



PENSANA Plc

Connecting one of the world's largest rare earth mines with the U.S. to create a major U.S. Mine-to-Magnet supply chain.

December 2025
LSE:PRE

Establishing a major U.S. Mine-to-Magnet supply chain

Fully financed world-class rare earth mine comes into production timeously for U.S. Government restriction on Chinese imports in 2027

- LSE main board listed (LSE:PRE) Market Capitalisation ~US\$400 million¹.
- \$160 million U.S. EXIM accelerated debt funding underway for Longonjo phase 1 production and subsequent doubling of production to 40,000 tonnes MREC p.a.
- Full strategy support by Angolan Sovereign wealth fund (FSDEA - Fundo Soberano de Angola) as a key investor.
- On track to becoming the third largest non-Chinese rare earth producer behind MP Materials and Lynas Corporation.
- Ultra-low phase 1 Capex of US\$217 million². Full funding approvals secured. In construction.
- Extremely high demand for Pensana products from EVs, robotics and automation OEMs.

World-class rare earth deposit

One of only three ore bodies worldwide with >100kt NdPr reserve.

Larger Resource than MP Materials.

Planned 25,000 metre drill programme targeting up to a billion tonnes

Finance in place, funds being drawn down and construction underway

US\$268 million mine finance in place and construction underway. First production 2027 prior to the U.S. Government restricting Chinese imports.

Strategic Mine-to-Magnet partnership

Partnership with eVAC and Re Element to build U.S. mine-to-magnet supply chain.

Notes

1. Market capitalisation as at 14 November 2025
2. Capital estimate as per most recent BFS completed for Stage 1 development of Longonjo mine

Partnering with major players to build a Mine-to-Magnet supply chain in the U.S.

Strong demand for Longonjo's Highly-Marketable Mixed Rare Earth Carbonate (MREC)

- Pensana produces export-quality MREC, a high-value REE concentrate that contains NdPr.
- Multiple partnerships in place to develop downstream refining opportunities, with a high interest from U.S. and other agencies.
- Pensana to supply 100% of the recently commissioned state-of-the-art eVAC Magnetics facility.



100% processing and refining capability

Re Element is a Indiana-based REE refining company



Pensana and Re Element leadership meet in Washington DC

Partnership for U.S. Mine-to-Magnet supply chain

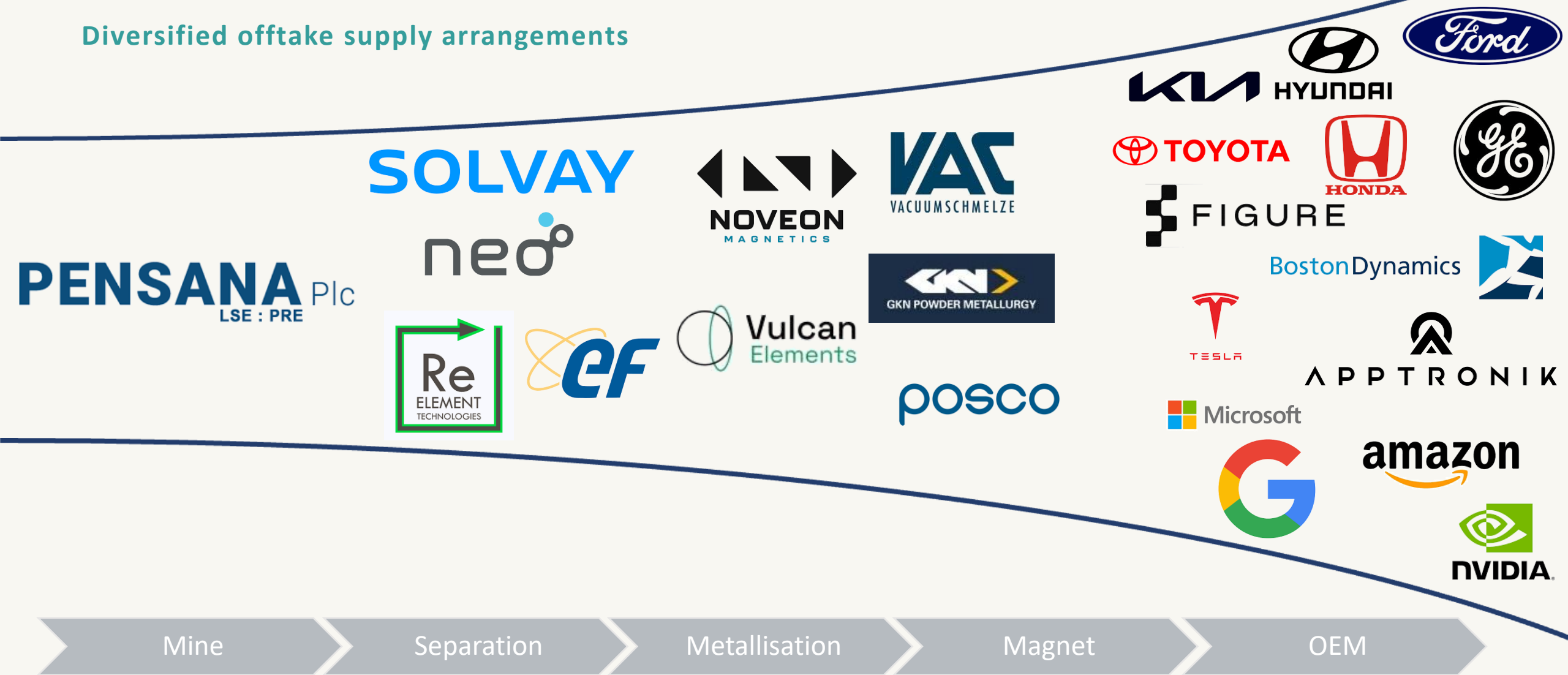
U.S. eVAC magnet production of 2,000t p.a. (12,000 by 2029)



