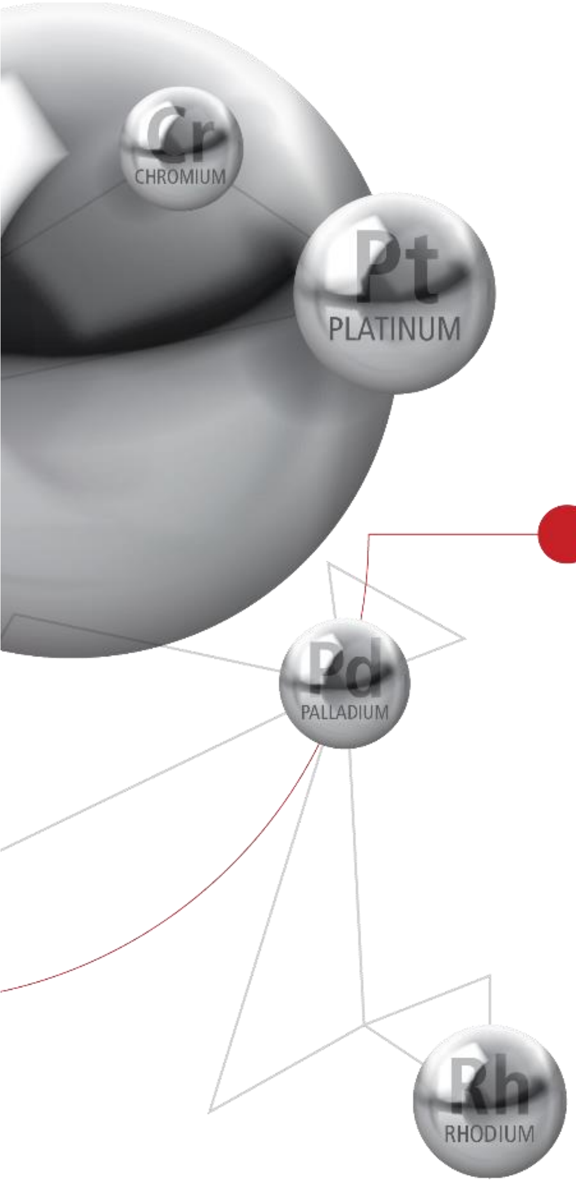



tharisa

# THARISA PLC

November 2022

enriching lives through innovating the resources company of the future

# OUR VALUES

| | |
|---|---|
| SAFETY & HEALTH | The safety and health of our people is a core value |
| ENVIRONMENT | We take responsibility for the effect that our operations may have on the environment |
| CLIMATE CHANGE | We are committed to reducing carbon emissions by 30% by 2030 and have a plan in motion to be net carbon neutral by 2050 |
| UPLIFTMENT | We are committed to the upliftment of our local communities |
| INTEGROUS | We conduct ourselves with integrity and honesty |
| RETURNS | We strive to achieve superior returns for our shareholders |
| INNOVATION | We originate new opportunities and will continue to challenge convention through innovation |

# WHO WE ARE

**854.4 Mt & 152.1 Mt** IN MINERAL RESOURCE *

**40.3 Moz & 10.0 Moz** IN CONTAINED 6E*

**171.1 Mt** IN CONTAINED $CR_2O_3$*

1. **INTEGRATED**
PGM and chrome co-producer located in prime geological areas

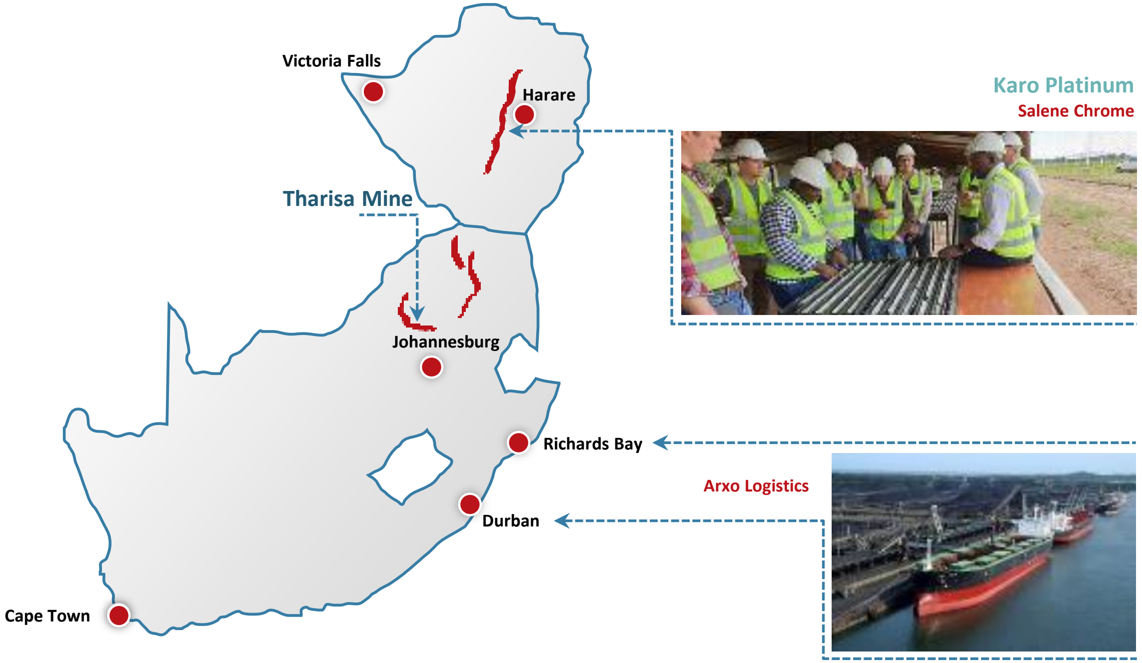
2. **20 YEAR**
LOM open pit
**+40 YEAR**
underground

