakwena Mine – with a fundamental role to play in integrating hydrogen into the country's economy. Nine key pilot projects were identified across these hubs, recommended to be prioritised by developers and spanning the transport, industrial and construction sectors.

These include our hydrogen-powered ultra-class mine haul truck, our pilot for the nuGen zero-emission haulage solution. This is an ambitious project and the first time a truck of this size and load capacity (220t truck with load capacity of 290t and total laden weight of 510t) has been converted to run on a hybrid combination of hydrogen (produced on-site) and battery power.

With our large trucks currently accounting for 80% of diesel consumption on-site, this marks an important milestone in our initiatives to decarbonise our mining operations with renewable energy ecosystems. By rolling out the technology across our global haul truck fleet, we will be taking the equivalent of 500,000 diesel cars off the road.

### Robust governance structures

Sound governance and sustainability underpin value creation. The board is ultimately accountable for the governance and performance of Anglo American Platinum. Our approach, structures and decisions during the year are detailed in a standalone governance report on our website.

Our commitment to global best-governance practices was again reflected in leading ESG rankings during the year ([page 19](#)).

For 2023, independent directors will constitute 60% of our board. As part of our succession planning, the board has appointed Dr Suresh Kana, Mr Lwazi Bam and Ms Thevendrie Brewer as independent non-executive directors from 1 April 2023. These appointments support the orderly succession and rotation of long-serving directors in terms of skills retention and key positions. Ms Daisy Naidoo and Mr Peter Mageza will retire at the annual general meeting in May 2023 after serving 10 years on the board.

As announced on 15 February 2023, Natascha Viljoen has resigned from the company. She will continue to serve as CEO and executive director until completion of her notice period of up to 12 months.

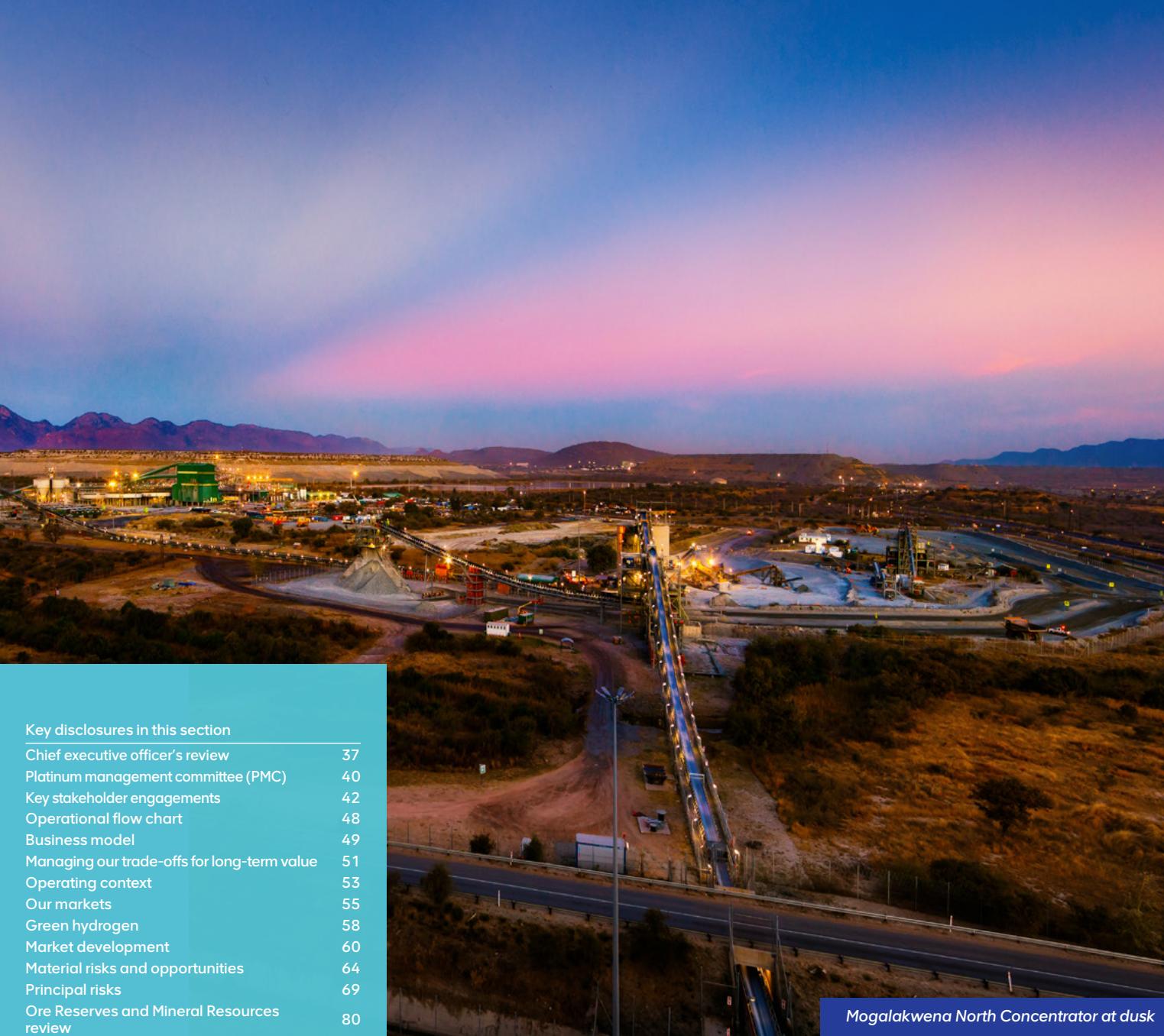
In closing, I deeply appreciate the valuable input and diligence of my fellow directors. On behalf of the board, I thank our CEO, Natascha Viljoen, the senior management team and all our people for their ongoing commitment to our strategic goals as we create shared value. Together, we are re-imagining mining to improve people's lives.



**Norman Mbazima**  
Chairman

Johannesburg

16 February 2023



## Business model and operating context

Our business model is continuously reviewed against a complex and changing operating context.

### Key disclosures in this section

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# Chief executive officer's review

Our strategic objective of going beyond resilience and thriving through change has never been more important to create enduring value in times of protracted uncertainty and disruption to the business. We have an uncompromising focus on delivering our strategic priorities and ensuring our operations remain safe, stable and capable.

Benefits of total commitment to **zero harm** coming through

Lowest TRCFR ever at **2.34**

PGM production of **4.0** million ounces

Return on capital employed strong at **111%**

Strong progress in embedding **ESG**

At Anglo American Platinum, everything we do is guided by our purpose to re-imagine mining to improve people's lives. For us this means using our metals to accelerate our world towards a cleaner, greener, healthier tomorrow; helping to reduce the challenges caused by climate change. We also continue to work to ensure that the sourcing and processing of these metals are done in a safe, responsible and sustainable way. Our focus is on exploring the full potential of our mining and processing operations, ensuring that we use the resources entrusted to us with care, while delivering strong economic returns for all our stakeholders.

Achieving our purpose means we also have a duty to understand and respond to the challenges and vulnerabilities our employees and host communities continue to face. At the same time, we understand this is a goal we can only achieve in collaboration with our industry peers, the private sector, civil society, unions and government in a social compact.

Although the world around us continues to change, I believe we are getting stronger, reinforcing our value proposition as a leading precious metals producer with a major role in enabling the transition to a low-carbon world.

## Safety and our people

Anglo American Platinum provides work for more than 25,000 full-time employees. Their skills, initiative and dedication are central to achieving our purpose and strategic objectives. In return, we concentrate on their safety, development, health and wellbeing to create a work environment where they can realise

their full potential. By building a purpose-led culture, guided by our values and enabling high-performing teams, we are building the foundations to protect our colleagues' safety and increase productivity and the sustainability of our business.

Keeping our colleagues safe and well remains our core value. We completed the year fatality-free at our own-managed operations and non-managed joint operation, Kroondal. There was one fatality at the independently managed Modikwa operation. We restated our FY21 fatality figures after Mr Boitshepo Julian Sesinyi from the Anglo Converter Plant (ACP), who sustained a serious spinal injury in a slip-and-fall incident on 23 November 2021, sadly succumbed to a complication on 1 April 2022. Our TRCFR for FY22 of 2.34 is the lowest in our history but that we still have more work to do in reaching zero harm.

Together with our senior leaders, key suppliers and contractors, we have revised our safety strategy to ensure we achieve injury-free, loss-free, always safe operations through collaborative partnerships.

As an organisation, we are deeply committed to ensuring that our colleagues benefit from sustainable livelihoods and are rewarded for their hard work. In line with this commitment, we signed a landmark five-year wage agreement with three of our four recognised unions in 2022, ensuring our employees will continue to be fairly rewarded for their work. Employees will also benefit from our third employee share ownership plan (named Thobo), which for the first time includes an evergreen component and demonstrates our promise of delivering enduring value for



**Natascha Viljoen**  
Chief executive officer

**In a changing world, we are reinforcing our position as a leading PGM producer, enabling the transition to a low-carbon world.**

all stakeholders. None of these achievements would have been possible without strong relationships with our employees and unions, and I thank our union partners for their engagement, collaboration and constructive feedback on vital matters throughout the year.

We are working hard to make Anglo American Platinum a preferred employer in our sector, as well as retain and develop the diverse skills we need to remain competitive. In the face of a global shortage of skills, this is a material issue for our company. Detailed information on our skills development, inclusion and diversity progress and other benefits to employees are available in our sustainability report.



# Chief executive officer's review continued

## Operational performance

Our operating context in FY22 presented ongoing uncertainty and disruptions to our business – from geopolitical tensions and extreme weather conditions, to supply-chain challenges and Eskom power instability. Additionally, a tough economic environment, rising inflation and high unemployment, against the backdrop of an unstable global growth environment, have contributed to rising levels of social unrest in South Africa and around our operations. These challenges have underlined the importance of our strategic objective to go beyond resilience and thrive through change in building a sustainable company that creates enterprise value while ensuring lasting value for stakeholders.

In FY22, we delivered robust operational and financial performance. Our M&C production declined 6% to 4.0 million PGM ounces from 4.3 million PGM ounces in the prior year, as detailed in the operational review. Refined production of 3.8 million PGM ounces (4.5 million PGM ounces including tolling) was down 25% from 2021, on lower M&C production and the high base of 2021. Sales volumes accordingly decreased 26% to 3.9 million PGM ounces.

Refined production guidance for 2023 is in line with expected M&C production of 3.6–4.0 million PGM ounces.

Unit cost guidance for 2023 is R16,800–R17,800 per PGM ounce, which reflects expected inflationary pressures and increased physical mining activities at Mogalakwena. We remain committed to maintaining a strong balance sheet through the cycle by focusing on approved projects that support our strategic priorities and deliver sustainable returns.

## Financial performance

Despite the operational challenges highlighted above, our financial performance was supported by PGM prices that remain at historically high levels in US dollar and South African rand terms.

Salient features of our financial results ([pages 87–95](#)) include:

- Adjusted EBITDA of R74 billion, driven by lower US dollar PGM prices and sales volumes
- Net cash of R28 million
- Return on capital employed (ROCE) remained strong at 111%
- Headline earnings of R49 billion (R185.42 per share)
- Total capital expenditure of R16.9 billion
- Underlying unit costs of c. R15,300 PGM ounce reflect input cost inflation (labour, electricity and consumables) and lower production



Value preservation



Value erosion

- Second-half dividend declared of R9 billion or R34 per share payable to shareholders on 3 April 2023
- Full-year dividends declared of R30 billion or R115 per share, equivalent to a payout ratio of 62% of 2022 headline earnings.

A detailed review of our markets begins on [page 55](#). In summary, PGM prices were robust (some at record levels) and remain above long-term averages. Higher mine supply and chip shortages saw platinum and rhodium move into surplus, while palladium's deficit was cut substantially.

2022 saw a weaker average PGM dollar basket price owing to lower levels of automotive production as global supply chains remain constrained. There were also early indications of a slowing global economy. The realised PGM dollar basket price declined by 8% to US\$2,551 per PGM ounce in 2022, however, the realised PGM rand basket price was 2% higher at R41,453 per PGM ounce sold due to a depreciating South African rand against the dollar.

While chip shortages remain an issue for the automotive sector, a broad-based production recovery is evident. Industrial demand for our metals again looks set to be healthy. Although there are challenges to demand in the medium term from the growing share of electric vehicles, we believe this versatility will give rise to attractive longer-term supply and demand fundamentals. At the same time, organic growth and measures to develop the PGM market are expected to support sustainable demand for these metals. In addition to known demand sectors, the potential uses for the metals we produce continue to multiply and our product development work targets the attributes of these metals and their important role in a greener and healthier future.

## Delivering our strategic priorities

Our results demonstrate that we are making significant strides in delivering on our strategic priorities to create value for all our stakeholders. In tandem, our culture is the environment we create to enable people to bring their best selves to work every day and is at the core of our strategic success. We call this 'Culture in Action' – our intentional journey to lead with purpose, gain strength from our core values and develop high-performing teams to make it happen. Understanding there is significant value at stake, we are investing to achieve shared value for all stakeholders. We do this by focusing on our four strategic pillars:

- A leader in ESG
- Stimulate new markets and leverage new capabilities
- Go beyond resilience, thrive through change
- Maximise value from our core.

The launch of our nuGen zero-emissions haulage solution at Mogalakwena in May 2022 is a clear example of how the focus on these pillars allows us to achieve our purpose. The solution includes a solar PV pilot plant, electrolyser and hydrogen-fuelled mine haul truck.

It touches on every aspect of our strategy: the pilot truck has demonstrated clearly that hydrogen-fuelled electric vehicles are suitable for deployment in mining operations, proving a new commercial demand segment in a time when the major application for our metals – in catalytic converters to cut emissions from internal combustion engines – is under increasing threat. Ultimately, the hydrogen trucks will be more efficient than traditional diesel trucks, lowering refuelling times and allowing us to maximise the use of our fleets, while eliminating harmful carbon emissions. Most importantly, the solution is an anchor investment in South Africa's planned hydrogen valley, playing an important role in accelerating a much-needed new economic sector in the country.

## Strategy: A leader in ESG Environment

Drawing on our strategic objective to lead in ESG, we have embedded our ESG commitments into our capital-allocation process. This will ensure we meet our 2030 targets of a 30% reduction in scope 1 and 2 carbon emissions and reduce our abstraction of water from scarce resources by 23%, and achieve carbon neutrality by 2040. Our roadmap to carbon neutrality is detailed in our first stand-alone climate change report. To achieve our carbon-neutrality goal, Anglo American formed a jointly owned company, Envusa Energy, with EDF Renewables to develop a regional renewable energy ecosystem in South Africa. This ecosystem is designed to meet the group's operational power requirements in the country, support the resilience of local electricity-supply systems and the wider decarbonisation of energy. It is also expected to catalyse economic activity in South Africa's renewable energy sector, supporting the country's broader energy just transition. For Anglo American Platinum, the ecosystem will include a blend of renewable energy projects from solar PV to zero-emissions hauling systems, steam production and energy storage systems.

## Social

We are committed to making meaningful economic contributions to our stakeholders and broader society. In 2022, our economic contribution to society was R131 billion, underscoring our role as a responsible corporate citizen. This included paying taxes and royalties of R19 billion. In addition, we spent R25 billion



# Chief executive officer's review continued

on local procurement; R0.6 billion on social and community commitments; R15 billion on wages and salaries; R17 billion on capital investment; and paid out R55 billion in dividends declared for H2 2021 and H1 2022.

Underdevelopment and high unemployment in the communities around our operations remain pressing legacy issues. Although we cannot address this alone, we are determined to play a meaningful role and work with government in reshaping and leading the industry in creating shared value.

We are a mining company. Our role is to responsibly extract value from the resources entrusted to us and we will jointly shape sustainable livelihoods for our communities through a shared vision, collaborative local and regional socio-economic development, and a focus on what 'meaningful existence' truly means for our communities and stakeholders.

To achieve this ambition, which goes well beyond regulatory compliance, we require government to create and maintain a stable operating context and work with the private sector to address societal needs. This is both a business and moral imperative which depends on improving the quality of our engagement with communities that are essential stakeholders in the sustainability of our mines. Our mine communities grant us our social licence to operate and are critical to building sustainable, responsible operations.

## Strategy: Stimulate new markets and leverage new capabilities

Our metals are already playing an essential role in everyday life, from use in catalytic converters to smartphones, wind turbines and healthcare products.

The list of potential uses for our metals is also long and growing, from hydrogen-fuelled vehicles and keeping food fresh for longer to more innovative healthcare solutions and lower-energy computing. Our approach is to discover, nurture, scale and sustain a sufficiently diverse set of new and existing demand segments to secure sustainable, long-term demand for our metals.

We are stimulating these demand segments through our market and product-development activities to boost existing demand and leverage new capabilities to capture adjacent value. To illustrate, we are progressing with initiatives to accelerate the adoption of PGM-enabled hydrogen technologies and create additional demand for platinum jewellery. We also continue to pursue

attractive potential new demand segments (eg carbon-neutral feedstocks, low-loss computing/electronics, and next-generation battery technology, as well as food and medical technology).

## Strategy: Go beyond resilience, thrive through change

We are working on going beyond resilience to thrive through change, building an agile business that can respond to opportunities and unexpected challenges. This means ensuring safe and injury-free operations always and enhancing our asset integrity, while adapting our systems and reworking organisational structures to be fit for the future.

We have improved the foundational aspects of our business in recent years to become safer, more stable and capable, with innovative delivery through FutureSmart Mining. We are building the maturity of our operating model and maintaining the integrity of our assets to transform performance, increase the resilience of our operations and create value, as detailed in the operational review.

## Strategy: Maximise value from our core

We are maximising value from our core portfolio of competitive mining and processing assets through operational and marketing excellence, modernisation, and deploying technology to remain resilient through commodity price cycles. We are resetting benchmark performance with the modernisation and mechanisation work at Amandelbult, our investment in the development of Mototolo and Der Brochen, and with long-term sustainable growth to deliver the future of Mogalakwena.

In terms of mine performance, we have an exciting project pipeline (detailed on [page 96](#)):

- Amandelbult's zero-harm journey to modernise and mechanise
- Mototolo/Der Brochen life-extension and debottlenecking projects
- Unki's delivery of additional value through the debottlenecking project
- Building the future of Mogalakwena, with good progress across six workstreams.

## Governance

Good governance lies at the heart of being a responsible mining company, focused on an integrated strategy to truly lead in ESG. Guided by our sustainable mining plan and supported by our investments in world-leading FutureSmart Mining solutions, we must continue to operate efficiently to ensure we maximise the value from the resources we have been entrusted to mine on behalf of the people of our host countries. Similarly, we

have to continue strengthening our relationships with our host communities. Together, we can co-create thriving communities and a future that is carbon-neutral.

## Thank you

It was a challenging year, but our results reflect the determination, resilience and commitment of all our colleagues at Anglo American Platinum. I am proud of how much we achieved in 2022, despite the multiple headwinds. While I will take up a career opportunity outside of the company in the near future, Anglo American Platinum's world-class executive team will continue the uncompromising focus on delivering on the building blocks now in place. This will ensure our operations remain safe, stable and capable, and that delivering on our strategic priorities creates enduring value for all our stakeholders. My sincere thanks to every one of you and my platinum management committee for your support over my tenure.

The expertise of our directors is a distinct competitive advantage, and we deeply appreciate their counsel and insight. There are clear benefits from increased engagement between the board and management committee in realising the company's full potential.

The ongoing support of our stakeholders, suppliers and customers is much appreciated. With your input, we are moving closer to realising our purpose of re-imagining mining to improve people's lives.

**Natascha Viljoen**  
Chief executive officer

Johannesburg  
16 February 2023

# Platinum management committee (PMC)

The PMC provides organisational direction on behalf of the board and advises the board on decisions and business matters, including strategic planning, policy, investment and risk. The committee follows an annual work plan to confirm that all relevant matters are addressed.



**Natascha Viljoen (52)**

Chief executive officer

**Qualifications:** BEng (extractive metallurgy), MBA

**Appointed in April 2020**

Prior to her appointment as CEO, Natascha had been group head of processing for Anglo American since 2014. She has extensive industry experience, including serving as an executive committee member of Lonmin and general manager at BHP. Natascha serves on advisory boards of the chemical engineering faculties at the South African universities of Cape Town and Stellenbosch as well as Queensland University's JKMR (Julius Kruttschnitt Mineral Research Centre) in Australia.



**Craig Miller (49)**

Finance director

**Qualifications:** BCompt (hons), CA(SA)

**Appointed in April 2019**

Craig joined the company from Anglo American plc where he served for 19 years. He was Anglo American's group financial controller from June 2015, before which he held various roles including chief financial officer of Anglo American Iron Ore Brazil and Anglo Thermal Coal.



**Riaan Blignaut (51)**

Executive head: asset reliability and safety, health, environment and energy

**Qualifications:** BEng (mechanical), MBA

**Appointed in May 2020**

Riaan brings over 25 years' experience in engineering management, asset management, concentrators, smelters, business optimisation and furnaces at Anglo American Platinum, Lonmin and BHP Billiton.



**Yvonne Mofolo (55)**

Executive head: corporate affairs and sustainable impact

**Qualifications:** BA communication

**Appointed in May 2020**

Yvonne joined the company from Kumba Iron Ore where she was executive head of corporate affairs from 2011. She previously filled the same role at Anglo American Coal South Africa. Her experience spans both the private and public sectors. Prior to joining Anglo American, Yvonne was chief director of communications at the Department of Minerals and Energy, where she worked for nearly a decade. She also served as the ministerial spokesperson.



**Chris McCleave (46)**

Executive head: mining and technical

**Qualifications:** BEng (mining), MBA

**Appointed in January 2021**

Chris brings over 20 years' experience in mine engineering, technical services and mine management, including multiple-site regional accountability. He has worked with large teams to deliver ambitious operational excellence and SHE results through strong leadership and technical capability. He has worked for Glencore, BHP Billiton and Rio Tinto in Australia and South America, and is adept at navigating in complex, matrix environments.

## Platinum management committee (PMC) continued



**Prakashim Moodliar (55)**  
Executive head: projects

**Qualifications:** BSc (chemical engineering), executive development programme

**Appointed in March 2019**

Prakashim is a project management professional with over 25 years' experience in defence, power-generation and the fast-moving consumer goods manufacturing sectors. Most recently, he worked at ABInBev Africa as the Africa zone projects manager, responsible for leading a large, multidisciplinary team focused on project development and execution in Africa, with a US\$650 million portfolio. Prior to that he worked for SABMiller, Eskom and Armscor, where he strategically led and successfully delivered large-scale projects locally and internationally.



**Gary Humphries (57)**  
Executive head: processing

**Qualifications:** PrEng, BSc eng (chem), BCom, MBA

**Appointed in January 2017**

Gary joined the company in 2001 as manager: concentrator optimisation. He has held numerous technical and operational roles, most recently as head: process control and concentrator technology. Prior to that, he was a senior consultant at SRI Consulting (Zurich), and worked at Fleming Martin Securities and AECI.



**Virginia Tyobeka (57)**  
Executive head: human resources

**Qualifications:** BAdmin (hons), MAP

**Appointed in August 2021**

Virginia joined the company from Kumba Iron Ore, where she was executive head of human resources from 2010. She was previously HR director at Afrisam South Africa Limited. With over 15 years' executive experience in human resources in the mining and manufacturing industries, she brings extensive experience in executing transformational and mission-critical projects and initiatives to turn around business performance.



**Hilton Ingram (52)**  
Executive head: marketing, PGMs, Anglo Platinum Marketing Limited

**Qualifications:** BSc eng (met and mat), MBA

**Appointed in May 2020**

Hilton first joined Anglo American's De Beers subsidiary in 1994 and has had a varied career in mining, leading teams in South Africa, Namibia, Botswana, Canada, Singapore and the UK. He joined the company in 2011 as head of precious metals and marketing and has been instrumental in leading the company's journey from precious metals to integrated miner-trader. Hilton was promoted to his current position in 2017.

**Participates by invitation**



**Benny Oeyen (61)**  
Executive head: market development, PGMs' Anglo American plc

**Qualifications:** MEC (magna cum laude), EMP

Benny has lived and worked extensively around the world. Before joining Anglo American Platinum in 2017, he held key positions in the automotive industry where his speciality lay in product planning, strategy and marketing.

# Key stakeholder engagements

## Our stakeholders

At Anglo American Platinum, we aim to deliver sustainable value to all our stakeholders. Integral to doing so is addressing their specific needs, reflecting that we are listening and acting in their interests. Our stakeholder engagement standard is aligned with the global benchmark for best practice, AA1000 Stakeholder Engagement Standard (2015). Below, we outline what is most important to each key stakeholder group, and how these needs are being addressed. Our sustainability report details all stakeholder groups, our approach, aims and means of engagement and more – here we focus on so-called hot topics during the year.

### EMPLOYEES

#### Link to strategy



#### Key issue

##### Remuneration and recognition

Our colleagues want to be rewarded and recognised fairly for their work via the financial stability to provide for their loved ones (eg housing, food, schooling, etc). This expands to a broader sense of internal recognition for the work achieved.

#### Response

- Economic stability through consistent pay
- Adequate pay rises and salary reviews
- Long-term employment
- Recognition of all employees and contractors, their work and their impact.

#### Key issue

##### Enabling values

All colleagues need a culture that enables them to feel and be at their best in the workplace. That means being treated with trust and respect no matter who you are, being listened to with fairness and humility, and owning your tasks and work with clear and positive accountability.

#### Response

- Safety and health
- GBV prevention
- Mental health and wellbeing
- Psychological safety
- Collaboration and teamwork
- Inclusion and diversity
- Good work-life balance.

#### Key issue

##### Supporting working environment

To do their work in the right way, our colleagues require that the workplace supports them in achieving their tasks. That means having the right equipment, tools and facilities available at the right time, but also clarity of role and ways of working, and adequate service and support, no matter where you work.

#### Response

- Asset integrity and accountability
- Vaccination roll-out
- Benefits and facilities at work
- Accountability in ways of working
- Efficient assets and processes.

#### Key issue

##### Development opportunities

Central to the needs of our colleagues is development: the opportunity to learn and grow, and to progress in their career. Delivered through training but also investment from supervisors and leaders, prospects of self-development allow employees to achieve greater personal growth and freedom.

#### Response

- Training and learning opportunities
- Career-progression opportunities in the company
- Investment from manager level in one's development
- Sense of achieving a greater purpose
- Understanding the benefits of PGMs
- Ways of working that are more socially responsible
- Evidence of a company that is modernising an industry
- Knowledge of working for a company that is a strong corporate citizen.

#### Quality of relationship



# Key stakeholder engagements continued

## UNIONS

### Link to strategy

#### Key issue

##### Protecting colleague rights

At the core of our unions' role and mission is representing and protecting the rights of all Anglo American Platinum employees. While the specific focus varies by union, those needs include fair remuneration, stability of employment, diverse representation, and development opportunities in the organisation.

#### Response

- Culture and transformation
- Preventing racism, bullying, victimisation, threats
- Contractor integration into our culture process
- Compliance with legislation
- Safety improvements
- Payroll issues
- Future of work, technology, mechanisation and the fourth industrial revolution
- Leaders must lead and be accountable
- Stability of employment.

#### Key issue

##### Co-creation and partnership

Proactive and truly collaborative partnership with our company is a central need expressed by union stakeholders. Unions are looking to be heard, taken on the journey towards key decisions or milestones rather than being updated after the fact.

#### Response

- Sharing important updates frequently and taking them on a journey
- Recognition of their importance
- Engaging/co-creating meaningfully in negotiations, and listening
- Working collaboratively with unions
- Efficiently tackling shop steward issues.

#### Key issue

##### Recognition and trust

Recognising our unions' relevance and essential role to the success of our organisation and wellbeing of our colleagues is crucial. In turn, this recognition aims to provide unions with a needed level of trust in Anglo American Platinum, its ambitions and actions, today and in the future.

#### Response

- Evidence that our company is living up to its purpose, including our shortcomings, and action in tackling them
- Mutual level of trust
- Long-term sustainability of the business
- Access to the workplace, resources and facilities.

#### Quality of relationship



## Key stakeholder engagements continued

COMMUNITIES AND SOCIETY	Link to strategy 
<p><b>Key issue</b> <b>Respect and protection</b> The intentional and unconditional respect and protection of human rights, culture and heritage in and around our operations is the most essential of our communities and society's needs. This includes active mitigation against and any negative impact of our operations.</p> <p><b>Response</b></p> <ul style="list-style-type: none"> <li>• Respect for culture and heritage</li> <li>• Proof of reduced negative impact on communities</li> <li>• Protection of human rights</li> <li>• Evidence of commitment to a healthy and sustainable environment</li> <li>• Skills development and bursaries.</li> </ul>	<p><b>Key issue</b> <b>Sustainable economic value</b> For communities and society stakeholders around our operations, and at the heart of our social licence to innovate, is the need and premise that they will benefit from the economic activity of the mine and beyond. This comes via employment opportunities and other forms of value-creation like financial benefits, schooling, infrastructure and more.</p> <p><b>Response</b></p> <ul style="list-style-type: none"> <li>• Direct benefit from economic activity of mine or refinery</li> <li>• Employment opportunities</li> <li>• Evidence of protecting local economy</li> <li>• Sustainable value beyond the life-of-mine to avoid dependence</li> <li>• Procurement opportunities.</li> </ul> <p><b>Key issue</b> <b>Transparency and accountability</b> Acknowledging difficult realities and challenges from our present and our past is essential to build trust with communities and society. As part of that process, communities and society ask that we take accountability for our mistakes and any harm caused, share available information and data to learn in preventing them from recurring in the future.</p> <p><b>Response</b></p> <ul style="list-style-type: none"> <li>• Accountability and acknowledgement of past challenges, mistakes or harm caused</li> <li>• Transparency in sharing all available information and data</li> <li>• Transparent recruitment and procurement processes</li> <li>• Grievance procedure.</li> </ul> <p><b>Key issue</b> <b>Collaboration</b> Close collaboration with us as Anglo American Platinum is important to communities and society members alike. It is important for us and for them that we work together to deliver on our shared value – aligning on our objectives, and finding and co-creating solutions together.</p> <p><b>Response</b></p> <ul style="list-style-type: none"> <li>• Representation of smaller groups</li> <li>• Two-way relationship, working together and learning from each other (eg dialogue, forums)</li> <li>• Contributing ideas on how to make things better (co-creation), benchmarking together, then sharing information.</li> </ul>

### Quality of relationship



# Key stakeholder engagements continued

CUSTOMERS, PARTNERS AND SUPPLIERS	Link to strategy 
<p><b>Key issue</b> <b>Trustworthiness</b> This group trusts us to deliver on our promises and to commit to the most rigorous standards, ethically and sustainably. They want security that we will provide optimal solutions for their businesses no matter what, always ensuring that we match their requirements and expectations.</p> <p><b>Response</b></p> <ul style="list-style-type: none"> <li>• Leading producer (high production and output of ore)</li> <li>• In PGMs for the long term and innovation in the PGM sector</li> <li>• Zero-harm commitment</li> <li>• Trusted partner (on-time delivery, despite disruption)</li> <li>• On-time payment</li> <li>• Stability of employment</li> <li>• Optimising security of supply</li> <li>• Transparent pricing and communications</li> <li>• Fair contracting processes.</li> </ul>	<p><b>Key issue</b> <b>Partnership and customisation</b> They want to know we are co-creating future solutions, leveraging our skills to solve complex challenges and optimise returns. They are keen to hear that we are working with them to understand their business needs better, support them in increasing their revenue, decreasing costs and/or mitigating risk, creating value for them across the entire chain.</p> <p><b>Response</b></p> <ul style="list-style-type: none"> <li>• Competitive price and risk management</li> <li>• Expert market insights</li> <li>• Local sales and support</li> <li>• Flexible supply from own mines or third-party supply</li> <li>• Quality products</li> <li>• Best-in-class logistics</li> <li>• Onboarding and training of the system</li> <li>• Partnership and co-designing innovation</li> <li>• Fair terms of trade.</li> </ul>
<p><b>Key issue</b> <b>Ethical and sustainable value chains</b> In a world of ever-growing transparency, they look to partner with organisations that have a positive impact in the world and are actively seeking to reduce their carbon footprint and help drive the development of society. Especially in the mining industry, demonstrating positive impact is critical.</p> <p><b>Response</b></p> <ul style="list-style-type: none"> <li>• Rigorous global standards and practices driving ethical and responsible supply</li> <li>• Innovative sustainability leader</li> <li>• Reducing environmental footprint</li> <li>• Supporting biodiversity</li> <li>• Host-community supplier development</li> <li>• Embedding strong ESG in investment.</li> </ul>	<p><b>Key issue</b> <b>Market development</b> They need the assurance there will be demand for PGMs in future, and that we are investing in growth and innovation to ensure this continuity. They want to know there is untapped potential and that we are leading the innovation in this area, offering them partnerships in further value generation.</p> <p><b>Response</b></p> <ul style="list-style-type: none"> <li>• Investing in the future</li> <li>• Innovative thinking and enabling technologies.</li> </ul>
<p><b>Quality of relationship</b></p> <div style="display: flex; justify-content: space-around;"> <span>Strong</span> <span>Cordial</span> <span>Weak</span> </div>	