Senator Graham visits state-of-the-art eVAC Magnetics facility in Sumter, South Carolina

Unlocking supply chain resilience through Mine-to-Magnet strategy

Diversified offtake supply arrangements



Upstream

Downstream

Longonjo – a near surface, high grade mine, supported by the multi-billion dollar rail, hydroelectric power and port infrastructure of the Lobito Corridor

22Mt at 3.04% TREO

JORC Reserve
Targeting billion tonne Resource

US\$ 217 million

Upfront Capital expenditure

2027

Commence production

20+ Years

Life of Mine

4,200tpa NdPr

Full production after US\$100 million expansion in Year 3

In Construction

Project status



Key differentiators

- Excellent infrastructure (Lobito Corridor + Hydro power) allows for ultra-low upfront capital cost of US\$217 million including contingency.
- With site infrastructure already in place mobilisation of contractors and construction of the modularised process plant is underway.
- Extremely supportive major shareholder Sovereign Wealth Fund investing in projects across Angola.
- One of the largest and highest-grade undeveloped magnet metal mines worldwide.
- Lowest capital intensity for a mine of this scale.
- High demand for initial production of 20,000t MREC p.a. from 2027.
- High interest in proposed expansion to 40,000t MREC p.a. in 2029.

Longonjo is the largest (undeveloped) rare earth mine globally

Exploration Target to increase the overall resource to over 1 billion tonnes at similar grade