3. **GROWTH**
pipeline to double PGM output

4. **R&D**
developing innovative end use products and technologies

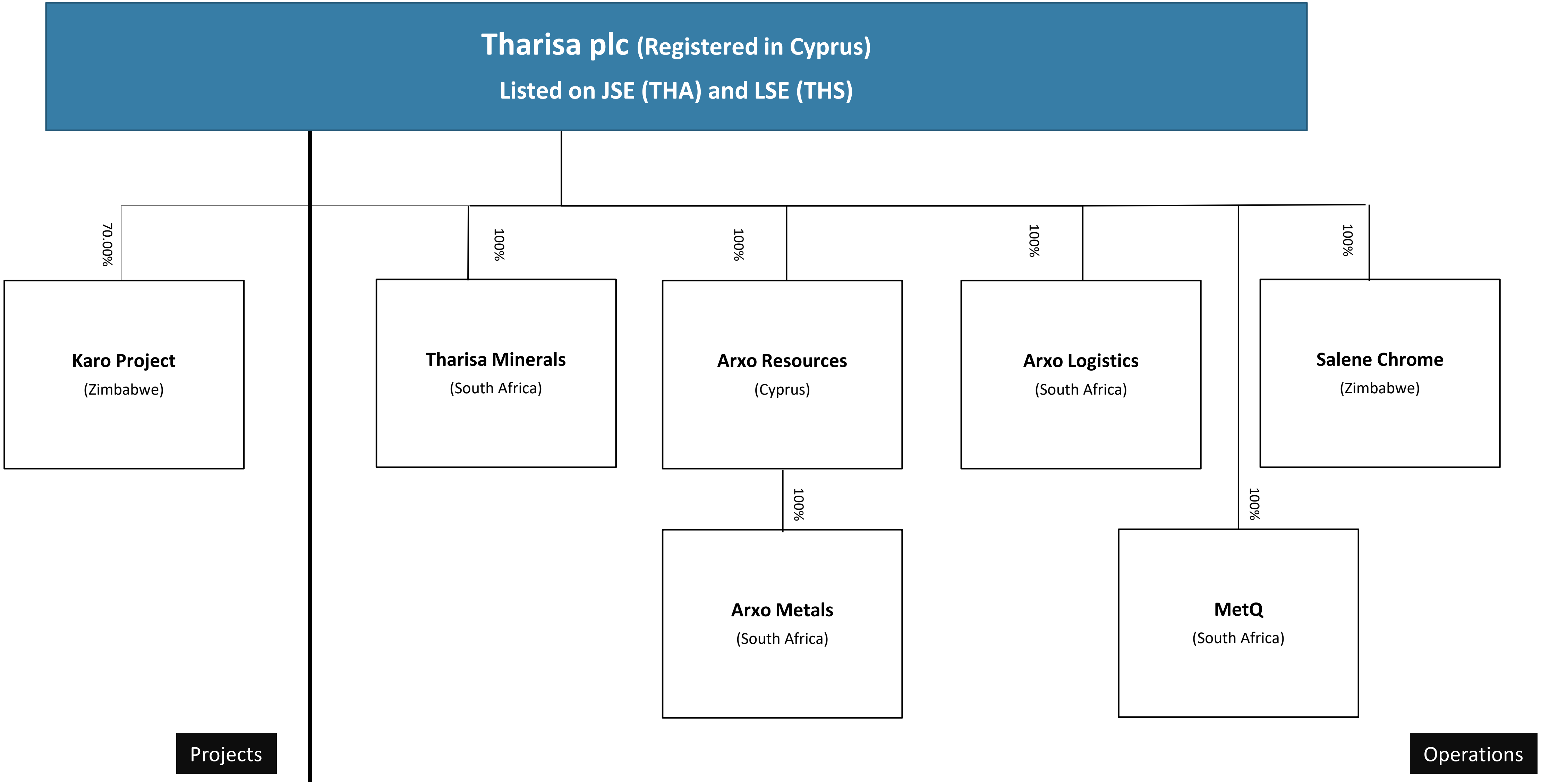
5. **PROFITABLE**
throughout the cycle

6. **CONSISTENT**
dividend payer


*Mineral Resource and Mineral Reserve Statement in 2021 Annual Report*

# CORPORATE STRUCTURE



# AN ETHOS OF INNOVATION

- Innovation is at the core of Tharisa's ethos
- Key strategic projects under R&D at AMBS
- Technology the key enabler for differentiation

**MAJOR MILESTONE HISTORY**

**THARISA MINE**
MG reef open pit mine to extract lower grade PGMs via mass chrome extraction

**CHALLENGER PLANT**
increase specialty chrome production

**VOYAGER PLANT**
large scale PGM and chrome plant

**HIGH ENERGY FLOTATION**
increase in PGM recovery

**DC SMELTER**
beneficiation of PGMs

**NEW APPLICATIONS**
development of new applications for chrome

# FY2022 PRODUCTION RESULTS

PGM SPOT PRICE
US$2 248/oz*

CHROME SPOT PRICE
US$230/t*

**REEF MINED**
## 5.5 Mt
**up 2.3%**
stripping ratio of 12.8 $m^3$:$m^3$
(2021: 5.4 Mt)

**PGM PRODUCTION (5PGE+Au)**
## 179.2 koz
**up 13.6%**
recovery of 76.6%
(2021: 157.8 koz)

**CHROME CONCENTRATE PRODUCTION**
## 1.58 Mt
**up 5.1%**
recovery of 68.3%
(2021: 1.51 Mt)

**PGM BAKSET PRICE**
## US$2 564/oz
**down 16.6%**
(2021: US$3 074/oz)

**METALLURGICAL CHROME PRICE**
## US$209/t
**up 35.7%**
(2021: US$154/t)

**NET CASH POSITION**
## US$78.6 m
**up 64.1%**
(2021: US$47.9 m)

THE STRATEGIC CONSOLIDATION OF OUR SHAREHOLDING IN THARISA MINERALS AND THE EXERCISE OF THE OPTION INCREASING OUR SHAREHOLDING IN KARO PLATINUM ARE VALUE ACCRETIVE TO ALL STAKEHOLDERS

**as at 31 October 2022*

# NAVIGATING CHALLENGES

## TRANSPORT

- Transnet challenges have meant shift from rail to road
- 75% road vs 75% rail previously
- Re-allocation of bulk via Richards Bay and Maputo

## POWER

- Maximum requirement of 25MW of power on site
- Stand by capacity to withhold Stage 4 ‘loadshedding’
- Modular plants to withstand electricity shocks
- 40MW solar plant project underway

## EMPLOYEE RELATIONS

- 4-year inflation linked wage agreement signed 2020
- No majority union on site – collective bargaining

## COMMUNITY RELATIONS

- Comprehensive relocation programme underway under guidance and alignment of DMRE and in collaboration with accredited stakeholders
- SMME and supplier opportunity platform for procurement established

# OUR COMPETITIVE ADVANTAGES

**LOWEST COST**
QUARTILE

**OPEN PIT**

- Mechanised, shallow open pit
- Highly skilled labour force
- Close to infrastructure
- Low user of Eskom power