# Key stakeholder engagements continued

**INVESTORS AND MEDIA**

**Link to strategy**  

<p><b>Key issue</b></p> <p><b>Strong financial performance</b> Investors need the comfort of knowing they will generate returns via share-price appreciation and dividends. Strong earnings and returns depend on efficient and productive operations and the quality of the portfolio being shown through strict cost discipline (ensuring low-cost production). Consistent and disciplined capital-allocation decisions provide a stable investment case for investors to assess. Media are more interested in receiving updates on financial performance but less focused on whether results are positive or negative.</p> <p><b>Response</b></p> <ul style="list-style-type: none"> <li>• Healthy profit margins/returns</li> <li>• High-quality assets</li> <li>• Long-term positive outlook</li> <li>• Low position on primary cost curve</li> <li>• High and stable productivity</li> <li>• High operational standards</li> <li>• Disciplined capital allocation</li> <li>• Base dividend payout</li> <li>• Leadership team and culture that exercises operational and financial discipline.</li> </ul>	<p><b>Key issue</b></p> <p><b>PGM potential</b> Investors have a strong appetite for understanding the outlook for the commodity, including how future trends could impact market balances of the metals we produce. To provide comfort in an unknown future, investors need to know the progression of potential future incremental demand through market development. Media are interested in understanding and being educated on PGMs, their applications and outlook.</p> <p><b>Response</b></p> <ul style="list-style-type: none"> <li>• Education on diverse applications and potential of PGMs</li> <li>• Growing supply and demand for PGMs</li> <li>• Evidence of innovation in PGMs to discover new applications</li> <li>• High-potential and high-quality intellectual property and assets (commodity, geographic region)</li> <li>• Evidence of leading in PGM innovation.</li> </ul>	<p><b>Key issue</b></p> <p><b>Transparency</b> Investors need to make critical decisions on their investment based on public information from the company. Strong governance, aligned with JSE disclosure requirements, is essential in ensuring the timely and accurate dissemination of price-sensitive information to the market. Strong awareness of the type of information required is critical to ensuring investors have both qualitative and quantitative assurance in the company. Media have similar interests but different motivations, as they seek timely and transparent updates to publish/report on channels to be shared externally.</p> <p><b>Response</b></p> <ul style="list-style-type: none"> <li>• Clarity on returns and reinvestment</li> <li>• Timely market reporting</li> <li>• Clarity and clear action on shortcomings</li> <li>• Access to information, results and decision-makers</li> <li>• Education on the whole value chain</li> <li>• Transparency on executive pay.</li> </ul>	<p><b>Key issue</b></p> <p><b>Leading in ESG</b> To attract investors, a broader understanding of the PGM contribution to a greener, cleaner, healthier future is required. Investors need evidence of our progress on multiple ESG measures and how we are a leader in many elements of ESG. Meeting required standards against all ESG measures is a prerequisite for doing business. Poor ESG can lead to severe negative share-price movements, thus losing significant returns for shareholders. Media care more about seeing what we are doing in ESG, regardless of whether it is positive or negative, so they can report back accordingly.</p> <p><b>Response</b></p> <ul style="list-style-type: none"> <li>• Evidence of strong government relations</li> <li>• Regulatory compliance</li> <li>• Evidence of community support and favourability</li> <li>• Evidence of job creation</li> <li>• Importance of ESG and evidence of investment in related capabilities/systems and culture</li> <li>• Evidence of tackling GBV</li> <li>• Evidence of small business development and supporting business opportunities</li> <li>• Supporting resettlements</li> <li>• Evidence of fighting typical mining issues (eg corruption)</li> <li>• Evidence of fair treatment of employees</li> <li>• Evidence of compliance and partnership with unions.</li> </ul>
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## Quality of relationship



# Key stakeholder engagements continued

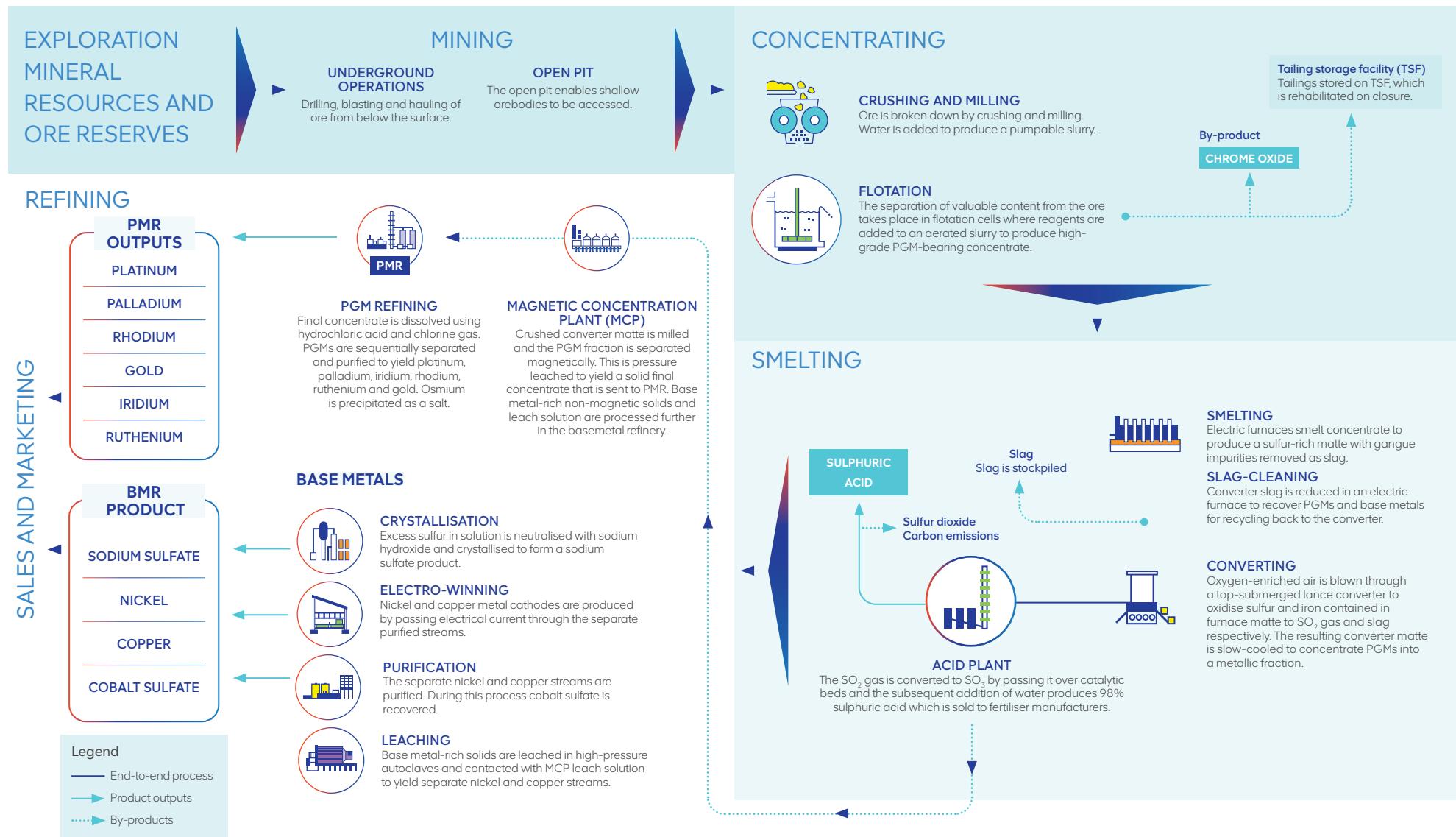
GOVERNMENT AND REGULATORS		Link to strategy 		
Compliance with regulations and being a good corporate citizen	<b>Key issue</b> <b>Employee welfare</b> Regulators and policymakers require assurance that the company is consistently compliant with current legislation on employees and their rights.	<b>Key issue</b> <b>Economic progress</b> They require clarity and assurance that we are driving economic development in communities, nationally and internationally – not only today, but in the long term too.	<b>Key issue</b> <b>Social progress</b> They require clarity and assurance that we are driving social development in communities, nationally and internationally – not only today, but in the long term too.	<b>Key issue</b> <b>Low impact on the environment</b> They need evidence that the company is not harming the environment and that it is making conscious business decisions to help minimise its impact on its surroundings.
	<b>Response</b> <ul style="list-style-type: none"> <li>Transformation: safety and health of employees</li> <li>Standardised operational procedures</li> <li>Protection of human rights</li> <li>High-quality assets</li> <li>Fair compensation</li> <li>Clear stance on tackling fraud and corruption</li> <li>Diverse and inclusive workforce</li> <li>Good internal governance.</li> </ul>	<b>Response</b> <ul style="list-style-type: none"> <li>Economic contributions (now and in the long term) such as taxes and royalties</li> <li>Employment and procurement opportunities</li> <li>Action on inequality</li> <li>Support in infrastructure development</li> <li>Evidence of investing in South Africa and Zimbabwe.</li> </ul>	<b>Response</b> <ul style="list-style-type: none"> <li>Ethical value chains</li> <li>Health and wellbeing of host communities</li> <li>Education and training for communities</li> <li>Accountability for past relationships</li> <li>Commitment to human rights</li> <li>Evidence of uplifting local communities and providing social services and social infrastructure.</li> </ul>	<b>Response</b> <ul style="list-style-type: none"> <li>Minimal resource depletion (energy, water, etc)</li> <li>Reduced waste</li> <li>Reduced pollution</li> <li>Biodiversity enhancement</li> <li>Decarbonisation initiatives</li> <li>Goals towards having a net-positive impact.</li> </ul>
				<b>Partnership</b>
				<b>Key issues</b> <b>Expectations</b> They expect Anglo American Platinum to play a larger role in driving the economy and developing infrastructure. They expect the company to work with them on important commercial decisions, and on-the-ground challenges, playing a more active role in the relationship.
				<b>Response</b> <ul style="list-style-type: none"> <li>Timely market reporting</li> <li>Sharing returns and plans for investment</li> <li>Partnership and opportunities to work together</li> <li>Collaboration between public and private partnerships</li> <li>Transparency of SLP sessions and labour plans</li> <li>Evidence of respect for democratic credentials of local authorities</li> <li>National collaboration, eg through research, policy advocacy, etc.</li> </ul>

## Quality of relationship



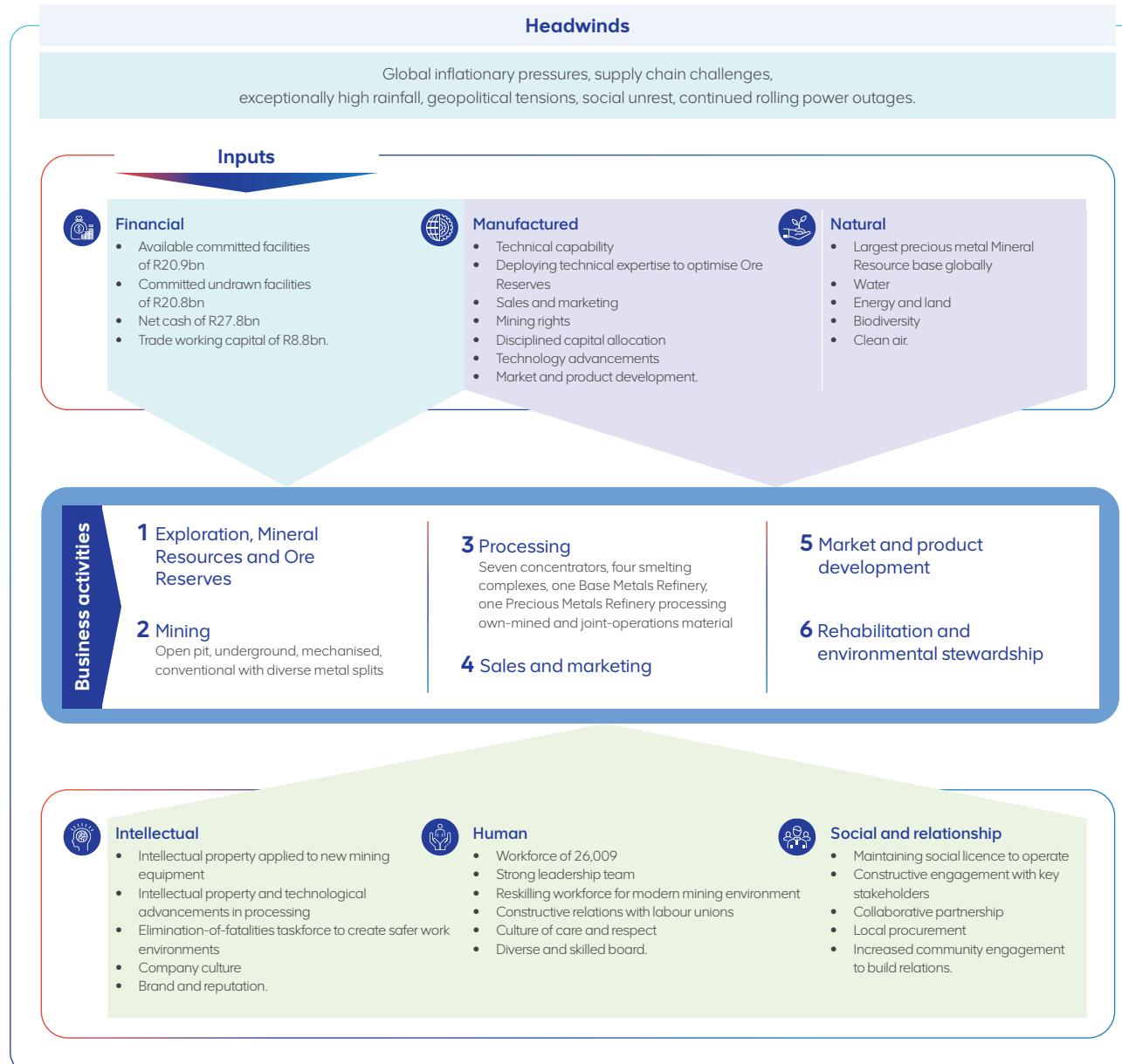
# Operational flow chart

Our operational flow chart shows how we conduct our mining, concentrating and smelting processes. At each stage in the process there lies the opportunity for us to create value.





# Business model





# Business model continued

## Our profit formula

### Cost-Volume-Profit

World's leading primary producer of platinum group metals (PGMs). We mine the materials that make modern life possible, in ways that are safer, smarter and more responsible.

### Sensitivity analysis 2022

• EBITDA impact of 10% change in price	Rm
• Platinum (US\$/oz)	3,906
• Palladium (US\$/oz)	5,026
• Rhodium (US\$/oz)	5,924
<b>• EBITDA impact of 10% change in exchange rate</b>	
• South African rand/dollar	12,193
<b>• EBITDA impact of 10% change in PGM 5E+Au volumes</b>	
• PGM 5E+Au ounces	21,337



## Revenue and cost drivers

### Revenue drivers

PGM prices: We ensure a premium for quality products

PGM sales: Volumes were higher due to global demand

Rand/US dollar exchange rate: A weaker rand boosted local revenue for US dollar-based PGM prices

### Potential for revenue differentiation:

- Ability to achieve premium for superior quality
- Effective marketing driving higher price realisations
- FutureSmart Mining improving efficiencies
- Good prill split and product mix enables diversified customer base
- Market and product development generates new demand and enhances current demand for PGMs
- Enhancing final product quality by upgrading processing capabilities
- Strong ESG performance = preferred supplier and premium prices.

### Cost drivers

#### To maintain the current value proposition

- Energy (diesel and electricity)
- Capital expenditure
- Contractors
- Labour
- Social investments
- Consumables
- Rehabilitation
- Corporate overheads
- Maintenance
- Drilling, blasting and hauling
- Beneficiation

#### To expand the value proposition

- Capital expenditure
- Exploration
- Brownfield exploration

## Outcomes



### Financial

- R49 billion headline earnings = 62% returned to shareholders
- R17 billion capital allocation: SIB + project
- ROCE 111%
- Dividends of R55bn.

Read more

IR – pages 87-95



### Manufactured

- R7 billion approved for expansion and breakthrough capital 2022-2025.

IR – pages 87-95



### Intellectual

- Innovation and breakthrough (P101): Delivered net value of US\$100 million via cost and volume improvement
- Key participant in advancing hydrogen economy in South Africa
- 75% of our mines completed Stage 2 IRMA audits
- World-first hydrogen-powered haul truck.

Case study: Hydrogen valley

IR – page 98



### Human

- Best TRCFR
- R1,189 million in training and development
- Third ESOP (Thobo), with evergreen component
- Five-year wage agreement.

IR – page 89

IR – page 91



### Social and relationship

- R1 billion social and community development spend, including community dividends
- R19 billion in taxes and royalties to national governments
- R6.6 billion host community spend.

IR – pages 20, 56, 89, 100

IR – pages 122-123



### Natural

- Key environmental targets achieved
- Renewable energy projects underway
- 10% improvement in net GHG emissions (Scope 1 and 2)
- Increased water efficiency to 68.9% (excl smelters).

IR – pages 62-116



# Managing our trade-offs for long-term value

Every year, we invest our financial and human resources into mining, processing and marketing PGMs derived from our natural resources.

The PGMs we mine are converted into products that create value for stakeholders globally, while minimising our impact on the environment and society. The availability, quality and affordability of capitals affect our ability to achieve our strategic objectives and continue creating value.

Managing the business to create shared value involves trade-offs – how value is shared between stakeholders, and how that value is created.

## Key trade-offs in 2022

As we focus on further developing our roadmap towards carbon-neutrality, the final choice of a renewable energy source involves considering a number of trade-offs. The best choice will depend on the specific needs and resources of each site location and application.

Trade offs	Description	Links
Cost vs efficiency	Renewable energy sources vary in cost and efficiency. Our choice will depend on the cost-effectiveness of the energy source for a particular location and application.	Capitals affected: Financial ✘ Natural ☑
Scalability vs intermittency	Some renewable energy sources, such as wind and solar, are scalable but have a high degree of intermittency, ie the energy output can vary greatly depending on weather conditions. Conversely, other renewable energy sources, such as hydro, are more consistent but may have limited scalability.	Capitals affected: Financial ✘ Manufactured ☑ Human ☑ Social ☑ Natural ➔
Environmental impact vs energy output	Large hydroelectric projects can have a significant impact on the environment. Other renewable energy sources, such as wind and solar, have a much lower environmental impact but may have a lower energy output.	Capitals affected: Financial ✘ Natural ➔
Land use vs energy density	Renewable energy sources vary in their energy density (amount of energy that can be produced per unit of land). Some sources, such as wind and solar, have a low energy density and require large amounts of land to produce significant amounts of energy. Others, such as bioenergy, have a higher energy density and require less land to produce the same amount of energy.	Capitals affected: Financial ✘ Natural ➔
Maintenance and durability	As renewable energy sources, wind and solar options require frequent maintenance and may have a shorter lifespan compared to other sources, such as hydro.	Capitals affected: Financial ✘ Natural ☑
Accessibility	Some renewable energy sources, such as wind and solar, are more widely accessible, while others, such as hydro, may be limited to certain regions and have higher infrastructure costs.	Capitals affected: Financial ✘ Natural ☑

## Managing our trade-offs for long-term value continued

### Embedded versus wheeled power generation

We also reviewed the choice between embedded power generation and wheeled power generation, and considered a number of trade-offs, including:

- **Cost:** Embedded power generation systems may be more expensive initially, but they can offer long-term cost savings by reducing both the need for wheeled power generation systems and the costs associated with transmitting power over long distances.
- **Flexibility:** Wheeled power generation systems offer greater flexibility, because they can be moved to different locations as needed, while embedded power generation systems are typically fixed in one location.
- **Environmental impact:** Embedded power generation systems may have a lower environmental impact compared to wheeled power generation systems, as they do not require transportation and have a smaller carbon footprint.
- **Capacity:** Wheeled power generation systems can offer larger capacity compared to embedded power generation systems, as they can be configured to meet specific energy needs.
- **Scalability:** Wheeled power generation systems may be more scalable, as more units can be added to meet rising energy needs, while embedded power generation systems may have limited scalability.
- **Local economic benefits:** Embedded power generation systems may provide greater local economic benefits, as they can supply energy to the local community, reduce the need for transmission infrastructure, and create local jobs for installation and maintenance.

Again, the best choice will depend on the specific needs and resources of each site location and application.

### Optimising our capital portfolio of projects

To ensure we have the most optimised capital portfolio of projects that addresses the highest risks on our assets, maintains asset integrity, allows for growth, technology and capability enhancement projects, we conduct a risk ranking to evaluate the level of risk associated with each project in the portfolio and determine the risk level of the portfolio as a whole. We use several methods to risk rank the portfolio, including:

- **Scenario analysis:** Evaluating the impact of different risk scenarios on the portfolio risk.
- **Risk impact:** Evaluating the risk likelihood and impact on plant availability, together with potential mitigating actions.
- **Technical execution:** Considering the uncertainties and challenges that may arise during execution, related to the feasibility and performance of technical aspects of the project.
- **Technical complexity:** Evaluating the difficulty of technical aspects of the project and the impact on project implementation timing.
- **Integration:** Assessing risks associated with integrating different technical components and systems.
- **Dependencies:** Identifying any dependencies between technical components and systems and the impact on project implementation.
- **Performance:** Evaluating potential performance issues with technical components and systems, and the impact on project objectives.
- **Reliability:** Determining the reliability of technical components and systems, and the impact on project outcomes.
- **Maintenance:** Evaluating ongoing maintenance requirements of various functional elements of the plant (civil, mechanical, structural, electrical, control and instrumentation) and systems, and the appropriate timing and associated impact on the project portfolio.

By thoroughly evaluating these technical risks and implementation risks, along with their likelihood and impact, we optimise the capital portfolio within our capital allocation framework. This also allows project managers to better understand potential challenges that may arise during execution and plan appropriate measures to mitigate these.



*James Kutumela, general assistant, inspecting the solar PV panels at Mogalakwena Mine*

# Operating context

The challenges of successfully running a mining business in South Africa are well-documented. Chief among the issues concerning management teams today are power and water scarcity, policy uncertainty and infrastructure collapse, although the last issue is less of a concern for the PGM industry and is not discussed here. Below, we summarise the key issues and our proactive, innovative responses.

## Power and water insecurity

### Issue

- ☒ According to the South African Reserve Bank (SARB), loadshedding in 2022 cut the country's real GDP growth by 2.3 percentage points, with mining among the worst-hit sectors. And that was just in the third quarter, when loadshedding reached a record 14.8 calendar days per month on average, or 47.7% of the time.

Echoing SARB, the World Bank said heightened loadshedding continued to weigh heavily on the energy-intensive mining sector, and remains a key downside risk to the country's growth potential.

By early December 2022, power cuts had shaved 1%, or c.22,000 PGM ounces (lost and deferred), off our 2022 annual production. This equates to lost revenue of over US\$55 million or R0.9 billion. In addition, loadshedding or load-curtailment requests have an operational impact that is more difficult to quantify. While we have a hierarchy of controls to take load off to minimise the impact on operations, the quantum of recent curtailment is more than we have flexibility on our systems to accommodate, with a direct impact on our operations.

In addition to extended periods of no power, the Minerals Council has calculated that the price of electricity for the mining industry has increased eightfold since 2008, while consumer prices (as measured using CPI) have only doubled. The latest 18.65% and 12.74% tariff increases mean the industry's electricity costs will rise by R13.5 billion, or 33.7%, to R53.5 billion by the end of 2024.

To put this in perspective, the mining sector consumes about 14% of Eskom's electricity, rising to some 30% after including smelters and refineries. Yet, the industry accounts for 8.7% of national GDP and employs almost 460,000 people – making it a vital economic contributor.

### Our response

#### Energy security

We are making good progress in converting from carbon-intensive to renewable energy. In addition to differentiating our company from its peers, this will increase our energy self-sufficiency while reducing our reliance on Eskom power and diesel energy:

- 100MW solar PV plant at Mogalakwena under construction – this will supply ±37% of the mine's current electricity requirements on completion by year end 2024
- This is part of a 330MW solar PV project across our operations
- The Anglo American group has announced a 3.5–5GW project, in which we will be the biggest beneficiary (receiving three-quarters of the first 620MW delivered between 2024 and 2026). This means that, by 2026, we could convert 30% of our electricity consumption into renewables, well ahead of our target of 2030.

#### Decarbonisation

We have clear targets for decarbonisation and achieving carbon-neutral operations. Against a 2016 baseline, we have committed to:

- 30% improvement in energy efficiency by 2030
- 30% reduction of GHG emissions by 2030 and 100% reduction by 2040
- 50% reduction in scope 3 emissions by 2040.



# Operating context continued

Power and water insecurity continued		Policy uncertainty	
Our response continued		Issue	Our response
<b>Water insecurity</b> <p>Water security remains a principal risk because all our sites operate in stressed catchment areas and we rely heavily on water for mining and processing activities.</p> <p>In 2022, we embarked on a key initiative to secure a cost-effective water supply to our operations, support community access to water, build regional and community resilience to climate change and facilitate community socio-economic development. The Olifants Management Model programme is aimed at the accelerated and cost-effective delivery of potable and bulk water to certain areas in the Northern and Eastern Limbs. It was co-created by the Department of Water and Sanitation and commercial users (mainly mining companies), and we were instrumental in driving it forward. This estimated R25 billion 'source-to-tap' solution will deliver significant economic, social and environmental benefits, adding an estimated R2 billion to the collective average annual household income.</p>		<p>The issue of policy uncertainty is just one aspect of an overly bureaucratic government, by its own admission.</p> <p>To illustrate, prior to starting every renewable power project so urgently required, each project owner must finalise site security/land lease agreement, submit a water use licence application, secure an Eskom grid connection and register with NERSA (National Energy Regulator of South Africa). The process involves multiple provincial or national government departments and protracted consultation with interested and affected parties – all presuming the underpinning regulations have been gazetted. Which, unfortunately, is often not the case, with numerous instances of government departments struggling to promulgate legislation to support a policy pronouncement, such as the recent increase in the cap for renewable energy projects to 100MW announced by the president. The cap was later removed entirely.</p> <p>It is critical that industry leadership continue to engage constructively with government at all levels while pursuing innovative initiatives that will sustain economic development for the benefit of all.</p>	
<b>Hydrogen economy</b> <p>Anglo American Platinum is a active participant in accelerating South Africa's much-needed hydrogen economy and planned hydrogen valley. In May 2022, we launched the world's first hydrogen-powered ultra-class mine haul truck, the pilot for a broader zero-emission haulage solution. We have a clear roll-out plan for the hydrogen-powered trucks, with capital allocated to fully convert our Mogalakwena fleet by the end of the decade. Ultimately, the hydrogen trucks will be more efficient than traditional diesel trucks, lowering refuelling times and maximising the use of our fleets, while eliminating harmful carbon emissions. This solution is an anchor investment in South Africa's hydrogen valley, playing an important role in kick-starting a new economic sector in the country.</p> <p>Our CEO, Natascha Viljoen, serves on the Hydrogen Council.</p>		<p>Regulatory uncertainty is an ongoing risk that we address through active engagement, both as a member of the Anglo American group and through the Minerals Council South Africa. We aim to work with government stakeholders to ensure regulatory and legislative developments are balanced and promote long-term investment as well as industry competitiveness in the international marketplace.</p> <p>As one of the largest South African mining companies, It is essential for Anglo American Platinum to take a lead in engaging with government and other important groups in the countries where we operate. We seek to play our part in a manner that respects the interests of other stakeholders, while making an effective case on critical national, regional and local issues that affect us.</p> <p>Key strategic engagements in 2022 focused on our social licence to operate, the Mogalakwena complex expansion, the future of Transnet, and helping to shape South Africa's hydrogen economy.</p> <p>We play an active role in the Minerals Council, helping to set industry positions and then to lobby on key issues. These include engaging on the need for a consistent and stable regulatory environment.</p>	



# Our markets

PGM prices were firm in 2022, though with considerable volatility. An initial surge after Russia's invasion of Ukraine soon retreated as supply fears eased and demand expectations softened. Prices rallied again around mid-year as recovering automotive production and subpar mine supply saw balances tighten, though platinum struggled as the US dollar hit multi-decade highs. Towards year end, palladium and rhodium began to move lower on economy concerns, though to still historically high levels, while platinum gained as the US dollar fell back.

All three main PGMs will be in deficit this year, reflecting solid demand and weak supply. Looking further out, fundamentals for PGMs remain attractive. Rising demand from many existing sectors, and measures underway to develop new PGM-using applications, will support sustainable growth. Rising battery-electric vehicle penetration is a downside risk but there are major opportunities from fuel-cell vehicles, hydrogen, and given PGMs' unique qualities, the broader energy transition.

Supply (000 oz)	Platinum		Palladium		Rhodium	
	2022	2021	2022	2021	2022	2021
South Africa	3,990	4,610	2,315	2,650	570	645
Zimbabwe	510	465	420	390	45	40
Russia	645	640	2,700	2,690	55	55
North America	270	275	820	905	20	15
Other	205	220	205	210	5	5
<b>Total primary supply</b>	<b>5,620</b>	<b>6,215</b>	<b>6,455</b>	<b>6,850</b>	<b>690</b>	<b>765</b>
Autocatalyst recycling	1,165	1,235	2,635	2,885	335	370
Jewellery recycling	290	365	10	10	—	—
Secondary supply	1,455	1,600	2,645	2,895	335	370
<b>Gross supply</b>	<b>7,075</b>	<b>7,815</b>	<b>9,100</b>	<b>9,745</b>	<b>1,030</b>	<b>1,130</b>
<b>Demand</b>						
Autocatalyst: gross	2,765	2,395	8,500	8,500	950	960
Jewellery: gross	1,415	1,470	90	90	5	5
Industrial: net	2,750	2,960	1,090	1,200	110	95
Investment	(420)	(30)	(95)	15	—	(5)
<b>Gross demand</b>	<b>6,510</b>	<b>6,790</b>	<b>9,585</b>	<b>9,810</b>	<b>1,065</b>	<b>1,050</b>
<b>Surplus/(Deficit)</b>	<b>565</b>	<b>1,020</b>	<b>(485)</b>	<b>(65)</b>	<b>(35)</b>	<b>80</b>

Source (including chart): Johnson Matthey, adapted by Anglo American. Totals may not sum due to rounding. 2023: Anglo American.

**Pt** Primary supply -10%  
Demand -4%

## PGM supply and demand fundamentals

**Platinum** averaged US\$961/oz, 11% lower than in 2021, though higher than in the previous five years. Platinum rallied from September as the US dollar lost value.

**Pd** Primary supply -6%  
Demand -2%

**Palladium** averaged US\$2,111/oz over the year, 12% lower than 2021, but its third highest annual average ever. In March it hit a new all-time high of \$3,339/oz as Russia's invasion of Ukraine sparked short-lived supply concerns.

**Rh** Primary supply -10%  
Demand 1%

**Rhodium** averaged US\$15,465/oz, comfortably its second-highest annual average of all time though 23% lower than 2021's record. Starting the year at \$14,150/oz, a rally above \$20,000/oz driven by Russia's invasion quickly subsided, and during the second half of the year rhodium fell once again to around \$14,000/oz.

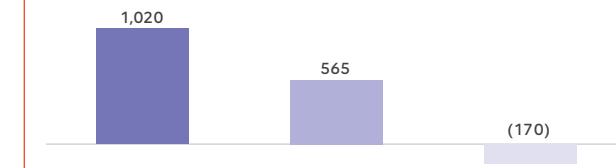
## PGM prices and contribution

PGM prices were firm but volatile in 2022. A peak in March was driven by supply issues in the wake of Russia's invasion of Ukraine. Prices soon moderated as the impact on PGM supply was less than feared, and China's zero-Covid-19 policy hit demand. Palladium and rhodium rallied again as automotive demand improved from mid-year, but a stronger dollar hurt platinum during this period. From September, concerns about the economic outlook saw palladium and rhodium ease, but platinum bounced as the dollar retreated from its highs.

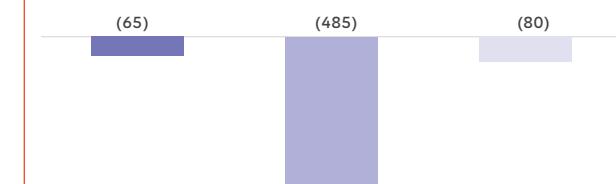
The achieved basket price was US\$2,551 (2021: US\$2,761), down 8% year on year. The South African rand fell 10% over the year, meaning the rand basket price rose 2% year on year to R41,453 per PGM ounce (2021: R40,511).

## PGM balances forecast to be in deficit in 2023

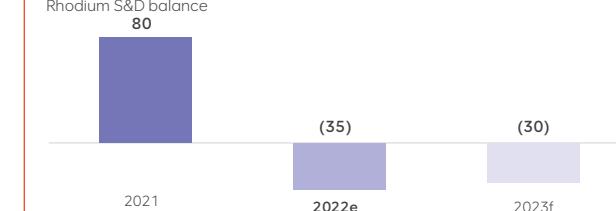
### Platinum S&D balance



### Palladium S&D balance



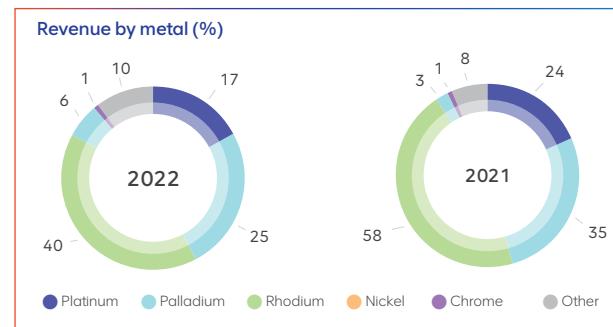
### Rhodium S&D balance



## Our markets continued

**Autocatalyst** PGM automotive demand rose 3% in 2022, thanks to a 7% increase in light vehicle production and higher PGM loadings on heavy-duty vehicles. This would have been a disappointing outcome at the start of the year, but a welcome one only a few months in, when Russia's invasion of Ukraine and China's Covid lockdowns saw light vehicle production falter. From mid-year light vehicle production saw a robust recovery, as supply-chains improved and demand remained strong, helped by China's auto stimulus package. The vast majority of vehicles, including all hybrids, continue to have internal-combustion engines and require PGM-based catalysts. However, the battery-electric vehicle (BEV) share of production, especially in China, rose significantly throughout the year.

**Jewellery** Gross global jewellery demand for platinum continued to weaken in 2022, down an estimated 4% from an already low base in 2021. The global total was hit by a 20% fall in China, the largest national consumer, as platinum continued to lose share to gold. India put in a better performance as jewellery there continues to recover from the impact of the Covid pandemic. In the USA growth slowed from 2021's strong performance but volumes remain significantly above their pre-pandemic level.



**Industrial** Net industrial PGM demand in 2022 fell 7% over 2021's level but was still at an historically high level. A slower pace of capacity expansion in the glass industry, and some pullback in industrial activity, especially for electronics, were the main drivers.

**Investment** Investor demand for PGMs was subdued in 2022. Both platinum and palladium exchange-traded funds (ETFs) recorded outflows, at 561,000 ounces and 87,000 ounces respectively. Large platinum bars saw disinvestment from Japanese investors

on profit-taking, but smaller bars were popular in the US, and platinum coin demand was strong more widely.

### Outlook

The fundamental outlook for PGMs is supported by a strong and broad pipeline of demand over the short and long term.

### Supply and demand in 2023 and beyond

#### Supply

Mined and recycled supply of the main PGMs is set to rise modestly in 2023. Refined mine supply will benefit from the release of some work-in-progress stocks at South African miners, though ongoing power rationing might curb growth, and Russian refined mine supply is falling. Recycled flows will increase for all three PGMs as auto production picks up, allowing some older vehicles to be scrapped.

There is a great deal of uncertainty about Russian supply. In the near-term while metal continued to flow in 2022, and no sanctions have been levied on Russian PGMs, there are many downside risks such as the potential for end-user self-sanctioning, and further out the difficulty in obtaining mining equipment might take its toll.

#### Demand

We expect demand for PGMs to rise in 2023.

Automotive analysts expect light-vehicle production, which accounts for about 65% of global PGM demand, to rise by 3-5% as supply-side constraints that have held the industry back over the past 18 months continue to ease. PGM demand will follow suit though the steady rise in the sales share of non-PGM battery-electric vehicles (BEVs) will moderate growth rates. Loadings are likely to rise modestly, on greater hybridisation, with a larger increase foreseen around 2025 as tougher vehicle emission standards, led by Euro 7, are introduced globally. Platinum will be helped by continuing substitution for palladium in gasoline catalysts, albeit still at a relatively modest volume.



## Our markets continued



Source: GlobalData light vehicle production, January 2023.