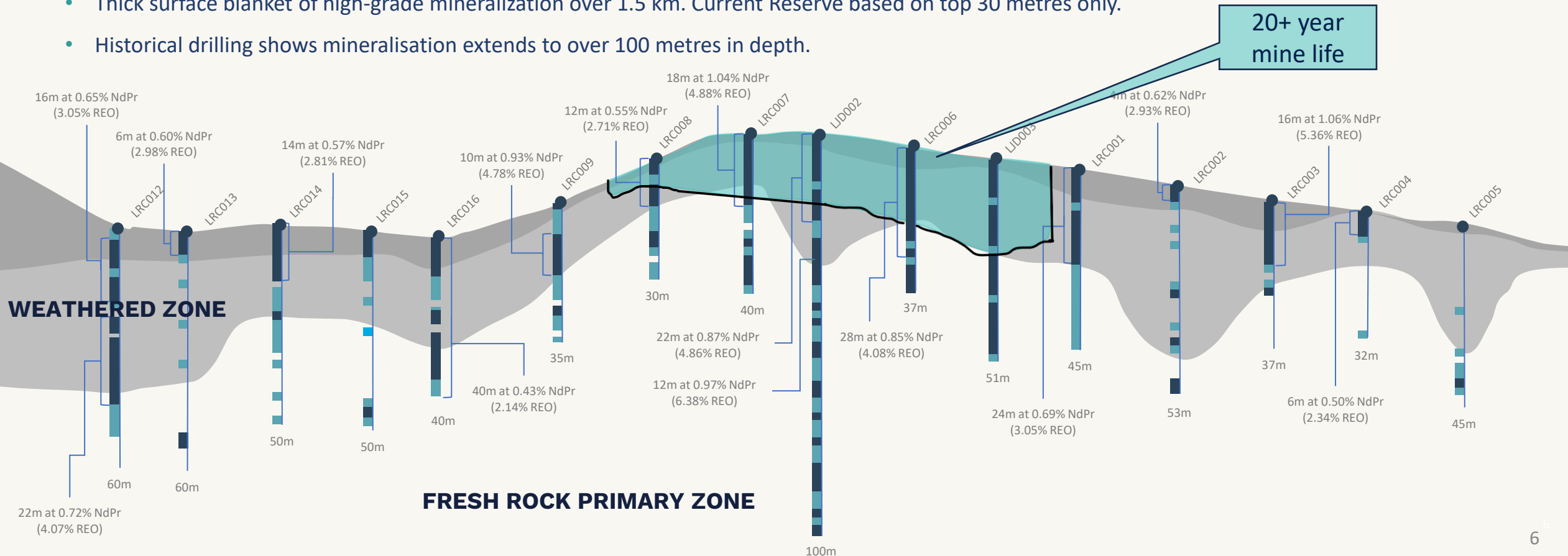
Notes

1. Rating as per Rare Earth Exchange Top 20 NdPr Project/Deposit as at 27 May 2025 (<https://rareearthexchanges.com/reex-projects-database/>)

One of the world's largest rare earth Resources (*approx. only 30% drilled*)

Major drill programme to increase Longonjo resource to over one billion tonnes making it one of the largest rare earth mine ever developed

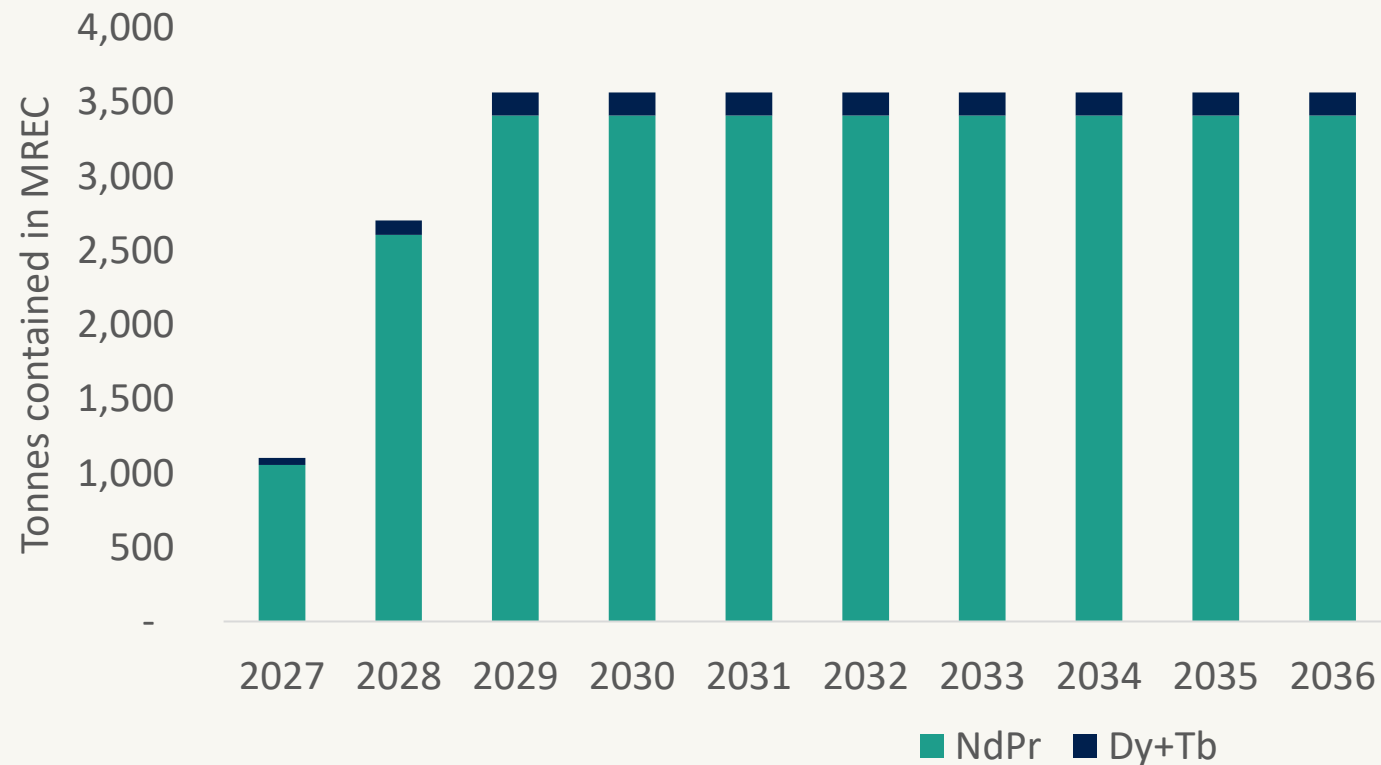
- Longonjo has a JORC compliant Mineral Resource Estimate 313 million tonnes @ 1.43% REO (22 million tonnes @ 3.04% TREO Reserve).
- Based on 25,000 metres of drilling and metallurgical test work costing circa US\$11 million, to a depth of circa 100 metres below the existing Resource, designed to **increase the Mineral Resource Estimate to over a billion tonnes at similar grade.**
- Thick surface blanket of high-grade mineralization over 1.5 km. Current Reserve based on top 30 metres only.
- Historical drilling shows mineralisation extends to over 100 metres in depth.