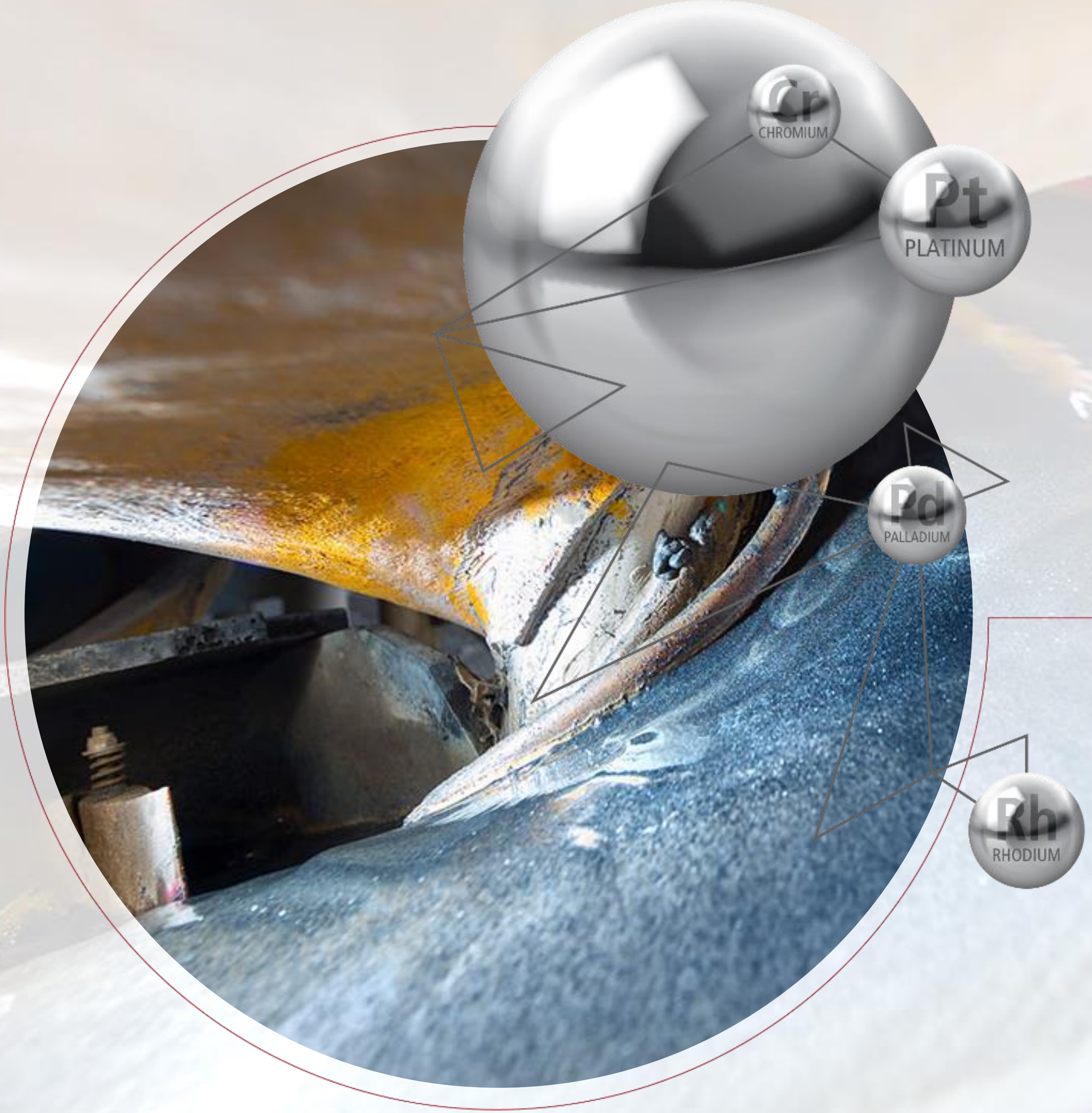
**LONG LIFE**

- 20 year LOM open pit
- Extension of ~40 year underground
- Proven ore body

**FLEXIBLE PROCESSING**

- Two processing plants
- Modular system
- Mass extraction of chrome to allow for PGM recovery

tharisa



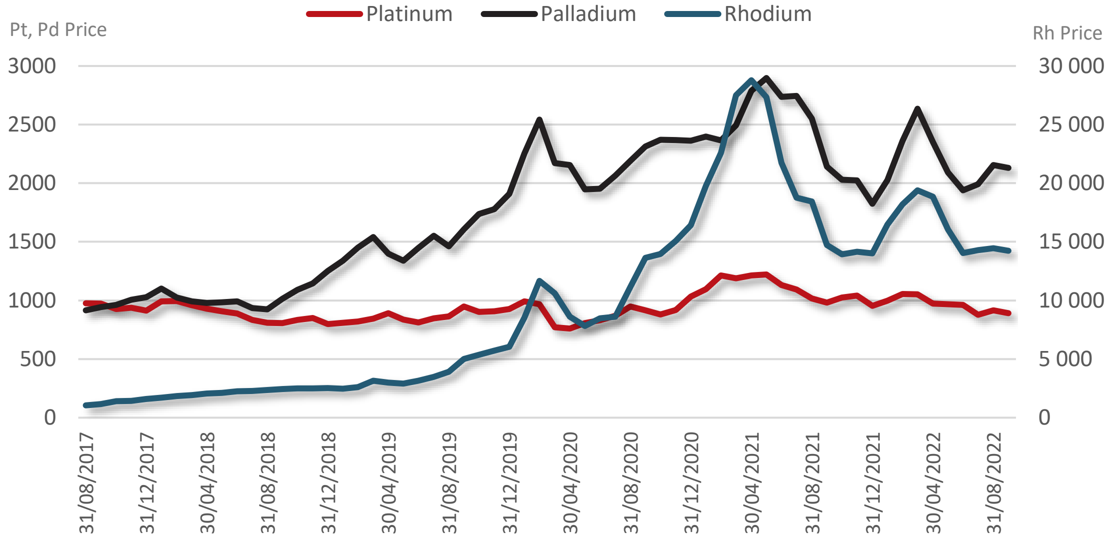

# OUR COMMODITIES

# PLATINUM GROUP METALS

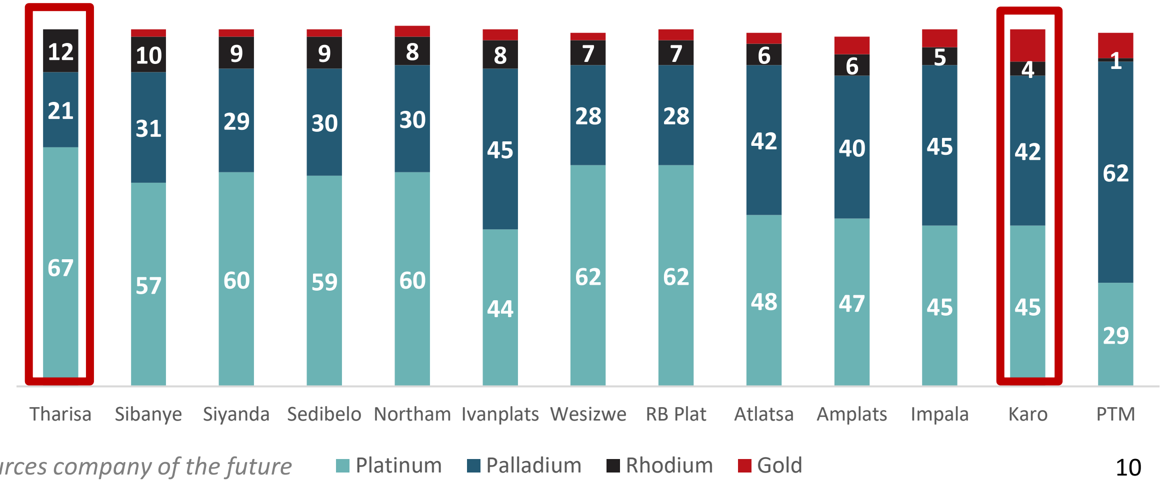
SPOT PGM BASKET*
**US$2 248/oz**

- Primary supply growth constraints
- Deficits in Rh, Pd to remain, Pt heading towards a deficit
- ICE remains a major demand driver despite EV development
- Hydrogen economy to supplement ICE demand

