



tharisa

DISCOVER DEVELOP DELIVER **DIVERSIFY**

20 OCTOBER 2021

INNOVATIVE INVESTMENT INTO THE RIGHT METALS

THS:LSE • THA:JSE

SHARES INVESTOR EVENING - WEBINAR

Enriching lives through innovating the resources company of the future

OUR VALUES

1

SAFETY AND HEALTH
of our people is a core value

2

TAKE RESPONSIBILITY
for the effect we have on our environment

3

CONDUCT
with integrity and honesty

4

COMMITTED
to the upliftment of local communities

5

REDUCE
carbon footprint in line with Paris 2015

6

CHALLENGE
convention using innovation

7

ACHIEVE
superior returns for shareholders



WHO WE ARE

859.6 MT IN MINERAL
RESOURCE

- 42.8 MOZ IN CONTAINED
6PGE+Au*
- 172 MT IN CONTAINED Cr₂O₃*

1

Integrated
PGM and chrome
co-producer located in
prime geological area

2

10 year
operational
track record

3

14 year
LOM open pit

4

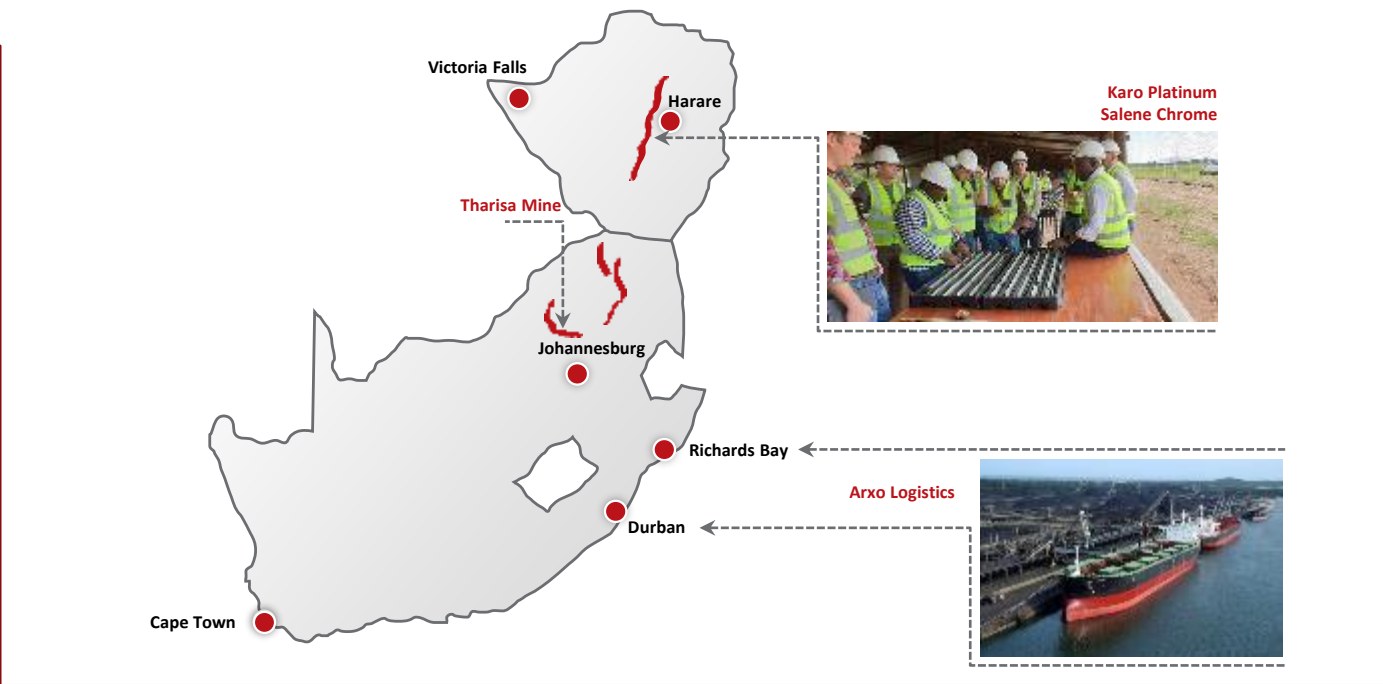
+40 year
underground
mechanised life

5

Profitable
throughout
the cycle

6

Consistent
dividend payer



*Mineral Resource and Mineral Reserve Statement in 2020 annual report pages 50-55

SAFETY AND ESG | CARING BEYOND THE MINE GATE

- Community is 6% shareholder in Tharisa Minerals
- US\$1m spent on community upliftment
- Provide infrastructure services to the community
- Employment of more than 700 people from local community
- A total of 98 interns, graduates and learnerships in 2020
- 35 learners in AET program as at June 2021



- 6 year fatality free
- 5 million fatality free shifts on June 2021
- All employees on private medical aid and company provident fund
- COVID-19 clinic, isolation and vaccination facilities
- Provide sanitiser and PPE to local community and schools



ESG

- Taxes and royalties of US\$51.9 million in 2020
- Wages, salaries, bonus schemes of US\$89.3m in last 2 years



- Sustainable to the principles of the 2015 Paris Agreement for the reduction of our carbon footprint
- Sustainable roadmap being developed
- Tharisa reports on Scope 1,2 & 3 emissions
- Announced 30% reduction in carbon footprint by 2030
- Net carbon neutral by 2050