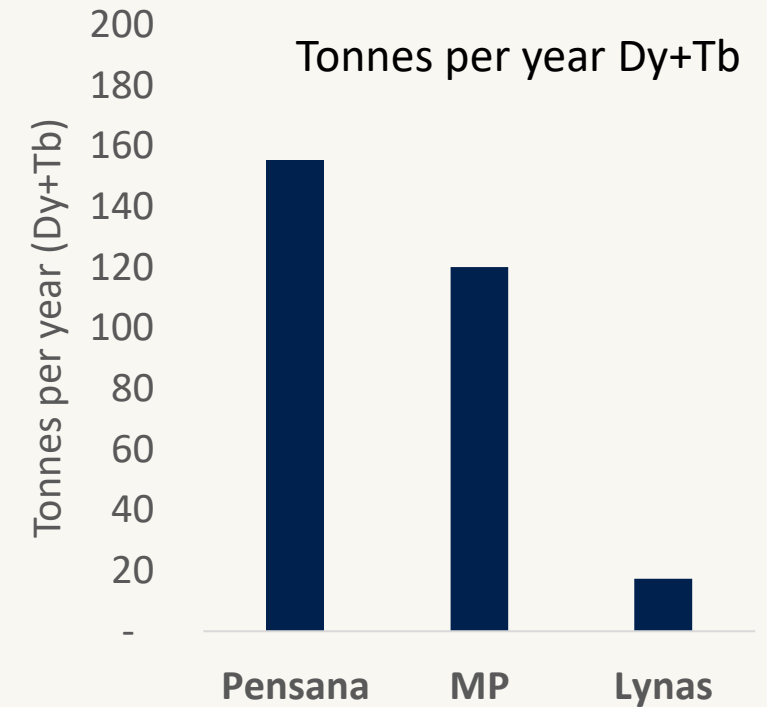
Longonjo: LREE + potential HREE production profile

Pensana		2027	2028	2029	2030	2031	2032	2033	2034
NdPr	Tonnes	1,056	2,605	3,409	3,409	3,409	3,409	3,409	3,409
Dy	Tonnes	38	79	127	127	127	127	127	127
Tb	Tonnes	9	19	29	29	29	29	29	29

Longonjo | 10 Year LREE+HREE Production profile



HREE Peer Comparison



Source

- **Lynas:** Argonaut Rare Earth Element Sector Update, 20 November 2025
- **MP Materials:** Heavy Rare Earth Production Update, assuming 4% Dy/Tb SEG+ grade on 3,000 tpa feedstock