## PGM PRICE CHART




## RESOURCES PRILL SPLIT (%)




*as at 31 October 2022

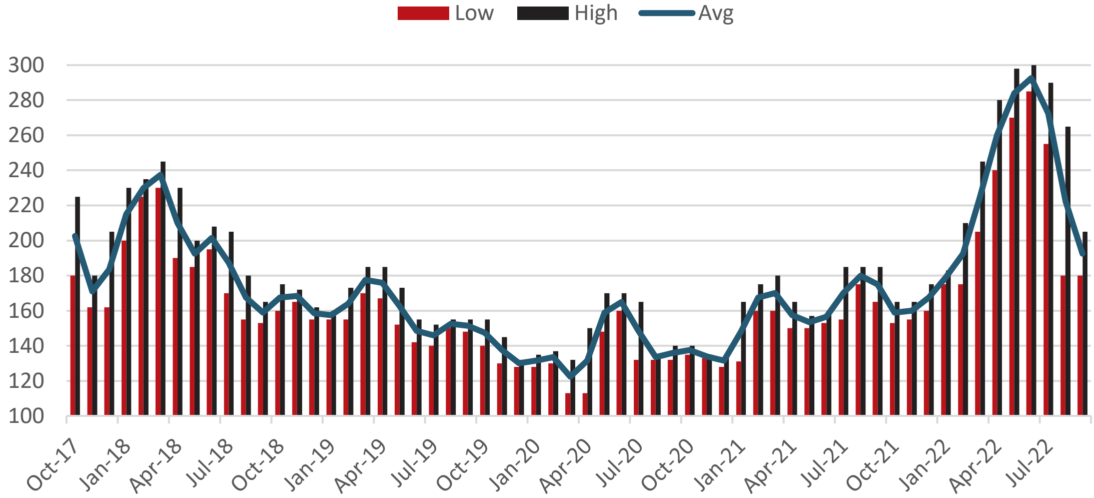
# CHROME

| SPOT CHROME PRICE* | H1 FY2022 MET CHROME |
|---|---|
| **US$230/t** | **US$175/t** |

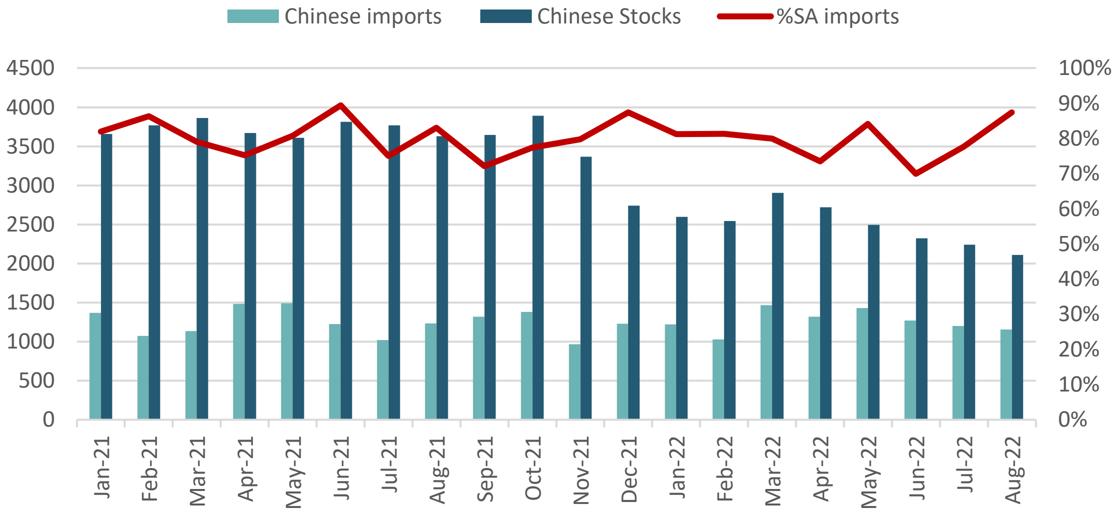
- Chrome prices remain resilient due to growing stainless steel demand
- South Africa supplies 80% of China's chrome needs
- China has no chrome resources
- Tharisa supplies ~10% of China's chrome demand
- Specialty chrome 25% of output – premium pricing


*as at 1 November 2022

## METALLURGICAL CHROME PRICE (US$/t)




## CHINESE PORT STOCKS (kt)

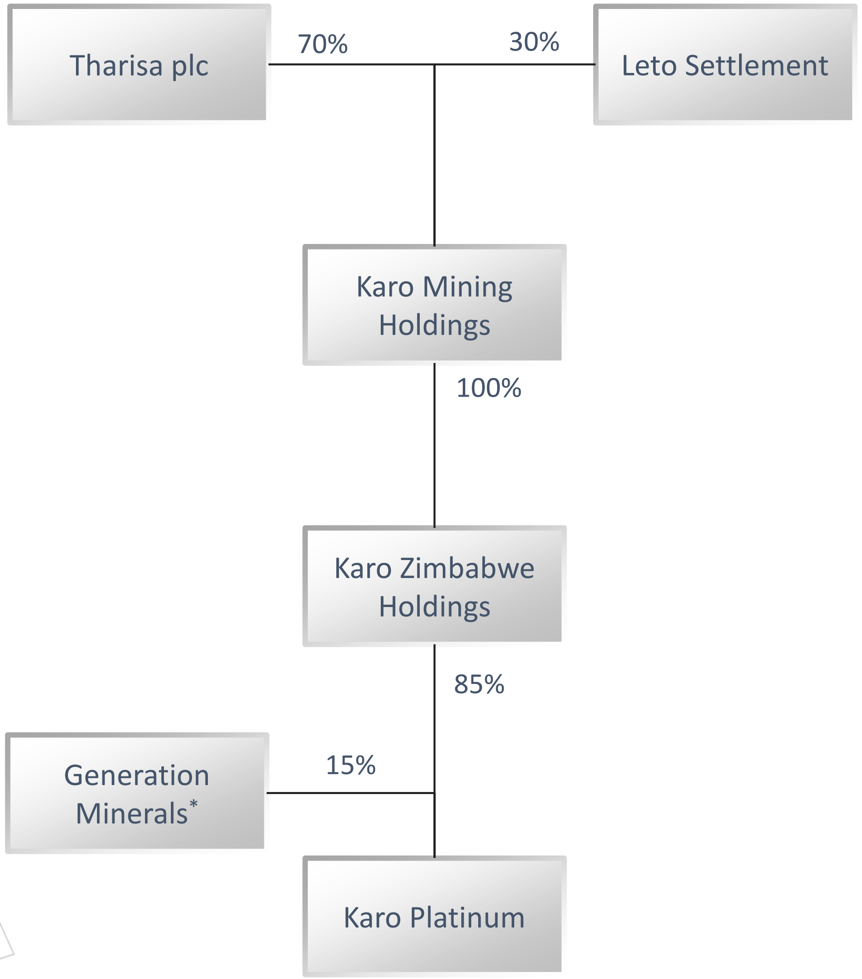


# KARO INVESTMENT CASE

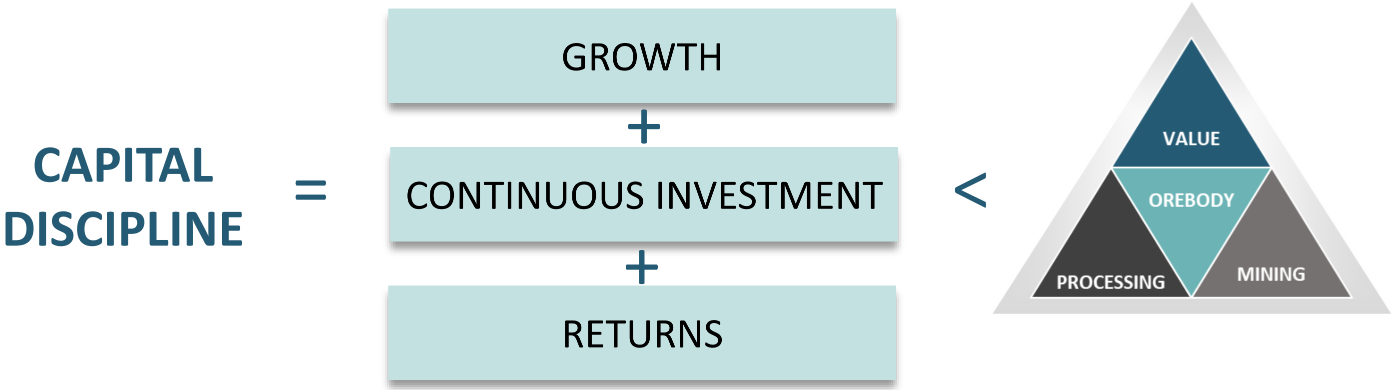
> "Capital will need to be more patient, or willing to explore new regions."