Heavy-duty vehicles will also contribute to PGM demand growth. This is because industry analysts expect an increase in global production, the first since 2020, as the long decline in China's production reverses. Loadings per vehicle will be steady, but at the much higher level they have risen to since 2019 on tightening emissions standards.

Industrial demand should see a modest increase over 2022's levels, boosted by ongoing rapid expansion in the glass industry, and rising demand for hydrogen-related applications. Risks are to the downside, however, if the global industrial economy slows significantly. Platinum jewellery demand faces similar headwinds in developed countries, as consumer spending growth slows on the back of pressured real incomes. China's volumes are likely to see another reduction though the shift away from zero-Covid policies might afford some upside.

In terms of market balances, all three main PGMs are likely to be in small deficits this year. Platinum will swing from a surplus in 2022, while palladium's will be smaller than in 2021. Rhodium's deficit will be similar to 2022.

### Key things to watch

1

Global automotive production should rise this year and, with it, PGM automotive demand. There are risks both ways. China's reopening and resilient western economies offer upside, but downside risks are higher interest rates and slower growth.

2

Developments in vehicle powertrains pose long-term risks to PGMs given the importance of autocatalysts to demand. Most evidently growing non-PGM using battery-electric vehicle penetration is a threat, particularly to palladium and rhodium, though recent fast growth rates seem unlikely to be maintained given resource constraints. Fuel-cell vehicles, which have heavily-loaded PGM catalysts, offer significant potential upside.

3

More generally, the hydrogen economy seems increasingly likely to be a large consumer of PGMs, as PGMs play a key role in the manufacture as well as the consumption of hydrogen. There is significant momentum among both corporates and governments.

4

Supply-side issues are increasingly prominent. South African PGM output has faltered in recent years due to operational issues and recently power shortages. Russia's invasion of Ukraine has meant reduced visibility on both production and sales from that region.



# Green hydrogen ✓

## Momentum continued to build in 2022

Green hydrogen has the potential to be an important demand source for PGMs in coming years. In 2022, momentum continued to build for this exciting technology, with geopolitical, government and commercial developments pushing it closer to widespread use.

Hydrogen, produced from fossil fuels or industrial waste gases, has for a long time played an important role in our economy and society, chiefly in the oil and fertiliser industries and for its chemical properties. But when hydrogen is produced cleanly from renewable electricity by electrolysis of water (so-called green hydrogen), it gains a different, and potentially vastly larger, range of uses, despite being chemically the same. For example:

- It can act like a battery in storing renewable energy, adding flexibility and efficiency
- It can be burned as low-pollution alternative to fossil fuels
- It can be turned back into electricity via fuel cells for zero-CO<sub>2</sub> power.

For PGMs, green hydrogen represents an exciting new demand opportunity. PGMs are used in electrolyzers to make it, and in fuel cells to convert it back to electricity. PGMs also play other roles such as in storage and purification.

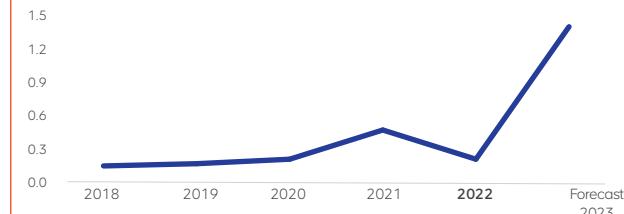
Less than 1% of current hydrogen production is currently green, but this share is set to rise rapidly in coming years. The past year saw momentum continue to build.

- **Russia's invasion of Ukraine meant a greater focus on energy independence/diversification:** This was a wake-up call for many countries, especially in Europe, that they had become too reliant on imported fossil fuels from a narrow range of suppliers. Hydrogen, which can be made domestically or imported from a diverse range of countries, can help reduce that dependency. As such, it formed a key part of the European Union's REPowerEU initiative.

- **Major subsidies in the United States for green hydrogen production:** The Inflation Reduction Act (IRA), signed into law mid-year, has been described variously as a "game changer"<sup>1</sup>, "transformative"<sup>2</sup> and "almost guaranteeing hydrogen's future"<sup>3</sup>. In the world's largest economy, it has instituted generous tax credits, of up to US\$3/kg, to produce green and low-carbon hydrogen, making it competitive with non-green hydrogen in many states. Numerous industry participants immediately expressed an interest in setting up operations in the US, so much so other countries felt forced to respond with further proposals of their own.

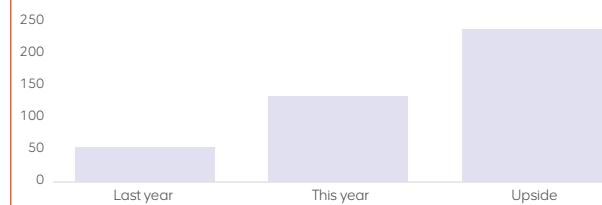
- **A significant increase in commercial electrolyser shipments and long-term commitments:** The independent research group BNEF estimates the installation of electrolyzers, which make green hydrogen from renewable energy, was a record 1GW in 2022, more than twice the level installed in 2021. This pales against the 85GW of installation it forecasts for 2030. Such rapid growth is backed up by commercial announcements. The International Energy Agency found the electrolyser project pipeline for 2030 has grown to 134GW, compared to 54GW it calculated just a year ago. If it includes very early-stage projects, the figure is 240GW.

Annual electrolyser shipments, GW



Source: BNEF, 2022 New Energy Outlook.

Project pipeline for 2030 electrolyser installation, GW



Source: IEA (2022), Global Hydrogen Review 2022, IEA, Paris  
<https://www.iea.org/reports/global-hydrogen-review-2022>, License: CC BY 4.0. This is a work derived by Anglo American from IEA material and Anglo American is solely liable and responsible for this derived work. The derived work is not endorsed by the IEA in any manner.



<sup>1</sup> <https://www.bain.com/insights/decarbonization-game-changer/>  
<sup>2</sup> <https://www.powermag.com/inflation-reduction-act-programs-could-establish-the-u-s-as-a-market-leader-in-hydrogen/>  
<sup>3</sup> <https://www.bloomberg.com/news/articles/2022-11-15/hydrogen-s-future-almost-guaranteed-by-ira-macquarie-says>

# Green hydrogen continued

## PGMs – enabling the hydrogen economy

PGMs are key enablers for many areas of the hydrogen economy, including processing, transport and storage, but the two most evident today, and with the greatest demand growth potential, are in electrolyzers used to produce green hydrogen, and in fuel cells, the reverse technology which converts hydrogen into electricity.

Electrolyzers currently come in two main types, proton-exchange membrane (PEM) and alkaline. PEM normally uses platinum and iridium catalysts to improve start-up times, lower operating temperatures and increase efficiency. Alkaline does not require PGMs but can benefit from their use and increasingly there is interest in using PGMs to improve its performance.

At present only around 20,000 ounces of PGMs are used annually in electrolyzers but the volume is set to rise as installations grow. Indeed, as medium-term forecasts for electrolyser output have soared, there is much discussion over whether there will be enough iridium, given its limited annual production volumes, to meet future demand.

This debate is evolving. PGM usage is always a balance between market size, here the number of GW installed, and the loading of metal used. At the loadings of iridium per kw of capacity required a few years ago, there might not be enough iridium in, say, 2030, but those loadings have been significantly reduced and will fall further by that date. This in turn will allow a more rapid growth in installed capacity, meaning that iridium usage in this sector could be meaningful overall. In addition, PGMs in electrolyzers can and will be nearly 100% recycled, and there is potential to substitute more PGMs in plentiful supply, such as platinum, at some loss of efficiency which might be acceptable in certain applications. Indeed, to the extent platinum could be used instead, this could be a very large demand source.

It is still likely, however, to be eclipsed by demand from fuel cells. Several types of fuel-cell technology require PGMs, typically platinum (and sometimes ruthenium). PEM fuel cells, a similar technology to PEM electrolyzers, are the most developed and suitable for uses such as transport, where potential growth is greatest. Loadings here have also fallen, with the 2030 target of the US Department of Energy for 12.5g platinum per 100 kw looking easily achievable. At this level the platinum in an average light vehicle would still be around twice that of a current motor vehicle, but even this would be a relatively small cost compared to the price of other car components, including battery metals.

Overall we believe hydrogen uses could contribute up to 1 Moz of PGM demand annually by 2030.

Turning to the demand-side, the anticipated expansion of green hydrogen production will itself help boost demand, thanks to greater availability and lower costs (especially through subsidies such as the Inflation Reduction Act). However, more work is needed. It is increasingly understood that hydrogen is one of the few technologies that can decarbonise hard-to-abate sectors, such as steelmaking, and numerous pilot projects are underway. The costs involved in making the switch, however, suggest further government support will be required. In transportation, while hydrogen in some form is widely expected to play a role in heavier applications, such as ships, trains and heavy-duty vehicles, there is less certainty about light vehicles, where batteries are currently dominant.

There were some positive developments in 2022. Sales of light-duty fuel-cell electric vehicles (FCEVs) remain small, but rose over the year, and several manufacturers (including BMW and Honda) announced new models. Further options are available in the light commercial vehicle market. A key factor constraining adoption of FCEVs has been a lack of hydrogen and associated refuelling infrastructure. The former seems well on the way to being remedied, while numerous projects are underway to help with the latter. For example, TotalEnergies and Air Liquide announced plans in January to develop a network of hydrogen stations on major European road corridors.

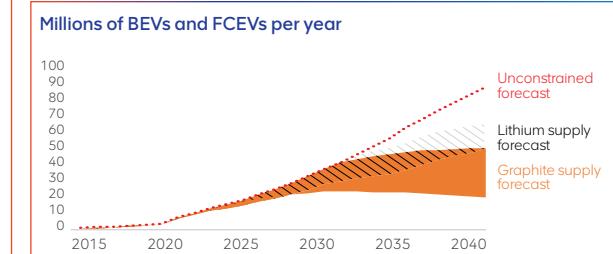
Increasingly, too, there is greater focus on the supply-chain risks accompanying a rapid and total switch to battery electrification, such as geographical concentration and potential shortages of key battery materials. While there are similar issues for FCEVs, they use a different set of resources to battery vehicles, and a broader suite of powertrains will alleviate related pressures.

## Resource constraints to batteries another potential driver

The drive to net zero will require significantly lower CO<sub>2</sub> emissions across all industries and sectors, including transportation.

One important strand is electrification of road transport, such as via a switch to battery electric vehicles and fuel-cell electric vehicles. These eliminate tailpipe emissions and, depending on how the electricity is generated, also typically reduce life cycle emissions compared to combustion engines.

Most focus so far has been on BEVs, and long-term forecasts show these taking a large share of light vehicle sales by the early 2030s. These forecasts do not generally consider resource constraints, however, and increasingly industry experts are asking if such sales growth is achievable given the enormous increase in battery production that will be required, and associated demand for battery metals such as lithium and graphite. One forecast for these, shown in the chart, suggests there are sufficient projects to reach a 30–35% BEV share by 2030, but no higher, and of course this assumes they all occur in full and on time.



Source: Benchmark Minerals Intelligence, October 2022.

There are several potential remedies to this issue, such as a greater share of hybrids. The only other zero-tailpipe emissions solution, however, is FCEVs. As electric vehicles, FCEVs share many similarities to BEVs, most obviously the electric motor. But there are also key differences, namely FCEVs do not have large lithium batteries (typically they have ones in a similar size to plug-in hybrids), but instead have a fuel-cell and hydrogen tank. These typically use more common materials such as steel.

Of course FCEVs also have their own specific resource requirements, and if produced in huge numbers these too would be a constraint. The key issue is though that compared to BEVs they have different resource requirements, and so a mix of the two will reduce pressure on any one commodity and allow a faster reduction in transport emissions than relying on a single pathway.

# Market development

Anglo American Platinum remains at the forefront of PGM market development for the industry and is developing several existing and new opportunity areas for our metals that contain the possibility for several million ounces per annum of incremental demand. These include hydrogen; battery and energy storage; carbon-neutral feedstocks; waste and pollution control; and medtech and foodtech (respectively medical and food technology). We continue to pursue a diverse end-use strategy to create resilience in the end market for all our metals.

## Driving incremental demand

Looking across all our opportunity areas, we believe there is a possibility for significant incremental PGM demand, in turn bringing greater resilience in the end market for all our metals.

In the hydrogen and battery space, we are targeting greater market share of hydrogen fuel-cell electric vehicles (FCEVs) and the use of palladium in automotive batteries. If FCEVs capture 5-10% market share of global car sales and palladium-using Battery Electric Vehicles (BEVs) capture another 25-50%, that could mean incremental demand of around 2-5 Moz per annum for platinum and around 4-8 Moz per annum of palladium.

Similarly, in the low-loss computing space, the wide application of platinum and palladium-enabled semiconductors across electronics use-cases suggests the possibility for incremental demand here could be several koz-Moz per annum.

Elsewhere, the greater proliferation of PGM-enabled industrial processes to make carbon neutral fuels, chemicals and materials could bring incremental demand that would be equivalent to opening one new mine shaft, while foodtech and medtech combined could create incremental ounces equivalent to commissioning an additional one or two new mine shafts.

Finally, in jewellery and investment, we believe that there is a considerable market opportunity that could be unlocked, especially through the application of innovative business models.

PGM opportunities				
SECTOR	PGMs for green transition	PGMs for modern life	PGMs for wealth & growth	
OPPORTUNITY AREA	 Hydrogen and mobility	 Low loss computing	 FoodTech	 Jewellery
	 Carbon neutral feedstocks	 MedTech	 Waste and pollution control	 Investment

These are some of our ongoing market development workstreams:



## Markets development continued

In recent months, we have advanced the development of palladium-containing lithium batteries, mainly through our investment in Lion Battery Technologies. We have also expanded our support for the creation of new materials and technologies such as alloys and 3D printing to serve multiple industries, including jewellery and aerospace, by investing in Alloyed.

We continue to expand our activities to accelerate the adoption of PGM-containing memory chips to enable low-energy consumption and high-performance computing for big data processing, in turn supporting sustainable computing. We are collaborating with Northwestern University in the US and Ningbo Institute of Materials Technology and Engineering, Chinese Academy of Sciences in China to develop new PGM-containing devices with more efficient memories to improve computing performance.

In addition, we delivered another successful PlatAfrica Jewellery Design and Manufacturing competition with our partners Metal

Concentrators and PGI India. Our metal consignment scheme, administered by Metal Concentrators, allows participants access to work with platinum to develop and improve their manufacturing skills. This year's theme – Hope – was developed with PGI India and sought design submissions that demonstrated 'trust and artistry in an uncertain world'. In partnership with African Fashion International, we showcased winning pieces from PlatAfrica at the Forbes 30/50 Summit. This is further example of the work we have been doing with our local industry and global partners to explore innovative ways to facilitate access to new markets and grow sustainable demand for South African-produced jewellery and design.

In collaboration with one of our venture-building programme partners, Rainmaking, we brought to market 7879, a new jewellery e-commerce business, to support our market development in the jewellery sector:

- Named after the periodic table numbers for platinum and gold, 7879 sells jewellery made from recycled gold and responsibly mined platinum supplied by Anglo American Platinum. 7879 has identified a potentially significant market opportunity by innovating an honest and transparent pricing policy with the price of items based on precious metals' weight and current market price. This allows customers to more accurately perceive the underlying investment value of their pieces, a perception that is enhanced by 7879's commitment to buy back any of its pieces at market price, less a small transaction fee. Beyond a growing online presence, 7879 has secured pop-up stores in Selfridges and Harrods, two of the most prestigious retail destinations in London.



- Our other venture-building initiatives, Mission Zero Technologies and Supercritical Solutions, are also showing progress. Mission Zero Technologies, which is developing a direct air capture (DAC) technology that reduces the energy consumption and cost of CO<sub>2</sub> capture, closed a US\$5 million seed-financing round in May that included investment from Bill Gates' investment firm, Breakthrough Energy Ventures. A joint DAC-carbon sequestration project in Oman between Mission Zero Technologies and an external partner won a US\$1 million XPRIZE Carbon Removal Milestone Award.

## Markets development continued

Supercritical Solutions, which is developing high-pressure electrolyzers, secured US\$3.6 million additional seed investment and preliminary funding (with its partners Scottish Power and Proton Ventures) from the UK Department for Business, Energy & Industrial Strategy for a green ammonia production project.

In foodtech, commercialisation of the platinum-containing food freshness/preservation product with our partner Furuya is progressing well, with refrigerators using the product now being sold in Japan, Korea and China. In the UK, our medtech research collaboration with Warwick University on osmium-containing cancer prodrugs is producing promising results.

### Our extensive portfolio of initiatives to spur the hydrogen sector continues to grow.

- We are progressing a number of projects that were first identified in a Department of Science and Innovation (DSI)-led feasibility study assessing the viability of a South African 'hydrogen valley'. Beyond the launch of the nuGen hydrogen fuel-cell truck in May, we have also progressed a project seeking to aggregate demand for hydrogen-fuelled buses and trucks. It has been shortlisted for a €23 million grant and €175 million concessional financing from the German development bank KfW.



- We continue to lead multijurisdiction initiatives to promote the adoption of fuel-cell electric vehicles (FCEVs) for commercial uses. Late last year, we commenced a project in partnership with German taxi operator SafeDriver/ENNOO and Toyota Germany to raise awareness on the utility and availability of FCEVs in Germany's capital. The project will specifically see 200 Toyota Mirais deployed on the streets of Berlin to promote the potential of FCEVs at a scale not previously seen.

- AP Ventures, our venture capital fund that was launched in 2013 and spun out in 2018, currently has some US\$400 million under management in fund I and II, and is achieving leverage of almost four times the amount committed by Anglo American Platinum. AP Ventures has attracted 10 additional limited partners, namely: Temasek, Impala Platinum, Plastic Omnium, Mitsubishi Corporation, the Mirai Creation Fund, Sumitomo Corporation, Pavilion Capital, Nysno Climate Investments, Equinor Ventures and Yara Growth Ventures, alongside our company and the Public Investment Corporation of South Africa. In total, AP Ventures now has a portfolio of 24 PGM-containing or -enabling technology companies across the hydrogen value chain to unlock bottlenecks in advancing the hydrogen economy.

- We continue to progress on the venture-led research front with several global streams of research in collaboration with universities and corporate partners. Examples include our work with Umicore to develop PGM-based catalysts for liquid organic hydrogen carrier applications in FCEVs and other mobile applications.



- We inform and promote technology-neutral policies and regulatory environments in significant markets through communications and direct policy advocacy. In the UK, we are prominent members of several associations, including the Hydrogen and Fuel Cell Association, UK H<sub>2</sub> Mobility and the UK Aggregated Hydrogen Freight Consortium. We remain proactive members of the ministerial hydrogen advisory council and the Beyond2050 Hydrogen Strategy Now campaign group.

- To promote and create awareness of hydrogen and fuel-cell technologies in China, we are a co-sponsor and will give keynote presentations at the postponed Fuel Cell Vehicle Congress 2022 (FCVC 22). In the past six months, echoing our progress in Berlin, we have increased our participation to support multiple-city cluster FCEV demonstration programmes and the integration of CO<sub>2</sub> and hydrogen sectors to support China's carbon-neutrality ambition.

## Markets development continued

- In the US, we recognise the growing momentum of hydrogen and decarbonisation, and continue to monitor policy developments at federal and state levels. We do this primarily through our membership of the US Fuel Cell and Hydrogen Energy Association (FCHEA) and the California Fuel Cell Partnership Association, as well as through our role as founding members of the Hydrogen Forward coalition. In the past 12 months, there has been further support for the creation of a national hydrogen economy, notably with the Department of Energy issuing a notice of intent to provide US\$8 billion for at least four regional hydrogen hubs, among other actions supporting domestic supply chains for electrolyzers, fuel cells and PGM catalysts.

- At an international level, Anglo American remains a founder, steering and board member of the Hydrogen Council launched in 2017. The council brings together CEOs from over 100 multinational companies, and acts as a key nexus for international initiatives and corporate perspectives to support the growth of a global hydrogen economy. We also remain a proactive member of Hydrogen Europe, which partners with the European Commission through the fuel cells and hydrogen joint undertaking to support research, technological development and demonstration activities in fuel cell and hydrogen energy technologies in Europe.



- The World Platinum Investment Council (WPIC), which is majority funded by Anglo American Platinum, continues to work closely with product partners in the four key markets of China, Japan, North America and Europe to increase awareness of platinum investment products available to investors worldwide and to support a strong level of marketing activities. Shanghai Platinum Week, co-organised by WPIC alongside the precious metal industrial committee of the China Material Recycle Association and the platinum committee of the China Gold Association, took place virtually in September due to pandemic restrictions. Similar to last year's inaugural Shanghai Platinum Week, the focus was on facilitating international collaboration in the PGM market and related technologies.

- Finally, Platinum Guild International (PGI), also majority funded by Anglo American, continued its efforts in the major platinum jewellery markets of China, the US, Japan and India. PGI continues to strengthen the share of voice and availability of desirable platinum jewellery across core markets by ensuring effective communications to market participants, as well as partnering with and supporting retailers to improve conversion and distribution. PGI China's concerted activities resulted in a 100% year-on-year growth of its Platinum Journey for Love roadshow in March, while its Pt Moment branded collection campaign in May recorded a 9% year-on-year sales increase. In the US, despite global supply chain challenges and rising inflation, jewellery sales continued to exceed expectations, with PGI US's strategic sales partners delivering strong results.

### Case study – building the case for hydrogen fuel-cell electric vehicles



As part of our market-development work, we have for some years been working towards building the right environment to successfully deliver on hydrogen's significant potential in the light-duty or passenger vehicle space. In doing so, we are making a concrete contribution to the emerging ecosystem of platinum-enabled hydrogen transport.

In late 2022, we commenced a multi-partner project with leading German mobility provider SafeDriver/ENNOO and car manufacturer Toyota. This project aims to deploy up to 200 Toyota Mirai FCEVs in Berlin as Germany's largest hydrogen-powered taxi fleet.

The pilot project specifically aims to demonstrate the suitability of FCEVs for everyday use and to emphasise their key advantages to the general public, government and other audiences.

The Toyota Mirai can travel up to 650 kilometres on a single tank, making it suitable for long distances and continuous use. It can also be refuelled quickly, safely and easily at the numerous hydrogen filling stations in Germany – a network that is growing with the new EU Alternative Fuels Infrastructure Directive.

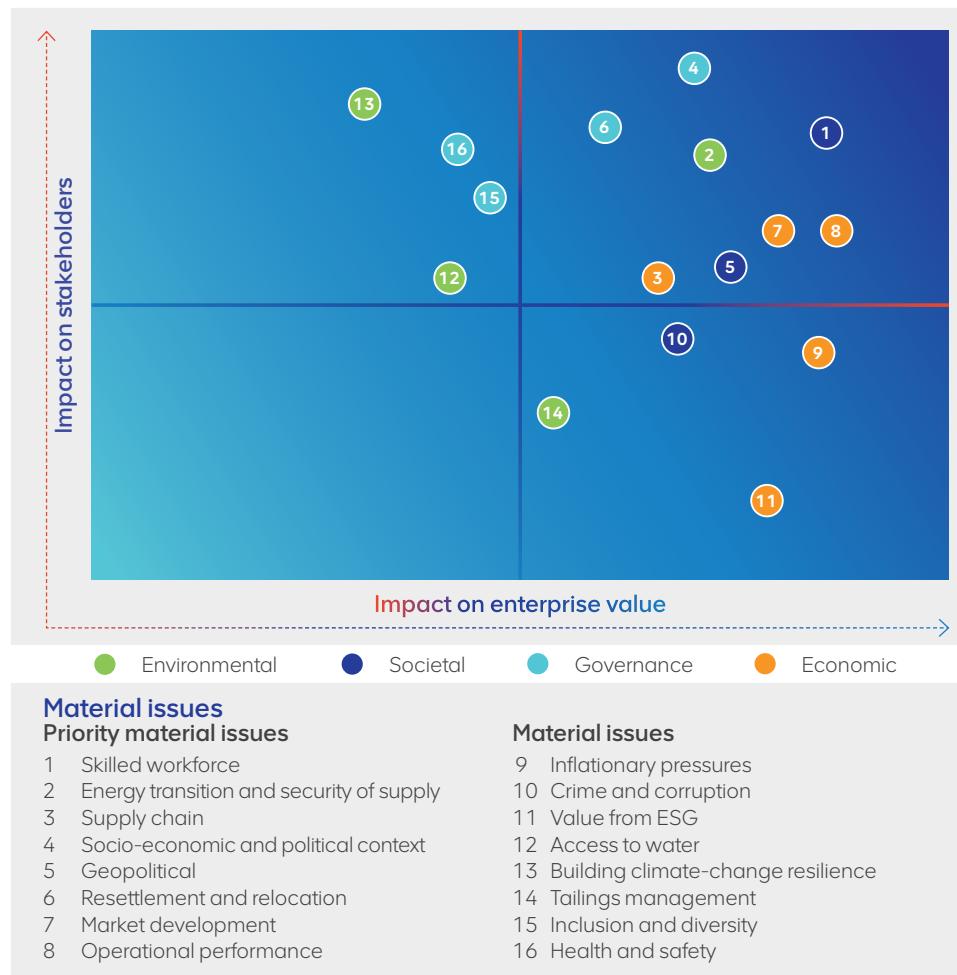
Beyond the existing infrastructure, Berlin was chosen because it has an attractive airport-to-city corridor use case. It also has a large number of national and international business and leisure visitors who are expected to help amplify awareness of the project car's qualities beyond Berlin itself.

A comprehensive communications campaign leveraging major public events in Berlin is underway to increase project impact while we assess the potential for other FCEV fleet schemes, both in Europe and other markets, such as China and the US.

# Material risks and opportunities

Our ability to create and sustain shared value is central to how the business is managed and the theme of our integrated reporting. Our established materiality assessment, which applied a double materiality lens, aims to ensure that pertinent societal, environmental and economic issues that constitute risks and opportunities for value creation are identified and discussed.

## Key material issues distilled to top issues below, prioritised in the high-impact/high-influence quadrant



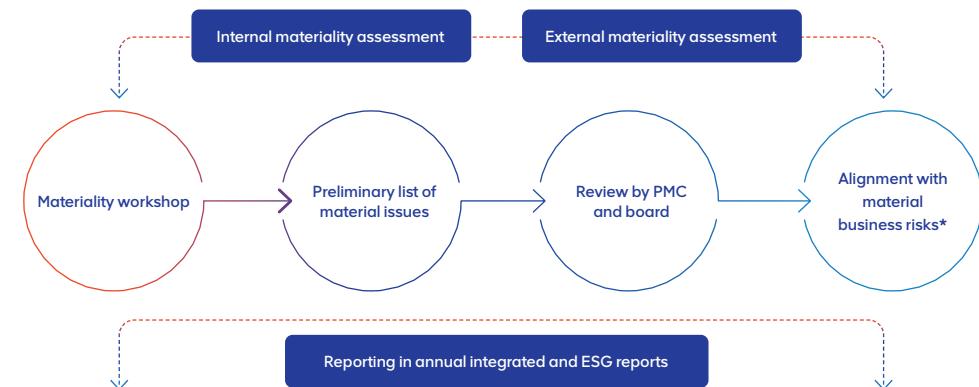
Our strategic objectives are affected by matters that substantively impact our ability to create shared value over the short, medium and long term – our success will be measured by how well we manage immediate issues while retaining our focus on longer-term goals. Our material issues are detailed in our sustainability report. In this report, we focus on the materiality process, links to risk management and our top eight issues.

## Identifying, evaluating and prioritising material risks

Integrated reporting is built on the materiality assessment process. Our well-established process identifies societal, environmental and economic issues that present risks and opportunities and affect shared value creation. We follow a four-step process in our materiality assessment framework, aligned with the AA 1000 AccountAbility principles (2018):

- Internal materiality: desktop assessment
- External materiality: interviews with selected external stakeholders and scanning the external environment
- Materiality workshop
- Review and approval of key material issues by PMC and the Anglo American Platinum board.

Insight from each of these steps is integrated into the materiality process, resulting in the prioritised top material issues.

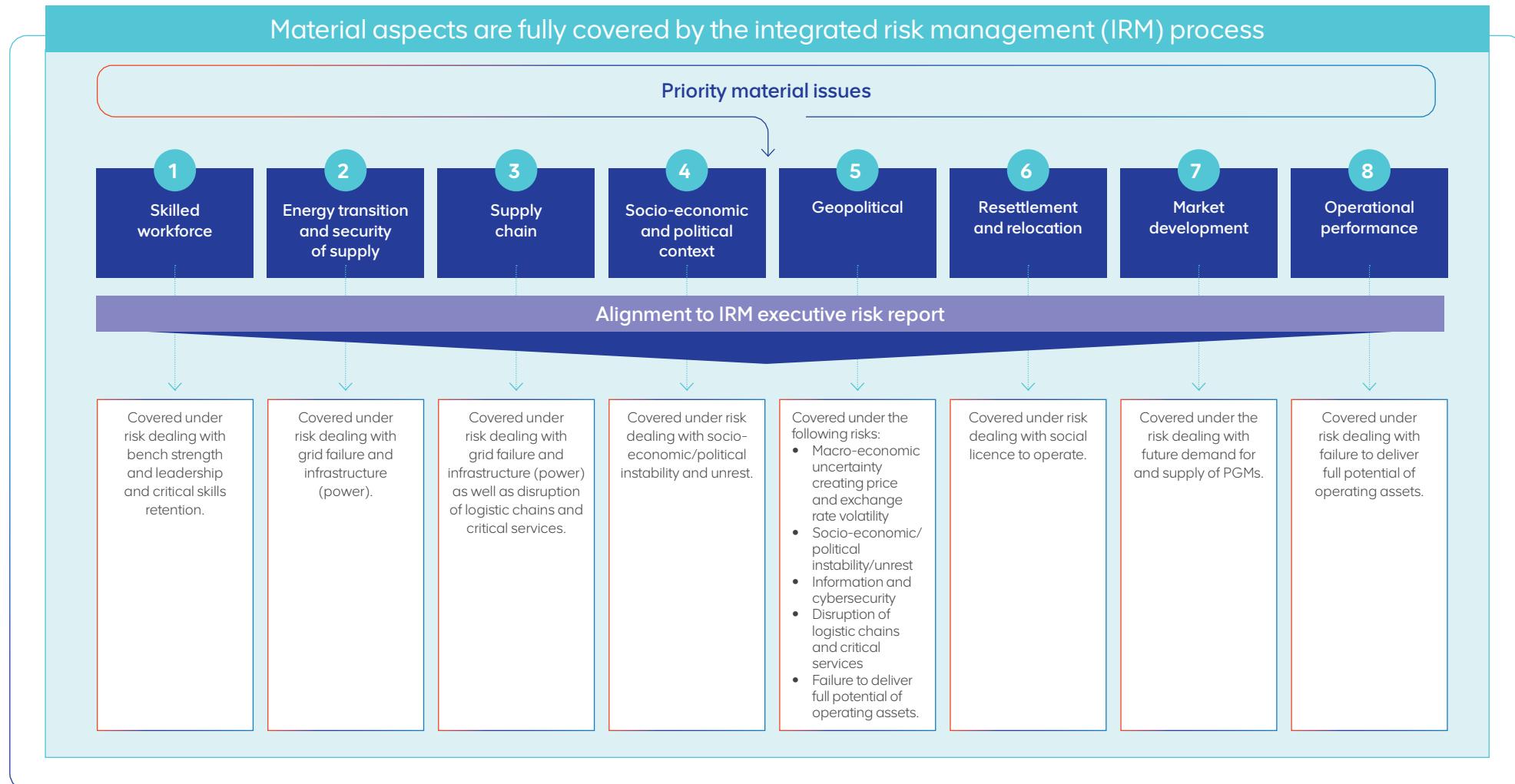


\* See page 66 for links between material and integrated risk management processes (demonstrating IIRC completeness principle).

## Material risks and opportunities continued

### Stakeholder engagement on material issues

The external specialist engaged with representatives from key external stakeholders to identify the issues they believe are most material to Anglo American Platinum. The relevant matters fed into the prioritisation and review steps described above and ultimately into the final list of material issues.



# Material risks and opportunities continued

## Links between materiality and integrated risk management (IRM) processes (demonstrating IIRC completeness principle)

Materiality process		IRM process
<b>Objective</b>	The objective is to identify key sustainability issues that are material to Anglo American Platinum. Identifying materiality is a fundamental component of the integrated and sustainability reporting process.	The IRM framework ensures the effective governance of operational and strategic risks. Risks are defined as situations or actions with the potential to threaten our ability to deliver on our strategic priorities and, ultimately, to create value.
<b>Methodology adopted</b>	Follows AA1000 AccountAbility principles (2018), considered the most widely applied global stakeholder engagement standard, supporting organisations to assess, design and implement an integrated approach to stakeholder engagement, and to communicate fairly and accurately with stakeholders and the public.	The risk management process is aligned with ISO 31000 international risk management standards and King IV requirements. The process of identifying risks and opportunities is embedded so that it becomes part of everything we do to achieve our business objectives.
<b>Process</b>	Four-step materiality assessment framework: <ul style="list-style-type: none"> <li>Internal materiality: desktop assessment</li> <li>External materiality: interviews with selected external stakeholders and scan of external environment</li> <li>Materiality workshop</li> <li>Review and approval of key material issues by PMC and board.</li> </ul>	The assessment of strategic, operational and project-related risks follows five well-defined processes: <ul style="list-style-type: none"> <li>Identifying risk</li> <li>Analysing risks and control</li> <li>Determining management action</li> <li>Reporting and monitoring</li> <li>Follows a bottom-up and top-down approach.</li> </ul>
<b>Frequency</b>	Annual – specifically linked to preparation of the integrated annual report.	Ongoing.
<b>Strategic focus</b>	The materiality process is consistent with our strategic priorities, which are delivered in a safe, values-driven and socially responsible way.	A view of key forward-looking risks that threaten the ability of the organisation to achieve its strategic objectives.

## Our approach to risk and opportunity management

### Group risk framework

In an evolving risk environment, filled with technological changes and new global challenges, identifying and managing risks and opportunities is critical to our business. Anglo American Platinum's integrated risk management framework ensures the effective governance of operational and strategic risks. We define risks as situations or actions with the potential to threaten our ability to deliver on our strategic priorities and, ultimately, to create value. Our risk management process is aligned with ISO 31000 international risk management standards and King IV requirements.

The culture of risk management is embedded throughout the organisation. Operational risk management performance measures have been assigned per operation and include monitoring, control action close out and compliance to critical controls.

Our strategy is developed in response to risks and opportunities for the business. Risks can arise from events outside our control or from operational matters. Each of the risks described on the following pages can affect our ability to deliver our strategy.

Accordingly, our process examines the risk response to our overall strategy and the ability to execute our strategic initiatives.

Our risk management function is subjected to an independent external maturity assessment once every five years, thereby ensuring the function continues to add value, be agile and support the delivery of our strategic objectives and priorities.