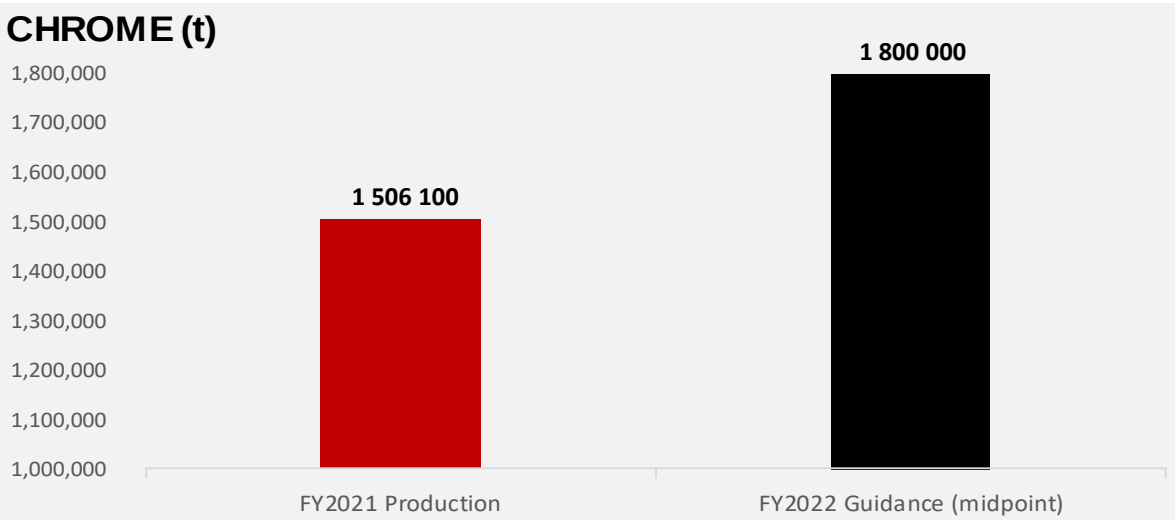
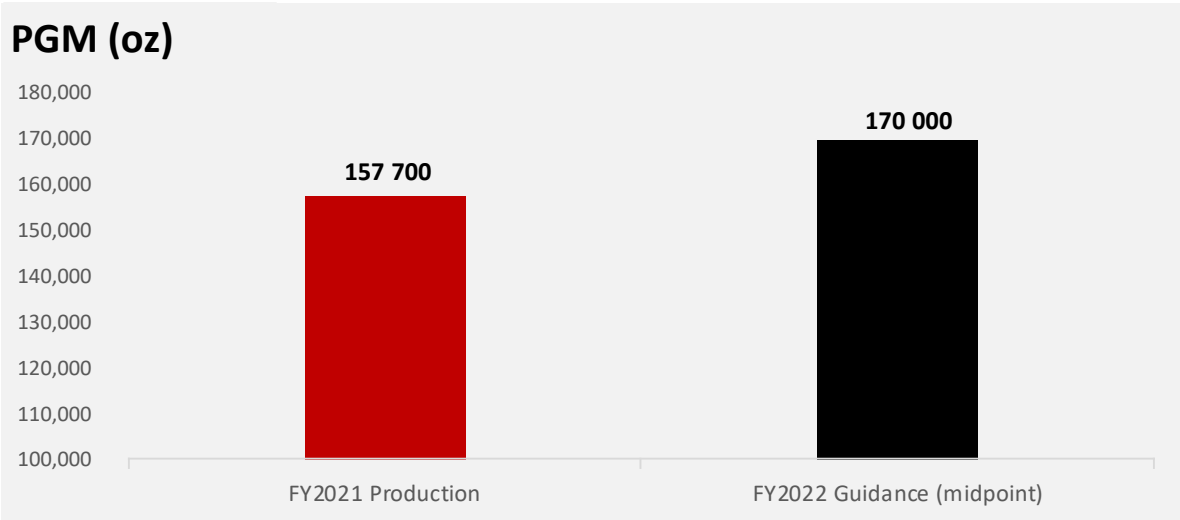
FY2021 PRODUCTION

LTIFR
0.34 / 200 000 hours

SPOT CHROME PRICE
~US\$165/t*

SPOT PGM BASKET PRICE
~US\$2 500/oz*

- Achieved 5 million fatality free shifts, 6 year fatality free
- Delivered record mining rates and tonnes processed
- Leading to record quarterly PGM production of 43.7 koz and chrome concentrate output 395.7 kt, supported by stronger pricing
- Output increase as a direct result of improved yields for both PGM and chrome and better recoveries in both commodities
- Balance sheet strengthened with cash increasing to US\$83.4 million post US\$10.8 million interim dividend payment
- Introduction of the Vulcan Plant will significantly reduce unit costs while further reducing the unit carbon footprint



GUIDANCE FOR FY2022 OF 165 koz TO 175 koz OF PGMs (6E BASIS) AND 1.75 Mt TO 1.85 Mt OF CHROME CONCENTRATES

*as at 19 October 2021

VULCAN BENEFICIATION PLANT

- Increase chrome recoveries from ~62% to ~82%
- Innovative technology developed by Tharisa
- Vulcan will further beneficiate chrome production while reducing unit output of carbon emissions
- Internally funded from cash flow
- ~US\$55m capex
 - over 90% was procured in South Africa
 - up to 1 000 contractors locally sourced
 - over 100 new permanent jobs created
- Consolidates Tharisa's strategic position as a low cost participant in the beneficiation of chrome production