World-class mine construction with access to world-class infrastructure



Processing plant platform



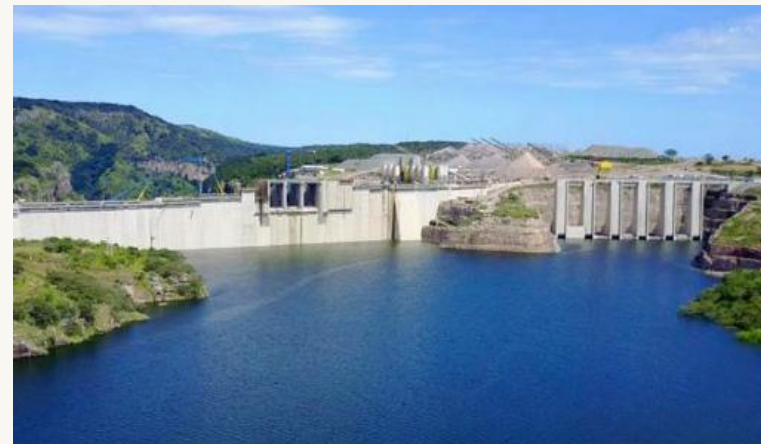
350 Person camp installed



Contractor laydown area



Longonjo railway station - 4 km from mine

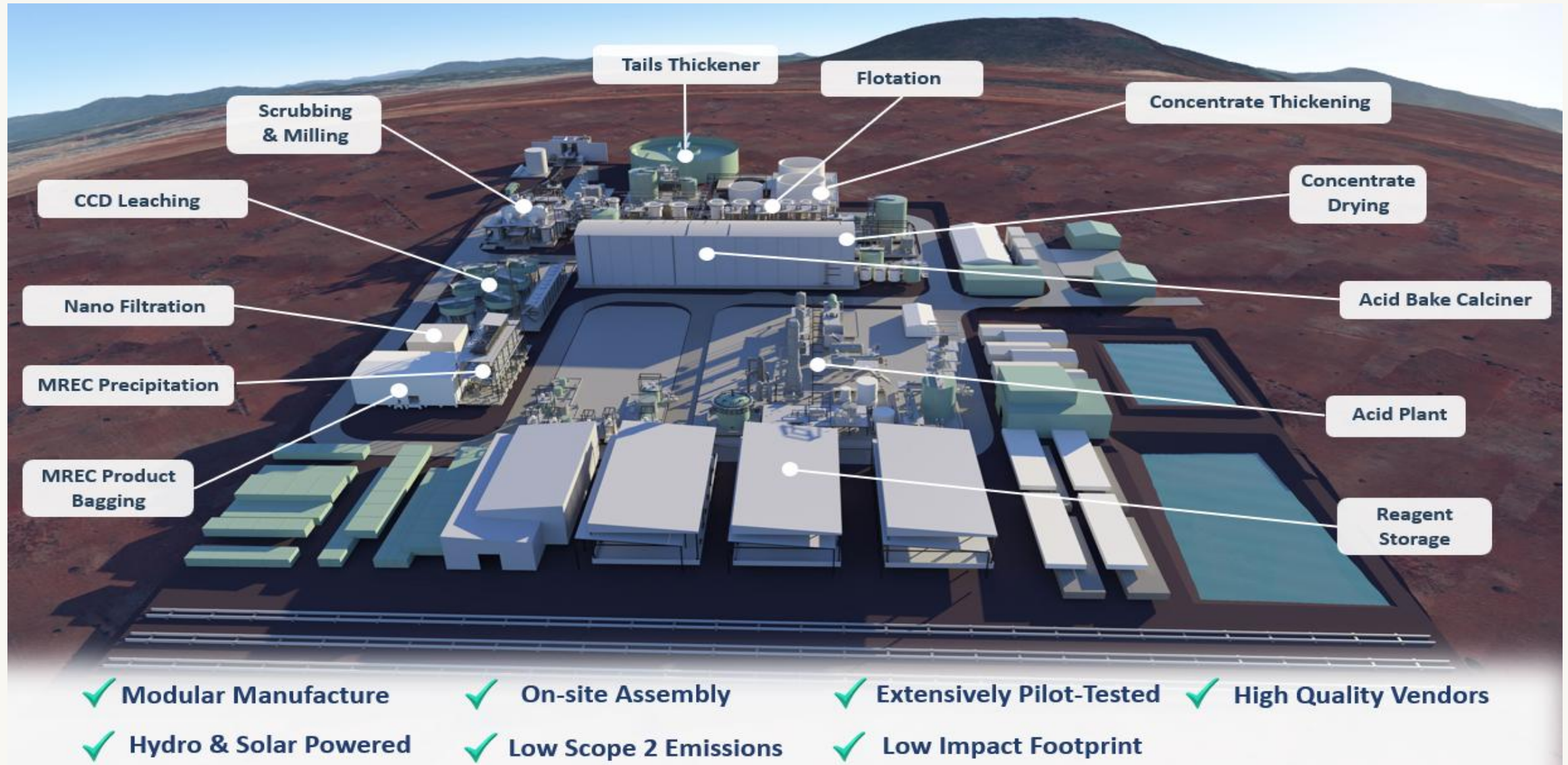


2GW Laúca hydropower plant



Deep water port of Lobito

State-of-the-Art Modularised Process Plant under construction



Highly experienced Board and Management Team with deep Rare Earth expertise

Executive Directors



PAUL ATHERLEY
FOUNDER and CHAIRMAN

Mr. Atherley is an experienced mining executive and is the founder of the Company. Previously Executive Director of the investment banking arm of HSBC. He has completed numerous successful acquisitions and financings of resource projects in Europe, China, and Australasia. He is a supporter of Women in STEM.