### Catastrophic risks

We also face certain risks that we deem catastrophic. This is a risk or series of related risks potentially generating financial, operational and/or reputational impacts of such significance that they force an unplanned, fundamental change to our strategy, the way we operate or our financial viability. Accordingly, catastrophic risks are treated with the highest priority.

The following catastrophic risks have been identified, and all relevant technical standards are in place to provide minimum criteria for managing these risks. Monitoring, inspections and training and awareness programmes are provided by technical experts.



In the year under review, the new catastrophic dealing with total grid failure was added, given the ongoing operational challenges at Eskom.

# Material risks and opportunities continued

## Risk appetite and tolerance

The concept of risk appetite guides our risk management activities. It enables the PMC and board to establish a baseline level of risk the company is willing to accept and evaluates the likelihood and consequence of certain threats. We look at risk appetites from the context of severity of consequences should the risk materialise, any relevant internal or external factors influencing the risk, and the status of management actions to mitigate the risk. Risk tolerance refers to the amount of risk Anglo American Platinum is able to withstand. Both are core considerations in determining our strategy. Risks approaching the limit of risk appetite attract specific management actions, to ensure the risk is managed within defined appetite limits.

## Our journey in risk appetite maturity

Using risk management as a tool to address uncertainties, applying the risk appetite methodology in 2022 showed that, with the exception of the infrastructure power risk, all other risks can be considered within our risk appetite as defined. Similarly, all risks are considered to be within Anglo American Platinum's tolerance limits. Our review evaluated data from the operational risk assurance programme and, where control weaknesses were identified, these were addressed through management actions, comprising immediate interventions supported by long-term plans to ensure all risks remain within appetite. Ongoing work is closing any identified control gaps.

## Emerging risks

We define an emerging risk as a risk that may become a principal risk in time. Emerging risks that are currently being monitored:

Name of the emerging risk	Changing legislation	Illegal mining	ESG stakeholder expectations
Description	Changing legislation impacting the processing value stream.	Increasing illegal mining, especially chrome mining.	Increasing specific ESG-related disclosure requests from various stakeholders.
Impact	Increased capital requirements and/or operational disruptions.	Severe environmental damage, ungovernability, social strife, violent conflicts and the loss of life.	Failure to manage and respond to investor expectations, particularly linked to ESG, may result in reputational damage for the company.
Mitigating actions	Active engagement with government and other stakeholders.  Active monitoring of regulatory developments/updates of applicable policies and procedures to ensure compliance.	Continued engagements between government, communities and company, which is supported through the Minerals Councils of SA.	Continues engagements with various stakeholders to ensure appropriate ESG information is communicated.

# Material risks and opportunities continued

## Opportunities

As part of our risk management process and in line with King IV requirements, we have considered available opportunities. An opportunity is a set of exploitable circumstances with an uncertain outcome that requires committing resources and involves exposure to risk. The opportunities identified demonstrate the value that our initiatives and strategies could yield to the growth of our company. Our business model ([page 49](#)) and market review ([page 55](#)) elaborate on how we leverage opportunities to ultimately create value.

Opportunities	FutureSmart Mining, digital effectiveness	Mogalakwena and Mototolo/Der Brochen expansion	PGMs to form part of new world commodities	Diversified markets	Future of work and organisational effectiveness	Beneficiation and recycling	Carbon-neutrality and sustainable livelihoods
Description	Anglo American Platinum is committed to digitally transform mining through the pervasive adoption of technologies, new ways of working and developing people's technology skills to ensure global competitiveness and sustainability through collaborative partnerships.	Both growth projects are being considered to meet our strategic objectives and create value in time.	Venture capital fund (AP Ventures) dedicated to investing in technological innovation across PGMs. Initiatives in the jewellery (via Platinum Guild International) and investment (via World Platinum Investment Council) sectors have created new partnerships and launched products.	Identify applications suited to future themes such as urbanisation and electrification, green/hydrogen economy, clean/alternative energy, medicine, transport and electronics.	Organisational culture, agile labour management, a modernised organisation and future-fit employee relations.	As part of our strategic priority of stimulating new markets, we support local beneficiation and participate in the circular economy.	As part of our ambition to be a leader in ESG, we have set carbon-neutrality targets and are working on co-creating sustainable community livelihoods.

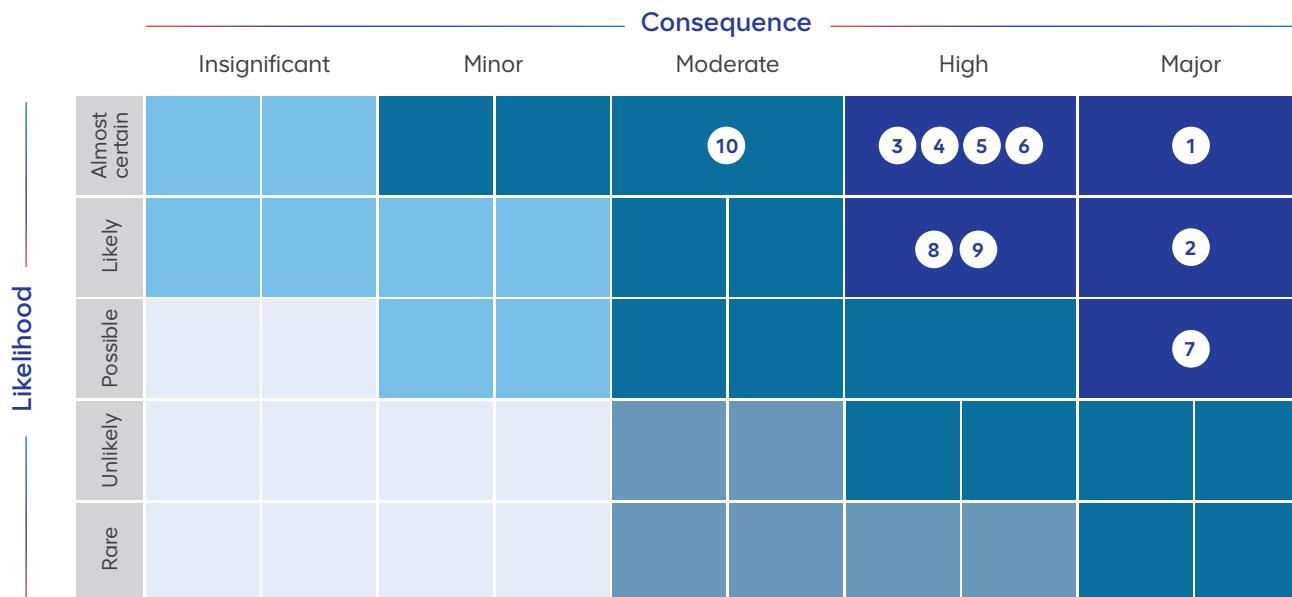
# Principal risks

We define a principal risk as a risk or combination of risks that would threaten the business model, future performance, solvency or liquidity of Anglo American Platinum. Included in our principal risks are the catastrophic risks detailed in the prior section. The top-ten rated principal risks are explained in detail and other risks, classified as principal risks, included failure to deliver the full potential of the operating assets and failure to secure an optimised pipeline of projects and deliver approved projects on time and within budget.

In addition, we are exposed to other material risks related to the global health pandemic, workforce strength and critical skills shortages, allegations of discrimination and harassment, health, political uncertainty and regulatory compliance, fraud and corruption as well as water infrastructure. These risks are subject to our normal procedures to identify, implement and oversee appropriate mitigating actions, supported by internal audits to provide assurance on the status of controls or mitigating actions.

## Principal risks

The heat map positions below reflect residual risks.



- 1 Infrastructure (power)
- 2 Social licence to operate
- 3 Employee safety
- 4 Macro-economic uncertainty, creating price and exchange rate volatility
- 5 Socio-economic political instability/unrest
- 6 Information and cybersecurity
- 7 Future demand and supply of PGMs
- 8 Prolonged disruption in downstream production
- 9 Disruption of logistic chains and critical services
- 10 Natural catastrophe/extreme weather impact

# Principal risks continued

## 1 INFRASTRUCTURE (POWER)

RISK:

1 2022

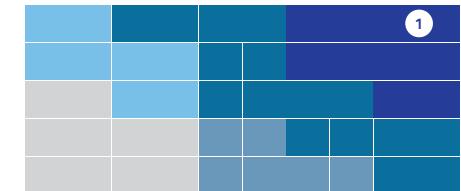
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### Risk description

In addition to the new catastrophic risks included, this power infrastructure risk unpacks the current financial state and ability of Eskom to sustainably supply power to Anglo American Platinum.



### Strategy impact and link



**Risk owners:** Executive head: asset reliability and safety, health, environment and energy; and executive head: projects

#### Root cause

- Dependency on Eskom
- Eskom requires funding for generation upgrades and new plants
- Poor management of Eskom business and slow roll-out of management restructuring to cut cost
- Eskom coal-supply contracts (security-of-supply concern)
- Poor maintenance quality by Eskom
- New-build power stations not performing to design specifications
- Retaining and attracting key skilled personnel at Eskom
- Unreliable asset base – EAF.

#### Potential impacts

- Unplanned and short-notice electricity supply outages, leading to loss of production due to energy curtailment requirement. Impact varies depending on production profile at the time of load-curtailment request
- Safety implications, particularly for underground mines and process activities
- Above-inflation future cost increases, placing business viability at risk
- Eskom is at risk of breaching environmental emission limits which could affect licence
- Our footprint (scope 2 and 3).

#### Mitigation

- Load-curtailment procedures
- Detailed emergency plans and procedures for short-notice electricity supply outages and curtailment needs
- Participation in Energy Intensive User Group
- Actively interface with maintenance teams
- Develop business improvement projects for energy reduction and efficiency improvements at operations (energy intensity)
- Develop large-scale solar photovoltaic projects for our sites, together with participation in the Anglo American partnership with EDF Renewables which is the heart of AA Southern Africa Renewable Energy Ecosystem, which is expected to generate 3-5GW of renewable energy by 2030 in the Southern Africa region and to provide 24/7 renewable energy across Anglo American Southern African operations.

#### Risk appetite and tolerance

- Currently out of risk appetite
- Within tolerance.

#### Potential impact on capitals

- Production
- Cost
- Financial.

In FY22, there were over 158 days of loadshedding, and 53 days of load curtailment – the most since Eskom power-system constraints started in 2007.



## Principal risks continued

## 2 SOCIAL LICENCE TO OPERATE

RISI

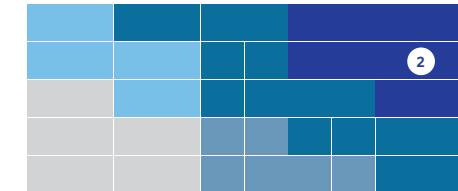
2 2022

2 2021

## Risk description

If local communities and wider society actively oppose the existence of our operations, our ability to implement and conduct our activities could be threatened.

There are rising levels of dissatisfaction among communities and wider society on social delivery, unresolved legacy issues, and less-than-expected benefit from mining.



Strategy impact and link	Risk owner: Executive head: corporate affairs	
Root cause	Potential impacts	Mitigation
<ul style="list-style-type: none"> <li>Dissatisfaction among communities on social delivery, community perception of transformation, employment and procurement activities</li> <li>Environmental impact, ie dust, noise, pollution, reduced resources (water/land)</li> <li>Use of trust money by communities</li> <li>Poor and deteriorating service delivery of local municipalities and other government departments to communities</li> <li>Less-than-expected benefit from mining</li> <li>Trust relationship between communities and Anglo American Platinum due to legacy issues</li> <li>Poor engagement between traditional leaders and communities</li> <li>High unemployment</li> <li>Lack of adequate skills set for jobs and procurement opportunities</li> <li>Society and NGOs' expectations as information scrutiny increases</li> <li>Cultural heritage issues.</li> </ul>	<ul style="list-style-type: none"> <li>Reduced levels of trust between mine and communities</li> <li>Community over-reliance on mines for economic and other benefits</li> <li>Potential negative human rights impacts on communities during protests</li> <li>Loss of production and possible damage to assets</li> <li>Negative reputational consequences</li> <li>Threats of violence and physical harm to site team members</li> <li>Lawlessness due to third-party influence</li> <li>Unscrupulous business forums seeking to leverage opportunities (procurement mafia).</li> </ul>	<ul style="list-style-type: none"> <li>Various internal strategies, mechanisms and plans in place dealing with community engagement and participation, grievances, livelihoods restoration programmes.</li> </ul>
Risk appetite and tolerance		
<ul style="list-style-type: none"> <li>Currently within risk appetite, but potential to exceed it</li> <li>Within tolerance.</li> </ul>		
Potential impact on capitals		
<ul style="list-style-type: none"> <li>Safety and health</li> <li>Socio-political</li> <li>Financial.</li> </ul>		
Production and financial impact of incidents, operational impact due to resettlements and relocation of graves.		

## Principal risks continued

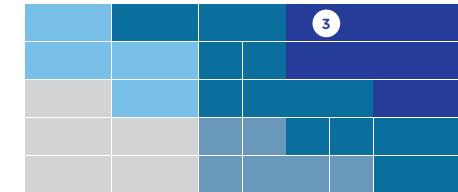
### 3 EMPLOYEE SAFETY

RISK: 3 2022

3 2021

#### Risk description

Failure to deliver a sustained improvement in safety performance. Senior management continue to treat safety risk management as a top priority. The number and nature of high-potential incidents (HPIs) and increased number of incidents from not adhering to basic safety rules and standards is evident, indicating significant work remains.



#### Strategy impact and link

**Risk owner:** Executive head: asset reliability and safety, health, environment and energy

#### Root cause

- Inconsistent application of safety rules and hazard identification, including non-compliance to critical controls
- Exposure to major safety-related issues: lifting and rigging, scraper winches, material handling, moving machinery, working at heights, isolation, control of energy.

#### Potential impacts

- Loss of life
- Workplace injuries
- Safety-motivated stoppages by regulators
- Threats to our licence to operate.

#### Mitigation

- Implementing safety management system standards, fatal-risk standards and safety golden rules, supported by robust risk management and risk assurance processes
- Creating a leadership approach and culture conducive to innovation and improved safety performance. Enhance people development, using KPI-based reward and recognition to drive behaviours
- Move up the hierarchy of controls through innovation and engineering capability
- Relentless focus on safety improvement and safety risk management by executive management
- Anglo American group wide elimination-of-fatalities programme
- Process safety management.

#### Risk appetite and tolerance

- Currently within risk appetite, but potential to exceed it
- Within tolerance.

#### Potential impact on capitals

- Safety and health
- Production
- Financial.

Renewed focus on risk training which triggers instances when work should stop.



## Principal risks continued

4

## **MACRO-ECONOMIC UNCERTAINTY, CREATING PRICE AND EXCHANGE RATE VOLATILITY**

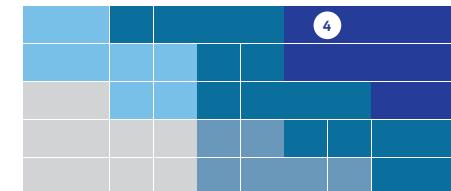
## RISK:

4 2022

4 2021

## Risk description

Macro-economic uncertainty creating price and exchange rate volatility impacting cash flow, profitability and return on capital employed (ROCE).



Strategy impact and link



**Risk owner:** Finance director

## Root cause

- Global economic environment could impact the price for PGMs
  - Current political factors could impact exchange rate
  - Slower-than-expected growth in emerging economies.

## Potential impacts

- Fluctuating levels of cash flow, profitability and ROCE
  - Reduced ability to exploit future growth/value-enhancing initiatives.

## Mitigation

- Strategy to position company in H1 of cost curve, ensuring sustainable return
  - Asset strategy and targeted AISC (all-in sustaining cost)
  - Integrated planning process
  - Regular updates of economic analysis and commodity price assumptions to management
  - Continued focus on operational improvements, cost control, disciplined capital allocation and cash generation.

## Risk appetite and tolerance

- Currently within risk appetite, but potential to exceed it
  - Within tolerance

## Potential impact on capitals

- Production
  - Cost
  - Financial.

The global economic recovery is facing significant headwinds amid persistent labour-market challenges, lingering supply-chain challenges and rising inflationary pressures. In addition, with the Russian invasion of Ukraine we now face rapidly changing challenges related to supply-chain disruption, cybersecurity, currency and metal price fluctuations.

## Principal risks continued

### 5 SOCIO-ECONOMIC POLITICAL INSTABILITY/UNREST

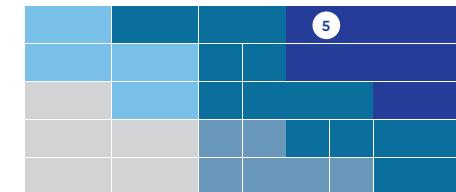
RISK:

5 2022

7 2021

#### Risk description

One of the key themes continuing to emerge in South Africa is significant and growing unemployment (particularly among the youth, at 61.4%), exacerbated by current global geopolitical and economic factors. With the after-effects caused by Covid-19, together with supply-chain bottlenecks, global growth is expected to decelerate further, impacting jobs and livelihoods in other sectors of the South African economy. This may have a direct impact on our operations and the company which, if not controlled, could result in widespread anarchy and disruptions in areas close to our operations.



#### Strategy impact and link

**Risk owner:** Executive head: corporate affairs

#### Root cause

- Combination of poverty, inequality and unemployment further compounded by high inflation and cost of living
- Community expectations for local procurement
- Job losses and losses of heads of households and/or breadwinners
- Over-extension by law enforcement in dealing with unrest
- Local authority service-delivery failure.

#### Potential impacts

- Disruption of operational activities
- Weakened cash flow, profitability and ROCE
- Loss of investor confidence
- Criminality associated with procurement opportunities
- Threats of violence and physical harm to site team members.

#### Mitigation

- Various initiatives in place, some comprising joint campaigns between the company protection services function, social performance and operational site management
- Various internal strategies, mechanisms and plans in place dealing with community engagement and participation, grievances, livelihoods restoration programmes.

#### Risk appetite and tolerance

- Currently within risk appetite, but potential to exceed it
- Within tolerance.

#### Potential impact on capitals

- Safety and health
- Socio-political
- Production
- Cost
- Financial.

The 2021 unrest in South Africa provided further evidence that significant security incidents can flare up with little warning and present challenges to security teams in safeguarding operations and ensuring business continuity.

# Principal risks continued

## 6 INFORMATION AND CYBERSECURITY

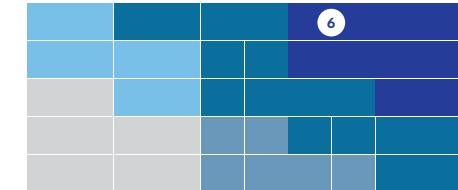
RISK:

6 2022

9 2021

### Risk description

Failing to sufficiently protect the data and information of certain initiatives or knowledge holders from leakage, cybercrime or attack. Various vulnerabilities and triggers may impact our business, including cyber-attacks, failing hardware, failing network infrastructure, failed disaster recovery, and sabotage to our network or hardware. The complexity of individuals working on their own computers (and increasingly from home), throws up a myriad of challenges: security, privacy, social hacking, phishing, etc.



### Strategy impact and link

Risk owner: Finance director

#### Root cause

- Increased capabilities of hackers/attackers
- Rise in cyber-incidents (eg phishing, spoofing and hacking attempts)
- Non-adherence to group information security policy.

#### Potential impacts

- Loss of critical and/or sensitive data
- Reputational damage
- Safety impacts (through loss of control of operating systems, particularly process systems)
- Financial losses
- Regulatory fines.

#### Mitigation

- Extending technical controls and existing capabilities to include monitoring high-risk assets and advanced network-monitoring technologies
- Implementing augmented detection capabilities
- Security campaigns to create awareness.

#### Risk appetite and tolerance

- Within risk appetite, high consequence rating requires close monitoring
- Within tolerance.

#### Potential impact on capitals

- Production
- Cost
- Financial.

With the increase in cyber-vulnerability noted both locally and globally, interventions around physical controls and the programme to improve employee awareness is likely to have reduced the number of incidents and likelihood of successful attacks.

# Principal risks continued

7

## FUTURE DEMAND AND SUPPLY OF PGMs

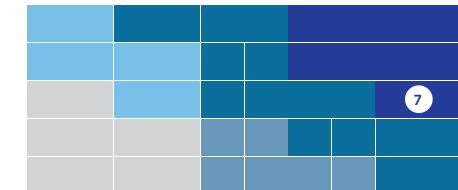
RISK:

7 2022

8 2021

### Risk description

Future demand for PGMs is at risk from potentially slower growth in combustion-engine vehicle manufacturing, technological developments resulting in battery-electric vehicles competing with hydrogen fuel-cell electric vehicles, and suppressed jewellery sales, although some upside potential also exists.



### Strategy impact and link



**Risk owners:** Executive heads: market and product development and marketing, PGMs

#### Root cause

- Battery-electric vehicle adoption substituting internal combustion engine and threatening/delaying adoption in fuel-cell electric vehicle market
- Price sensitivity of individual commodities and price substitution
- Changes to consumer preference and environmental legislation impacting diesel motor-vehicle demand
- Suppressed or negative jewellery demand
- Secondary PGM supply from recycling
- Potential limited increase of primary supply from competitors (exacerbating demand/supply imbalance)
- Future technological developments that may significantly lower barriers to entry in PGM mining industry.

#### Potential impacts

- Weakened levels of cash flow, profitability and ROCE
- Loss of investor confidence
- Loss of customer confidence in capacity of supply (eg rhodium and iridium).

#### Mitigation

- Develop and sustain markets for PGMs by investing in:
  - Platinum jewellery development (India and China) via Platinum Guild International (PGI) and continuous engagement with local jewellers and fabricators
  - Stimulating investment demand through World Platinum Investment Council (WPIC)
  - Supporting technologies that use or facilitate the use of PGMs (venture capital) (AP Ventures)
  - Developing new applications for PGMs through lab-stage research and development
  - Creating favourable legislative and policy environments for PGM-bearing technologies by engaging in global policy and advocacy activities
  - Increased focus on rhodium and palladium
- Identify future trends through market intelligence
- Leasing and trading activities with PGMs
- Strategy to position company in H1 of cost curve, ensuring sustainable return
- Asset strategy and targeted AISC (all-in sustaining cost)
- Investigating commercial, ie business case, and relevant technical aspects of recycling.

#### Risk appetite and tolerance

- Currently within risk appetite, but potential to exceed it
- Within tolerance.

#### Potential impact on capitals

- Production
- Cost
- Financial.

Concerns about product substitution as prices for palladium and rhodium. The continuing Russian invasion of Ukraine creates rapidly changing challenges related to supply chain disruption, cybersecurity concerns, currency and metal price fluctuations.

## Principal risks continued

### 8 PROLONGED DISRUPTION IN DOWNSTREAM PRODUCTION

RISK:

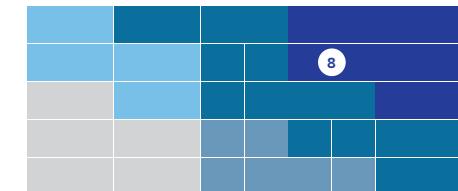
8 2022

5 2021

#### Risk description

Exposure to any catastrophic risk might lead to prolonged disruption/downtime on the single process streams magnetic concentrate (MC) plant, Base Metals Refinery (BMR) and Precious Metals Refinery (PMR), potentially impacting the company's ability to achieve its objectives and possibly leading to significant revenue loss.

However, our smelters use either of largely identical converters at the ACP, phase A or phase B, for operational flexibility and as back-up.



#### Strategy impact and link

**Risk owner:** Executive head: processing

#### Root cause

- Original design of processing downstream operations as a single line with no redundancy
- In the prior year, explosion and leaks brought the operation to a halt
- Unavailability of a stand-by converter, leaving smelting operations exposed in the short term
- Few alternative processing facilities of scale and size required by company available in the market.

#### Potential impacts

- Complete downstream production shutdown for extended period, as ACP feeds MC plant, which in turn feeds our refineries (BMR and PMR)
- Magnitude (of disruption) to catch up potential production loss might not be feasible
- Revenue loss
- Failing to meet commitments to clients might lead to financial losses.

#### Mitigation

- Proper and safe operation of assets in line with requirements of technical documents and group standards
- Elevated levels of condition monitoring by metallurgical team
- Operating model roll-out
- Business interruption insurance
- Business continuity management
- Process Safety Management (PSM) programme
- Converter re-build and maintenance strategy
- Rebuild strategy.

#### Risk appetite and tolerance

- Currently within risk appetite, but potential to exceed it
- Within tolerance.

#### Potential impact on capitals

- Safety and health
- Environment
- Production
- Cost
- Financial.

Phase A was rebuilt and commissioned in December 2020. Phase B rebuild was completed and taken into production in February 2022. The furnace rebuild at Polokwane Metallurgical Complex (PMC) is in progress and expected to be completed in 2023.

## Principal risks continued

9

### DISRUPTION OF LOGISTIC CHAINS AND CRITICAL SERVICES

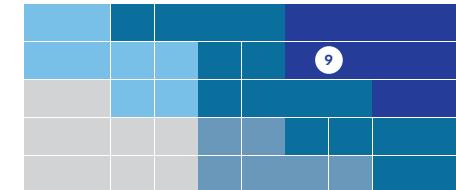
RISK:

9 2022

N\* 2021

#### Risk description

The after-effects of the Covid-19 pandemic and other geopolitical tensions continue to disrupt global supply-chain networks. Companies globally have been faced with substantial business and operational disruptions, including the effects of supply hurdles impacting their ability to meet contractual obligations to customers. Coupled with this, the increasing skills drain/talent poaching in the country; ageing infrastructure of local manufacturers/suppliers corruption and mismanagement at state owned entities and cyber-attacks on state-owned entities, suppliers and service providers, the risk of disruption to critical supplies and services has increased, which could impact the operational stability of our company.



#### Strategy impact and link

**Risk owners:** Executive heads: processing; technical and operational excellence

#### Root cause

- After-effects of Covid-19 pandemic
- Geopolitical tension (eg Russian invasion of Ukraine)
- Global port congestion due to staff shortages and poor infrastructure
- Global skills poaching
- Ageing infrastructure of local manufacturers
- Cyber-attacks on state-owned entities, supplies and service providers.

#### Potential impacts

- Loss of irrecoverable production and profits
- Failure to meet market commitments.

#### Mitigation

- Various supply-chain interventions, including global sourcing and contracts strategies to de-risk supply networks and ensure security of supply
- Readiness assessment focusing on the company's ability to detect, respond and recover from a ransomware incident, as well as organisational incident response maturity.

#### Risk appetite and tolerance

- Currently within risk appetite, but potential to exceed it
- Within tolerance.

#### Potential impact on capitals

- Safety and health
- Production
- Cost
- Financial.

The current extent of global shortages of critical components and material, together with delivery of sub-standard materials to meet customer expectations, remains a concerning challenge.

\* Not in top 10 in 2021.

## Principal risks continued

10

### NATURAL CATASTROPHE/EXTREME WEATHER IMPACT

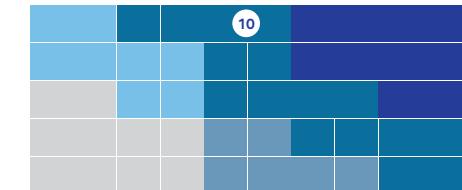
RISK:

10 2022

N\* 2021

#### Risk description

Damage to assets, critical infrastructure, production impacts and safety issues as a result of an earthquake, significant weather event or drought.



#### Strategy impact and link

**Risk owners:** Executive heads: technical and operational excellence; executive head: asset reliability and safety, health, environment and energy

#### Root causes

- Earthquake
- Excessive rain
- Significant weather event
- Drought.

#### Potential impact

- Safety – loss of life, injuries
- Significant business interruption/production impacts
- Environmental damage
- Loss of critical utilities, eg water and electricity
- Loss of critical infrastructure impacting product delivery, eg ports and pipelines
- Increased costs, eg repairs, clean-up/recovery, legal and other specialists
- Inability to deliver cash-flow and profitability targets.

#### Mitigation

- Development of and compliance with Anglo American technical standards
- Management of critical controls through operational risk management programme
- Site emergency response and business continuity plans
- Event risk and insurance programme considers natural catastrophe exposures
- Developing a roadmap to facilitate assessing potential physical climate-change hazards, evaluating implications on activities and managing identified risks.

#### Risk appetite and tolerance

- Currently within risk appetite, but potential to exceed it
- Within tolerance.

#### Potential impact on capitals

- Safety and health
- Production
- Cost
- Financial.

\* Not in top 10 in 2021.

# Ore Reserves and Mineral Resources review

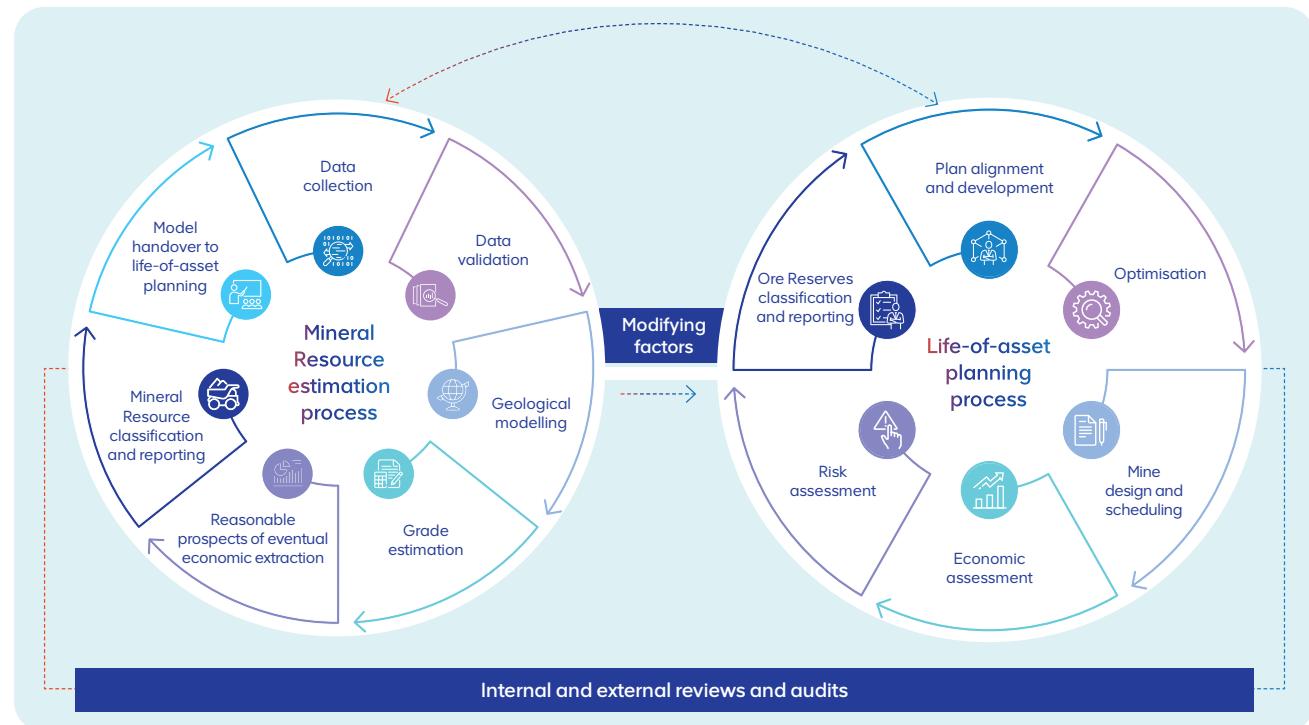
The Ore Reserves and Mineral Resources report is issued to inform stakeholders, shareholders and potential investors of the mineral assets held by Anglo American Platinum Limited. This section of the integrated report should be read in conjunction with the full Ore Reserves and Mineral Resources report which is published annually and available on [www.angloamerican.com](http://www.angloamerican.com).

Our method of reporting Ore Reserves and Mineral Resources is in accordance with the principles and guidelines for public reporting of the South African Code for Reporting of Exploration Results, Mineral Resources and Mineral Reserves (the SAMREC Code 2016), the South African Code for Reporting of Mineral Asset Valuation (SAMVAL Code, 2016) and section 12.13 of the Listings Requirements of the JSE Limited.

Ore Reserves and Mineral Resources terminology appearing in this report follows the definitions of the SAMREC Code. Ore Reserves in the context of this report has the same meaning as Mineral Reserves as defined by the Code. Estimates (tonnes and content) for individual operations and summaries quoted in this report are on a 100% basis. Ore Reserve and Mineral Resource estimates are quoted as at 31 December 2022.

The lead Competent Persons with overall responsibility for the Anglo American Platinum 2022 Ore Reserves and Mineral Resource statements are Andrew Smith and Kavita Mohanlal, respectively, who are permanent employees of the Technical and Sustainability group function (T&S) in Anglo American plc. They have provided written confirmation that the information disclosed in this report complies with the above-mentioned codes and requirements and that it may be published in the form, format and context in which it was intended. Details of all Competent Persons are provided in the Ore Reserves and the Mineral Resources report.

**Note:** In this section of the report, 4E is the sum of platinum, palladium, rhodium and gold



The Mineral Resources models are estimated and validated according to the summary process as depicted above. The models are handed over to the life-of-asset planning teams to optimise the extraction of the Mineral Resource by applying appropriate extraction methods and Modifying Factors suitable to the orebody. After applying these factors and sustainability constraints, a detailed mine design and schedule are generated. This schedule, once economically evaluated, provides the basis for the Ore Reserves declaration. The relevant geoscience and life-of-asset planning teams comprising the technical, financial and ESG specialists assess the risks and create an integrated schedule of actions required to mitigate and subsequently reduce risks relevant to the Ore Reserves and Mineral Resources.



Details of both processes are provided in the **Ore Reserves and the Mineral Resources** report.

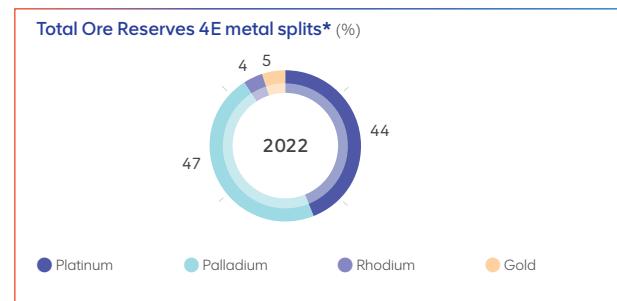
## Ore Reserves and Mineral Resources review continued

### Group highlights: Ore Reserves

Summary Ore Reserve estimates

Reef	Classification	Tonnes (run-of-mine)* Mt		Grade 4E g/t		Contained metal 4E tonnes		Contained metal 4E Moz	
		2022	2021	2022	2021	2022	2021	2022	2021
<b>South Africa</b>									
Merensky, UG2, Platreef	Proved	1,021.7	1,037.2	3.04	3.06	3,108	3,173	99.9	102.1
	Probable	468.1	468.6	3.24	3.26	1,516	1,529	48.8	49.2
	Total	1,489.8	1,505.8	3.10	3.13	4,624	4,702	148.7	151.3
<b>Zimbabwe</b>									
Main Sulphide Zone (MSZ)	Proved	28.2	30.3	3.24	3.27	91	99	2.9	3.2
	Probable	23.0	22.8	3.35	3.33	77	76	2.5	2.4
	Total	51.2	53.1	3.29	3.30	168	175	5.4	5.6
<b>South Africa and Zimbabwe</b>									
All reefs: Merensky, UG2, Platreef, MSZ	Proved	1,049.9	1,067.5	3.05	3.06	3,199	3,272	102.8	105.3
	Probable	491.1	491.5	3.24	3.27	1,593	1,605	51.3	51.6
	Total	1,540.9	1,559.0	3.11	3.13	4,792	4,877	154.1	156.9

\* Tonnage is reported as dry metric tonnes, and Ore Reserves reported as run-of-mine (ROM) tonnes. Rounding of figures may result in computational discrepancies.