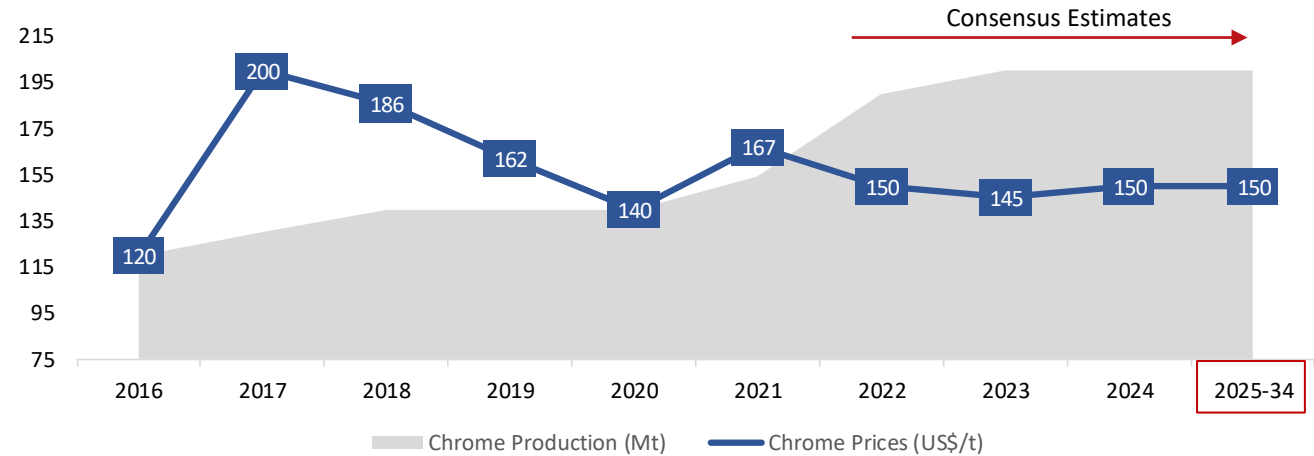
LONG TERM PRODUCTION AND PRICING

FY2022 PGM GUIDANCE
165 koz-175 koz

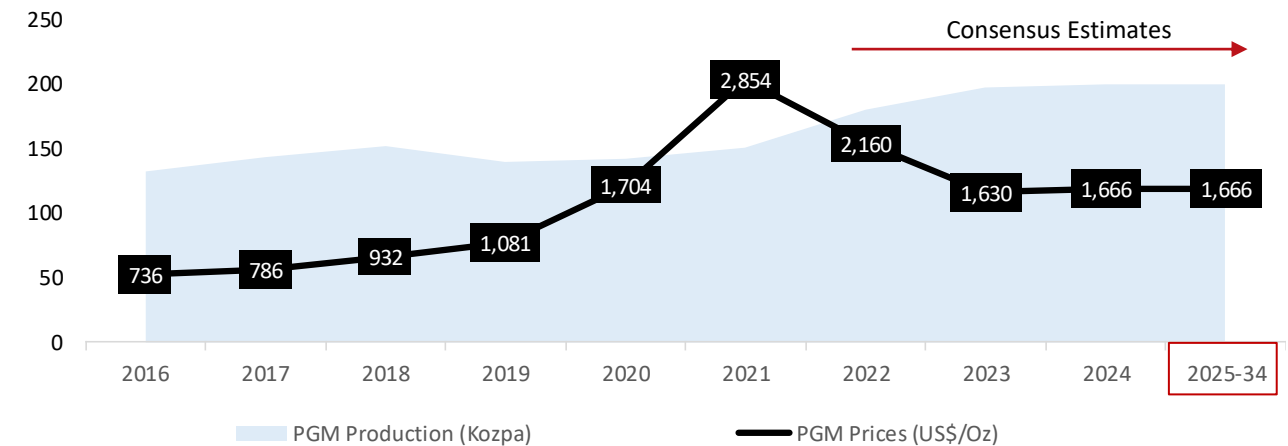
FY2022 CHROME GUIDANCE
1.75 Mt– 1.85 Mt

- Long life asset
 - Rising production profile
 - 14 year open pit modelled
 - 40 year underground planned
- Prices
 - PGM basket: ~US\$3 074/oz
 - Chrome ~US\$154/t
- Profitable throughout the cycles
 - PGM basket supportive of subdued chrome prices
 - Historically, chrome prices underpinned profitability while PGM prices were lower
 - Chrome prices need to rise for many producers to remain profitable post capex
- Volume offtake for 20% of chrome at spot prices
- PGM concentrate sold to Impala (majority) and Sibanye

CHROME PRODUCTION (Mt) AND REALISED PRICES (US\$/t)



PGM PRODUCTION (KOZ) AND REALISED PRICES (US\$/OZ)



LONG LIFE – PROFITABLE - CO-PRODUCTION MODEL

Using analyst production and price forecast from FY2021

BROKER SUMMARY PERSPECTIVES

ANALYST PRICE TARGETS⁽¹⁾

Broker	Date	Target Price
Peel Hunt	01-Oct-21	£2.50
Nedbank Capital	30-Sep-21	£2.43
Berenberg	28-Sep-21	£1.90
BMO Capital Markets	01-Oct-21	£1.75
Average (GB£)		£2.14
Current Share Price (GB£)		£1.30
Premium (Discount) to Share Price		72.7%



BROKER COMMENTARY



"The commissioning [of the Vulcan Plant] is a major milestone and when fully commissioned will boost chrome production by up to 20%. With this capital spend now complete and higher chrome production levels to look forward to, assuming PGM prices up hold, FY2022 looks set to be a solid year for FCF generation."

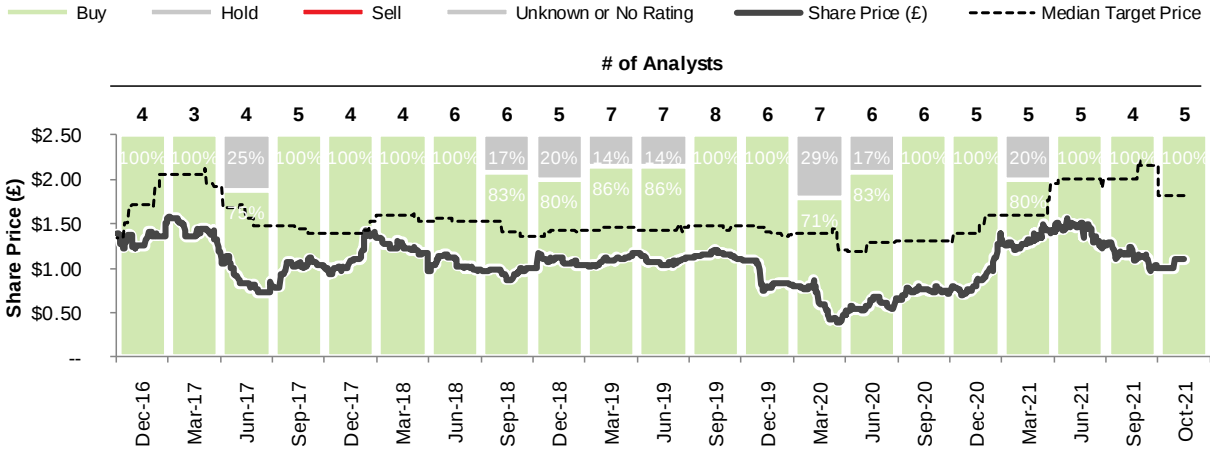


"It is encouraging to see the Vulcan project progress in line with expectations and, in our view, a successful and timely commissioning of the plant will help unlock value in the shares as the company reaches its Vision 2020 annual production targets of 2MT chrome concentrates and 200koz of PGMs."



*"We expect substantial FCF generation in FY21E, with the balance sheet closing at \$54m net cash...
...the Vulcan plant cold commissioning means that the Tharisa team is closing in on a substantial, structural margin increase from its long life Tharisa mine. Once complete, we see the Vulcan plant adding ~400ktpa chrome concentrate, taking the mine total to 2MTPA, underpinning group EBITDA of ~\$230m p.a."*

EVOLUTION OF BROKER RECOMMENDATIONS



Source: Factset, Bloomberg. Data as at 04 October 2021.