TIM GEORGE
EXEC DIRECTOR/CEO

A Minerals Engineer, Mr. George leverages over 30 years of experience in the mining and engineering sectors, with a broad experience in mining project development throughout Sub-Saharan Africa.



ROBERT KAPLAN
FINANCE DIRECTOR

Mr Kaplan is a Chartered Accountant with over 20 years of operating experience in the African mining sector. He brings a broad skill set in both the UK and sub-Saharan corporate finance together with experience in mining operations in Angola, South Africa and Tanzania.

Non-Executive Directors



ALISON SAXBY
NON-EXEC DIRECTOR

Alison is an industry-leading expert with over 35 years of experience in industrial minerals and metals. She was previously a Managing Director at metals consultancy Roskill and was recently appointed as Research Director of Project Blue. Alison is the author of numerous publications on critical and other minerals and was originally trained as a mineral engineer.



STEVE SHARPE
NON-EXEC DIRECTOR

Mr Sharpe is a highly experienced natural resources financier. He is an Executive Board Member of EIT Raw Materials. Previously, he was Chair of AME Group, Managing Director at Canaccord Genuity, Managing Director at Endeavour Financial and held senior positions at Standard Bank and NM Rothschild.

Technical Management Team



KAREN BROWN
CHIEF OPERATIONS OFFICER

Karen Brown is an experienced rare earth professional who brings extensive production and commercial expertise to the Company's development. She spent 21 years as Managing Director at Neo Materials Chemicals & Oxides for Europe, where she oversaw new product development. More recently, she has consulted with Pensana on downstream and market activities, giving her strong familiarity with the Company and its objectives.



WILLIAM IZOD
CHIEF COMMERCIAL OFFICER

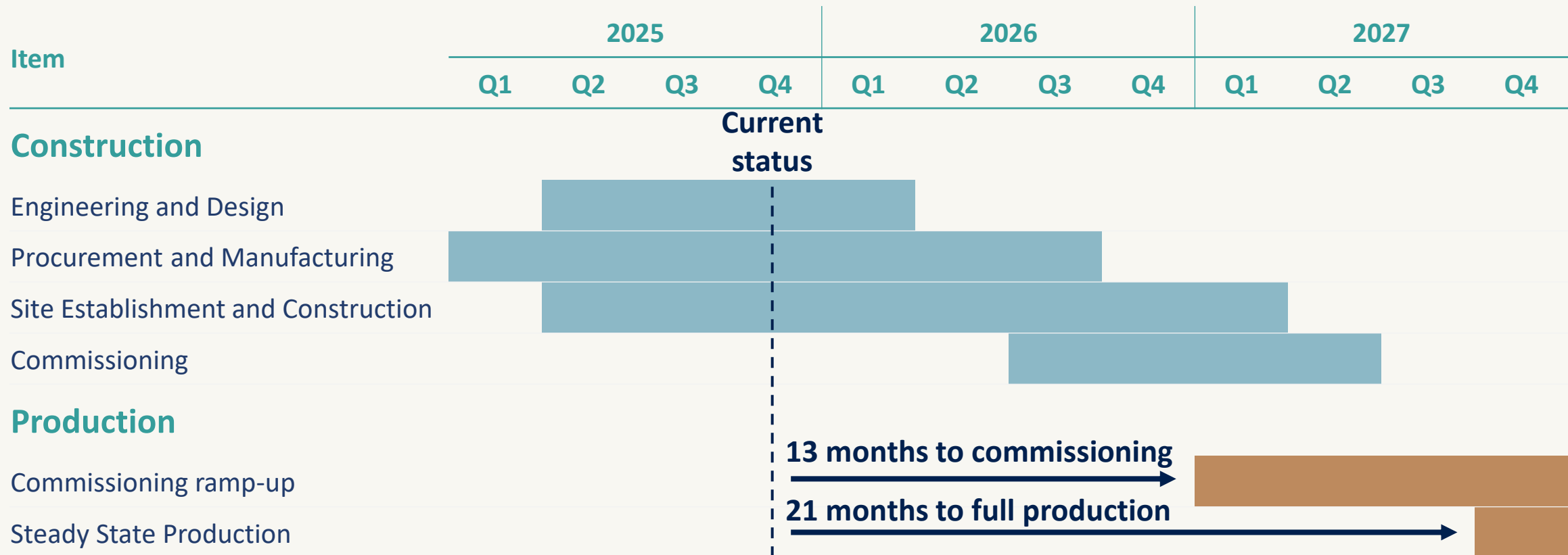
William Izod has extensive experience in managing and developing rare earth supply chains, including 10 years working with large multi-national companies, including managing a Motor and Powertrain supply chain controlling £1bn of annualised spend.