PHOEVOS POUROULIS
CEO • THARISA

# CONTINUOUS INVESTMENT




- Investment to date of US$70.3 m:
  - US$4.5 m cash - acquisition of 26.8% shareholding
  - US$8.0 m Phase 1 exploration capital
  - US$3.4 m Technical studies
  - US$25.0 m early development funding (not fully drawn)
  - US$29.4 m in shares - acquisition of 39.5% shareholding
- Strategic investment criteria met:
  - Open pit, quick to market, returns and diversification

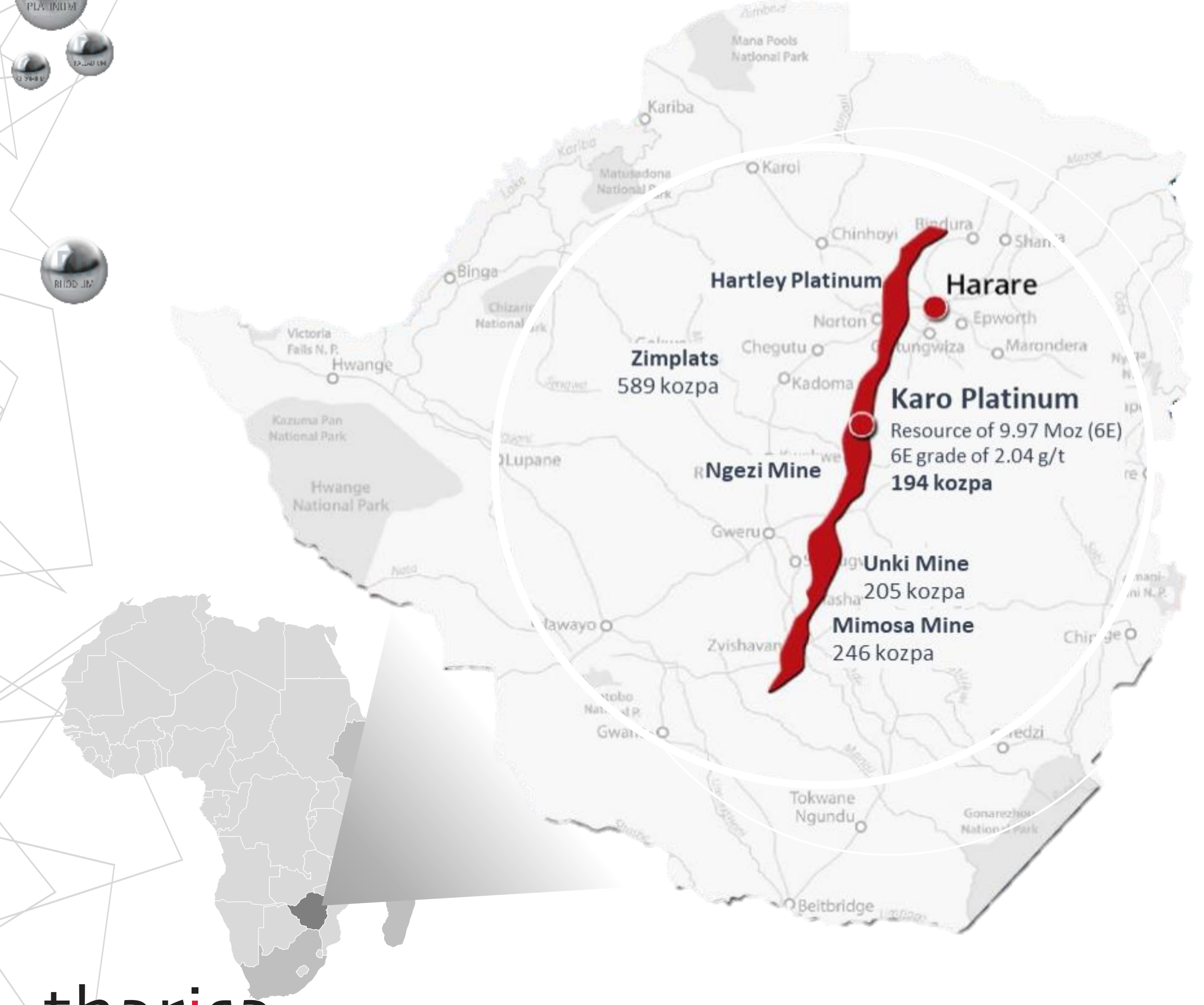



*Generation Minerals is the Republic of Zimbabwe SPV and is free carried interest*

# LOCALITY & GEOLOGY

## PHASED DEVELOPMENT

NEXT PHASES WILL SCALE TO ACCESS THE VAST RESOURCE AREA




### PROPERTY LOCATION

- Located in the Mashonaland West district of Zimbabwe, approximately 80 km southwest of Harare and 35 km southeast of Chegutu
- The project area covers 23 903 ha located on the Great Dyke

### POSITION ON THE GREAT DYKE

- The project is located south of the Zimplats Selous Metallurgical Plant and north of the Zimplats Ngezi operations

### GREAT DYKE GEOLOGY

- Hosts the Main Sulphide Zone (MSZ)
- Typically, between 2 and 3m thick – Karo targeting up to 5m cut
- Runs from a northerly to a southerly direction
- Approximately 550 km in length and up to 11 km wide

### HISTORIC ZIMPLATS RESOURCE DECLARATION

- June 2017 – 85% of North of Portal 10
- Indicated: 60 Mt at 3.44 g/t (4E) – 6.6 Moz
- Inferred: 868 Mt at 3.22 g/t (4E) – 89.8 Moz
- Total of **96.4 Moz (4E)**
- *Zimplats Annual Report 2017*

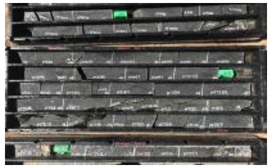
# HISTORIC TIMELINE

**INVESTMENT PROJECT FRAMEWORK AGREEMENT SIGNED**

**GROUND BREAKING**
Environmental base line studies started
Comprehensive stakeholder engagement commenced

**EXPLORATION PROGRAMME**
Drilling campaign continued
Second drilling contractor mobilised

**EXPLORATION PROGRAMME PHASE 2 COMMENCES**



**EXPLORATION PROGRAMME PHASE 2 RE-COMMENCES**
77 diamond core holes totalling ~ 7 km
The total number of drill holes completed were 315

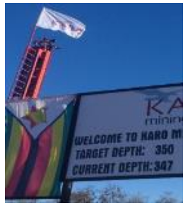
**GAP DRILLING**
Firming up of resources in +20 year reserve

**EXERCISE OF FARM-IN OPTION**
Tharisa plc becomes majority shareholder in Karo, upping its stake to 66.3%
Republic of Zimbabwe becomes a 15% shareholder in Karo Platinum

**MINING AND PROCESSING ESIA APPROVED**

**LONG LEAD ITEMS ORDERED**

| 2018 | | | | 2019 | | | | 2020 | | | | 2021 | | | | 2022 | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 | Q3 | Q4 |