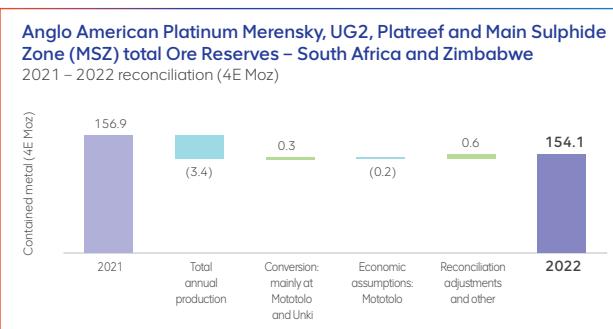


\* Managed mines only.

### Salient features: year-on-year changes

The combined South African and Zimbabwean Ore Reserves decreased in metal content by 1.8% from 156.9 4E Moz to 154.1 4E Moz in the 12-month period. This was primarily due to combined annual production. There was a minor decrease related to economic tail cuts at Mototolo which was partially offset by the conversion of Mineral Resources to Ore Reserves at Mototolo.

# Ore Reserves and Mineral Resources review continued



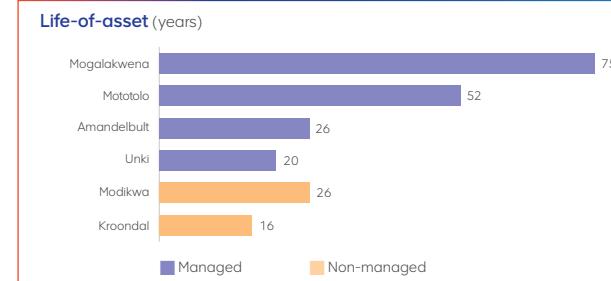
## Economic assumptions

The Ore Reserves are derived from value-based planning across all Anglo American Platinum managed operations and are directly linked to the latest approved life-of-asset plan (LOAP) taking cognisance of various Modifying Factors. The plans take cognisance of all technical, financial, environmental, social and governance (ESG) considerations which underpin the reasonable prospects for eventual economic extraction over the life of the assets. The economic parameters consider revenues from platinum group metals, base metals, chromite and other credits as well as cost 4 which consists of direct cash cost (on and off-mine), other indirect costs and stay-in-business capital (on and off-mine). The consideration of these factors ensures that the most value-accretive ore is sent to the processing plants and underpins the Ore Reserve declarations. These parameters are applied in economic assessments, valuation of projects, investment decisions, strategic planning and business planning. The global economic assumptions applied have been smoothed and stabilised to avoid overly pessimistic or optimistic long-term views. This approach should ensure that valid long-term investment decisions are not delayed or curtailed because of short-term market movements.

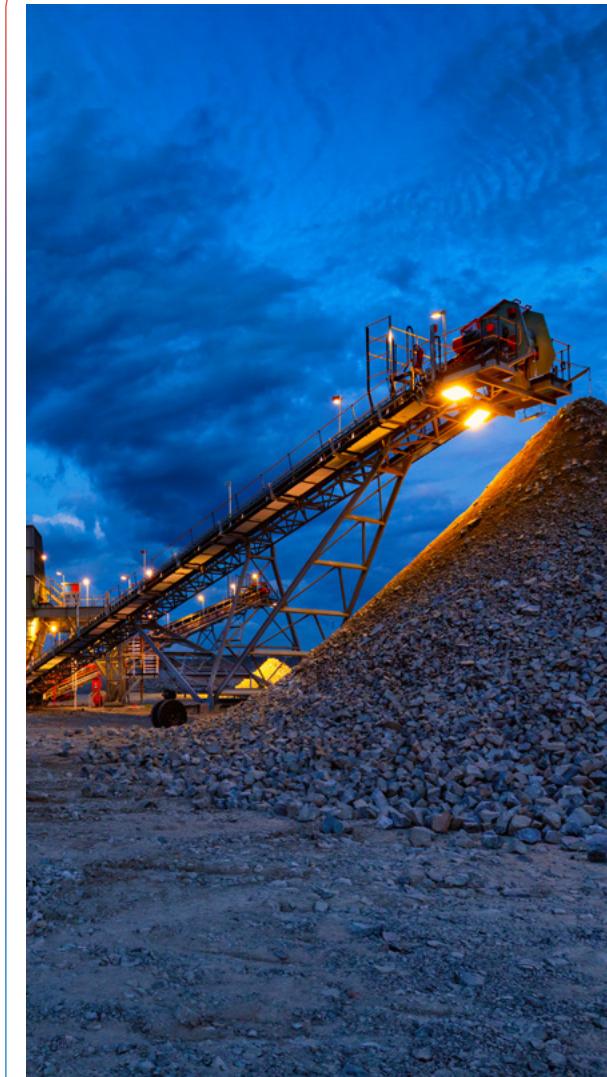
For the long-term basket price and exchange rate assumptions used for the 2022 Ore Reserves and Mineral Resources estimation and reporting, see [page 6](#) in the Ore Reserves and Mineral Resources report as well as the mining and concentrating section on [pages 104–120](#) in this report.

## Life-of-assets

The life of the individual assets is supported by the combined reefs' production planned in the approved LOAPs and includes projects that have passed the necessary approvals that underpin the Ore Reserve declaration. Where the anticipated life-of-asset exceeds the current Mining Right expiry, an application to extend the Mining Right will be submitted at the appropriate time and there is reasonable expectation that such an extension will not be withheld. The modified Inferred Mineral Resources in life-of-asset plans are excluded from the Ore Reserves declaration and assessments have indicated that the exclusion of these Inferred Mineral Resources will have no impact on the current life-of-assets.



Applying the principles of Anglo American FutureSmart Mining we are continuously assessing and evaluating options to convert the exclusive Mineral Resources to Ore Reserves through the completion and approvals of various levels of technical studies. We focus on our strategic objectives of creating more value from our core assets for all our stakeholders, extending the life of our assets while we focus on our strategy to lead in environmental, social and governance (ESG).



## Ore Reserves and Mineral Resources review continued

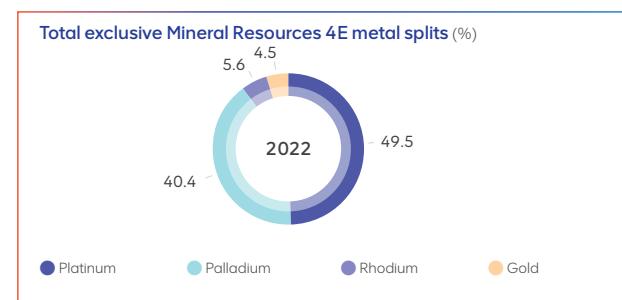
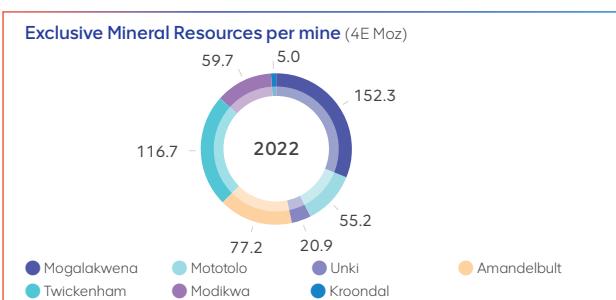
### Group highlights: Mineral Resources

\* Summary exclusive Mineral Resource estimates

Reef	Classification	Tonnes Mt		Grade 4E g/t		Contained metal 4E tonnes		Contained metal 4E Moz	
		2022	2021	2022	2021	2022	2021	2022	2021
Merensky, UG2, Platreef	Measured	599.4	918.6	4.20	4.70	2,518	4,316	80.9	138.8
	Indicated	2,141.5	2,322.8	3.23	3.37	6,905	7,817	222.1	251.4
	<b>Measured and Indicated</b>	<b>2,741.0</b>	<b>3,241.5</b>	<b>3.44</b>	<b>3.75</b>	<b>9,423</b>	<b>12,133</b>	<b>303.0</b>	<b>390.2</b>
	Inferred	1,260.8	1,653.8	4.02	4.31	5,073	7,134	163.1	229.3
	<b>Total</b>	<b>4,001.8</b>	<b>4,895.2</b>	<b>3.63</b>	<b>3.94</b>	<b>14,496</b>	<b>19,267</b>	<b>466.1</b>	<b>619.5</b>
<b>Zimbabwe</b>									
Main Sulphide Zone (MSZ)	Measured	6.1	6.7	4.12	4.11	25	27	0.8	0.9
	Indicated	114.6	114.5	4.33	4.33	496	496	16.0	15.9
	<b>Measured and Indicated</b>	<b>120.8</b>	<b>121.2</b>	<b>4.32</b>	<b>4.32</b>	<b>521</b>	<b>523</b>	<b>16.8</b>	<b>16.8</b>
	Inferred	31.8	31.7	4.04	4.04	128	128	4.1	4.1
	<b>Total</b>	<b>152.5</b>	<b>152.8</b>	<b>4.26</b>	<b>4.26</b>	<b>649</b>	<b>651</b>	<b>20.9</b>	<b>20.9</b>
<b>South Africa and Zimbabwe</b>									
All reefs: Merensky, UG2, Platreef, MSZ	Measured	605.6	925.3	4.20	4.70	2,543	4,343	81.8	139.7
	Indicated	2,256.2	2,437.3	3.28	3.41	7,401	8,313	238.0	267.3
	<b>Measured and Indicated</b>	<b>2,861.7</b>	<b>3,362.6</b>	<b>3.48</b>	<b>3.77</b>	<b>9,944</b>	<b>12,656</b>	<b>319.8</b>	<b>407.0</b>
	Inferred	1,292.5	1,685.4	4.02	4.31	5,201	7,262	167.2	233.4
	<b>Total</b>	<b>4,154.3</b>	<b>5,048.0</b>	<b>3.65</b>	<b>3.95</b>	<b>15,145</b>	<b>19,918</b>	<b>487.0</b>	<b>640.5</b>

\* Mineral Resources are exclusive of the portion converted to Ore Reserves that are quoted after appropriate geological losses are applied. Rounding of figures may result in computational discrepancies.

Due to the uncertainty that may be attached to some Inferred Mineral Resources, it cannot be assumed that all or part of an Inferred Mineral Resource will necessarily be upgraded to an Indicated or Measured Mineral Resource after continued exploration.

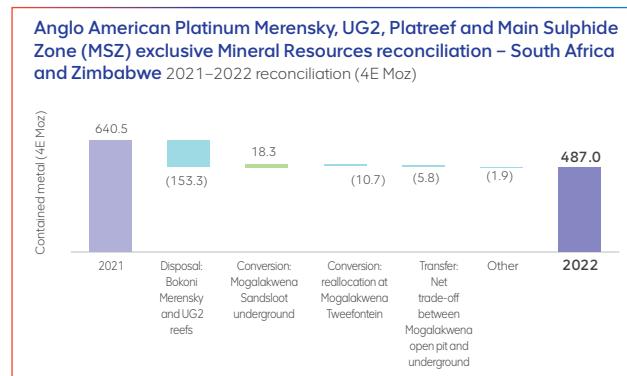


# Ore Reserves and Mineral Resources review continued

## Salient features: Year-on-year changes

The combined South African and Zimbabwean Mineral Resources, exclusive of Ore Reserves, decreased by 24% from 640.5 4E Moz to 487.0 4E Moz in the 12-month period. This was primarily due to the disposal of Bokoni mine: Merensky Reef (-55.1 4E Moz) and UG2 Reef (-98.2 4E Moz). The extent of the overall decrease in exclusive Mineral Resources was partially offset by the declaration of underground Mineral Resources in the Sandsloot area at Mogalakwena following the completion and approval of a scoping study.

For more information see our full Ore Reserves and Mineral Resources report



## Recent developments

### Conclusion of the sale of Bokoni Mine

Anglo American Platinum (49%) and Atlatsa Resources Corporation (51%) concluded the sale-and-purchase agreement (SPA) to dispose of Bokoni Mine to African Rainbow Minerals (ARM) on 1 September 2022. In conjunction with entering into the SPA, Anglo American Platinum has signed a purchase of concentrate agreement with ARM where we will purchase concentrate on commercially agreed terms from the Bokoni Mine for 23 years from delivery of the first concentrate, aligned with the current agreed life-of-asset plan.

## Mogalakwena declaration of Platreef underground Mineral Resources

A scoping study was concluded in 2022 and targets an area of Platreef Mineral Resources suitable for underground mining in the Sandsloot area. Hybrid open-stope mine design targeting the high-grade portions of the Platreef proved potentially viable during the scoping study and provided support for reporting Platreef underground Mineral Resources. This study met the reporting requirements of the Anglo American Platinum RPEEE reporting guidelines and the SAMREC Code. Indicated and Inferred Mineral Resources were declared.

## Mogalakwena Platreef underground exclusive Mineral Resource estimates\*

Classification	Tonnes Mt	Grade 4E g/t	Contained metal	
	2022	2022	2022	2022
Measured	—	—	—	—
Indicated	28.5	4.02	114	3.7
<b>Measured and Indicated</b>	<b>28.5</b>	<b>4.02</b>	<b>114</b>	<b>3.7</b>
Inferred	135.3	3.35	453	14.6
<b>Total</b>	<b>163.8</b>	<b>3.47</b>	<b>567</b>	<b>18.3</b>

\* A 1.3 4E g/t cut-off grade is used to define Platreef underground Mineral Resources (excluding oxidised and calc-silicate stockpile material for which a 3.0 4E g/t cut-off grade is applied).

The Platreef underground Mineral Resources are declared based on a scoping study, which in turn is based on preliminary technical and economic assumptions. They include Inferred Mineral Resources which are insufficient to provide certainty that the conclusions of the scoping study will be realised. See the Ore Reserves and Mineral Resources Annual Report for further details.

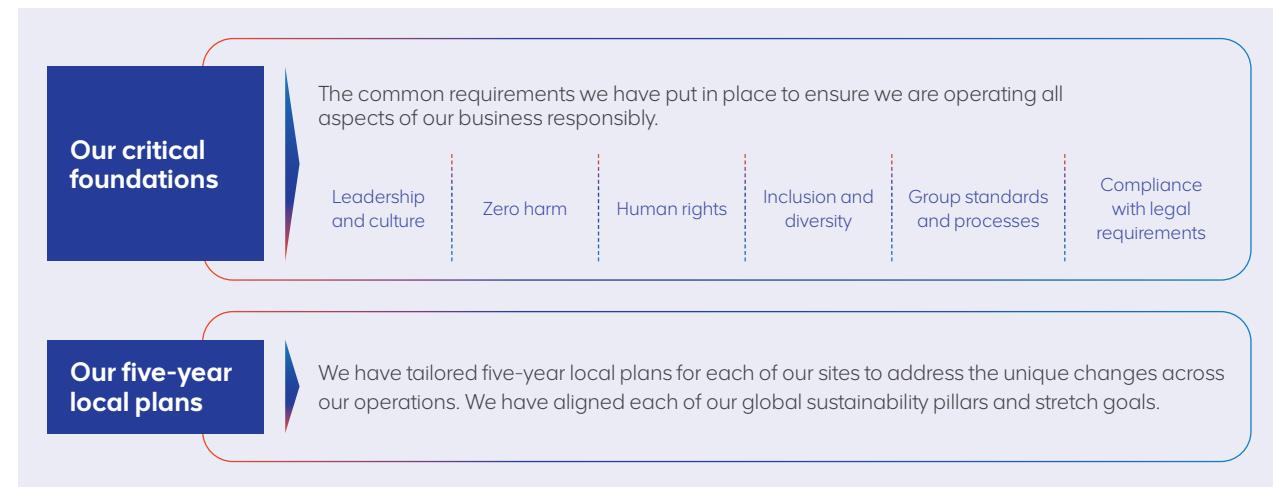
## The status of the sale agreement Sibanye-Stillwater joint operations

In January 2022, Anglo American Platinum entered into transaction agreements for the sale of its 50% interests in the Kroondal and Marikana pool-and-share agreements (the PSAs), including Siphumelele 3 shaft to Sibanye-Stillwater. The transaction is subject to regulatory approvals, including section 11 consent for the transfer of the Mining Right and approvals by the competition authorities, as well as the delivery of 1.35 4E Moz of metal-in-concentrate by the Kroondal and Marikana PSA (100% basis). The sale transaction is not reflected in this statement and is expected to be concluded in 2023.

# Sustainable mining plan summary

**Our plan has three global sustainability pillars, with three stretch goals beneath each one.**

Our sustainable mining plan



## Collaborative regional development

Our innovative partnerships model to catalyse independent, scalable and sustainable economic development in regions around our operations – the objective being to improve lives by creating truly thriving communities that endure and prosper well beyond the life of the mine.

Our sustainability pillars – **healthy environment, thriving communities and trusted corporate leader** – each include three stretch goals aligned to the UN's SDGs with targets to 2030 or beyond. They are deliberately ambitious and designed to challenge us to lead and innovate to deliver growth.

Our **critical foundations** form the common and essential minimum requirements that underpin responsible production. These policies and standards are informed by our leadership in technical innovation and learnings in ESG practice. Compliance is driven through our local five-year plans.

For mine host regions we seek long-term, sustainable development. Aligned with our global stretch goals, progress must continue far beyond the life of a mine. Effective partnerships are integral to this approach, and we work with community representatives, faith groups, businesses, government, academics and NGOs to achieve common goals.. We also collaborate with our mining peers, pooling resources to drive socio-economic development at greater scale.



# Performance

Strong financial performance, benefiting from robust PGM prices in a volatile operating environment.

## Key disclosures in this section

Financial review	87
Operations review	96
Tax and economic value generated and distributed	121
Economic and tax contribution through the life cycle of a mine	122



# Financial review

The company delivered a strong financial performance in 2022.

Headline earnings of  
**R49 billion**  
down 38% from 2021

Net cash of  
**R28 billion**  
from R49 billion in 2021

Dividend payout ratio  
**62%** of FY22  
headline earnings,  
equivalent to  
**R30 billion**  
or R115 per share

Return on capital  
employed of  
**111%**



## Overview

Anglo American Platinum delivered a strong financial performance in 2022, benefiting from a robust PGM price environment, albeit lower than the record PGM price highs achieved in the prior year, despite a volatile operating environment adversely impacting production due to electricity load curtailments and delays on the Polokwane smelter rebuild.

EBITDA was R74 billion (2021: R108 billion), our second highest on record, resulting in a mining EBITDA margin of 57% (2021: 65%), despite 1.4 million ounces of lower PGM sales volumes compared to the prior year, mainly due to 2021 recording the benefit of increased refined production due to higher than normal work-in-progress inventory following the ACP Phase B rebuild and the impact of the delay on the Polokwane smelter rebuild. Headline earnings was R49 billion (2021: R79 billion), with headline earnings per share (HEPS) of R185.42 per share (2021: R300.42 per share).

The company's balance sheet remains resilient with net cash of R28 billion, after paying the H2 2021 and H1 2022 dividends of R55 billion and R19.4 billion of taxes and royalties. Return on capital employed remained strong at 111%.

For a more comprehensive account of our financial position and performance, this review should be read with the annual financial statements for 2022 at [www.angloamericanplatinum.com](http://www.angloamericanplatinum.com).

## Financial performance

Key financial indicators underpinning our operating performance in the past year:

	2022 Rbn	2021 Rbn	% change
Net revenue	<b>164.1</b>	214.6	(24)
Cost of sales	<b>93.6</b>	109.5	(15)
Adjusted EBITDA	<b>73.9</b>	108.4	(32)
Mining EBITDA margin (%)	<b>57</b>	65	(8pp)
Headline earnings	<b>48.8</b>	79.0	(38)
Sustaining capex	<b>14.1</b>	10.8	31
Net cash	<b>27.8</b>	49.1	(43)
ROCE (%)	<b>111</b>	183	(72pp)

## Revenue

Net revenue was R164.1 billion in 2022, 24% down on 2021 (R214.6 billion). This reflected a 26% decline in sales volumes due to:

- 2021 featuring a significant release of work-in-progress inventory from own production that had built up due to the ACP shut down in 2020
- Lower refined production as quality assurance processes detected sub-standard materials received for the Polokwane smelter rebuild.

**Craig Miller**  
Finance director

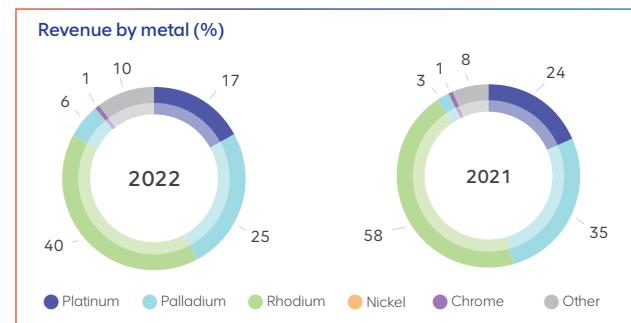
2022 saw a weaker average PGM dollar basket price owing to lower levels of automotive production as global supply chains remain constrained amid some early indications of a slowing global economy. Year on year, the platinum achieved price was 11% lower, palladium 15% lower and rhodium reduced by 20%. The realised PGM dollar basket price declined by 8% to \$2,551 per PGM ounce in 2022, however, the realised PGM rand basket price was 2% higher at R41,453 per PGM ounce sold owing to an 11% depreciation in the rand/dollar exchange rate.

## Financial review continued

Revenue from third-party purchases was R1.5 billion, 33% higher than 2021, while revenue from tolling amounted to R1.5 billion for the year, 7% higher than 2021.

### Revenue by metal

	2022 Rbn	2021 Rbn	% change
PGM (5E+Au)	<b>146.2</b>	202.3	(28)
Platinum	<b>27.1</b>	37.9	(28)
Palladium	<b>41.1</b>	56.8	(28)
Rhodium	<b>64.8</b>	92.9	(30)
Other PGMs	<b>13.2</b>	14.7	(10)
Nickel	<b>9.1</b>	5.9	54
Chrome	<b>2.2</b>	1.3	69
Other	<b>3.6</b>	2.6	38
<b>Net revenue, excluding trading and tolling</b>	<b>161.1</b>	212.1	(24)
Trading and tolling	<b>3.0</b>	2.5	20
<b>Net revenue</b>	<b>164.1</b>	214.6	(24)



### Total metal sold

		2022	2021	% change
Platinum	000 oz	<b>1,731</b>	2,367	(27)
Palladium	000 oz	<b>1,209</b>	1,589	(24)
Rhodium	000 oz	<b>257</b>	324	(21)
PGM (5E+Au)	000 oz	<b>3,861</b>	5,214	(26)
Nickel	t	<b>21,314</b>	21,552	(1)
Chrome sold	t	<b>803,473</b>	739,775	9
<b>Average market price achieved – excluding trading</b>				
Platinum	US\$/oz	<b>962</b>	1,083	(11)
Palladium	US\$/oz	<b>2,076</b>	2,439	(15)
Rhodium	US\$/oz	<b>15,600</b>	19,613	(20)
Nickel	US\$/t	<b>25,731</b>	18,472	39
Chrome	US\$/t	<b>171</b>	122	40
PGM basket price	US\$/oz	<b>2,551</b>	2,761	(8)
Average exchange rate	R/US\$	<b>16.31</b>	14.71	11
PGM basket price	R/oz	<b>41,453</b>	40,511	2

### Indexed metal price (3 January 2022 ≈ 1)



## Financial review continued

### Costs

Cost of sales decreased by 15% to R94 billion in 2022 as a result of lower purchases of concentrate cost due to lower prices, partially offset by higher mining and processing costs, which increased by 11% to R44 billion. This compares to the South African Producer Price Index for Mining for 2022 of 18%. Compared to the prior year, input costs of consumables were up, especially for items such as caustic soda 70%, oil 64%, explosives 30% and processing chemicals 22%. Electricity increased by 11%, while maintenance cost increased by 16% due to the need to ensure asset integrity at our operations. Labour and contractor costs increased by 7%.

Cash operating costs per PGM ounce produced increased by 20% to R15,338 (2021: R12,831 per PGM ounce), predominantly impacted by the effects of higher commodity linked consumables, maintenance costs and the effect of 7% lower own-mined production.

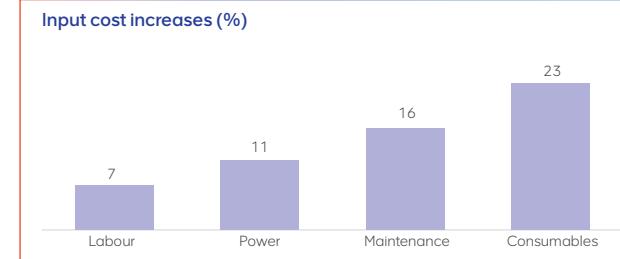
The value of inventory increased by R11.4 billion from December 2021 due to the impact of the Polokwane smelter rebuild delay, increased mining costs and higher rand PGM prices, impacting the purchases of concentrate inventory valuation.

Other costs decreased by R1.2 billion to R10.3 billion (2021: R11.5 billion), primarily reflecting a 30% decrease in royalty costs of R2.1 billion on the back of lower revenue, partially offset by an increase in transport cost and study costs supporting the future of Mogalakwena options.

### Cost of sales analysis

	2022 Rbn	2021 Rbn	% change
On-mine	<b>36.6</b>	33.0	11
Processing	<b>13.5</b>	12.0	13
Smelting	<b>7.4</b>	6.7	10
Treatment and refining	<b>6.1</b>	5.3	15
Movement in metal inventories	( <b>10.3</b> )	6.6	256
Movement in ore stockpiles	<b>0.4</b>	0.3	33
Purchase of concentrate	<b>42.1</b>	45.8	(8)
Trading activities	<b>0.9</b>	0.3	200
Other costs	<b>5.5</b>	4.6	17
Royalties and carbon tax	<b>4.9</b>	6.9	(29)
<b>Cost of sales</b>	<b>93.6</b>	109.5	(15)

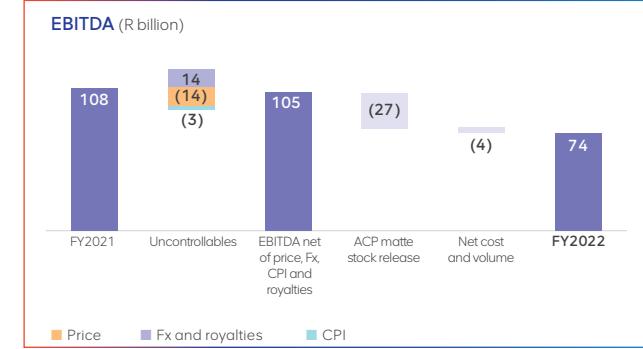
The 2022 unit cost was in line with guidance of R15,300 per PGM ounce.



### Earnings before interest, taxation, depreciation and amortisation (EBITDA)

EBITDA was 32% lower than 2021 at R74 billion (2021: R108 billion). The impact of lower prices is R14.3 billion, coupled with CPI inflationary impact of R3.2 billion, reducing EBITDA by R17.5 billion. This was partially offset by R13.9 billion lower royalties and the weaker rand/dollar exchange rate.

Excluding the above-mentioned factors and the prior year ACP matte stock release benefit of R27 billion, EBITDA is 4% lower than 2021. EBITDA was also negatively impacted by lower M&C production and the Polokwane smelter rebuild delay and above CPI cost inflation, resulting in a R3.4 billion reduction in EBITDA.



### Headline earnings

We achieved headline earnings of R49 billion (2021: R79 billion) resulting in headline earnings per share of R185.42 (2021: R300.42). The decline in headline earnings reflects the 8% lower PGM dollar basket price of \$2,551 and 26% lower sales volumes.

Net deferred consideration remeasurements from the disposal of Rustenburg and Union mines and the acquisition of Mototolo mine were negative compared to the large increase in 2021 resulting from a change in economic and operating assumptions year on year. Taxation decreased in line with lower profits.

### Capital expenditure

Total capital expenditure in 2022 was R16.9 billion, mainly comprising stay-in-business capital expenditure of R9.6 billion (2021: R7.3 billion).

Total capital expenditure increased by 24% driven by capital inflation of 11% and higher expenditure across the portfolio, as well as increased costs to bring in specific skilled labour.

Sustaining capital expenditure for the year was incurred mainly on capital maintenance to sustain asset integrity, such as the Polokwane smelter, ACP, slag-cleaning and Waterval furnace rebuilds as well as buying new and replacing heavy mining equipment at Mogalakwena and upgrading the Blinkwater tailings

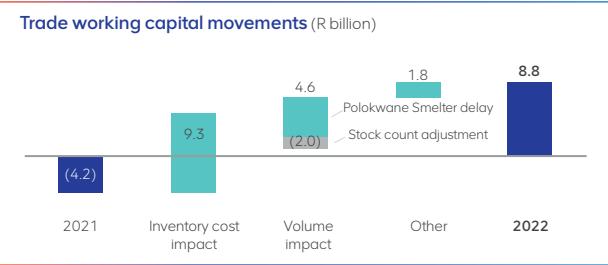
## Financial review continued

dam facility standards to global industry benchmark. In addition, we increased expenditure on asset life extension projects such as the development of Tumela 15E mechanised dropdown and Mototolo/Der Brochen replacement projects. We expect stay-in-business capital and asset life extension capital to revert to between R9.0–R11.0 billion in the longer term.

Breakthrough project capital of R1.9 billion was incurred on the modernisation of Amandelbult and RBMR copper debottlenecking projects, as well as technology projects at Mogalakwena including Coarse Particle Recovery (CPR) and Amandelbult PGM recovery improvements.

Growth capital of R0.9 billion was incurred mainly on progress associated to the Mogalakwena twin decline project.

### Working capital



Net trade working capital (inventory, trade debtors, trade creditors and customer prepayment) was R8.8 billion (9 days), compared to the negative R4.2 billion at 31 December 2021 (10 days).

Build-up of work-in-progress inventory at year end was a net increase of c.100,000 PGM ounces (R4 billion), due to the delay of the Polokwane smelter rebuild, as well as Eskom loadshedding, partially offset by strong performance from Waterval and Mortimer smelters. The build-up in work-in-progress is expected to be released in 2023 and 2024.

Higher mining and POC cost and a weaker rand increased the valuation of inventory by R9.3 billion, partially offset by the stock count adjustment of R2.0 billion.

Working capital further increased due to a decrease in the customer prepayment liability of R3.2 billion but partially offset by higher net trade creditors and debtors of R1.6 billion due to higher purchase of concentrate creditor at year end.

ROCE of 111% was lower than 2021, but still strong, driven by a sustained rand basket price.

	2022 Rbn	2021	
		Days	Rbn
Metals and consumables	<b>48.1</b>	169	36.3
Ore stockpiles	<b>2.0</b>	9	2.4
Trade receivables	<b>2.9</b>	7	1.9
Trade payables	(21.2)	(77)	(18.6)
Customer prepayment	(23.0)	(99)	(26.2)
<b>Trade working capital</b>	<b>8.8</b>	9	(4.2)
Other receivables	<b>4.8</b>	9	4.3
Other payables	(7.2)	(32)	(7.8)
<b>Total working capital</b>	<b>6.4</b>	(14)	(7.7)
			(29)

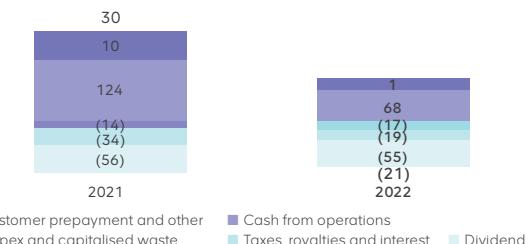
### Net cash and liquidity

The company ended the year in a net cash position of R27.8 billion compared to net cash of R49.1 billion at the end of December 2021. Cash generated from operating activities contributed R45.4 billion after paying taxes and royalties of R19.4 billion. During the year, the company received net deferred consideration receipts on assets sales and acquisition of R2.9 billion. The effect of the weaker exchange rate contributed R1.2 billion.

The cash was used to fund capital expenditure and capitalised waste stripping, collectively amounting to R16.9 billion, and pay dividends to shareholders of R54.6 billion. The company is in a net cash position of R4.8 billion, excluding the current customer prepayment value of R23.0 billion.

Liquidity headroom is at R26.1 billion, comprising both undrawn committed facilities of R20.8 billion and cash of R5.3 billion, excluding the customer prepayment.

### Net cash evolution (R billion)



### Dividend

The company's dividend policy targets a payout ratio of 40% of headline earnings. In line with our disciplined capital-allocation framework, supported by the strong balance sheet, the board has declared a second half cash dividend of R9 billion, or R34 per share, to our shareholders. This brings the aggregate 2022 dividend to R30 billion, or R115 per share, equivalent to a 62% payout on full-year 2022 headline earnings.

The dividend applies to all shareholders on the register on 31 March 2023 and is payable on 3 April 2023.

### Significant accounting matters

#### Change in estimate – inventory quantities

During the year, the group changed its estimate of quantities of inventory based on the outcome of a physical count of in-process metal. The group runs a theoretical metal inventory system based on inputs, the results of previous counts and outputs. Due to the nature of in-process inventories being contained in weirs, pipes and other vessels, physical counts only take place once per annum, except in the Precious Metals Refinery, where the physical count is usually conducted every three years. The change in estimate has had the effect of decreasing the value of inventory disclosed in the financial statements by R2.1 billion. This results in the recognition of an after-tax loss of R1.5 billion.

### Disposal

On 12 August 2022, Anglo American Platinum announced that, together with its joint venture partner, Atlatsa Resources Corporation, it has completed all the conditions precedent



## Financial review continued

related to the sale of their joint interest in Bokoni Platinum Mines Proprietary Limited to a wholly owned subsidiary of African Rainbow Minerals Limited (ARM) for a total cash consideration payable at closing of R3.5 billion.

The effective date of the transaction was 1 September 2022, when ARM took over the ownership, control, and management of Bokoni.