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OUR BUSINESS

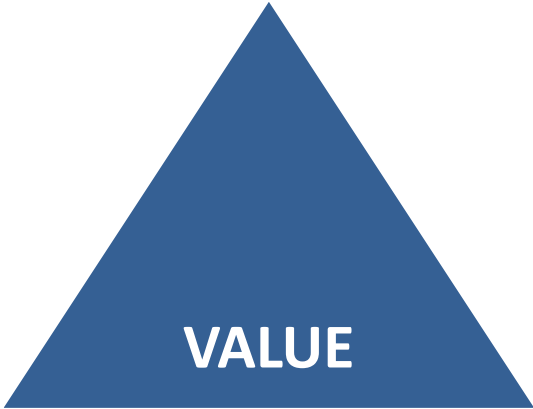
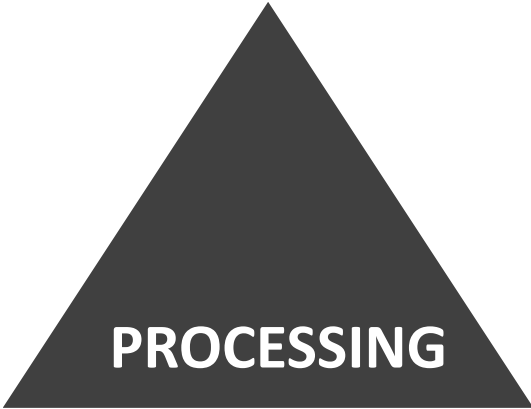
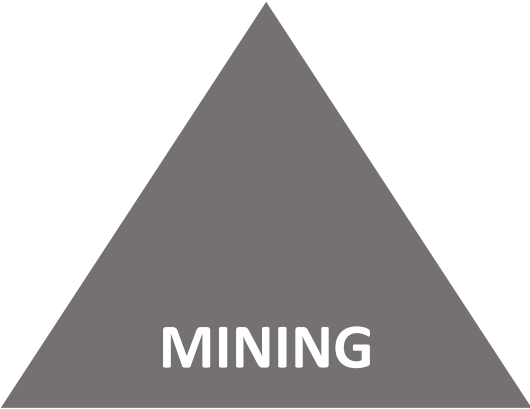
FOUNDATIONS OF SUSTAINABILITY

Long-life

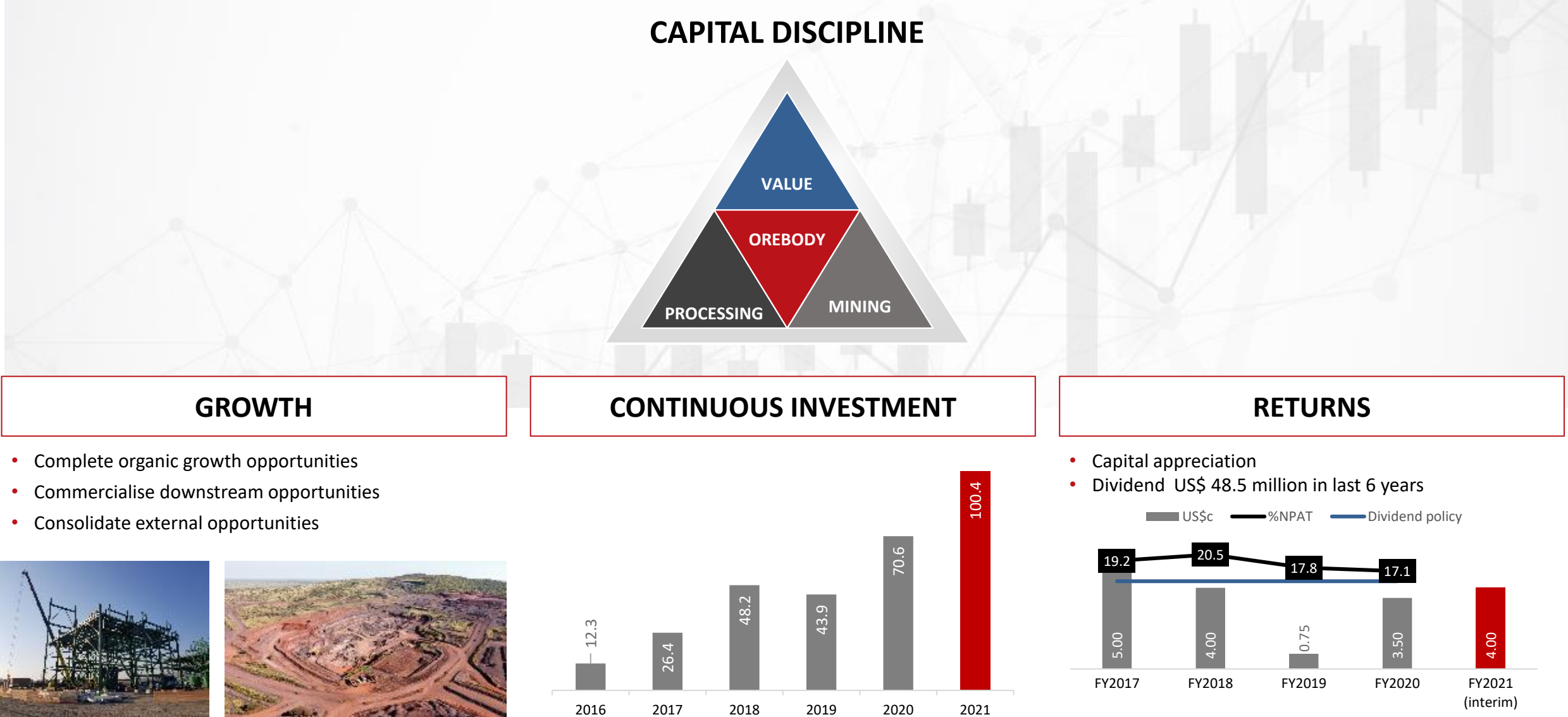
Mechanised modern fleet

Maximum Recoveries

Capturing the value stream



SUSTAINABLE LONG TERM RETURNS



PORTFOLIO SNAPSHOT

OPERATIONS & PROJECTS

Tharisa Mine*:

14 year open pit LOM
~170 koz PGM per annum
~1.8 Mt chrome per annum



Vulcan Plant

Fine chrome recovery
~400 ktpa met chrome
(Cold commissioning Oct-21)



Salene Chrome

Open pit chrome mine
~60 ktpa of concentrated chrome
Operational Q1 F12022



Karo Platinum

Proposed new PGM mine
Located on Great Dyke
Long life open pit



BENEFICIATION

Arxo Metals & AMBS

ARXO Metals: Research division of Tharisa-Developed Vulcan process
Operates Challenger Plant
AMBS: Specialised beneficiation site designed for production and testing



VALUE-ADD SERVICES

Arxo Resources

Chrome trading business
Markets Tharisa chrome
Markets 3rd party chrome



Arxo Logistics

Mine to market solution
Logistics for Tharisa ops
PGM logistics



*Represents mid point of guidance range

THARISA OVERVIEW – DIVERSIFICATION INITIATIVES

KARO HOLDINGS

- Tharisa acquired a 26.8% shareholding in Karo Mining Holdings in 2018
 - Exploration right over 23 903 ha on the Great Dyke in Zimbabwe
- Pre-exploration study complete and being assessed – Open pitable
- Long life, open pit