**MOBILISATION**
Geophysics completed
DTM completed
First drilling contractor mobilised

**SPECIAL GRANT AWARDED**
Environmental prospectus for exploration programme approved by EMA

**EXPLORATION PHASE 1 COMPLETED**
238 diamond core boreholes totalling ~32 km

**PRESIDENTIAL SITE VISIT**

**SPECIAL ECONOMIC ZONE DECLARED**

**COVID 19**
Exploration work suspended
Desktop concept study commences

**IMPLEMENTATION STUDY COMMENCES**

**MINING LEASE ISSUED**

**IMPLEMENTATION STUDY COMPLETED**
Delineation of a Tier 1 Asset
+20 year LOM established
Output of +150koz PGMs

**APPOINTMENT OF KARO MD**
Bernard Pryor

**ANALYST SITE VISIT**

**FIELD WORK COMPLETED**
Geotechnical
Ground and surface water

**EARLY WORKS PROGRAMME COMMENCED**
US$25m commitment to ensure timeline is met

# ENCHANCED PHASE ONE - KEY HIGHLIGHTS

**WORLD CLASS PGM ASSET**

## Tier 1

**LOM OPEN PIT**

## +17 years

(Previous: +20 years)

**ANNUAL PGM PRODUCTION (6E)**

## 194 koz

**+ 0.10% Cu**
**+ 0.12% Ni**

(Previous: 150 koz)

**MINING LEASE FOR LOM**

## Licenced

**OPEN PIT, SCALABLE, LOW COST, PHASED**

## Low risk

**DEVELOPMENT TIMELINE**

## 24 months

# KARO PROJECT UPDATE

> “Developing a tier one project in this unique geological setting comes once in a lifetime”

BERNARD PRYOR
MD • KARO MINING HOLDINGS

# ESG: IMPACT INVESTING

VALUE CONTRIBUTION
~2% GDP

### SAFETY AND ENVIRONMENTAL

- Four years LTI free
- IFC compliant ESIA approved (mining & processing)
- Structurally safer waste rock contained TSF independently designed

### KARO IN THE COMMUNITY

- Prioritising local recruitment and skill development
- Dedicated Social & Environment team
- RAP implementation in progress (12 households in Phase 1)

### GREEN ENERGY EFFICIENCY

- Abundant renewable energy potential
- Total Eren wheeling agreement to support development of 300 MW solar plant to supply national grid

### BOOSTING THE REGIONAL ECONOMY

- Mining contributes 10% - 14% of Zimbabwean GDP
- Karo set to be significant shared value contributor of GDP
- c. 1 000 direct jobs to be created during construction, and further 7 000 indirect jobs

# PROJECT EXECUTION

POWER AND WATER
BULK SUPPLY CONFIRMED

## ESTABLISHED

- Exploration completed, engineering design on schedule
- Pilot PGM concentrator fully operational

## TIMING

- 24-month design and construction schedule - started 1 July 2022
- Mine groundbreaking planned December 2022
- First ore in mill - July 2024

## PROCUREMENT

- Long lead items ordered (ball mills, flotation cells)
- Mining contractor selected
- Key tenders for earthworks, civils to be awarded October 2022

## PEOPLE

- Key positions filled (Projects Director, Senior Finance Manager, HR Manager)
- Active recruitment in Zimbabwe for key construction and operations roles

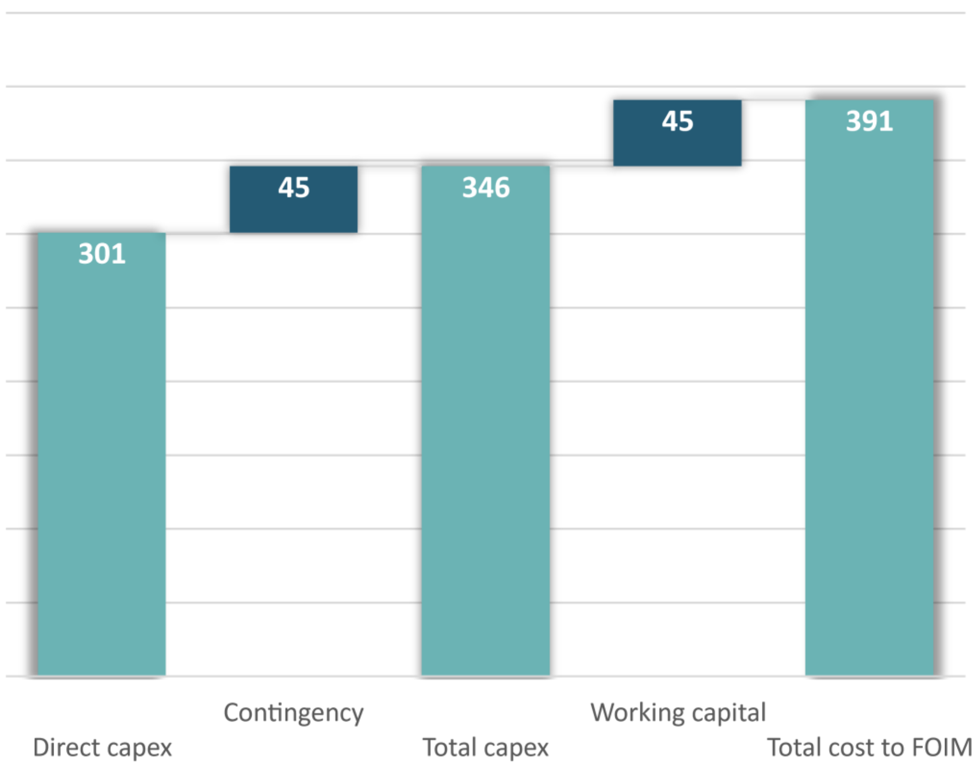
## PHASED DEVELOPMENT

- Beneficiation and Phase 2 evaluation to commence next year

# PROJECT CAPITAL COST

- First Ore In Mill (FOIM) is scheduled for July 2024
- Increased PGM production output of 22.7% to 194 kozpa
- The revised capital cost reflects actual price estimates as at H1 2022, which includes higher steel and transportation costs
- A 15% project contingency is included as calculated using a Monte Carlo simulation set at $P_{90}$
- Working capital includes operational readiness of US$17 m and mining pre FOIM of US$28 m
- Total cost to FOIM is estimated at US$391 m
- Tharisa to provide additional escalation reserve of US$26 m

**COST TO FOIM**
**(US$ m)**




** Capex excludes financing costs as this will depend on debt: equity split*

# PROJECT ECONOMICS

## THE 22.7% INCREASED PGM OUTPUT IS FURTHER VALUE ACCRETIVE FOR THE THARISA GROUP

| | |
|---|---|
| **Throughput** | 205 ktpm |
| **Production** | 194 kozpa |
| **LOM** (Reserves M&I) | 17 years |
| **ROM grade** | 3.0 6E g/t (average)* |
| **Strip ratio** | 21.6 $m^3$:$m^3$ average over LOM |
| **Recovery** | 78% increasing to 82% |
| **Tax holiday** | 5 years from operations |
| **PGM basket price** | US$2 140/oz (6E)** |
| **Base metal blended price** | US$15 099/t** |
| **Cash cost** | US$1 096/PGM oz# |
| **Total cost to FOIM** | US$391 m |

>

**PROJECT VALUE** INCLUDING IN SITU INFERRED RESOURCE

**US$686 m**

**NET PRESENT VALUE**$_{10\%}$ EXCLUDING IN SITU INFERRED RESOURCE

**US$413 m**

**IRR**

**26.1%**

**ROIC**

**30.1%**

**The above is premised per March 22 mine plan*
***Analyst sources: HSBC and Noah Capital (2023E)*
*#Excluding royalties and taxes*