### Outlook

#### Operational outlook 2023

We expect to maintain an M&C production of 3.6–4.0 million PGM ounces. The net build-up of work-in-progress inventory in 2022 of c.100,000 PGM ounces will be processed and refined in 2023 and 2024. The build-up of concentrate ahead of the Polokwane smelter will be smelted during 2023; however, the ACP capacity constraint, as a result of high nickel content of Mogalakwena material, will allow for some temporary matte build-up at the end of the year, which will be released fully in 2024. Refined production guidance, therefore, is also 3.6–4.0 million PGM ounces.

#### Operational outlook 2024–2025

M&C PGM production will remain flat in 2024, despite Kroondal moving to a toll arrangement in Q2 2024 and the Baobab concentrator lease expiring. Efficiency improvements from Amandelbult and Mogalakwena, as well as additional ounces from Bokoni and Royal Bafokeng, should ensure production is constant. Refined production will be aligned to M&C production at 3.6–4.0 million PGM ounces.

In 2025, production will temporarily be lower, as Siyanda moves to a toll arrangement, and with a full-year impact of Kroondal moving to a toll arrangement. This is offset by efficiencies across other operations, as well as the ramp-up of Bokoni purchase of concentrate. Therefore M&C production will be 3.5–3.9 million PGM ounces. Refined production will be 3.3–3.7 million PGM ounces.

Operational guidance for the next three years is forecast as follows:

	Units	Guidance 2023	Forecast 2024	Forecast 2025
<b>Metal in concentrate</b>				
PGMs	(m ounces)	<b>3.6 – 4.0</b>	3.6 – 4.0	3.5 – 3.9
Platinum	(m ounces)	<b>1.65 – 1.85</b>	1.65 – 1.85	1.60 – 1.80
Palladium	(m ounces)	<b>1.15 – 1.25</b>	1.15 – 1.25	1.10 – 1.20
Other PGMs + Gold	(m ounces)	<b>0.8 – 0.9</b>	0.8 – 0.9	0.8 – 0.9
<b>Refined production</b>				
PGMs		<b>3.6 – 4.0</b>	3.6 – 4.0	3.3 – 3.7

### Financial outlook

#### Cost outlook

Unit cost guidance for 2023 is anticipated to increase to R16,800–R17,800 per PGM ounce, or \$990–\$1,050 per PGM ounce, as we expect to see a continuation of high electricity, chemical, explosives, diesel, and other imported input costs. Increases in both labour costs and electricity have been set at 6.5% and 18.7% for 2023, and we have embedded inflated input costs including an oil

price of \$100/barrel into our unit cost guidance. Management is focused on delivering further cost efficiencies in order to remain resilient in a volatile operating and price environment.

#### Capital expenditure outlook

	Units	Guidance 2023	Forecast 2024	Forecast 2025
<b>Total capital expenditure</b>	(R billion)	<b>~22.0 – 23.0</b>	~22.5	~17.5
Sustaining capital	(R billion)	<b>~17.6 – 18.6</b>	~20.0	~16.0
Stay-in-business	(R billion)	<b>~10.0 – 11.0</b>	~11.0	~9.0
Life extension capital	(R billion)	<b>~3.5</b>	~4.0	~2.5
Capitalised waste stripping	(R billion)	<b>~4.1</b>	~5.0	~4.5
<b>Growth and breakthrough project capital</b>	(R billion)	<b>~4.4</b>	~2.5	~1.5

2023 sustaining capital is expected to be between R17.6 billion – R18.6 billion:

- Stay-in-business capital is expected to be between R10.0 billion– R11.0 billion, with a ramp-up in project execution in the second half of the year. The portfolio focuses on capital maintenance for safe and stable operations; heavy mining equipment (HME); furnace rebuilds for ring repairs at Mortimer smelter and Waterval Furnace; the completion of the ACP phase A and slag-cleaning furnace rebuilds. The portfolio also includes capital for tailings dam compliance with the global industry standard on tailings management (GISTM) in respect of the ongoing buttressing at the Mogalakwena Vaalkop tailings dam and of feasibility studies that are about to commence at Amandelbult
- Life extension capital of c.R3.5 billion will focus on Amandelbult early execution work on the 1 Sub-shaft decline, Dishaba ventilation and the Der Brochen replacement project being fully ramped up in execution
- Capitalised waste stripping of c.R4.1 billion.

Growth projects spend of c. R2.4 billion is focused on completion of the Mogalakwena twin exploration decline Phase A scope and continuing the Phase B execution. Early execution capex related to the future of Mogalakwena will begin on the pollution control dam and bulk power supply and infrastructure.

Breakthrough projects of c.R2.0 billion will focus on execution of value delivering projects, such as the RBMR copper debottlenecking and surge capacity, Amandelbult PGM recovery improvement and mine modernisation.

The financial information on which the guidance is based has not been reviewed or reported on by the company's auditors.

Craig Miller

Finance director  
Johannesburg

16 February 2023

# Summarised consolidated statement of comprehensive income

for the year ended 31 December 2022

	2022 Rm	2021 Rm
<b>Gross revenue</b>		
Commissions paid	164,104	214,580
<b>Net revenue</b>	<b>164,090</b>	214,568
<b>Cost of sales</b>	<b>(93,578)</b>	(109,456)
<b>Gross profit</b>	<b>70,512</b>	105,112
Finance income	972	713
Other income	896	2,447
Reversal of/(provision for) expected credit losses	195	(125)
Dividends received	—	14
Share of (loss)/profit of equity accounted entities	(227)	952
Finance costs	(382)	(357)
Scraping of property, plant and equipment	(456)	(27)
Other expenditure	(1,016)	(3,946)
Market development and promotional expenditure	(1,342)	(966)
Fair value measurements of financial assets and liabilities and investments in environmental trusts	(2,384)	4,494
<b>Profit before taxation</b>	<b>66,768</b>	108,311
Taxation	(17,472)	(29,290)
<b>Profit for the year</b>	<b>49,296</b>	79,021
<b>Other comprehensive income, post-tax</b>	<b>(74)</b>	454
<b>Items that may be reclassified subsequently to profit or loss</b>	<b>792</b>	712
Foreign exchange translation gains	792	712
<b>Items that will not be reclassified subsequently to profit or loss</b>	<b>(866)</b>	(258)
Net losses on equity investments at FVTOCI	(913)	(355)
Tax effects	47	97
<b>Total comprehensive income for the year</b>	<b>49,222</b>	79,475
<b>Profit attributed to:</b>		
Owners of the company	49,153	78,978
Non-controlling interests	143	43
	<b>49,296</b>	79,021
<b>Total comprehensive income attributed to:</b>		
Owners of the company	49,079	79,432
Non-controlling interests	143	43
	<b>49,222</b>	79,475
<b>Earnings per share</b>		
Earnings per ordinary share (cents)		
– Basic	18,667	30,023
– Diluted	18,649	29,976
<b>Headline earnings</b>	<b>48,824</b>	79,026

## Financial



- Gross revenue decreased by 24% due to 26% decrease in sales volumes
- Cost of sales decreased by 15% to R94 billion in 2022 as a result of lower purchases of concentrate cost due to lower prices, but partially offset by higher mining and processing costs which were up 11% to R44.4 billion
- Headline earnings down 38%
- Changes in inventory estimates of R2.0 billion reduced gross profit by 1%.

## Unit cost



- Cost of sales decreased by 15% to R94 billion in 2022 as a result of lower purchases-of-concentrate cost amid lower prices, partially offset by higher mining and processing costs which were up 11% to R44.4 billion
- Unit cost of R15,338 up 20% year on year driven by 11% higher costs and 7% lower production
- The all-in sustaining unit cost for own-mines was US\$1,239 per PGM ounce sold versus an achieved price of US\$2,342.

## People



- Total labour makes up 17% of costs.

## Society



- Social investment, community development and empowerment spend of R1 billion in 2022. These costs are included in cost of sales.

# Summarised consolidated statement of financial position

as at 31 December 2022

	2022 Rm	2021 Rm
<b>ASSETS</b>		
<b>Non-current assets</b>		
Property, plant and equipment	<b>87,204</b>	77,481
Capital work-in-progress	<b>59,225</b>	52,167
Other financial assets	<b>19,940</b>	14,319
Investment in associates and joint ventures	<b>3,381</b>	6,468
Inventories	<b>1,952</b>	1,963
Investments held by environmental trusts	<b>1,147</b>	1,147
Goodwill	<b>968</b>	967
Other receivables	<b>397</b>	397
Deferred taxation	<b>140</b>	—
<b>Current assets</b>	<b>54</b>	53
Inventories	<b>89,710</b>	102,668
Cash and cash equivalents	<b>48,934</b>	37,569
Other financial assets	<b>29,593</b>	51,483
Trade and other receivables	<b>3,954</b>	7,766
Other assets	<b>3,862</b>	3,024
Taxation	<b>3,200</b>	2,431
	<b>167</b>	395
<b>Total assets</b>	<b>176,914</b>	180,149
<b>EQUITY AND LIABILITIES</b>		
<b>Share capital and reserves</b>		
Share capital	<b>26</b>	26
Share premium	<b>22,784</b>	22,782
Retained earnings	<b>69,488</b>	74,942
Foreign currency translation reserve	<b>4,268</b>	3,399
Remeasurements of equity investments irrevocably designated at fair value through other comprehensive income (FVTOCI)	<b>210</b>	1,064
Non-controlling interests	<b>186</b>	137
<b>Shareholders' equity</b>	<b>96,962</b>	102,350
<b>Non-current liabilities</b>	<b>21,895</b>	21,331
Deferred taxation	<b>17,138</b>	15,648
Environmental obligations	<b>2,906</b>	2,318
Other financial liabilities	<b>1,540</b>	2,943
Lease liabilities	<b>273</b>	330
Borrowings	<b>27</b>	81
Employee benefits	<b>11</b>	11
<b>Current liabilities</b>	<b>58,057</b>	56,468
Trade and other payables	<b>26,767</b>	25,110
Other liabilities	<b>25,605</b>	28,240
Other financial liabilities	<b>2,677</b>	2,697
Taxation	<b>1,590</b>	160
Environmental obligations	<b>1,248</b>	—
Lease liabilities	<b>103</b>	151
Borrowings	<b>55</b>	50
Provisions	<b>7</b>	30
Share-based payment provision	<b>5</b>	30
<b>Total equity and liabilities</b>	<b>176,914</b>	180,149

## Corporate transactions



- Union disposal deferred consideration of R0.7 billion was received during the year
- Rustenburg disposal deferred consideration of R4.4 billion was received during the year
- Mototolo acquisition deferred consideration of R2.5 billion paid during the year.

## Operations



- Net trade working capital at 31 December 2022 of R8.8 billion (equivalent to nine days) compared with negative R4.2 billion at 31 December 2021 (negative 10 days). Build-up of work-in-progress inventory at year end was a net increase of c.100,000 PGM ounces (R4 billion), due to the delay in the Polokwane smelter rebuild, as well as Eskom loadshedding, partially offset by strong performance from Waterval and Mortimer smelters. The build-up in work-in-progress is expected to be released in 2023 and 2024
- Higher mining and POC cost and a weaker rand increased the valuation of inventory by R9.3 billion, partially offset by the stock count adjustment of R2.0 billion
- Working capital further increased due to a decrease in the customer prepayment liability of R3.2 billion but partially offset by higher net trade creditors and debtors of R1.6 billion due to higher purchase of concentrate creditor at year end.

## Environmental



- Total rehabilitation and decommissioning provision was R4.2 billion at the end of 2022, increasing by R2.0 billion from 2021. This is as a result of provisions raised for incremental costs that are expected to be incurred for the group to conform with the Global Industry Standard for Tailings Management (GISTM).

# Summarised consolidated statement of cash flows

for the year ended 31 December 2022

	2022 Rm	2021 Rm
<b>Cash flows from operating activities</b>		
Cash receipts from customers	165,071	213,909
Cash paid to suppliers and employees	(104,984)	(89,286)
<b>Cash generated from operations</b>	<b>60,087</b>	<b>124,623</b>
Taxation paid	(14,428)	(27,902)
Interest paid (net of interest capitalised)	(301)	(235)
<b>Net cash from operating activities</b>	<b>45,358</b>	<b>96,486</b>
<b>Cash flows used in investing activities</b>		
Purchase of property, plant and equipment (includes interest capitalised)	(16,896)	(13,631)
Deferred consideration receipts	5,378	3,495
Interest received	966	698
Proceeds on sale of investment	560	—
Proceeds from loan repayments	294	8
Proceeds from sale of plant and equipment	28	128
Dividends received	22	31
Growth in environmental trusts	6	15
Dividend received from AP Ventures	—	141
Other advances	—	(66)
Purchase of Anglo American plc shares for the Bonus Share Plan	(2)	(3)
Additions to investment in associates	(4)	(19)
Additions to investments in joint ventures	(14)	(152)
Additions to debt securities; preference shares	(18)	—
Shareholder funding capitalised to investment in associates	(95)	(105)
Advances made to Plateau Resources Proprietary Limited	(99)	(110)
Additions to FVTOCI investments	(1,084)	(266)
<b>Net cash used in investing activities</b>	<b>(10,958)</b>	<b>(9,836)</b>
<b>Cash flows used in financing activities</b>		
Dividends paid	(54,601)	(55,718)
Deferred consideration payments	(2,512)	(1,710)
Purchase of treasury shares for the BSP and ESOP	(165)	(12)
Repayment of lease obligation	(95)	(156)
Cash distributions to non-controlling interest	(94)	(90)
Repayment of borrowings	(49)	(125)
<b>Net cash used in financing activities</b>	<b>(57,516)</b>	<b>(57,811)</b>
<b>Net (decrease)/increase in cash and cash equivalents</b>	<b>(23,116)</b>	<b>28,839</b>
Cash and cash equivalents at beginning of year	51,483	19,991
Foreign exchange differences on cash and cash equivalents	1,226	2,653
<b>Cash and cash equivalents at end of year</b>	<b>29,593</b>	<b>51,483</b>

# Summarised consolidated statement of changes in equity

for the year ended 31 December 2022

	Share capital Rm	Share premium Rm	Retained earnings Rm	Foreign currency translation reserve (FCTR) Rm	Remeasurements of equity investments irrevocably designated at FVTOCI Rm	Non-controlling interests Rm	Total Rm
<b>Total equity at 1 January 2021</b>	26	22,604	51,711	2,687	1,322	184	78,534
Profit for the year			78,978			43	79,021
Other comprehensive income for the year				712	(258)		454
<b>Total comprehensive income for the year</b>			78,978	712	(258)	43	79,475
Deferred taxation charged directly to equity			(24)				(24)
Dividends paid			(55,718)				(55,718)
Retirement benefit			(7)				(7)
Cash distributions to non-controlling interests						(90)	(90)
Shares acquired in terms of the BSP and ESOP – treated as treasury shares	(−)*	(12)					(12)
Shares vested in terms of the BSP	—*	190	(190)				—
Equity-settled share-based compensation			213				213
Shares forfeited to cover tax expense on vesting			(21)				(21)
<b>Balance at 31 December 2021</b>	26	22,782	74,942	3,399	1,064	137	102,350
Profit for the year			<b>49,153</b>			<b>143</b>	<b>49,296</b>
Other comprehensive income for the year				792	(866)		(74)
<b>Total comprehensive income for the year</b>			<b>49,153</b>	<b>792</b>	<b>(866)</b>	<b>143</b>	<b>49,222</b>
Deferred taxation charged to equity			(12)				(12)
Dividends paid**			(54,601)				(54,601)
Transfer of reserve on disposal of investment			(12)		12		—
Other equity movements			(77)	77			—
Cash distributions to non-controlling interests						(94)	(94)
Shares acquired in terms of the BSP and ESOP – treated as treasury shares	(−)*	(165)					(165)
Shares vested in terms of the BSP	—*	167	(167)				—
Equity-settled share-based compensation			271				271
Shares forfeited to cover tax expense on vesting			(9)				(9)
<b>Balance at 31 December 2022</b>	<b>26</b>	<b>22,784</b>	<b>69,488</b>	<b>4,268</b>	<b>210</b>	<b>186</b>	<b>96,962</b>
Per share (R)							Rm
Final 2021					125		33,159
Interim 2022					81		21,489
• Total shares in issue were 265,292,206 (2021: 265,292,206), treasury shares held were 595,107 (2021: 735,020) and Alchemy shares were 1,400,685 (2021: 1,400,685).							54,648

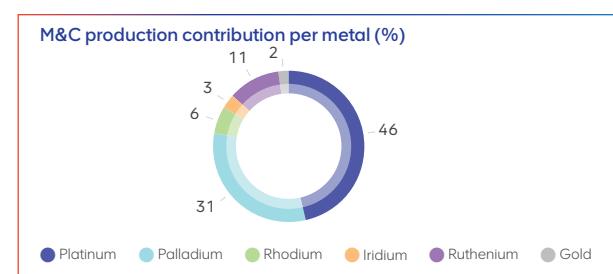
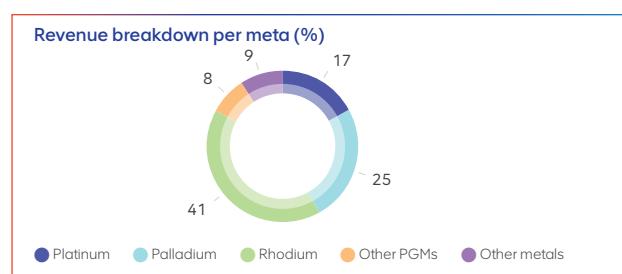
\* Less than R500,000.

\*\* Dividends paid.

# Operations review

During this year, we maintained a relatively stable operating performance while navigating multiple headwinds, including Eskom loadshedding, heavy rainfall, lower grades, disrupted supply chains and community impacts. We delivered another strong safety performance and had no loss-of-life incidents at our managed operations. We achieved a commendable cost performance, despite significant inflationary increases in our key input commodities.

We remain steadfast on delivering all aspects of our strategy and continue to build the resilience of our business. We have progressed many of our key projects, both from a sustaining and growth perspective. We believe these significant investments will secure the future of our business and enable us to weather the complexity of our operating environment. We remain disciplined in our capital allocation throughout, making the most value-accretive business decisions.



The future of Mogalakwena work continues to make good progress in all six workstreams while we maintain strong capital discipline to deliver the highest value opportunity.

## Future of Mogalakwena

The future of Mogalakwena (FoM) work continues to make good progress in the six workstreams to optimise the long-life and value creation at Mogalakwena. The workstreams are as follows:

- Resource development plan (RDP) – optimal open-pit plan, including progressing underground opportunities
- Operational efficiencies (P101) – optimise mine plan and operational performance
- Communities – create trusting relationships and valued partnerships
- Technology and innovation – develop and deploy technology, including hydrogen fuel-cell trucks
- Expanding concentrator capacity – design and build the concentrator of the future
- Downstream processing – utilise downstream processing to maximise value.

Each of these workstreams has several steps to unlock value. While being integrated, each workstream allows for separate approval stage gates and an optimised development pathway.

We have progressed the development of the first phase of the Sandsloot decline through a twin decline system which will develop into a world-class underground operation.

The first phase of the Mogalakwena community engagement programme has shown progress, with increased dialogue to find suitable solutions.

Significant work has taken place on the options for the third concentrator, although our immediate focus is to continue to improve the operating performance at Mogalakwena so that we deliver a stable platform for sustainable production.

# Operations review continued

The construction of the new concentrator, subject to approval, is likely to begin in 18 to 24 months, in line with our disciplined capital allocation approach. The intervening time will be used to further improve capital efficiencies and, therefore, returns on the asset. This also allows for time to address current supply chain disruptions, availability of construction resources and the impact of a high-inflation environment.

Over the next 18 to 24 months, we will focus specifically on:

- Further optimising the specifications and configuration of the new concentrator to ensure we maximise returns.
- Incorporating our latest in-field learnings for the technologies, which are currently deployed on North concentrator – this includes coarse particle recovery, which brings significant energy and water efficiency and tailings reduction benefits.
- Finalise plant designs, procurement packages and secure the resources to ensure a successful execution of the project.

We are focused on being disciplined in our capital allocation to ensure we deliver the highest-value opportunity, while the additional time allows us to improve technology deployment and capital efficiency. There is minimal net present value (NPV) impact from starting construction in 2026 or 2028 due to availability and quality of ore to be fed into the concentrator. As the twin exploration underground decline ramps up, higher-grade material will be available to feed into the concentrator, which would offset the likely 18 to 24-month time lag before a decision is made to start construction of the third concentrator.

## Future of Amandelbult

We remain committed to ensure the safe, stable, and capable operations of the narrow-vein mining operation. With the roll-out of modernised mining practices, we have seen the impact on safety performance and believe that it is possible to maintain this safety performance. For this reason, the base case for Amandelbult will be modernised mining methods.

We recognise, however, that mechanised mining remains the safest and most efficient mining method and will therefore continue our work to find alternative mining methods to work toward zero-injury mining and to take Amandelbult down the cost curve.

This resulted in us identifying focused workstreams within an integrated framework:

- Modernisation: improving safety, efficiencies and productivity across the conventional mining area and applying mechanisation principles and thinking to the mining processes
- Mechanised mining of new areas where it is successful: Mining studies and projects to transform Amandelbult into a mechanised operation
- Concentrator projects: studies and capital-light projects at the concentrators, incorporating new technologies, to support the mining studies and life-of-asset plan
- Integrated sustainable infrastructure plan to reduce the water and energy requirement, minimising the physical footprint and setting Amandelbult on the path to carbon neutrality
- Social management to ensure inclusive procurement opportunities, skills upliftment, and implementation of the sustainable mining plan.

## Modernisation

The modernisation programme at Amandelbult utilises modern technologies to improve safety, mine productivity and simplify operational logistics. We have modified mine operation continuously. More recently we have rolled out rock nets, LED lighting, winch proximity detection and timberless stoping across the operations.

## Mechanisation

### Tumela 15 East drop down

Tumela 15EDD was approved in December 2018 to trial the potential for utilising mechanised equipment in a traditionally conventional mining area. The project is a fully trackless operation utilising narrow-reef equipment (NRE) and low-profile equipment. Modifications have been made to the equipment to better improve performance within the current mining arrangements. Technical challenges on the NRE dozer and face drill rigs have been resolved. Additional modifications to the roof bolter are being completed, but low-profile equipment would be a more suitable solution to increase the speed of ground support in narrow-vein stoping areas. Testing and trials continue, and further investment will only be considered if the desired efficiencies are met. Completion of the project is anticipated at the end of 2023.

## Replacement ounces grow back to 7 Mtpa

### Tumela 1 sub-shaft

Tumela 1 sub-shaft is in prefeasibility for the replacement of Tumela Upper. Early access development has been approved and is in execution. The study aims to maintain current Tumela production of 270 ktpm, and both NRE and bord-and-pillar mining methods are being trialled.

### Tumela Middellaagte phase 1

Middellaagte is a project currently in prefeasibility A study phase. The project consists of declines from surface and underground development from the 620/E decline and 15 East level 10. The study focused on two main mining methods, both NRE (currently at 15EDD) and bord-and-pillar. Production is estimated to be between 110 ktpm to 180 ktpm, depending on mining method and access areas, and will start with an opencast mine in 2023.

### Mototolo/Der Brochen

The Mototolo/Der Brochen life extension project was approved by the board in December 2021, in line with our strategic priority of maximising value from our core portfolio of assets by using existing Mototolo infrastructure and enabling mining to extend into the Der Brochen resource. This will extend the life of the asset beyond 30 years at a capital cost of some R4 billion.

Execution of the project began in 2022 and will bring into operation a new shaft to progressively complement production from existing shaft infrastructure at Mototolo. Key water use licence and environment management programmes have been approved. Important milestones in 2023 will be completing the box-cut and starting to sink the decline to maintain 240 ktpm. Feasibility studies to expand this project to 320 ktpm are underway and anticipated to be completed at the end of 2023.

### ACP debottlenecking

As a result of growth opportunities in the business, an increase in furnace matte throughput is expected. Work packages were categorised into three categories namely early capacity, essential strategic and facility optimisation debottlenecking. Early capacity packages were approved for execution in October 2021 to enable ACP to reach nameplate capacity. The essential strategic package

# Operations review continued

was approved to feasibility stage in October 2021. The facility optimisation packages were investigated and re-allocated to stay-in-business for further consideration as they are not directly linked to the debottlenecking.

## Waterval slag-cleaning furnace no 2

The prefeasibility study phase for a second slag-cleaning furnace began in August 2020. Five options were considered, and a 30MW six-in-line furnace in parallel to SCF1 was presented as the go-forward option. Post the review in November 2021, the study has been placed on hold due to current footprint constraints in the Waterval complex to consider alternative options.

## Base Metal Refinery (BMR) copper leach

The R1.6 billion project was formally approved by the board in February 2019. The project aims to increase copper recovery at RBMR from 70% to 90% by installing a dedicated pressurised oxidised copper leach (POX) autoclave section. The impacts of Covid-19 had a significant impact on the completion of engineering, impacted by the delays in obtaining certified vendor information. Given the novel nature of the project, as the scope, engineering and design were enhanced to ensure a robust solution, design and scope changes were inevitable. This also considered process safety management as well as mitigating PGM losses, which inevitably affected the schedule and cost. Irrespective of the additional time and cost, the project continues to deliver a reasonable business case and is expected to complete in June 2024.

## IRMA audits

In alignment with the ethical value chains stretch goal of the sustainable mining plan, to have all operations undergo third-party audits against recognised responsible mining certification systems by 2025, we rolled out IRMA audits at our mining operations. Following a self-assessment and desktop review, on-site stage 2 IRMA audits were conducted at Mototolo and Amandelbult mines in May 2022. Unki mine achieved IRMA-75 certification in February 2021 and an IRMA surveillance audit was conducted at Unki in August 2022.

## Overview of mining assets



Chris McCleave  
Executive head: technical and operational excellence

### Mogalakwena

Mogalakwena PGM production decreased by 16% to 1,026,200 PGM ounces (2021: 1,214,600 PGM ounces). Total waste tonnes mined decreased marginally, with a 35% increase in ore tonnes mined in the period, leading to a decrease in the strip ratio to 4.3 (2021: 6.3).

Mining was impacted by drilling equipment delivery delays in the first half of the year caused by supply-chain challenges, waste-rock dumping issues following cultural-heritage work findings which increased haulage distances, and significant rainfall events. Despite these headwinds, tonnes mined only reduced by 2% year on year.

Total tonnes milled decreased by 2%, in line with mined production. However, this was offset by a 14% decrease in 4E built-up head grade of 2.79g/t (2021: 3.23g/t). The decline in the grade is

a factor of mining in lower-grade areas, as well as lower-than-anticipated grade mined in some areas. Since late 2021, there has been an extensive targeted exploration (diamond) drilling programme, together with improved geological modelling, which was embedded at the end of 2022, to increase Mineral Resource confidence ahead of mining. This has translated into changes in the near-term ounce profile. This short-term change has not impacted the overall Mineral Resource estimation for the mine.

With mining activity held mostly constant, total cash operating costs were driven by above-CPI inflationary increases, up 11%, to R13.9 billion. Mogalakwena's unit costs increased by 32% to R13,522 per PGM ounce (2021: R10,266 per PGM ounce).

Mogalakwena's EBITDA contribution decreased to R25.3 billion (2020: R38.6 billion), as a result of lower PGM prices and lower production, but retained a solid mining EBITDA margin of 63% (2021: 69%). Return on capital employed (ROCE) decreased to 6% (2021: 14.1%).

Total capital expenditure (excluding capitalised waste-stripping and after allocating off-mine smelting and refining capital) increased to R6.4 billion in 2022. Stay-in-business capital expenditure was R4.6 billion (2021: R3.6 billion), while project capital expenditure increased to R1.8 billion (2021: R1.4 billion). This was due to higher capital maintenance costs, increased spend on tailings dams to meet Global Industry Standards on Tailings Management (GISTM) and purchases of heavy mining equipment (HME).

During the year, R0.5 billion was invested in breakthrough capital expenditure for the coarse-particle recovery plant (CPR), and the effluent water treatment plant, both of which will be commissioned in H1 2023, real-time sensing equipment, fluid management, conditioning monitoring, and drilling automation initiatives.

### Amandelbult

Amandelbult decreased PGM production by 8% to 712,500 PGM ounces (2021: 773,200 PGM ounces). The decrease was largely due to the closure of infrastructure at Tumela Upper, a reduced footprint in the current open-pit mining area as it reaches end of life, poor ground conditions at Dishaba, as well as the impact of Eskom loadshedding.

## Operations review continued

Safety at Amandelbult has seen significant improvement, with the operation achieving two consecutive years fatality-free. The improved safety performance is attributable to many safety features that have been implemented – for example, the introduction of large-scale cover support at Tumela 15EDD, and blast-on-mesh, rock nets and bolting, which will be rolled out across Dishaba and has reduced fall-of-ground injuries by 50%. Other key safety initiatives include the roll-out of scraper-winch proximity detection technology, increased safety campaigns, issuing stop notes to address poor-compliant workplaces and increased visible felt leadership.

The implementation of modernisation has seen some benefits, with Tumela Lower implementing cycle mining, which led to a 20% increase in square metres per stoping employee. This, in turn, led to a 13% increase in production compared with 2021. Cycle mining was not fully implemented at Dishaba, owing to difficult ground conditions, resulting in a loss of mining flexibility. This led to a reduction in development (which will be a priority for the coming year).

Mechanisation at Amandelbult is advancing at the 15EDD project. PGM production from this section contributed 19,600 ounces, and a decision on whether to continue the mechanised aspect of the project will be made by the end of 2023. Other areas with mechanisation potential are being assessed; these include the Middellaagte project, which has potential for a mechanised decline from surface and the Tumela 1 sub-shaft project (which is a life extension of Tumela Lower) and has been brought forward by seven years through the recent upgrade to the Tumela 1 shaft capacity.

The base case for development of the mine will target modernised conventional mining methods until a suitable alternative has been proven.

Amandelbult also saw a reduction in surface material, which has lower grade, relative to the prior period, and therefore resulted in a higher overall 4E built-up head grade of 4.27g/t (2021: 4.18g/t).

Chrome production decreased by 13% to 771,700 tonnes of chrome concentrate on a 100% basis (2021: 883,900) following an 11% reduction in tonnes milled from underground sources. Our share of production was 74% of total volume, or 571,100 tonnes.

At the end of 2022, a decision was made to decommission the 50-year-old Merensky concentrator at Amandelbult, due to high operating costs and capital requirements. In line with our disciplined capital allocation framework, capital is prioritised in the highest-returning options; as a result, greater efficiencies can be achieved by upgrading and debottlenecking the existing U1 and U2 concentrators at Amandelbult. These are capital-light projects, that will enable tonnes mined to increase to some 7 million tonnes per annum by 2032 and can be milled at higher efficiency and lower cost through the existing infrastructure.

Cash operating costs at Amandelbult increased by 2% to R13.1 billion, as improved mining efficiencies and fixed-cost reduction from infrastructure closures were offset by above-CPI inflationary cost increases. Unit costs increased by 11% to R18,444 per PGM ounce (2021: R16,665 per PGM ounce) due to lower volumes of PGMs produced.

EBITDA decreased by 30% to R17.0 billion (2021: R24.2 billion), with a mining EBITDA margin of 52% (2021: 58%). ROCE decreased to 153% (2021: 253%).

Total capital expenditure (after allocating off-mine smelting and refining capital) reduced to R1.7 billion in 2022 from R1.6 billion in 2021. Stay-in-business capital expenditure increased to R1.0 billion (2021: R744 million), breakthrough (P101) capital projects increased to R518 million (2021: R512 million), and life-extension capital projects reduced to R126 million (2021: R319 million), due to lower spend at Tumela 15EDD.

### Mototolo

Total PGM production at Mototolo increased by 19% to 289,900 PGM ounces (2021: 244,400 PGM ounces). Production benefited from a 10% increase in tonnes milled due to the successful commissioning of the concentrator debottlenecking project to 240 ktpm from 210 ktpm in the first half of 2021. In addition, better ground conditions led to a 6% increase in 4E built-up head grade to 3.34g/t (2021: 3.14g/t).

Cash operating costs at Mototolo rose by R0.6 billion or 18%, to R3.9 billion on increased mining activity and above-CPI inflationary cost increases. Unit costs decreased marginally to R13,619 per

PGM ounce (2021: R13,651 per PGM ounce) due to the higher PGM ounces produced.

Mototolo's EBITDA decreased by 27% to R6.5 billion (2021: R8.9 billion), with a mining EBITDA margin of 61% (2021: 67%). Return on capital employed (ROCE) decreased to 129% (2021: 229%).

Total capital expenditure (after allocating off-mine smelting and refining capital) increased to R1 billion from R644 million in 2021. Stay-in-business capital expenditure was R526 million, while project capital expenditure was R489 million (2021: R552 million and R92 million respectively). Project capital increased as the Mototolo/Der Brochen project capital work commenced.

### Unki

Total PGM production at Unki increased by 13% to 232,100 PGM ounces (2021: 204,600 PGM ounces). Tonnes milled increased by 19% following the successful concentrator debottlenecking project, which has increased concentrator capacity from 180,000 tonnes per month to approximately 210,000 tonnes per month in Q4 2021. This was partially offset by a 3% reduction in 4E built-up head grade from 3.52g/t to 3.42g/t.

Cash operating costs rose by 32%, or R0.9 billion, to R3.6 billion as a result of the increased mining activity, an 11% weakening of the rand to the US dollar and above-CPI inflationary cost increases. Unit costs increased by 17% to R15,636 per PGM ounce (2021: R13,392 per PGM ounce). This reflects a 5% increase to US\$955 per PGM ounce when expressed in US dollar money terms.

Unki's EBITDA decreased by 31% to R4.3 billion (2021: R6.2 billion), with a mining EBITDA margin of 47% (2021: 62%). Return on capital employed (ROCE) decreased to 58% (2021: 114%).

Total capital expenditure (after off-mine smelting and refining capital) decreased to R650 million from R1.1 billion in 2021. Stay-in-business capital expenditure was R496 million, while project capital expenditure was R154 million (2021: R545 million and R525 million respectively). Project capital reduced in 2022 following the completion of the concentrator debottlenecking project in 2021.

# Operations review continued

## Modikwa (50% joint operation)

Modikwa's production decreased marginally to 144,500 PGM ounces (2021: 146,400 PGM ounces). Platinum output was flat year on year. The mine has increased its Merensky mining during 2022 to 88,000 tonnes from 12,000 tonnes in the prior year, which resulted in an overall lower 4E built-up head grade of 3.65g/t, down 5% from the prior period.

The chrome plant was commissioned in Q4 2021; as a result, we saw a significant increase in chrome tonnes from Modikwa.

Unit costs per PGM ounce produced increased by 25% to R18,172 (2021: R14,578) owing to higher costs and constant volume. Our share of Modikwa's costs increased by 23%, or R0.5 billion, to R2.6 billion on the back of above-CPI cost increases, once-off settling payments with the outgoing development contractors and higher profit share incentives to employees compared to 2021.

Attributable EBITDA decreased by 25% to R3.4 billion (2021: R4.6 billion), with a mining EBITDA margin of 58% (2021: 63%).