KEVIN BOTHA
LONGONJO PROJECT DIRECTOR

Kevin is a qualified Electrical Engineer and Project Management Professional with over 45 years' experience in the global mining industry, including blue-chip international companies and as a Director and Owner of companies providing engineering and project management services to the sector.

Construction timeline: 18 months to first production



Compelling economics: Low upfront Capex with strong Cashflow generation

Very highly leveraged to rising Rare Earth prices

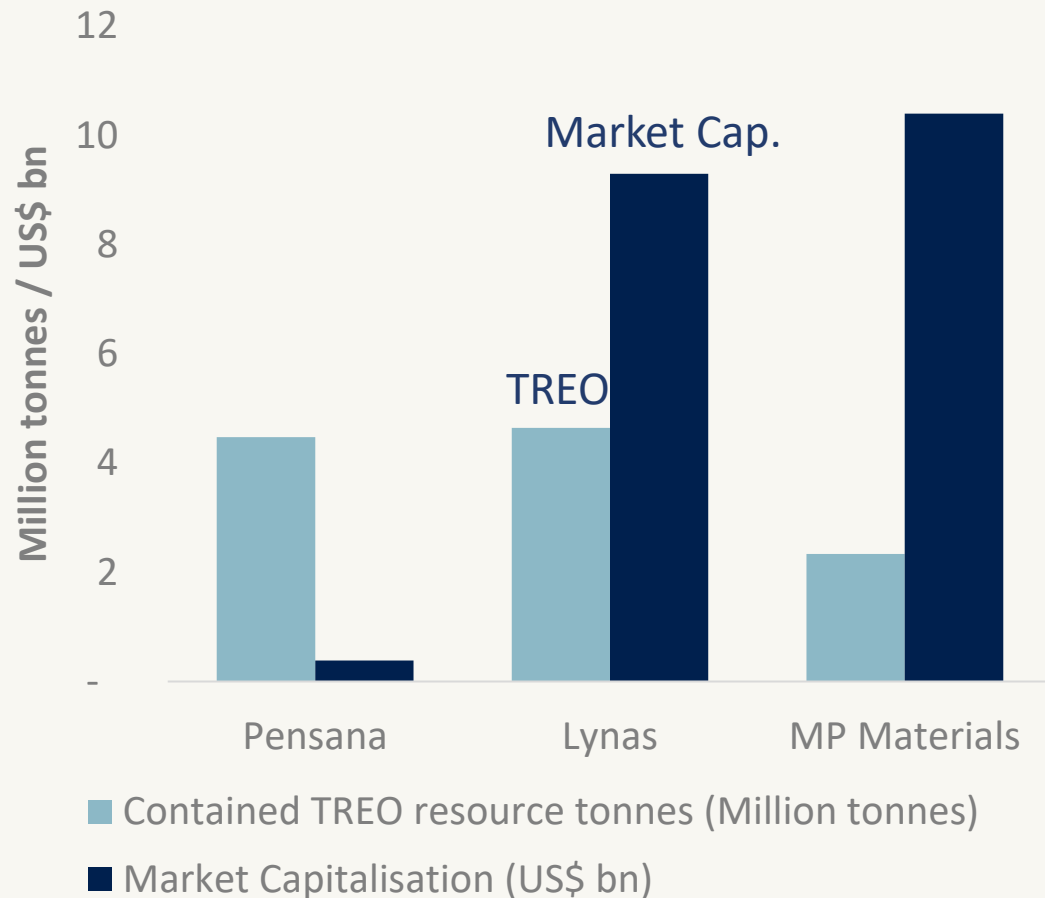
Item	Longonjo
Production	<ul style="list-style-type: none"> • MREC capacity of ~20kt p.a. (Year 3: ~40kt) • NdPr of ~2.4kt p.a. (Year 3: ~4.2kt)
Capital	<ul style="list-style-type: none"> • US\$217 million (upfront) • US\$105 million (2 years post first production)
EBITDA (LOM Avg.)	<ul style="list-style-type: none"> • US\$263 million
NPV (at 8%)	<ul style="list-style-type: none"> • US\$1,745 million
IRR	<ul style="list-style-type: none"> • 59%
Payback	<ul style="list-style-type: none"> • 2 years

Notes

- Longonjo project economics reflect combination of U.S. floor price (MP Materials July'25 floor price) and average market consensus (calculated using the average price outlook from Adamas, Morgan Stanley and Project Blue)