SALENE CHROME

- Tharisa has a 100% shareholding in Salene Chrome, a chrome mining project adjacent to the Karo project in Zimbabwe
- Zimbabwean chrome concentrates are typically a higher grade than South African chrome concentrates and sell at a premium
- Plant construction in progress
- Mining scheduled to commence Q1 FY2022
- Production scheduled for Q1 FY2022



SALENE MANGANESE

- Tharisa has an option to acquire 70% of the project, which includes the operating McCarthy Mine, in Northern Cape, South Africa
 - Manganese production 600 ktpa
 - Iron ore production 600 ktpa
- Second phase of resource drilling and declaration underway to potentially increase production to 1.2 Mtpa of each product



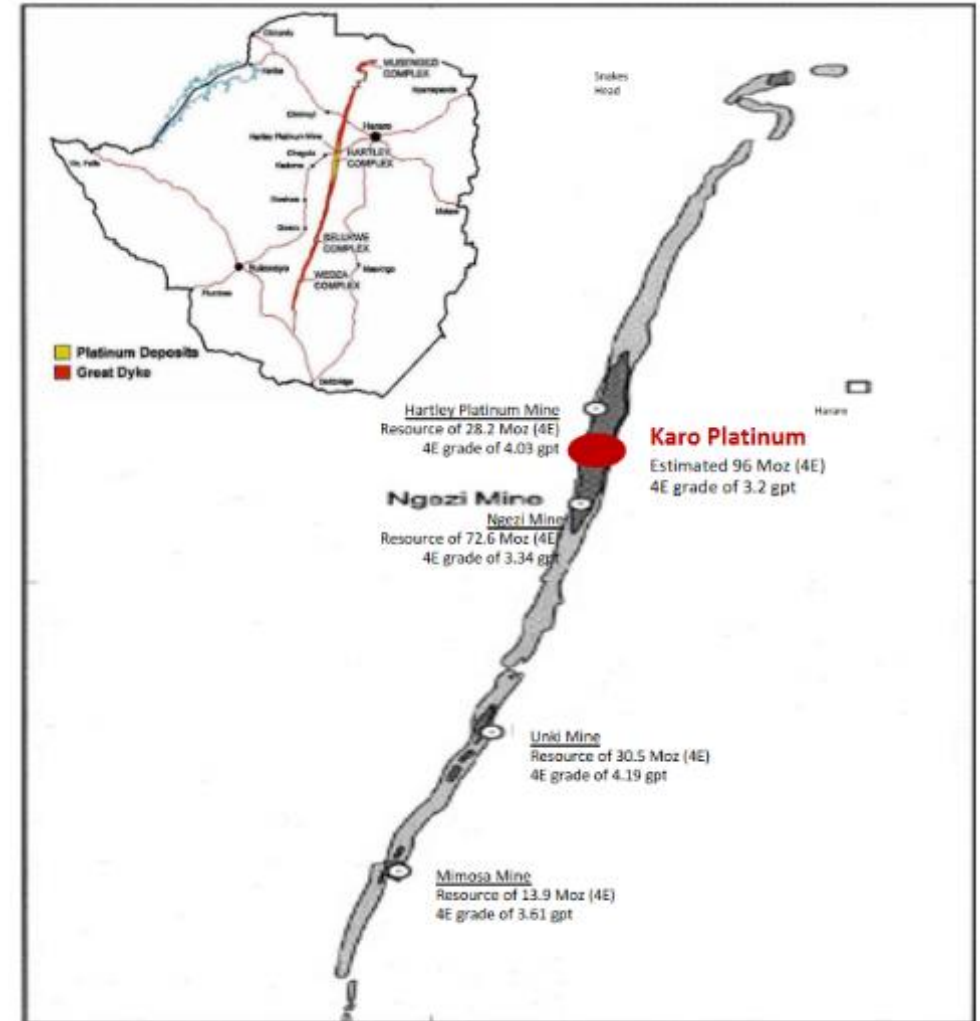
METQ

- METQ is a South-African based manufacturer of mining equipment, with a particular focus on beneficiation
 - Offers total engineering packages for products like spiral gravity separators, hydrocyclones, and screens
- An enabler for fast tracking the Vulcan Plant and Salene Chrome Plant



KARO PROJECT OVERVIEW

- Located on the second biggest known PGM deposit in the world*
- Surrounded by some of the lowest cost PGM mines on record
- Zimplats had previously declared an indicated and inferred mineral resource over the area of ~96 Moz (4E PGM basis)
- Project area has been declared a Special Economic Zone
- Tharisa has completed two phases of exploration drilling and implementation study completed
- Mineral resource and reserve has been declared
- Project will target open pit operations with long-life high-grade parameters
- Project execution and development within 24 months
- Project will complement Tharisa's strategy of innovatively developing projects of metals used in the future of our economies



*USGS

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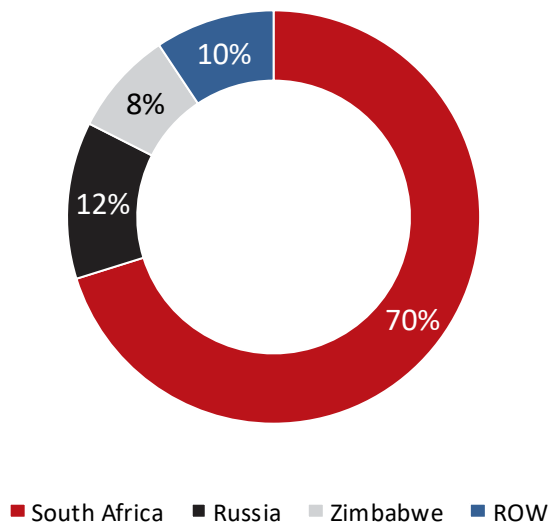
INDUSTRY OVERVIEW

PLATINUM GROUP METALS

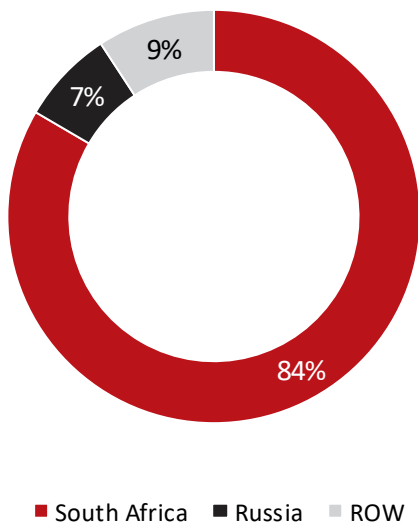
CONCENTRATED SUPPLY	UNIQUE APPLICATIONS
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- Six elements known for their unique properties and used in industrial, medical, and electronic applications
- Highly concentrated supply with three major producing regions
- South Africa is host to ~80% of the global PGM R&R
- Other production areas include Russia and Zimbabwe