Attributable capital expenditure (after allocating off-mine smelting and refining capital) increased 50% to R580 million in 2022 (R386 million in 2021). Stay-in-business capital expenditure was R556 million, and project capital was R24 million (2021: R292 million and R94 million respectively).

## Kroondal

Kroondal's production decreased by 11% to 244,000 PGM ounces (2021: 275,100 PGM ounces) due to poor geological conditions and the Simunye shaft ramp-down to end of life. Lower volumes were partly offset by new production from opencast production.

Our share of Kroondal's costs increased by 8% or R0.3 billion to R3.6 billion due to above-CPI cost increases. Unit costs per PGM ounce produced increased by 22% to R14,853 (2021: R12,199) owing to higher costs.

Attributable EBITDA decreased by 37% to R6.6 billion (2021: R10.4 billion), with a mining EBITDA margin of 64% (2021: 69%).

Our attributable capital expenditure (after allocating off-mine smelting and refining capital), increased to R423 million in 2022 from R364 million in 2021. This was largely allocated to replacing aging equipment to sustain production.

Value preservation

Value erosion

## Overview of process assets



Gary Humphries

Executive head: processing

### Smelters

Total concentrate smelted decreased by 16% to 1.1Mt, while furnace matte processed at the ACP decreased 34% to 156,700 tonnes. The decrease in tonnes smelted reflects the challenges experienced from the uptick in Eskom load curtailment,

as well as the delay experienced in returning the Polokwane furnace into operation following a major maintenance turnaround and full crucible rebuild which occurred during the year. The three-month delay resulted from the delivery of sub-standard construction materials, which had to be remanufactured for installation in the Polokwane furnace. The Waterval and Mortimer furnaces operated well during the period that the Polokwane furnace was off-line, mitigating the buildup in concentrate inventory.

The reduced tonnes smelted, and the concentrate mix translated into reduced furnace matte volumes treated at the ACP, and

correspondingly lower converter matte production, reducing the base metals fed to the RBMR for the year.

The Anglo American operating model was implemented across the smelting operations towards the end of 2021, and good progress has been made in formulating and implementing the associated asset strategy and reliability tactics, which includes online condition monitoring and total fluid management, across the smelting operations during 2022.

The primary furnaces rebuild, and maintenance plans are well developed, with complete crucible rebuilds and major maintenance carried out at Polokwane and the Waterval slag-cleaning furnace, combined with minor rebuilds and maintenance undertaken at Mortimer and Waterval respectively during the year. The slag-cleaning furnace will be recommissioned in Q1 2023.

Total cash operating costs increased by 7% to R6.1 billion. This was attributable to the incremental costs incurred resulting from additional scope and completion delays on the slag-cleaning furnace rebuild, and significant insurance cost increases. The cash operating cost per tonne of concentrate smelted was 27% higher at R5,455 (2021: R4,308), influenced by both the higher absolute costs, and reduced volumes following the Polokwane delay.

Feasibility studies for the ACP debottlenecking projects are well advanced and are expected to complete in 2023. The designs from these studies will support downstream treatment of the expected Mogalakwena growth volumes. The debottlenecking projects are slated to increase the converter capacity to 262,000tpa by increasing availability and feed rate, and improving the stability and utilization of the converter. Projects include increasing the matte feed buffer and slow cool aisle capacities.

The study considering alternative options for a third converter plant has concluded, and due to the high capital cost, has been deferred indefinitely.

The slag-cleaning furnace rebuild underway has incorporated new technology to increase converter slag throughput to 175,000 tonnes per annum. A prefeasibility study for provision of additional slag-cleaning capacity is also underway, and the scope of this study considers various alternative short-, medium- and long-term treatment options.

## Operations review continued

The Polokwane smelter has been recommissioned and has ramped up to full capacity. All accumulated concentrate stocks will be smelted and refined within the next two years, releasing the built-up work-in-process inventory. The maintenance work currently underway on the ACP phase A unit will be complete in April, while the phase B unit will continue to run its two-year campaign till February 2024.

### RBMR

Converter matte receipts were 32% lower than 2021, while total base metals production increased marginally to 31.4kt (2021: 31.3kt), reflecting the release of all the built-up NCM inventory that had accumulated during 2021. Full-year nickel production was 20,900 tonnes (2021: 20,811), while copper cathode production rose to 10,400 tonnes in 2022. Final metal quality was much improved during 2022, with 82% of all nickel cathode conforming to Class1 LME (2021: 39%), while off-specification copper product reduced to 7.0% (2021: 19%).

Significant strides have been made in implementing the asset management framework (AMF) at the RBMR. The AMF is a comprehensive model that ensures all elements of asset management life cycle planning are in place to enable the delivery of safe, stable, and sustainable assets through excellence in asset management. The AMF baseline assessment conducted in 2018 delivered an initial maturity rating of 2.1 out of a maximum score of 5.0. Through the efforts of the asset management team, the maturity level improved to 3.4 in 2021, and stood at 3.9, slightly short of the 4.0 target, at the end of 2022. RBMR will continue the AMF journey, improving its AMF maturity level in preparation for a transition to ISO 55001 compliance in future.

Cash operating costs rose to R3.5 billion in 2022. The 17% increase in total cost reflects the above-inflation increases in energy (coal and electricity) costs, coupled with steep increases in process chemicals costs. On average, the caustic soda price was 69% higher than in 2021. The higher absolute costs, coupled with unchanged year-on-year base metals production, resulted in a 17% increase in the cash operating cost per base metal tonne, rising to R109,819, compared to R93,968 in 2021.

Stay-in-business (SIB) capital expenditure increased 32% to R501 million and is focused on replacing critical plant equipment to

ensure operational stability. P101 project capital was R528 million for the year (2021: R384 million). The P101 projects include the Polishing Copper Leach (PCL) project, which incorporates a high-pressure oxidative leach autoclave designed to increase copper recovery from 70% to 90%. The project is scheduled to deliver first copper tonnes in 2024. SIB projects are also underway to replace ageing assets at the refinery, such as the raw material storage tanks and high-pressure air compressors.

RBMR should continue to operate normally during 2023. Opportunities to improve stability and throughput, and to reduce costs are continually being identified through the operating model business improvement structures.

### PMR

The refinery operated steadily, with work-in-process inventory controlled well within the target levels. Total refined PGM production (including toll refining) decreased by 25% to 4.1 million ounces (2021: 5.5 million ounces), with individual metal production in-line with the respective ratios in the feed. The lower refined production reflects the lower inputs received from the upstream production units, largely resulting from the Polokwane Smelter rebuild delay, but also lower metal in concentrate received from PoC and third parties.

Platinum, palladium and rhodium purity continued to meet market specifications. PMR maintained 99.99% purity for platinum and palladium, and a minimum rhodium purity of 99.95% over the review period, achieving high customer satisfaction levels. Consistent LPPM-accredited good delivery platinum and palladium bars were delivered throughout the year.

On-line condition monitoring has been implemented on critical process equipment. This together with enhanced asset tactics is being used to improve preventative maintenance strategies which aim to increase equipment reliability, thereby improving plant availability and reducing cost.

The PMR cash operating cost increased by 19% to R1.5 billion from R1.3 billion in 2021. This increase was driven by above CPI inflation price increases for key input commodities, in particular chemical reagents. In some cases, the increased reliance on imported materials has resulted in increased costs, lead times

and inventories. The unit cost per refined PGM ounce was negatively impacted by the increased costs and lower production. (2022: R364/PGM oz 2021: R231/PGM oz)

Stay-in-business (SIB) capital expenditure increased to R138 million (2021: R104 million) reflecting increased spend on projects to ensure the ongoing structural and operational integrity of the refinery. R40 million was spent completing the feasibility studies and front-end engineering designs for an Osmium sponge plant and for the reclamation of solids from and relining of effluent dam 2.

Refined PGM production guidance for 2023 for owned production is between 3.6 - 4.0 million PGM ounces and between 3.3 – 3.7 million ounces for 2025.

### Purchase of concentrate

PGMs produced from purchase of concentrate activities declined by 5% to 1,374,800 PGM ounces. The majority of this reduction is due to lower production from Kroondal (PSA) where infrastructure closures have resulted in lower mined volumes and third-party volumes from Bafokeng-Rasimone and Siyanda Resources when compared to 2021.

The commercial arrangement for the Kroondal PSA (which is currently 50% own-mined, and 50% purchase of concentrate material) will change in May 2024, when the existing pooling-and-sharing arrangement will cease and will be replaced by a purchase-of-concentrate-and-toll agreement aligned with the existing Sibanye-Stillwater agreement in Rustenburg.

Similarly, in 2025, Siyanda Resources will also transition to a purchase of concentrate-and-toll agreement.

EBITDA from purchase of concentrate activities was R12.5 billion at a margin of 23% (2021: 23%).

### Toll refining

The total 4E ounces tolled was 8% lower than in 2021 at 623,000 PGM ounces following lower receipts during the tolling period. The EBITDA margin on tolling was 32% (2021: 35%).

# Operations review continued

## Asset strategy and reliability



**Riaan Blignaut**  
Executive head: asset reliability and safety, health, environment and energy

Asset integrity is a key enabler of capacity assurance in our business, given that plant condition and capability determine how sustainable operational assets are. As such, knowing the condition of our operating assets and having robust plans to renew, maintain and improve condition is a vital enabler in our business.

We are deploying a holistic approach to physical asset management. This is designed to assure an enabling environment that delivers safe, stable and capable operational outcomes, sustainable over the life of mine or business.

## Asset management strategy



## Operations review continued

We have a world-class policy that guides our asset strategy and reliability discipline. An asset management framework (AMF) underpins the policy which is aligned with PAS55 and ISO 55000. As a business, we track the maturity of this framework, recording a year-on-year improvement since 2018. A stretch target, as part of our critical task to improve asset integrity, was set to move the business from an average maturity score of 2.5 (out of 5.0) in 2019/20 to 4.0 (competence) by the end of 2022. This target was achieved.

We have created asset renewal programmes across the company since 2019, focused on restoring the integrity of priority aspects of our installed assets. We follow a risk-based approach for capital investment. Structural and electrical renewal capital programmes are two examples of many programmes initiated to ensure we keep our assets in the appropriate operational condition to deliver the business plan year on year, while ensuring over time that this investment is done at the lowest possible total cost of ownership to sustain the required performance.

The programmes cut across utilities, fleets and specific priority assets in our business. They are informed by extensive inspection-based work, using appropriate techniques and technologies. We have deployed point cloud scanning technology for structures across all our sites to give us the capability to assess conditions in 3D and relate that back to master data in our systems for tracking in an unprecedented way over the last three years. This is a data-driven prioritisation process, based on the condition and risk profile (integrated risk) of assessed assets. Priorities are converted into multiyear plans, driven via dedicated programmes managed appropriately over time.

If we look at the life cycle of installed assets, we are in a renewal phase in many areas of our business, viewed from a life-of-mine perspective. We have made significant strides in this process across many key areas of the business since 2020. The structural integrity work is particularly challenging and requires a long-term approach which we are addressing systematically. The aim is to ultimately have all our structures and non-metallics at a stage where we only will require paint and corrosion control to sustain its condition. To reach that point, we need to invest in replacement and renewal of identified areas in our operations.

All this work is premised on having quality, detailed, risk-based life-of-asset plans (LOAPs) for our business, linked to appropriate supporting tactical technology deployment to enhance and inform those plans over time. These are key in assuring capacity over life

of mine. In our business, the smelters and refineries would probably have to remain operational post-mining and closure activities. These LOAPs are coded into our maintenance management system in SAP and linked to life-cycle costing modelling to enable us to forecast what we will need to enable our assets for life of the business. These would include replacing assets as required based on performance and financial considerations. The go-live of the latest SAP upgrade in mid-2023 will include significant work to improve our asset-related master data, with plans coded in SAP to enable the process and work described.

### SIB capital effectiveness



Prakashim Moodiar

*Executive head: projects*

With a focus on improving the effectiveness and efficiency of stay-in-business capital planning and execution, we have enhanced several systems and processes. A few focus areas have been:

- **Zero-based capital life-of-asset plans (LOAPs):** we are improving short to medium-term planning of the SIB project pipeline by developing zero-based capital LOAPs across critical functional areas such as structural, electrical, civils, control and instrumentation, mechanicals, heavy mining equipment, etc.

Completion of the LOAP will lead to a well-informed risk ranked project portfolio, enabling better optimisation of the portfolio, as well as providing better integrity of information to support effective project scoping and front-end loading (FEL)

- **Improve the FEL of projects:** developed of 18–24 month flight maps for key SIB projects has helped improve the maturity of project definition across the SIB portfolio and allowed for improved procurement and integrated resource planning. This focus has improved scope definition, enabled more front-end engineering (including upfront resourcing to execute the studies), integrated site planning and improved costing accuracy
- **Contractor accreditation:** engagement with contractors to develop partnerships to ensure availability of competent and capable resources
- **Project classification:** the initiative to classify SIB projects into four different categories based on the level of complexity, with increasing complexity from category 1 to 4, has led to approval processes being fit for purpose while taking into consideration the scope, complexity and ease of execution of the individual projects. This has led to improved execution timelines for the category 1 and 2 projects
- **Social materiality assessments (SMA) tool:** the flight maps have provided more information to support early involvement of key stakeholders to map potential inclusive procurement opportunities and together with the SMA tool has supported the identification of opportunities for inclusive procurement. This supports improved ESG outcomes by proactive improving integration between SIB, social performance, supply chain and the inclusive procurement teams
- **Framework agreements:** contract finalisation has been a risk to the timely placement of orders. To mitigate this risk, as well as increase the database of potential service providers to support partnering, framework agreements for more than a 130 contractors have been finalised during 2022. These zero-commitment frameworks enable faster order placement supporting the improvement in capital planning and execution maturity by improving the certainty of durations on contracts and order placements in the project schedules
- **Onboarding:** a significant risk to project timelines is onboarding. This SIB initiative has focused on improving onboarding timelines by the integration of processes, systems and people. We have significantly reduced the onboarding timelines at our process operations. This is to be further enhanced with the roll-out of a digitised onboarding process ie SAP Fieldglass, and the roll-out of a one-stop onboarding hub across all operations.

## Operations review continued

### Managed mines – Mogalakwena

(100% owned)

Mogalakwena is 30km north-west of the town of Mokopane in Limpopo province and operates under a mining right covering 372km<sup>2</sup>. Current infrastructure comprises five open pits (Sandsloot, Zwartfontein, Mogalakwena south, central and north). The mining method is truck-and-shovel, and current operating pit depths vary from 0m to 280m. Ore is milled at the on-mine north and south concentrators as well as Messina mine's Baobab concentrator.



#### Strategy

Mogalakwena strategy is focused on delivering value from its world-class polymetallic orebody, delivering safe and sustainable production, targeting to be the lowest cost producer, and setting up strong stakeholder relationships.

#### 2023 outlook

Mogalakwena is set to produce between 1.0 and 1.1 million PGM ounces in 2023.



#### M&C production

% of PGMs	2022	2021
• Pt	42%	42%
• Pd	46%	46%
• Rh	3%	3%

#### Base metal tonnes

24.5kt 24.7kt

## 10 years fatality free

Own employees

**2,449 (+5%)**

2021: 2,332

Basket price

**R39,965/PGM oz (+6%)**

2021: R37,862/PGM oz



# Operations review continued

## Managed mines – Mogalakwena continued

		2022	2021
Fatalities	Number	—	—
TRCFR	Rate/million hrs	<b>0.65</b>	0.48
Total PGM production	000 oz	<b>1,026.2</b>	1,214.6
Net revenue	Rm	<b>40,352</b>	56,001
EBITDA	Rm	<b>25,341</b>	38,612
EBITDA margin	%	<b>63</b>	69
ROCE	%	<b>69</b>	141
Attributable economic free cash flow	Rm	<b>15,256</b>	32,652
Attributable cash flow	Rm	<b>13,469</b>	31,212
On-mine cost/tonne milled	R/tonne	<b>663</b>	567
Cash operating cost/PGM oz produced	R/PGM oz	<b>13,522</b>	10,266
All-in sustaining costs per PGM ounce sold	US\$/PGM oz	<b>1,135</b>	866

### Mineral Resources inclusive of Ore Reserves

Platreef open pit **3,033Mt** ▷ **246.8 4E Moz**

Platreef underground **163.8Mt** ▷ **18.3 4E Moz**

Platreef stockpile **65.9Mt** ▷ **3.2 4E Moz**

ESG		2022	2021
GHG intensity	tCO <sub>2</sub> (e)/tonne milled	<b>0.075</b>	0.075
GHG emissions, CO <sub>2</sub> equivalents	Tonnes	<b>1,039,241</b>	1,059,965
Energy intensity	GJ/tonne milled	<b>0.401</b>	0.397
Energy use	Gigajoules	<b>5,556,206</b>	5,633,376
L4-5 environmental incidents	Number	—	—
Hazardous waste to landfill	Tonnes	—	—
Potable water	1,000m <sup>3</sup>	—	—
Potable water intensities	m <sup>3</sup> /tonne milled	—	—
Social investment	Rm	<b>94.0</b>	81.0

**Material risks** – Three key material risks at Mogalakwena which are proactively managed through integrated risk management processes.

### 1 Pit slopes

#### Risk description

A significant risk in open pit mining is controlling slope failure.

#### Key mitigations

- Applying group technical standards.
- Very focussed safe declaration – examination and inspection.
- Accurate drill, blast, and excavation to achieve slope-design objectives.
- Loading to limit and face condition inspection strategy.
- Highwall scaling
- Surface water and surface run-off diversion
- Slope-movement monitoring.

### 2 Tailings storage facilities

#### Risk description

Integrity of the tailing storage facilities to prevent loss of containment.

#### Key mitigations

- Applying group technical and international standards.
- Construction, operation, and maintenance according to design specifications.
- Detailed deposition strategy designed to deliver pond, beach slope, freeboard operating parameters.
- Spigot and pipeline management, maintenance, and monitoring programme.
- Managing and monitoring phreatic surface.
- Monitoring dam-wall erosion and compliance to vegetation plan.
- Key governance structure including competent person, engineer of record and tailings storage facility review committee.

### 3 Social unrest

#### Risk description

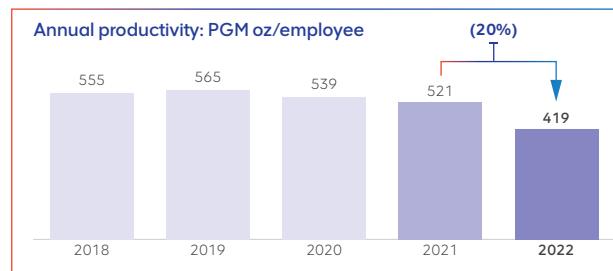
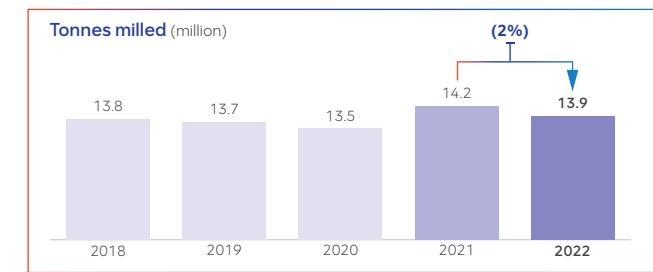
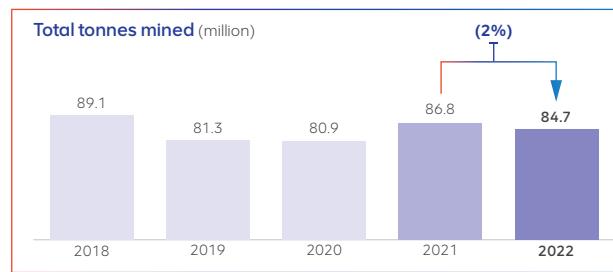
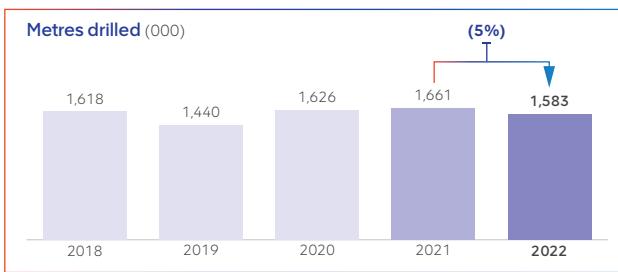
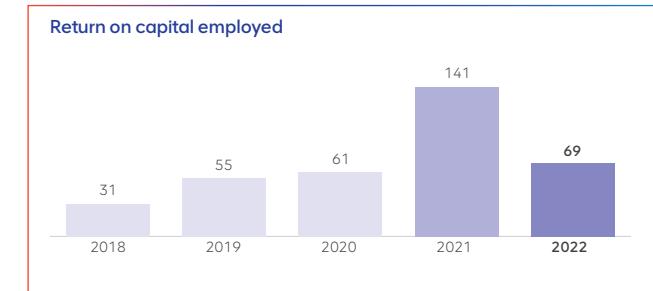
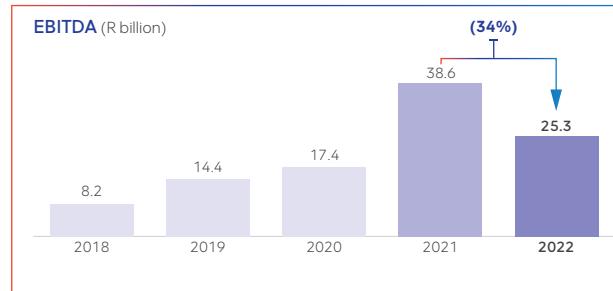
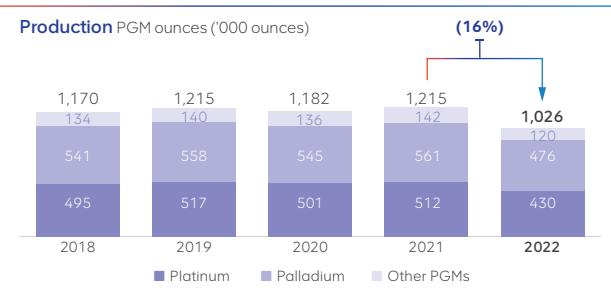
Operational disruption due to social risks relating to community expectations of resettlement, local leadership contestation, employment, and procurement opportunities.

#### Key mitigations

- Implementing resettlement action plans.
- Focusing on corporate social investment (CSI) and social and labour plans (SLP) to create opportunities and grow the local supplier footprint.
- Sustainable mining plan – thriving communities initiatives.
- Implementing the sustainable livelihood strategy.
- Continuous engagement with communities and local government.
- Municipal capacity support programmes.
- Implementation of formal community grievance, issue, and incident mechanism.

## Operations review continued

### Managed mines – Mogalakwena continued



## Operations review continued

### Managed mines – Amandelbult

(100% owned)

Amandelbult is in Limpopo, between the towns of Northam and Thabazimbi, on the North-western Limb of the Bushveld Complex. It operates under a mining right covering 141km<sup>2</sup>. The complex has two mines (Tumela and Dishaba) and two operational concentrators with two chrome plants. The current working mine infrastructure has five vertical and seven decline shaft systems to transport rock, men and material, mining on the Merensky and UG2 reef horizons. The layout is a combination of conventional scattered breast mining with strike pillars, mechanised mining areas and open pits. The operating depth for current workings runs from surface to 1.3km below surface.



#### M&C production

% of PGMs	2022	2021
• Pt	51%	51%
• Pd	23%	23%
• Rh	9%	9%

#### Strategy

Amandelbult aims to modernise its old traditional and conventional operating activities and move towards a safer mechanised mining approach to enable an improvement on the cost-curve.

#### 2023 Outlook

Amandelbult is set to produce around 700,000 PGM ounces in 2023 as both the Tumela Upper infrastructure as well as the Merensky concentrator plant close.



## 2 years fatality free

Own employees

**13,419 (-7%)**

2021: 14,483

Basket price

**R47,001/PGM oz (+2%)**

2021: R45,958/PGM oz

# Operations review continued

## Managed mines – Amandelbult continued

		2022	2021
Fatalities	Number	—	—
TRCFR	Rate/million hrs	3.15	4.10
Total PGM production	000 oz	712.5	773.2
Net revenue	Rm	32,889	41,662
EBITDA	Rm	16,962	24,151
EBITDA margin	%	52	58
ROCE	%	153	253
Attributable economic free cash flow	Rm	15,090	24,022
Attributable cash flow	Rm	14,425	23,177
On-mine cost/tonne milled	R/tonne	2,278	1,986
Cash operating cost/PGM oz produced	R/PGM oz	18,444	16,665
All-in sustaining costs per PGM oz sold	US\$/PGM oz	1,344	1,213

### Mineral Resources inclusive of Ore Reserves

Merensky reef **158.2Mt ▷ 34.9 4E Moz**

UG2 reef **360.3Mt ▷ 63.4 4E Moz**

ESG		2022	2021
GHG intensity	tCO <sub>2</sub> (e)/tonne milled	0.169	0.152
GHG emissions, CO <sub>2</sub> equivalents	Tonnes	890,354	899,117
Energy intensity	GJ/tonne milled	0.608	0.552
Energy use	Gigajoules	3,205,242	3,268,987
L4-5 environmental incidents	Number	—	—
Hazardous waste to landfill	Tonnes	—	4.36*
Potable water	1,000m <sup>3</sup>	3,360.36	3,713.52
Potable water intensities	m <sup>3</sup> /tonne milled	0.638	0.627
Social investment	Rm	118.0	27.0

\* 4.36t asbestos waste – the landfilling of asbestos is mandatory in terms of South African legislation and is excluded from the ZW2L target.

**Material risks** – Three key material risks at Amandelbult which are proactively managed through integrated risk management processes.

**1 Management of labour relating to the transition from conventional to mechanised mining**

#### Risk description

The considered management of labour profiles to align with the transition from conventional to mechanised mining processes over the next five years.

#### Key mitigations

Key interventions we are driving to ensure the smooth transition of labour are:

- Stakeholder engagement management plan.
- Reskilling and re-deployment.
- Voluntary separation opportunity management.

**2 15E DD ramp-up**

#### Risk description

The ramp up of 15E DD is highly dependent on the performance of the new technology narrow reef equipment.

#### Key mitigations

- Implementing detailed operational plans to ensure equipment functionality.
- Multiple project scenarios are being run to increase the development rates and navigate some of the key project constraints that will enable quicker ramp up.

**3 Social unrest**

#### Risk description

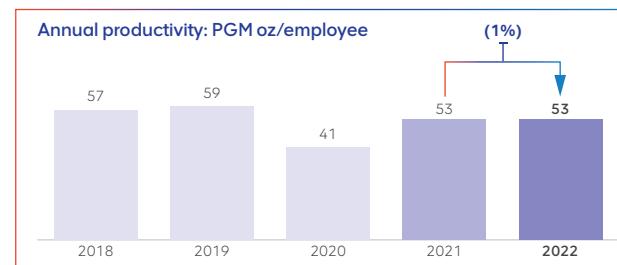
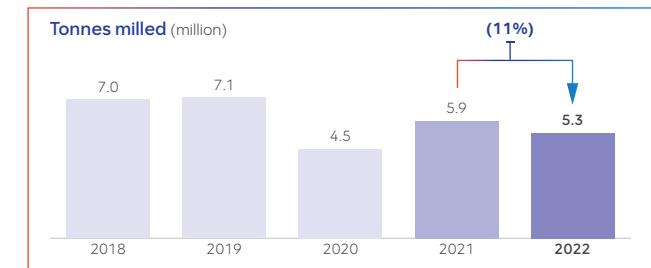
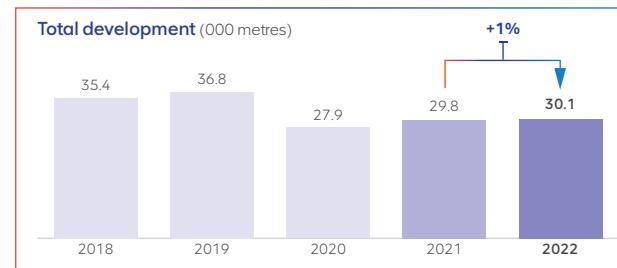
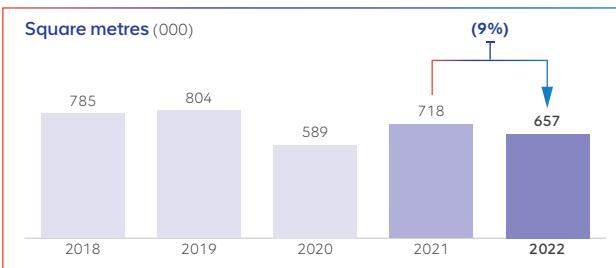
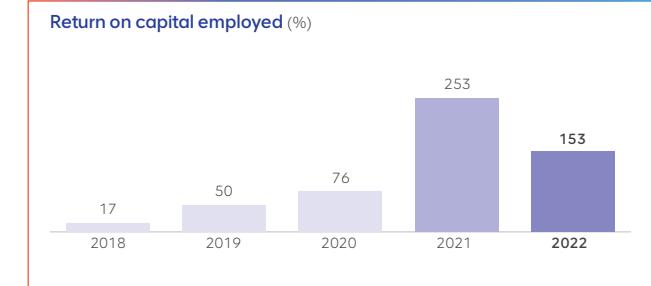
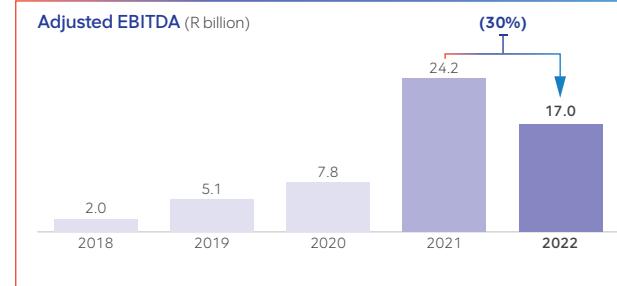
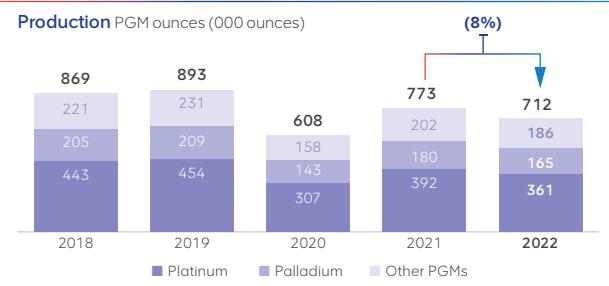
Operational disruption due to social risks relating to community expectations of employment and procurement opportunities.

#### Key mitigations

- Continuous engagement with communities in line with social way programmes.
- Focusing on corporate social investment (CSI) and social and labour plans (SLP) to create opportunities and grow the local supplier footprint.
- Implementation of formal community grievance, issue, and incident mechanism.

## Operations review continued

### Managed mines – Amandelbult continued



## Operations review continued

### Managed mines – Mototolo

(100% owned)

Situated in Limpopo, Mototolo is 30km west of the town of Burgersfort in the Eastern Limb of the Bushveld Complex and operates under a mining right covering 96.28km<sup>2</sup>.

Current infrastructure comprises two decline shafts, Lebowa and Borwa, a concentrator with an associated tailings facility and the Der Brochen project.



#### M&C production

% of PGMs	2022	2021
• Pt	46%	46%
• Pd	29%	29%
• Rh	8%	8%

#### Strategy

Mototolo strategy focusses on the development of Der Brochen mine to extend the life-of-mine and remain in the first half of the cost curve.

#### 2023 Outlook

Mototolo expects to produce between 270,000 and 290,000 PGM ounces in 2023.



## 11 years fatality free

Own employees

**2,123 (+4%)**

2021: 2,035

Basket price

**R42,052/PGM oz (-3%)**

2021: R43,226/PGM oz

# Operations review continued

## Managed mines – Mototolo continued

		2022	2021
Fatalities	Number	—	—
TRCFR	Rate/million hrs.	3.07	1.98
Total PGM production	000 oz	289.9	244.4
Net revenue	Rm	10,638	13,290
EBITDA	Rm	6,483	8,873
EBITDA margin	%	61	67
ROCE	%	129	229
Attributable economic free cash flow	Rm	5,314	8,388
Attributable cash flow	Rm	4,825	8,296
On-mine cost/tonne milled	R/tonne	1,213	1,142
Cash operating cost/PGM oz produced	R/PGM oz	13,619	13,651
All-in sustaining costs per PGM oz sold	\$/PGM oz	1,238	1,062

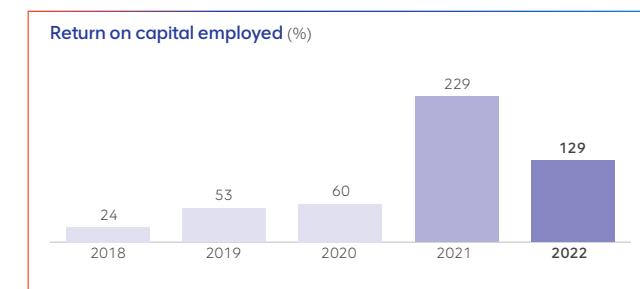
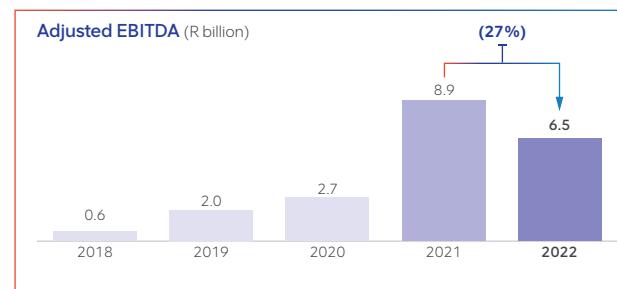
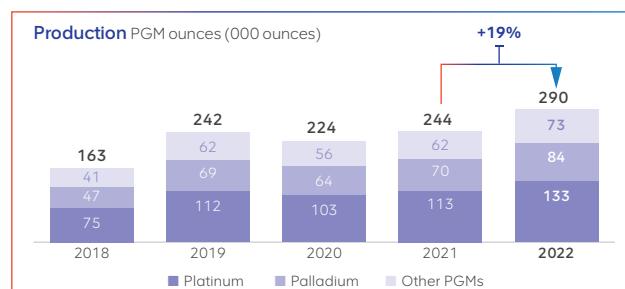
### Mineral Resources inclusive of Ore Reserves

Merensky reef 172.4Mt ▷ 25.4 4E Moz

UG2 reef 399.2Mt ▷ 51.0 4E Moz

ESG		2022	2021
GHG intensity	tCO <sub>2</sub> (e)/tonne milled	0.076	0.075
GHG emissions, CO <sub>2</sub> equivalents	Tonnes	210,578	189,684
Energy intensity	GJ/tonne milled	0.280	0.280
Energy use	Gigajoules	777,766	707,126
L4-5 environmental incidents	Number	—	—
Hazardous waste to landfill	Tonnes	26.9*	14.7*
Potable water	1,000m <sup>3</sup>	—	—
Potable water intensities	m <sup>3</sup> /tonne milled	—	—
Social investment	Rm	52.0	13.0

\* 2022: 26.9t (2021: 14.7t); single problematic waste stream – no ZW2L solution available – excluded from the ZW2L target.