# KARO PLATINUM FUNDING

> “Price is what you pay, value is what you get.”
>
> WARREN BUFFET

# KARO PLATINUM FUNDING

- Multiple funding streams with different timing requirements
- Partial leverage of existing assets – ~US$130 m
- Syndicated Loan with senior project finance facility with a political and commercial insurance wrap (ECIC) – ~US$260 m
- VFEX bond listing – targeting US$50 m
  - Tharisa commitment of US$10 m

# THE OFFERING

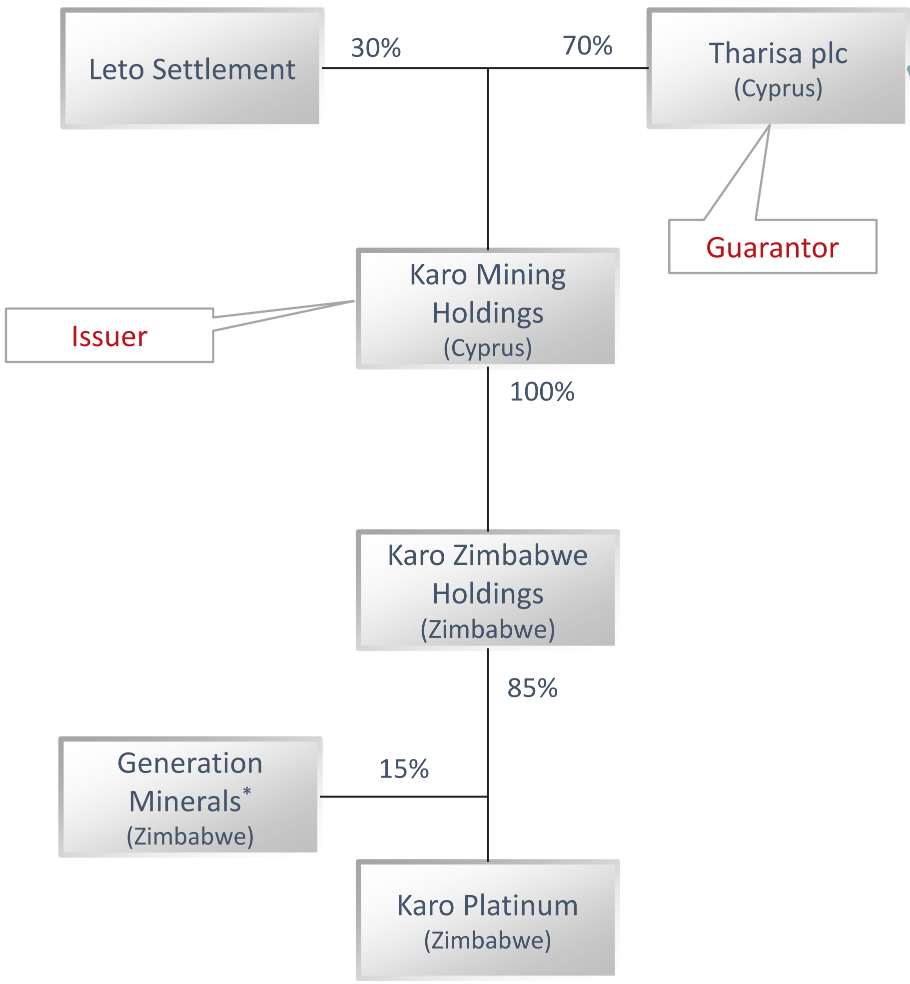
## ISSUER – KARO MINING HOLDINGS PLC

- US$50 m bond by private placement
  - Three year tenor
  - 9.5% fixed coupon, interest paid semi annually
  - US$ bond in minimum denominations of US$2 500
  - Capital and interest guaranteed by Tharisa plc
- Tharisa also committed US$10 m to the bond issue
- Timing
  - Subscription closes: 30 November 2022
  - Issuance of debt securities: 5 December 2022
  - Debt securities listed on the VFEX: 14 December 2022

## GUARANTOR – THARISA PLC

- Listed on the JSE and LSE
- Established PGM and chrome miner with an 11 year operating track record
- Owns 70% of Karo Mining Holdings
- FY2022 production
  - 179.2 koz of PGMs at US$2 564/oz revenue
  - 1.58 Mt of chrome at US$ 209/t revenue
- US$78.9 m net cash at end September 2022
- Tharisa guarantee negates development risk for bond investor

# CORPORATE STRUCTURE




*Generation Minerals is the Republic of Zimbabwe SPV and is free carried interest*

## FY2022 INTERIM RESULTS

**REVENUE:** US$334.0 m

**EBITDA:** US$111.3 m

**NPAT:** US$101.6 m

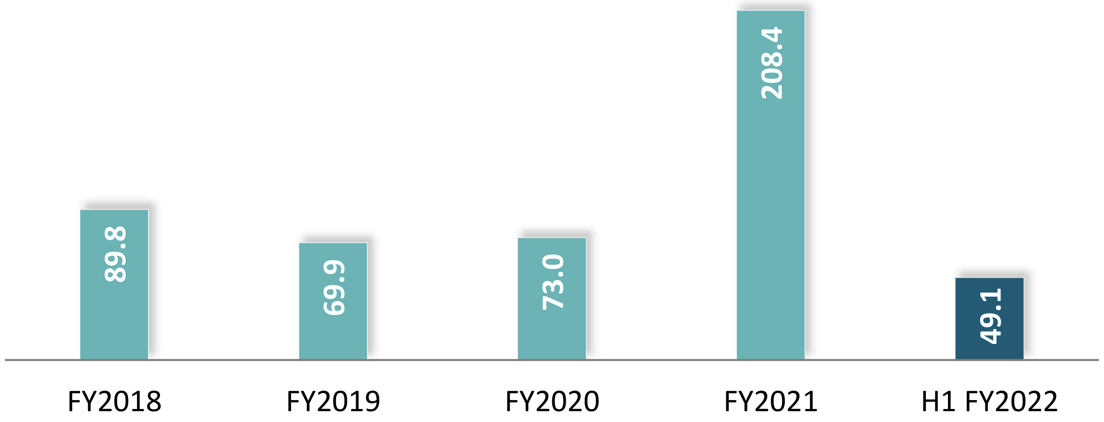
## FY2023 PRODUCTION GUIDANCE

**PGMS (5E+AU):**
175 koz – 185 koz

**CHROME CONCENTRATES:**
1.75 Mt – 1.85 Mt

Rand weakness relative to prior years offers a buffer to inflationary cost pressures at the Tharisa mine