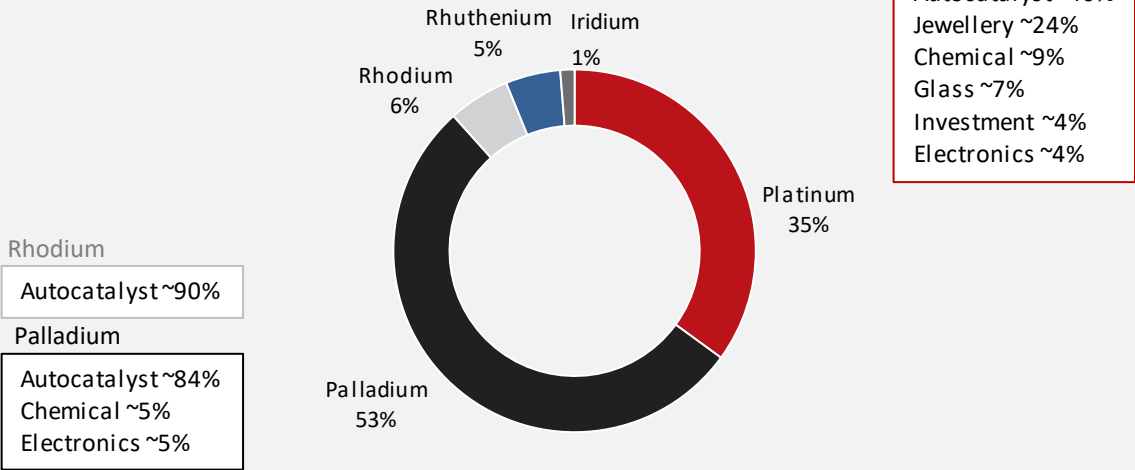
PLATINUM PRODUCTION



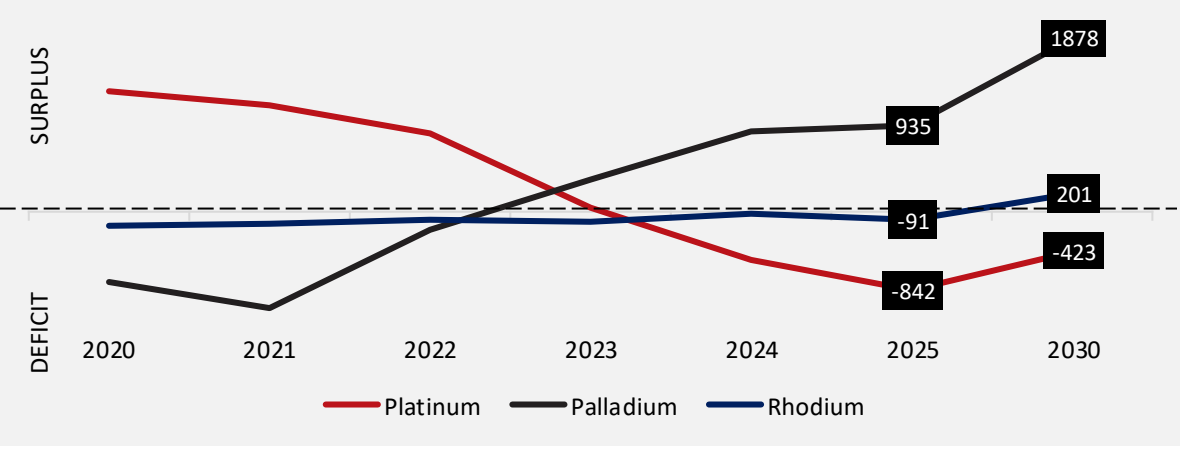
RHODIUM PRODUCTION



5E PGM DEMAND



3PGM MARKET BALANCE (koz)



Source: BASF, JM

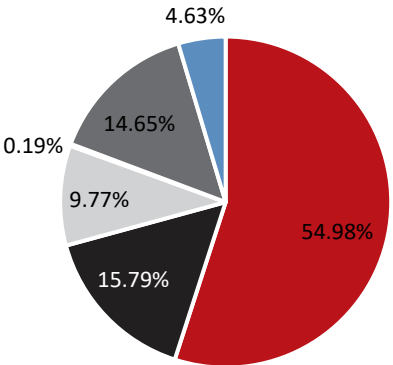
POSITIONING THARISA IN THE PGM WORLD

SPOT PGM BASKET PRICE
~US\$2 500/oz^

FY2022 GUIDANCE
165 koz to 175 koz

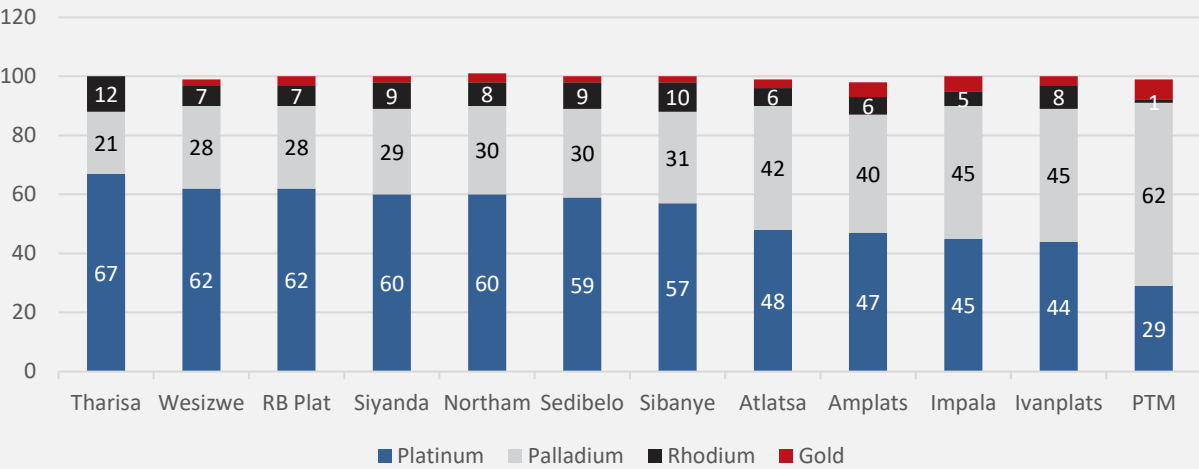
- 42.8 Moz in contained 6PGE+Au*
- Unique prill exposure
- PGM producer
 - ~158 koz of PGMs FY2021
- In terms of global primary supply#
 - ~1.4% of platinum
 - ~0.4% of palladium
 - ~2.1% of rhodium