Significantly undervalued compared with existing major producers

Total Rare Earth Oxides (TREO) tonnes v Market Capitalisation US\$ billions



Company	Market Cap (US\$ Bn)	Contained TREO (tonnes)	Market Cap / TREO (US\$/tonne)
Pensana Plc	0.4	4,470,000*	87
Lynas Rare Earths	9.3	4,645,000	2,001
MP Materials	10.4	2,334,498	4,452

*Targeting 3x uplift on current Resource

Notes

- Total Rare Earth Oxides (TREO)
- Market capitalisation as at 14 November 2025
- Resource data as per latest available statements published (Pensana: 30 June 2025 AR, MP Materials: 31 December 2024 AR, Lynas: 30 June 2025 AR)

September 2025 Goldman Sachs: 10% disruption in rare earths supply could lose US\$150 billion in economic output

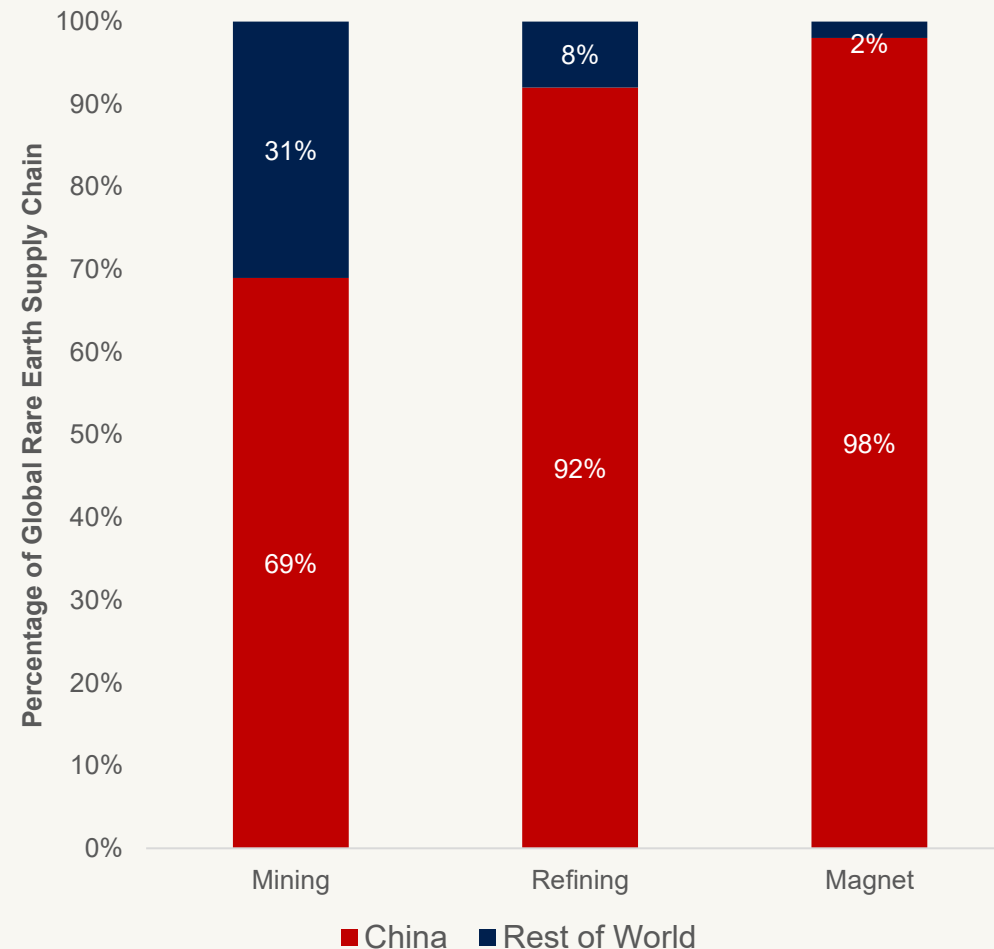
Rare earth elements (REEs) have become a flashpoint in geopolitics, as they are critical to high-tech industries and essential in uses from batteries to computer chips, artificial intelligence, and defence equipment.

While the rare earth market was valued at \$6 billion last year, just a fraction the size of the copper market, which is 33 times bigger, the bank warned that a disruption of 10% in industries reliant on REEs could result in \$150 billion in lost economic output, besides inflationary pressures fed by the shortages.

Rare Earths Power U.S. Defense¹



China's Rare Earth Supply Chain Leverage²



Notes

- 1. Source: Benchmark Mineral Intelligence, 17 July 2025 "How Rare Earths Power U.S. Defense"
- 2. Source: Reuters, 21 October 2025 "Goldman Sachs flags risk of disruption in supply of rare earths, key minerals"

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