## Operations review continued

### Managed mines – Unki – Zimbabwe

(100% owned)

Unki Mines (Private) Limited's operations are on the Great Dyke in Zimbabwe, 60km south-east of the town of Gweru. Unki is a mechanised, trackless, bord-and-pillar underground mine. A twin-decline shaft system provides access to underground workings for people and material, as well as ore conveyance. Both shafts remain 2.8km from the portal on surface.

Currently there are 17 mining sections. The equipped sections have strike belts for transferring ore directly to the main incline shaft conveyor. Run-of-mine ore is processed at the 210,000tpm concentrator plant on-site. The recent debottlenecking exercise on the concentrator increased capacity from c.180,000tpm to treat up to 210,000tpm.



#### M&C production

% of PGMs	2022	2021
• Pt	45%	44%
• Pd	39%	39%
• Rh	4%	4%

## 11 years fatality free

Own employees

**1,598 (+5%)**

2021: 1,525

Basket price

**R42,032/PGM oz (+2%)**

2021: R41,198/PGM oz



# Operations review continued

## Managed mines – Unki – Zimbabwe continued

	2022	2021
Fatalities	Number	—
TRCFR	Rate/million hrs	1.9
Total PGM production	000 oz	232.1
Net revenue	Rm	9,198
EBITDA	Rm	4,280
EBITDA margin	%	47
ROCE	%	58
Attributable economic free cash flow	Rm	3,638
Attributable cash flow	Rm	3,484
On-mine cost/tonne milled	R/tonne	1,102
Cash operating cost/PGM oz produced	R/PGM oz	15,636
All-in sustaining costs per PGM oz sold	US\$/PGM oz	1,144
		1,007

### Mineral Resources inclusive of Ore Reserves

Main Sulphide Zone 205.6Mt ▷ 27.4 4E Moz

ESG	2022	2021
GHG intensity	tCO <sub>2</sub> (e)/tonne milled	0.058
GHG emissions, CO <sub>2</sub> equivalents	Tonnes	143,839
Energy intensity	GJ/tonne milled	0.394
Energy use	Gigajoules	982,100
L4-5 environmental incidents	Number	—
Hazardous waste to landfill	Tonnes	—
Potable water	1,000m <sup>3</sup>	—
Potable water intensities	m <sup>3</sup> /tonne milled	—
Social investment	Rm	28.0
		11.0

**Material risks** – Three key material risks at Unki which are proactively managed through integrated risk management processes.

### 1 Cost pressure due to local currency strength

#### Risk description

Continued weakening of the local currency exchange rate against major currencies (USD/ZAR) and availability of foreign currency to meet business requirements.

#### Key mitigations

- Continued engagement with authorities to secure sustainable exchange rate policy.
- Implement value-preservation strategies for local currency balances.
- Ongoing monitoring of Zimbabwean economic environment and enhancement of response plans.

### 2 Electricity supply

#### Risk description

Availability of reliable and secure power to meet operational requirements.

#### Key mitigations

- Expediting opportunities for the development of alternative energy supply, currently focusing on a PV plant at Unki.
- Regular engagement with local electricity utility.

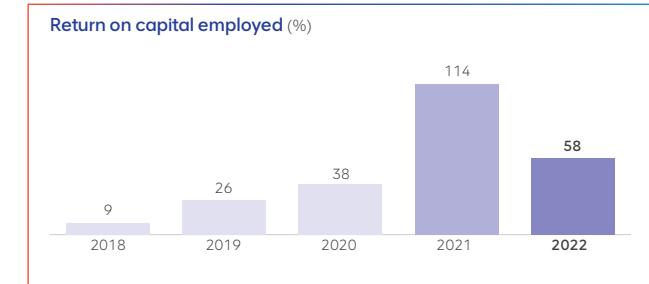
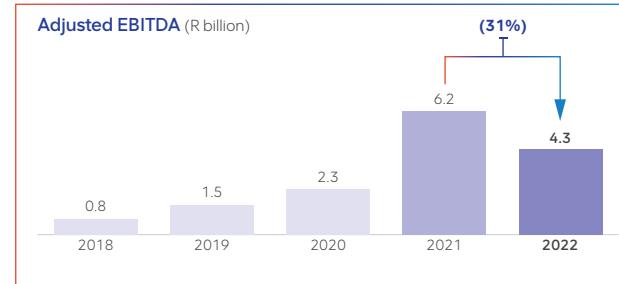
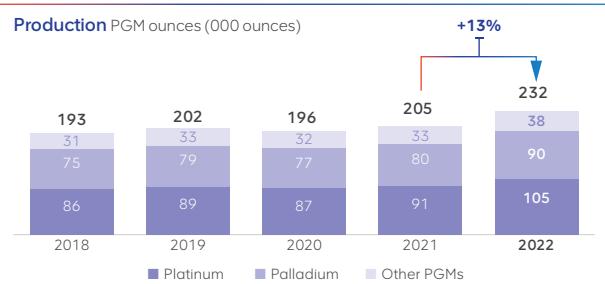
### 3 Social unrest

#### Risk description

Operational disruption due to social risks relating to community expectations and the political environment ahead of the 2023 elections.

#### Key mitigations

- Continuous engagement with communities in line with social way programmes and providing visibility of our contributions to society.
- Continuous stakeholder engagements and awareness programmes.
- Continuous communication with employees.

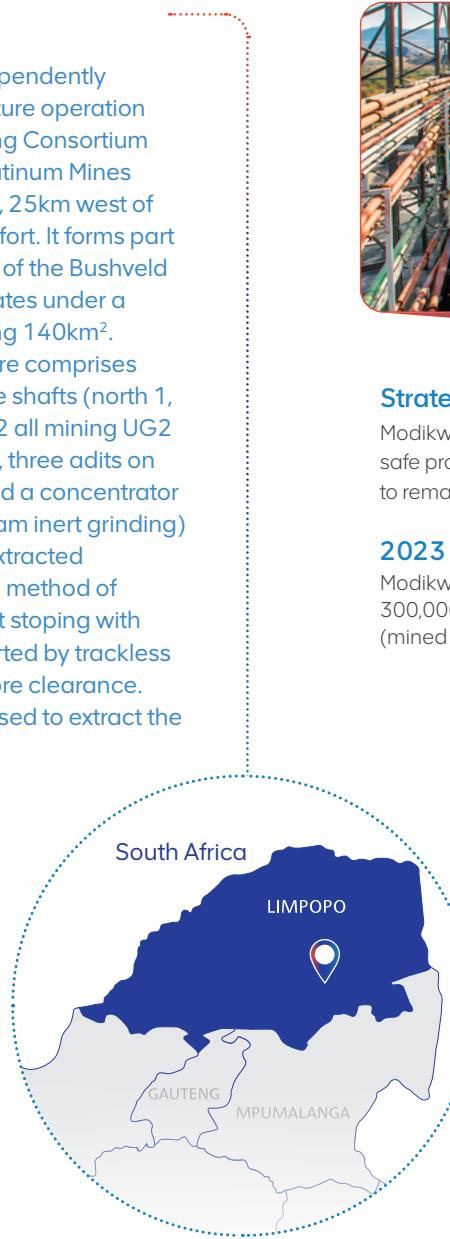


## Operations review continued

### Modikwa

(50% owned)

Modikwa is an independently managed joint venture operation between ARM Mining Consortium and Rustenburg Platinum Mines located in Limpopo, 25km west of the town of Burgersfort. It forms part of the Eastern Limb of the Bushveld Complex and operates under a mining right covering 140km<sup>2</sup>. Current infrastructure comprises four primary decline shafts (north 1, south 1, and south 2 all mining UG2 reef and Merensky), three adits on Onverwacht Hill, and a concentrator with MIG (mainstream inert grinding) plant. UG2 reef is extracted using hybrid mining method of conventional breast stoping with strike pillars, supported by trackless development and ore clearance. Bord-and-pillar is used to extract the Merensky reef.



#### Strategy

Modikwa mine strategy focuses on delivering safe profitable production and controlling costs to remain competitive against peers.

#### 2023 Outlook

Modikwa expects to produce around 300,000 PGM ounces on a 100% (mined and POC) basis in 2023.

#### M&C production

% of PGMs	2022	2021
• Pt	40%	39%
• Pd	37%	38%
• Rh	8%	8%

## 1 fatality recorded in 2022

Own employees

**2,180 (-2%)**

2021: 2,227

Basket price

**R44,346/PGM oz (0%)**

2021: R44,437/PGM oz

# Operations review continued

## Modikwa continued

		2022	2021
Fatalities	Number	1	—
TRCFR	Rate/million hrs	5.69	7.23
Total PGM production	000 oz	144.5	146.4
Net revenue	Rm	5,952	7,285
EBITDA	Rm	3,445	4,566
EBITDA margin	%	58	63
ROCE	%	143	250
Attributable economic free cash flow	Rm	2,448	4,497
Attributable cash flow	Rm	2,424	4,404
On-mine cost/tonne milled	R/tonne	1,898	1,656
Cash operating cost/PGM oz produced	R/PGM oz	18,172	14,578
All-in sustaining costs per PGM oz sold	US\$/PGM oz	1,496	1,130

### Mineral Resources inclusive of Ore Reserves (100% basis)

Merensky reef 197.9Mt ▷ 18.2 4E Moz

UG2 reef 263.1Mt ▷ 50.7 4E Moz

**Material risks –** Three key material risks at Modikwa which are proactively managed through integrated risk management processes.

#### 1 Safety performance

##### Risk description

Stabilising operations to prevent incidents that could result in harm to people, damage to property or disruption to operations.

##### Key mitigations

- Safety turnaround strategy in place, focusing on deadly hazards and priority unwanted events (winch, ventilation, and fall-of-ground)
- Increasing Visible Felt Leadership from HoD team.

#### 2 Limited mining flexibility

##### Risk description

Mining flexibility being limited due to failure to achieve primary development.

##### Key mitigations

- Five new TMM fleets have been procured.
- Improved fleet maintenance strategy has been developed and is being rolled out.
- Contractor mining has been insourced to increase immediate stopeable Ore Reserves generation.

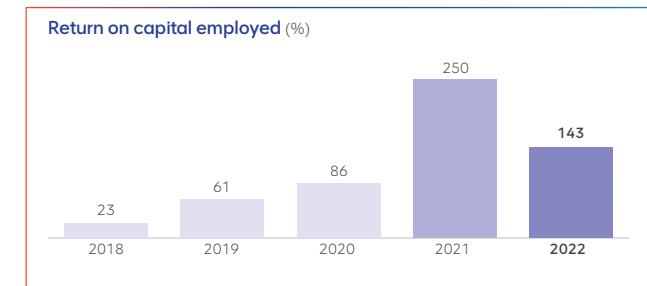
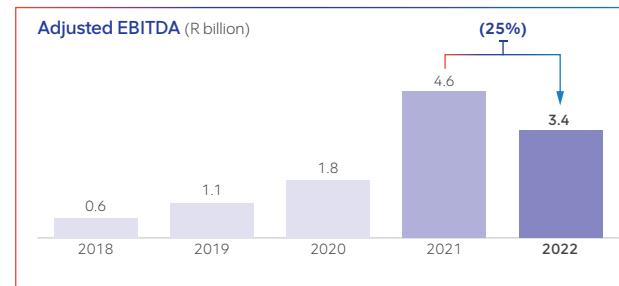
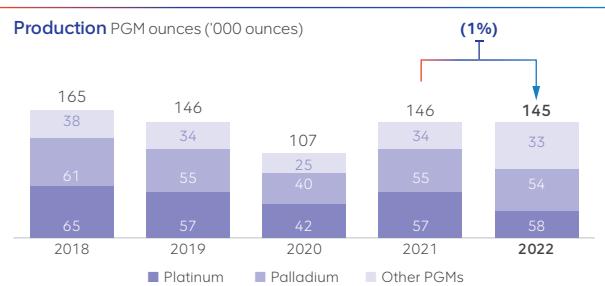
#### 3 Cost pressure due to inflation

##### Risk description

Inflationary increases are impacting Modikwa's costs, which could erode profitability with declining PGM prices.

##### Key mitigations

- A cost improvement plan has been initiated in 2022 and will be embedded in 2023.
- A major focus on maintenance, overtime, and stores costs.



## Operations review continued

### Kroondal

(50% owned)

Kroondal is a 50:50 pooling-and-sharing agreement between Sibanye-Stillwater and Rustenburg Platinum Mines. It is managed by Sibanye-Stillwater and lies in the North West province, some 10km outside the town of Rustenburg and up-dip of Rustenburg Platinum Mines. Kroondal forms part of the south-western Limb of the Bushveld Complex and operates under a mining right covering 22km<sup>2</sup>. Current infrastructure comprises five decline shafts, one opencast operation and two concentrators.

Kroondal is a partly mechanised bord-and-pillar operation, mining UG2 reef exclusively up to a depth of 450m below surface.



#### M&C production

% of PGMs	2022	2021
• Pt	49%	48%
• Pd	25%	25%
• Rh	9%	9%

#### Strategy

The Kroondal strategy focuses on delivering safe profitable production and value until the end of the pool-and-share agreement.

#### 2023 Outlook

Kroondal expects to produce around 450,000 PGM ounces on a 100% (mined and POC) basis in 2023.

## Zero fatalities in 2022

Own employees

**3,729 (+1%)**

2021: 3,691

Basket price

**R43,289/PGM oz (-2%)**

2021: R44,133/PGM oz



# Operations review continued

## Kroondal continued

		2022	2021
Fatalities	Number	—	2
TRCFR	Rate/million hrs	3.26	5.25
Total PGM production	000 oz	244.0	275.1
Net revenue	Rm	10,237	15,088
EBITDA	Rm	6,555	10,360
EBITDA margin	%	64	69
ROCE	%	365	702
Attributable economic free cash flow	Rm	5,660	10,446
Attributable cash flow	Rm	5,648	10,440
On-mine cost/tonne milled	R/tonne	1,602	1,345
Cash operating cost/PGM oz produced	R/PGM oz	14,853	12,199
All-in sustaining costs per PGM oz sold	US\$/PGM oz	1,161	916

### Mineral Resources inclusive of Ore Reserves (100% basis)

UG2 reef 64.4Mt ▷ 7.04E Moz

\* Includes Siphumelele 3 Shaft (100% owned) inclusive Mineral Resource of 15.9 Mt ▷ 1.64E Moz.

**Material risks –** Three key material risks at Kroondal which are proactively managed through integrated risk management processes

#### 1 Safety performance

##### Risk description

Stabilising operations to prevent incidents that could result in harm to people, damage to property or disruption to operations.

##### Key mitigations

- Safety turnaround strategy in place, focusing on critical controls, lifesaving behaviours and critical management routines.
- Intensify focus on deadly hazards and priority unwanted events.
- Increasing Visible Felt Leadership from HOD team.

#### 2 Social unrest

##### Risk description

Operational disruption due to exposure to unrests by communities surrounding shafts on municipal land.

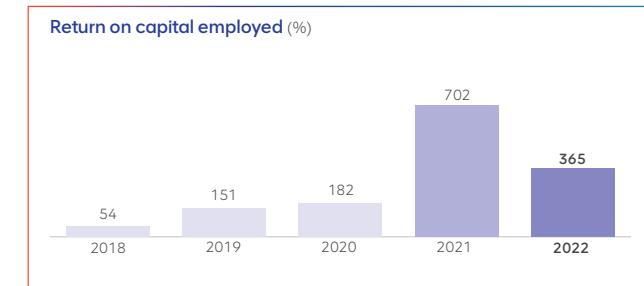
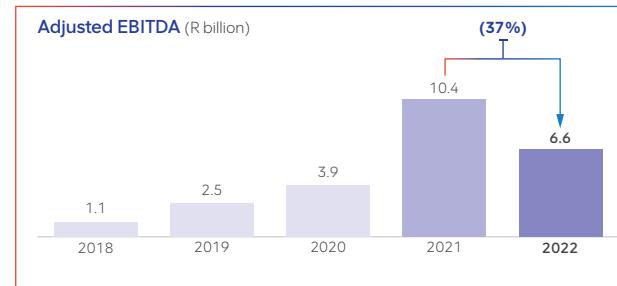
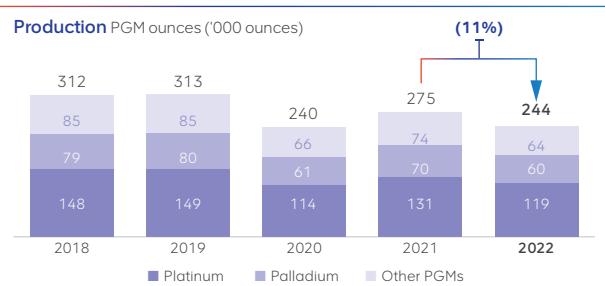
##### Key mitigations

- Increased rock engineering controls to ensure safe mining and adequate support designs.
- Increase geotechnical support.
- Increased monitoring of high-risk areas.

#### 3 Challenging ground conditions

##### Risk description

Challenging ground conditions impacting grade which includes the risk of increasing the volume of internal waste.



## Operations review continued

### Smelter operations

The primary smelters treat PGM concentrates received from wholly owned, joint-operation and third-party mines to produce furnace matte, which is transferred to ACP for further treatment. ACP upgrades furnace matte by removing iron and sulphur to produce a PGM-rich converter matte that is slow-cooled before being dispatched to the base metal refinery for further processing. The converting process produces sulphur dioxide gas that is captured and treated at the ACP acid plant, producing sulphuric acid.

### 2023 Outlook

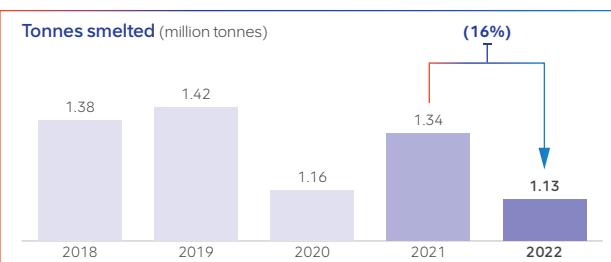
Smelters expect to process between 1.4 and 1.5 million tonnes in 2023.

## Zero fatalities in 2022

Own employees

**1,562 (+11%)**

2021: 1,407



	2022	2021
Fatalities	—	—
TRCFR	2.85	2.34
ACP furnace feed tonnes	kt	239
Tonnes smelted	Mt	1.34
Cash costs/tonne smelted	R/tonne	4,308
GHG intensity	tCO <sub>2</sub> (e)/tonne smelted	1.167
GHG emissions, CO <sub>2</sub> equivalents	Tonnes	1,530,658
Energy intensity	GJ/tonne smelted	4.699
Energy use	Gigajoules	6,161,460
L4-5 environmental incidents	Number	—
Hazardous waste to landfill	Tonnes	3.36*
Potable water	1,000m <sup>3</sup>	848.24
Potable water intensities	m <sup>3</sup> /tonne smelted	0.647

\* 2022: 40.48t – single problematic waste stream (2021: 3.36t asbestos waste).

**Material risks** – operation-specific risks cascade up to the company risk register in a disciplined, robust process

### 1 Waterval smelter slag-cleaning furnace

The timely completion of the full rebuild, planned to be completed in March 2023, provides a significant opportunity for the business to retreat Waterval converter slag (WACS) and manage the current stockpile.

#### Key mitigations

- WACS milling introduced whereby WACS is being milled and smelted through the primary furnaces when smelting capacity allows, to mitigate the increase in WACS stockpile.

### 2 Molten materials

The key risk is the management of the molten materials in the operation and the integrity of facilities for the containment of molten materials.

#### Key mitigations

- Rebuilds scheduled according to set intervals while still being monitored on a regular basis for any possible critical failure identification.
- Continuous operational monitoring of facilities' integrity.

### 3 Refractory material

Storage and management of refractory bricks used for furnace rebuilds. Inadequate quality assurance and improper stock management can lead to prolonged shut periods.

#### Key mitigations

- Alternative suppliers, own storage facilities and quality assurance through both a third-party and our own internal resources.

## Operations review continued

### Base metals refinery (RBMR)

RBMR performs bulk separation of precious metals from base metals using milling and magnetic separation at the magnetic concentrator plant. The PGM-rich magnetic fraction is upgraded in a three-stage leaching process to produce a final concentrate, fed to the PMR. The non-magnetic fraction is treated at BMR to produce base metal products – nickel and copper cathode, cobalt sulphate, and a sodium sulphate by-product.

### 2023 Outlook

RBMR expects to produce between 33,000 and 37,000 base metal tonnes of which ~60% is Nickel.

## 11 years fatality free

Own employees

**1,158 (+1%)**

2021: 1,145



	2022	2021
Fatalities	—	—
TRCFR	4.31	2.89
Base metal production	31.4	31.3
Cash costs/base metal tonne	kt	R/tonne
GHD intensity	109,819	93,968
GHD emissions, CO <sub>2</sub> equivalents	tCO <sub>2</sub> (e)/tonnes Ni+Cu+Co	11,258
Energy intensity	Tonnes	12,632
Energy use	GJ/tonnes Ni+Cu+Co	359,447
L4-5 environmental incidents	Gigajoules	69,239
Hazardous waste to landfill	Number	401,138
Potable water	Tonnes	80,214
Potable water intensities	1,000m <sup>3</sup>	2,210,654
	m <sup>3</sup> /tonnes Ni+Cu+Co	2,547,277
	—	—
	—	—
	1,170.52	1,193.30
	36.662	37.577

**Material risks** – operation-specific risks cascade up to the company risk register in a disciplined, robust process

### 1 Ageing of plant infrastructure (Platinum Salt Sensitivity)

Ageing of plant infrastructure due to utility interruptions remains a major risk to the stability and capability of the refinery.

#### Key mitigations

- The interim risk is being addressed through the capital replacement programme. Long-term roadmaps are being developed (some already at an advanced stage) to modernise the asset, bring in alternative energy sources, reduce water intensity and full automation of production.

### 2 Bulk chemicals storage and cobalt plant areas

A unique business interruption risk to RBMR is heaving foundations at the bulk chemical storage and cobalt plant areas.

#### Key mitigations

- The capital project for relocating the bulk chemicals storage area is in execution, with bulk earth works underway. Relocation of the cobalt sulfate crystalliser is planned for H2 2023, with minimal disruption to production. Affected areas will be rehabilitated after successful relocation.

### 3 Executing complex projects

Multiple complex projects being executed in an active plant pose a risk to both safety and production.

#### Key mitigations

- The risk is actively being managed through an integrated schedule by the project management office.

## Operations review continued

### Precious metals refinery (PMR)

PMR receives final concentrate from the magnetic concentrator plant at RBMR, which is refined into various high-purity PGMs and semi-refined gold to meet market requirements.

### 2023 Outlook

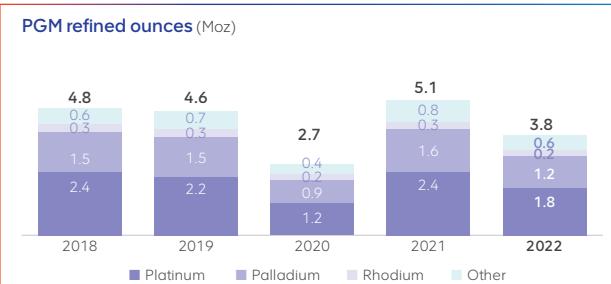
PMR is expected to produce between 3.6 and 4.0 million ounces in 2023.

## 5 years fatality free

Own employees

**746 (+4%)**

2021: 716



	2022	2021
Fatalities	—	—
TRCFR	1.55	1.10
PGM production, excluding tolling	3,831.1	5,138.4
Cash cost/PGM oz	R/oz 364	231
GHG intensity	tCO <sub>2</sub> (e)/PGM oz + Gold 0.012	0.009
GHG emissions, CO <sub>2</sub> equivalents	PGM oz + Gold 48,149	49,437
Energy intensity	GJ/PGM oz + Gold 0.040	0.031
Energy use	Gigajoules 166,398	171,582
L4-5 environmental incidents	Number —	—
Hazardous waste to landfill	Tonnes —	—
Potable water	1,000m <sup>3</sup> 153.68	177.21
Potable water intensities	m <sup>3</sup> /PGM oz + Gold 0.037	0.032

**Material risks** – operation-specific risks cascade up to the company risk register in a disciplined, robust process

#### 1 Platinum salt sensitivity (PSS) and rhodium salt sensitivity (RSS)

Platinum salt sensitivity (PSS) and rhodium salt sensitivity (RSS) remain the major health risks at PMR.

##### Key mitigations

- As part of continuous improvement in managing PSS/RSS PMR adopted the International Platinum Association (IPA) exposure standards as part of global practices
- Implementing world-class occupational and environmental exposure-control standards in the workplace
- Regularly monitoring changes in the work environment and personnel at PMR.

#### 2 Working at heights

There has been a significant increase in maintenance work where employees are required to work at heights, increasing the risk of loss of balance.

##### Key mitigations

- All high-risk work is identified as part of the work management process and this work is continually inspected by senior team members to ensure all controls are in place while executing the task.

#### 3 Containment of hazardous chemicals

Loss of containment of hazardous chemicals, which includes handling, additional storage and disposal.

##### Key mitigations

- Embedding of process safety management to ensure prevention of catastrophic release of hazardous chemicals
- In 2022, PMR had an unconditional focus on elimination of chlorine leaks by strengthening preventative maintenance tactics and implementation of process safety improvement controls.

# Tax and economic value generated and distributed

## We are committed to paying the right tax, in the right place, at the right time.

Our purpose of re-imagining mining to improve people's lives guides our delivery of sustainable value to our shareholders, our employees, and our broader business and societal stakeholders.

For more information on our impressive range of tax and broader financial contributions across our operating footprint, please see the 2022 tax and economic contribution report at [www.angloamerican.com](https://www.angloamerican.com).

### Tax strategy

The 2022 Anglo American group tax strategy can be found at <https://www.angloamerican.com/investors/annual-reporting>.

Our strategy is closely aligned with the responsible tax principles of the B-Team, a not-for-profit initiative that aims to encourage a better way of doing business. A key pillar of our tax strategy is transparency, which includes publishing details of how we seek to engage with stakeholders as trusted corporate leaders.

### Responsibility

Our board is ultimately accountable for our compliance with the tax strategy. Responsibility for ensuring compliance is delegated to the group head of tax, and taxation matters are overseen by our finance director and audit and risk committee. The group head of tax is supported by a local and global team of experienced tax practitioners.

### Approach to tax compliance

We are committed to paying the right tax, in the right place, at the right time. We recognise the importance of respecting the spirit and letter of the law, including aligning tax treatment with commercial reality. We seek certainty on tax matters where possible. In all our dealings with tax

authorities, including where we seek certainty, our relationships are centred on transparency. Where tax authorities have adopted co-operative compliance arrangements, we will therefore favourably consider participation.

As set out in our tax strategy, we allocate value by reference to where it is created and managed within the normal course of commercial activity, and we pay tax on that basis. We do not use tax haven jurisdictions to manage taxes and we commit to not transfer value created to low tax jurisdictions.

### Tax transparency

We are committed to providing tax transparency to our stakeholders. We see the benefits of this transparency with all our stakeholders, including:

- **Shareholders:** the knowledge that we are deeply committed to good tax governance and responsible tax practices, thereby mitigating tax risk
- **Tax authorities:** the development and maintenance of long-term, open and constructive relationships
- **Communities:** understanding the economic benefits attributable to mining activities in their regions
- **Others:** making a meaningful contribution to ongoing tax and transparency debates. We proactively engage with industry bodies, business forums and civil society.

Public disclosure is essential to building trust in the mining industry. Anglo American has voluntarily provided information about tax payments in each of the business units for many years and the first tax and economic contribution report was published in 2014 to provide details for all major operating jurisdictions of the taxes and royalties they pay, taxes they collect and other key economic contributions to local economies, such as wages/salaries, capital investment and procurement spend.



# Economic and tax contribution through the life cycle of a mine

## Our social and economic contribution in South Africa in 2022

Anglo American Platinum is proud of the role it plays in the country's economy and continues to explore new ways to support development and deliver sustainable value to make a meaningful impact.



# Economic and tax contribution through the life cycle of a mine continued

## Our social and economic contribution in Zimbabwe in 2022

Our Unki Mine is in the southern half of Zimbabwe's Great Dyke geological formation – widely recognised as the second-largest PGM Mineral Resources in the world. We continue to work with the Zimbabwean government on compliance with the Indigenisation and Economic Empowerment Act 2007.



# Shareholder information

Key shareholder information, with further disclosure in governance report online.

## Key disclosures in this section

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Polokwane Smelter SO<sub>2</sub> Plant

# Analysis of shareholders

An analysis of the share register at year end showed the following:

## Ordinary shares

	2022	%	2021	%
	Number of shareholders	of issued capital	Number of shareholders	of issued capital
<b>Size of shareholding</b>				
1 – 1,000	15,210	0.48	15,004	0.53
1,001 – 10,000	1,132	1.47	1,260	1.62
10,001 – 100,000	338	3.96	390	4.49
100,001 – 1,000,000	61	5.55	66	6.61
1,000,001 – and over	13	88.54	10	86.75
	<b>16,754</b>	<b>100.00</b>	<b>16,730</b>	<b>100.00</b>
<b>Category of shareholder</b>				
Bank, nominee and finance companies	559	11.66	556	10.20
Companies	475	78.84	512	78.90
Individuals	13,115	0.62	12,405	0.70
Insurance companies	165	0.45	189	0.60
Pension and provident funds	466	5.68	600	5.90
Trust funds and investment companies	1,870	2.67	2,297	3.60
Other corporate bodies	104	0.08	171	0.10
	<b>16,754</b>	<b>100.00</b>	<b>16,730</b>	<b>100.00</b>
<b>Shareholder spread</b>				
Public shareholders	16,745	21.25	16,720	21.15
Non-public shareholders	9	78.75	10	78.85
Directors and associates	2	—	3	0.01
Persons interested, directly or indirectly, in 10% or more	1	78.56	1	78.56
Subsidiaries	6	0.19	6	0.28
	<b>16,754</b>	<b>100.00</b>	<b>16,730</b>	<b>100.00</b>

## Major shareholder

According to the company's share register at year end, the following shareholders held shares equal to or in excess of 5% of the issued ordinary share capital of the company:

	Number of shares	%	Number of shares	%
Anglo American South Africa Investments Proprietary Limited <sup>1</sup>	208,417,151	78.56	208,417,151	78.78

<sup>1</sup> The percentage shareholding is based on total shares in issue less treasury shares held by the group.

## Geographical analysis of shareholders

Resident shareholders held 236,020,429 shares (88.97%) (2021: 239,395,179) and non-resident shareholders held 29,271,777 shares (11.03%) (2021: 25,897,027) of the company's issued ordinary share capital of 265,292,206 shares at 31 December 2022 (2021: 265,292,206).

The treasury shares of 595,107 (2021: 735,020) held in terms of the Bonus Share Plan and other schemes, has been included in the shareholder analysis. The shareholder details above include the shares issued by the company in respect of the community economic empowerment transaction.



# Shareholders' diary

## Financial year end

31 December

## Annual general meeting

11 May 2023 at 10:00

## Reports

Announcement of interim results

24 July 2023

Integrated annual report for the full year to 31 December 2022

March

Suite of annual reports

March

## Dividends

Dividend for H2 2022 declared

16 February 2023

Last date to trade for 2022 dividend

28 March 2023

Share trading ex-dividend from

29 March 2023

Record date

31 March 2023

Payment date

3 April 2023

# Administration

## Directors

### Executive directors

N Viljoen (chief executive officer)  
CW Miller (finance director)

### Independent non-executive directors

NB Mbazima (Zambian)  
JR Dixon  
T Leoka  
NP Mageza  
NT Moholi  
D Naidoo  
JM Vice

### Non-executive directors

N Fakude  
A Michaud (British)  
D Wanblad (British)

### Company secretary

Elizna Viljoen  
elizna.viljoen@angloamerican.com  
Telephone +27 (0) 11 638 3425  
Facsimile +27 (0) 11 373 5111

### Financial, administrative, technical advisers

Anglo Corporate Services South Africa Proprietary Limited

### Corporate and divisional office, registered office and business and postal addresses of the company secretary and administrative advisers

144 Oxford Road  
Melrose  
Rosebank  
2196

Postnet Suite 153  
Private Bag X31  
Saxonwold  
Gauteng  
2132

Telephone +27 (0) 11 373 6111

### Sponsor

Merrill Lynch South Africa Proprietary Limited  
The Place  
1 Sandton Drive  
Sandton  
2196

PO Box 651987  
Benmore  
2010

Telephone +27 (0) 11 305 5822  
letrishma.mahabeer@bofa.com

### Registrar

Computershare Investor Services Proprietary Limited  
Rosebank Towers  
15 Biermann Avenue  
Rosebank  
2196

Private Bag X9000  
Saxonwold  
2132

Telephone +27 (0) 11 370 5000  
Facsimile +27 (0) 11 688 5200

## Auditor

PricewaterhouseCoopers Inc.  
4 Lisbon Lane  
Waterfall City  
2090

## Investor relations

Franscelene Moodley  
franscelene.moodley@angloamerican.com  
Telephone +27 (0) 11 638 0279

## Lead Competent Persons

Andrew Smith: Lead Ore Reserves

Kavita Mohanlal: Principal Mineral Resources

## Fraud line – YourVoice

Anonymous whistleblower facility 087 232 5426 (South Africa)  
[www.yourvoice.angloamerican.com](http://www.yourvoice.angloamerican.com)

## Human resources-related queries



**Job opportunities:**  
[www.angloamericanplatinum.com/careers/job-opportunities](http://www.angloamericanplatinum.com/careers/job-opportunities)



**Bursaries, email:**  
[bursaries@angloplat.com](mailto:bursaries@angloplat.com)



**Career information:**  
[www.angloamericanplatinum.com/careers](http://www.angloamericanplatinum.com/careers)

## Forward-looking statements disclaimer

Certain elements in this integrated annual report constitute forward-looking statements. These are typically identified by terminology such as 'believes', 'expects', 'may', 'will', 'could', 'should', 'intends', 'estimates', 'plans', 'assumes' and 'anticipates', or negative variations. Such forward-looking statements are subject to a number of risks and uncertainties, many beyond the company's control and all based on the company's current beliefs and expectations about future events. Such statements could cause actual results and performance to differ materially from expected results or performance, expressed or implied. No assurance can be given that such future results will be achieved; actual events or results may differ materially as a result of risks and uncertainties facing the company and its subsidiaries.



**Anglo American Platinum Limited**  
Incorporated in the Republic of South Africa  
Date of incorporation: 13 July 1946  
Registration number: 1946/022452/06  
JSE code: AMS – ISIN: ZAE000013181

## PLATINUM

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