PRILL SPLIT 2021

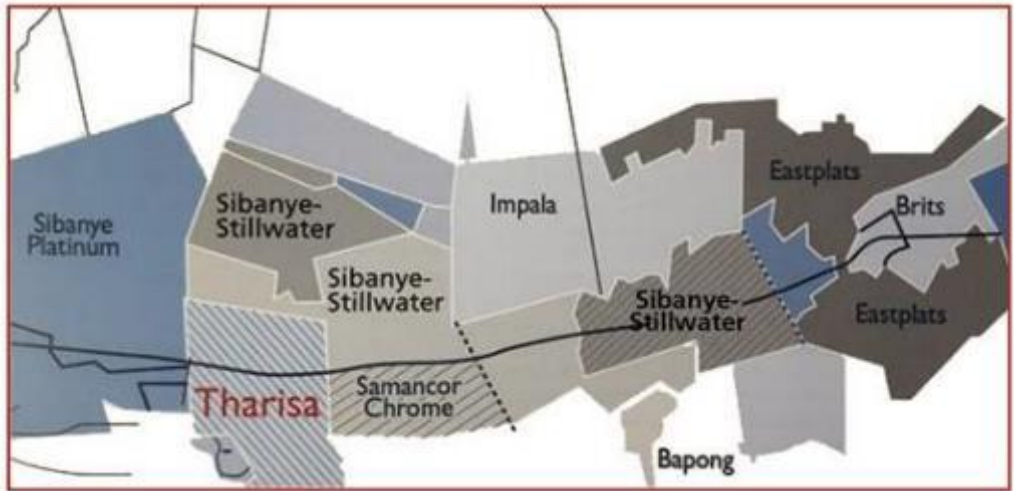


■ Pt ■ Pd ■ Rh ■ Au ■ Ru ■ Ir

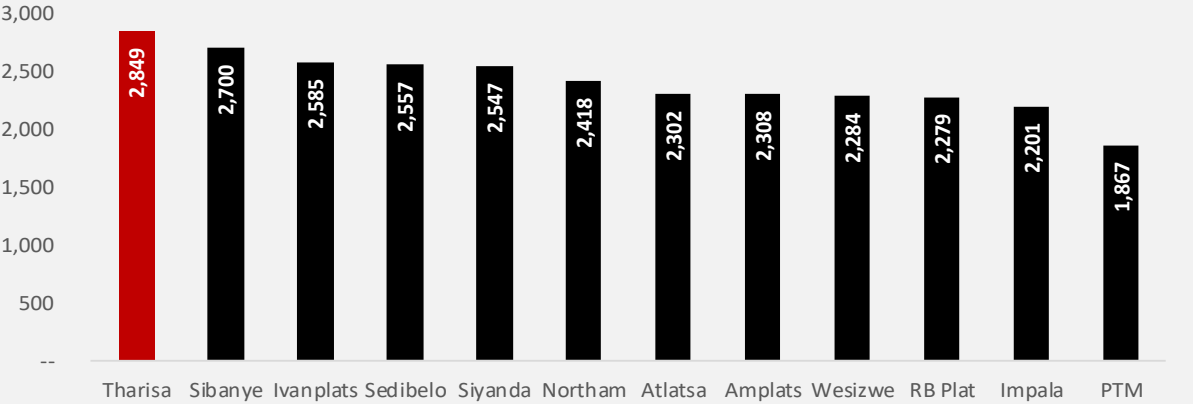
4E RESOURCES PRILL SPLIT %



■ Platinum ■ Palladium ■ Rhodium ■ Gold



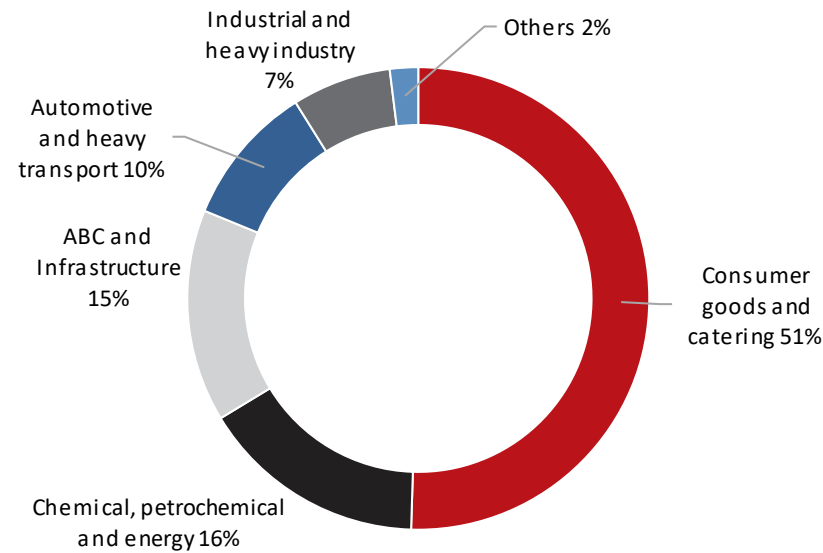
SPOT4E BASKET PRICE



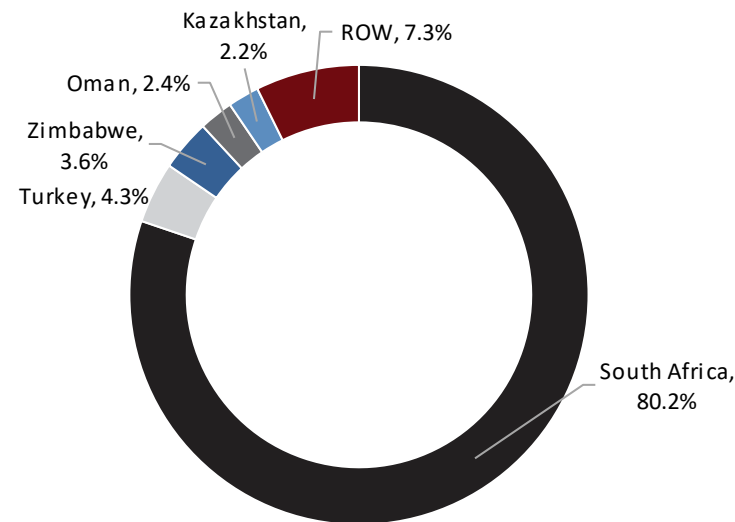
^Source: Investec, prices 08 October 2021 (2) Based on analyst estimates as of Q4 2020, #based on JM 2021 supply forecast
*Mineral Resource and Mineral Reserve Statement in 2020 annual report pages 50-55