## NET CASH FLOW FROM OPERATIONS (US$ m)



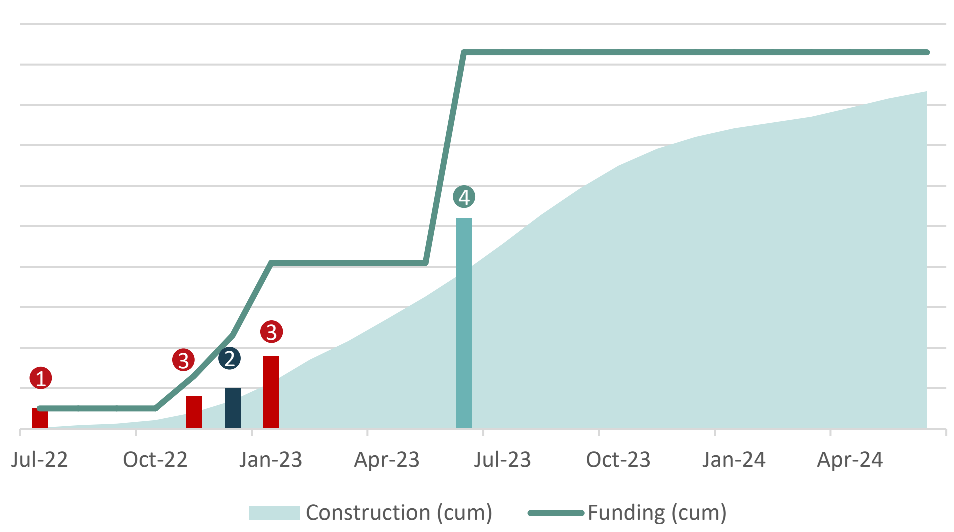
# KARO PLATINUM FUNDING

INVESTMENT TO DATE
US$36.4 m

## MULTIPLE FUNDING STREAMS WITH SYNCHRONISED TIMING REQUIREMENTS

| | | |
|---|---|---|
| 1 Early development funding<br>Tharisa equity | Q2/22 | US$25 m |
| 2 VFEX bond listing<br>Tharisa commitment of US$10 m | Q4/22 | ~US$50 m |
| 3 Tharisa equity | Q4/22 - Q1/23 | ~US$130 m |
| 4 Syndicated loan with senior project finance facility with a political and commercial insurance wrap (ECIC) | Q1/23 – Q2/23 | ~US$260 m |

## PROJECT S CURVE & FUNDING FLOWS



# VFEX BOND – INDICATIVE SUMMARY TERMS

| | |
|---|---|
| **ISSUER** | **Karo Mining Holdings plc (Cyprus)** |
| **ISSUE** | US$50 m senior notes; minimum raise US$25 m<br>Minimum subscription and allotment amount: US$2 500 |
| **TENOR** | 3 years |
| **USE OF PROCEEDS** | Development of the Karo Platinum Mine |
| **COUPON** | Fixed interest: 9.5% p.a. |
| **INTEREST PAYMENT** | Semi annual |
| **PRINCIPLE PAYMENT** | Bullet principle on maturity |
| **SECURITY** | Unsecured; capital and interest guarantee by Tharisa<br>Guarantee and Trustee agreements concluded; Independent Trustees appointed |
| **LISTING** | Private placement, subsequent listing by introduction on VFEX<br>Tradeable asset with listed secondary market |
| **SPECIAL FEATURES** | Application for Prescribed Asset Status in process and pending response from IPEC |

**VFEX SPECIAL ECONOMIC ZONE**

- Excon permission not required to move funds
- Protection against nationalisation and expropriation of investments
- On acquisition: 0.25% stamp duty + VAT on brokerage
- On sale: VAT on brokerage, no CGT
- No withholding tax on interest for non-resident investors

# A UNIQUE INVESTMENT OPPORTUNITY

- Invest in a long life, world class dollar-based mining asset in Zimbabwe
  - Located in the Great Dyke – one of the premier destinations for PGMs
- Solid industry fundamentals
  - Historic under investment in new supply to meet demand for the product both from current users and the hydrogen economy
- Karo operates in Special Economic Zone – investor protection and incentives
- Supports Zimbabwe vision of a US$12 billion mining industry by 2030
  - Direct and indirect economic benefits for the country
- A permitted 'hard currency' investment in a hyper inflationary environment
- Supports the development of Zimbabwe's institutional debt capital markets
- Enhanced liquidity from a secondary market on a regulated exchange
- Favourable opportunity for sterile nostro funds allocation to productive use
- Attractive interest rate – 9.5% pa
- Dual listed Tharisa - capital and interest guarantee, investors do not assume construction or production risk
- US$10 m commitment from Tharisa to participate

THIS PROSPECTUS IS IMPORTANT AND REQUIRES YOUR IMMEDIATE ATTENTION

KARO mining holdings

*Karo Mining Holdings plc, incorporated in the Republic of Cyprus on 23 February 2018 under company registration number HE380340*

**Issuer**

tharisa

*Tharisa plc, incorporated in the Republic of Cyprus on 20 February 2008 under company registration number HE223412*

**Guarantor**

**PROSPECTUS**

**Relating to the issuance and subsequent listing on the Victoria Falls Stock Exchange of a US$50 million bond**

Arrangers (Zimbabwe) — IH Advisory

Debt Sponsor (Zimbabwe) — IH Securities

Trustee (Cyprus) — Christos Patsalides Corporate Management (Bond Trustees) Ltd

Registrar, Calculation, Transfer, Payment and Issuer's Settlement Agent (Zimbabwe) — Corpserve

Registrar, Calculation, Transfer, Payment and Issuer's Settlement Agent (Cyprus) — CYMAIN REGISTRARS LTD

Legal Advisors (Cyprus) — LL LAW

Legal Advisors (Zimbabwe) — GILL, GODLONTON & GERRANS LEGAL PRACTITIONERS

# KARO + THARISA = KEY FUTURE SUPPLY

**LOM OPEN PIT FROM EACH OPERATION**

**+17 years**

**REEF MINED PER ANNUM**

**+7.5 Mt**

**PGMS PRODUCED PER ANNUM**

**~400 koz**

**CHROME PRODUCED PER ANNUM**

**+2 Mt**

**GROUP VALUE = CONSENSUS THARISA + KARO NPV***

**~US$1.3 billion**

*Attributable value

| COMPARISON | UNIT | KARO PHASE 1* | THARISA OPEN PIT** |
|---|---|---|---|
| Open pit LOM | years | 17 | 20 |
| Resource ounces | 4E Moz | 96.4 | 31.1 |
| Reserve | Mt | 35.5 | 94.2 |
| Reserve ounces | 4E Moz | 2.5 | 3.3 |
| PGM production^ | kozpa | 194 | 200 |

*Phase 1 – 17 year open pit LOM
^FY2024 annualised production
**2021 declaration – open pit only

> **ADVANCING OUR STRATEGIC COMMODITY PORTFOLIO**

PLATINUM
PALLADIUM
RHODIUM

# DELIVERING ON OUR STRATEGY

**Expand and roll out the business sustainably**

- Strategic second Tier 1 PGM resource for Tharisa Group
- Initial open pit resource of 152.1 Mt and 9.97 Moz (6E) and reserve of 35.5 Mt and 2.6 Moz (6E)
- Phase 1 operations planned with ability to increase scale further

**Adding scale to existing operations**

- Project area of 23 903 ha – long life potential, 17 year open pit LOM in Phase 1
- Large scale – targeting average of 194 kozpa of PGMs in concentrate in Phase 1

**Continuing to invest in innovative thinking**

- Fast track development timeline – pilot concentrator operating
- Open pit – quick to market strategy

**Become a globally diversified business**

- Geographic diversification
- Higher base metal credits than Tharisa Mine operations

**Be the investment of choice in our chosen sector**

- Strong project economics
- Project $NPV_{10}$ of US$413 m, IRR of 26.1% and ROIC of 30.1%
- Total cost to FOIM of ~US$391 m

**Responsibly enrich the lives of all our stakeholders**

- Impact investment – upliftment of local communities and Zimbabwean economy
- Production of PGMs used in autocatalysts and fuel cells (hydrogen economy)

# QUESTIONS

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