- Chrome is what makes **steel** stainless
- South Africa hosts 72% of the global chrome reserves
 - 75% of supply comes from primary producers
 - 25% as a by product of platinum producers

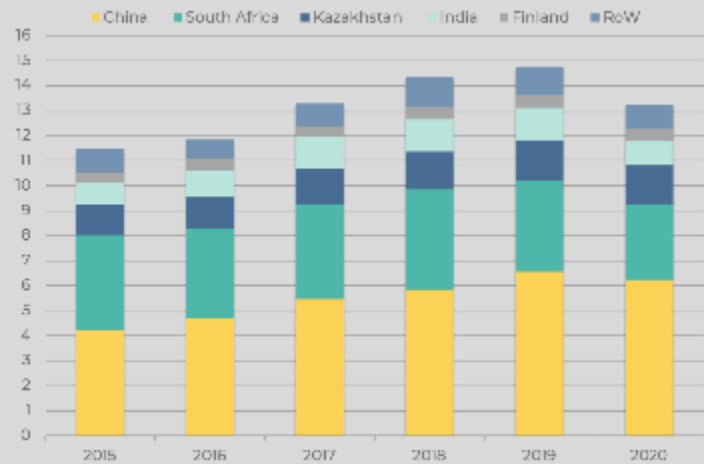
STAINLESS STEEL MARKET 2020



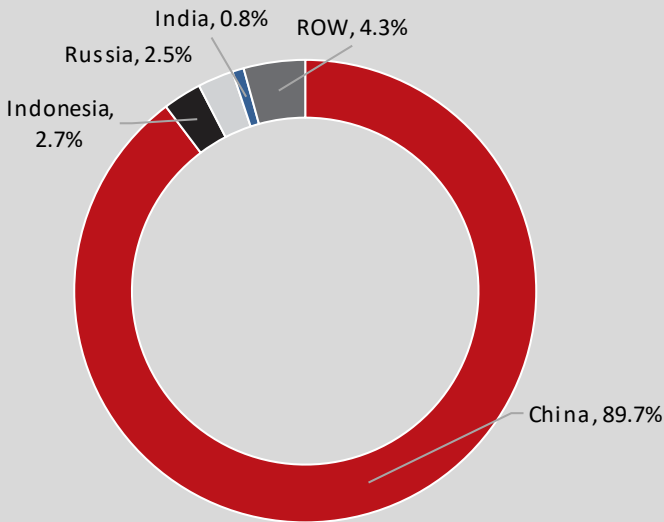
MAIN CHROME EXPORTERS 2020



GLOBAL FeCR PRODUCTION



MAIN CHROME IMPORTERS 2020

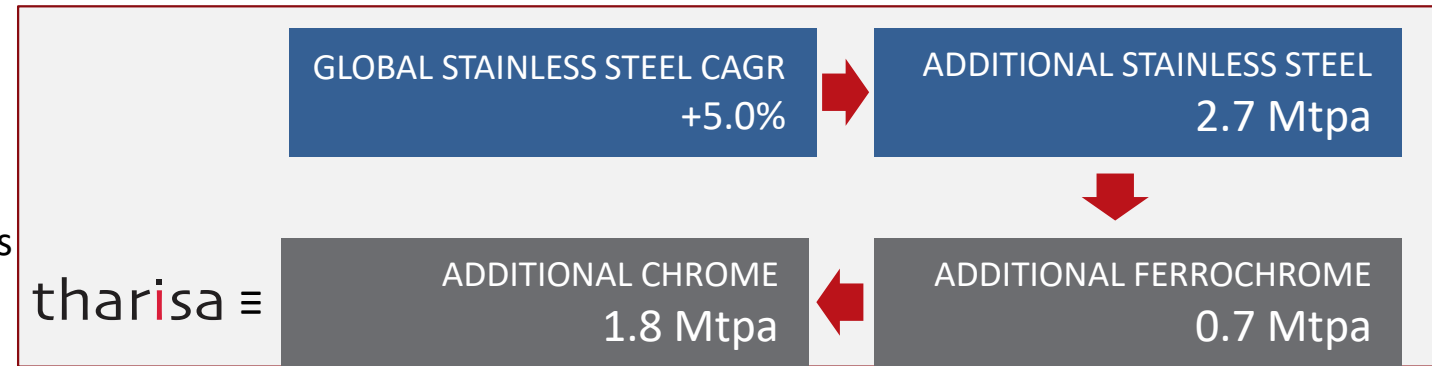


POSITIONING THARISA IN THE CHROME WORLD

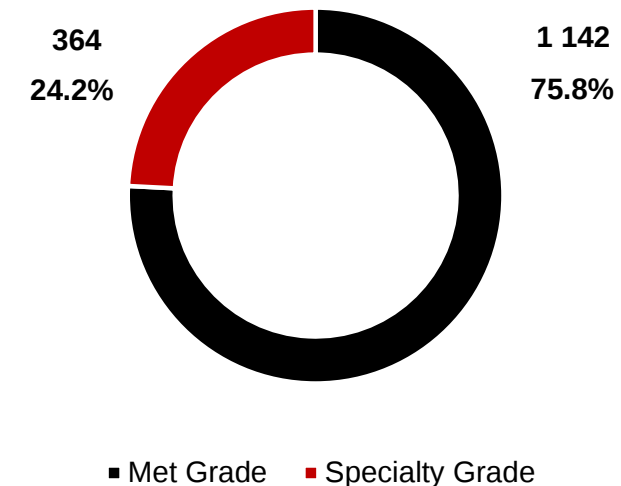
SPOT CHROME BASKET PRICE
~US\$165/t*

FY2022 GUIDANCE
1.75 Mt – 1.85 Mt

- 1.5 Mt in FY2021
- Provides China with ~10% of all its chrome concentrate
- 25% specialty and foundry grade chrome
- One of the largest global chemical grade chrome producers
- Specialty chrome market trades at a premium
- Vulcan Plant cold commissioning commenced
 - Will add an additional 25% to output
- Zimbabwe chrome diversification with Salene Chrome
 - Production commencement before year end
 - Higher value chrome offering product diversification



CHROME PRODUCTION FY2021 (kt)



Source: ISSF, Argus Media *as at 19 October 2021

CONCLUSION



- The safety and health of our people is a core value
- Striving for global best practice
- Modern beneficiation operations
- Sustainable growth profile
- Technology is the enabler

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#proudlytharisa

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