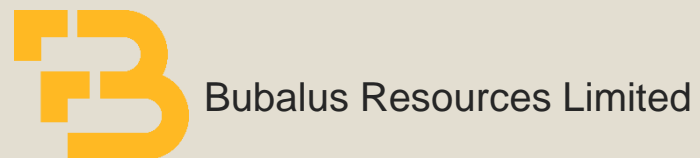


ASX: BUS



# Investor Presentation

Exploring for critical minerals in the  
Northern Territory and Western  
Australia

October 2022





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## Competent Person Statement

Mr Bill Oliver, a Director of the Company, is a Member of The Australasian Institute of Geoscientists and the Australasian Institute of Mining and Metallurgy and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the JORC ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Mr Oliver consents to the inclusion in the report of the information in the form and context in which it appears. The Exploration Results are based on standard industry practices for drilling, logging, sampling, assay methods including quality assurance and quality control measures as detailed in the ASX Announcements stated in the text and in the Independent Geologist’s Report contained within the Prospectus released to the ASX on 11<sup>th</sup> October 2022.

*Following a successful IPO Bubalus is poised to capitalise on the growing global demand for critical minerals sourced from Tier 1 jurisdictions.*

- Assembled a **highly prospective portfolio** of **Rare Earths, Manganese, Zinc, and Cobalt** projects located in **Tier 1 jurisdictions** – NT and WA.
- NT host to some of **Australia's most significant Rare Earth Elements** resources, Arafura Resources (Nolans Bore) and Northern Minerals (Browns Range).
- Bubalus Resources' **first mover advantage**, securing analogous and favourable geological settings.
- Undertake **systematic exploration**, applying **modern geophysical** and **geochemical techniques** to exploit anomalous historical REE, Manganese and base metals results.
- **Tight capital structure** and **low enterprise value** presenting **compelling leverage** to **exploration success**.
- Demand from renewable energy sources combined with geopolitical tensions have placed **heightened importance** on **strategically located Rare Earths deposits**.

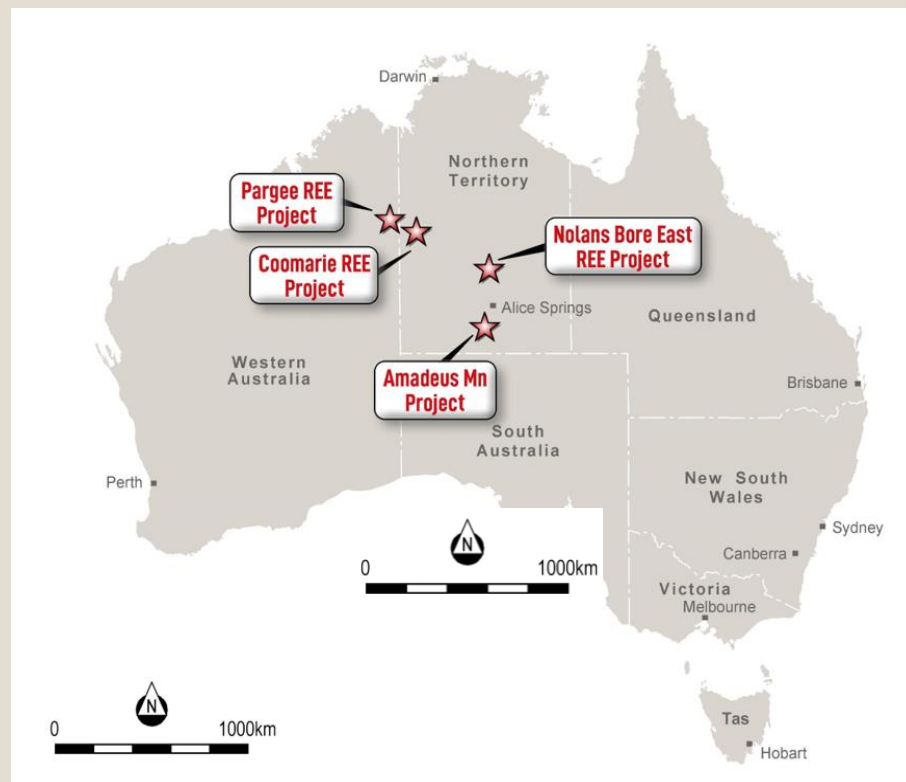


***Significant tenement package across highly prospective, underexplored mining regions across Australia.***

## Project Highlights

- Significant landholding of 1,528km<sup>2</sup> in the Northern Territory which is underexplored for its rare earth and lithium potential covering two major projects at the Coomarie Project and Nolans East Project.
- First mover advantage covering large areas of prospective geology analogous to major rare earth deposits Brown's Range (ASX.NTU ~ AUD \$320 million market capitalisation) and Nolan's Bore (ASX.ARU ~AUD \$300 million market capitalisation).
- 5,435km<sup>2</sup> prospective for manganese at the Amadeus Project 125km south of Alice Springs.
- Underexplored provinces, with opportunity to apply modern and systematic exploration techniques to deliver new discoveries.

## Key Projects Location



*Bubalus has been established with a strong Board and management team with the skills and experience required to create value for shareholders.*

## Capital Structure

Capital Structure	
ASX Code	ASX:BUS
Share price	\$0.23
Total shares on issue	33,661,750
Total options on issue (subject to escrow period)	12,561,750
Market Capitalisation (undiluted)	\$7.74m
Cash after IPO costs	\$4.60m
Enterprise value (EV) upon listing	\$3.14m
Top 20 shareholders	51.75%
Escrowed securities	6,615,575

## Board and Management



### Alec Pismiris – Executive Chairman

Mr Pismiris has over 30 years of experience in the securities, finance and mining industries. Mr Pismiris completed a Bachelor of Commerce degree at UWA, is a member of the Australian Institute of Company Directors and a fellow of The Governance Institute of Australia. Other current directorships include Agrimin Limited, Sunshine Gold Limited, The Market Herald Limited and Pacton Gold Inc (TSX-V).



### Bill Oliver – Non Executive Director

Mr Oliver is a geologist with over 20 years of experience in the resources industry. Mr Oliver has served as director of a number of ASX listed companies and is familiar with the requirements of the ASX Listing Rules and the JORC Code. He's a member of the AusIMM and the Australian Institute of Geoscientists and holds an honours degree in Geology from UWA, as well as a post-graduate diploma in finance and investment from FINSIA.



### Scott Deakin – Non Executive Director

Mr Deakin has over 12 years experience working in the exploration and resources sector. He's a director of Mining People International, specialising in technical and executive mining recruitment and HR consulting. Mr Deakin holds a commerce degree from Curtin University, a Graduate Diploma in Mineral Exploration and Geoscience from Curtin University's WASM and is a Graduate of the Australian Institute of Company Directors.



### Melanie Ross – CFO and Company Secretary

Ms. Ross is an accounting and corporate governance professional with over 20 years' experience in financial accounting and analysis, audit, business and corporate advisory in Australia.



### Inyati Capital – Corporate Advisors

Demonstrable track record of strategic corporate advisory and value creation to companies such as Vulcan Energy (VUL), Province Resources (PRL) and Galileo Mining (GAL).



# Heavy REE's - Coomarie Project

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## Exploring for another Browns Range – “Own the Dome” Strategy

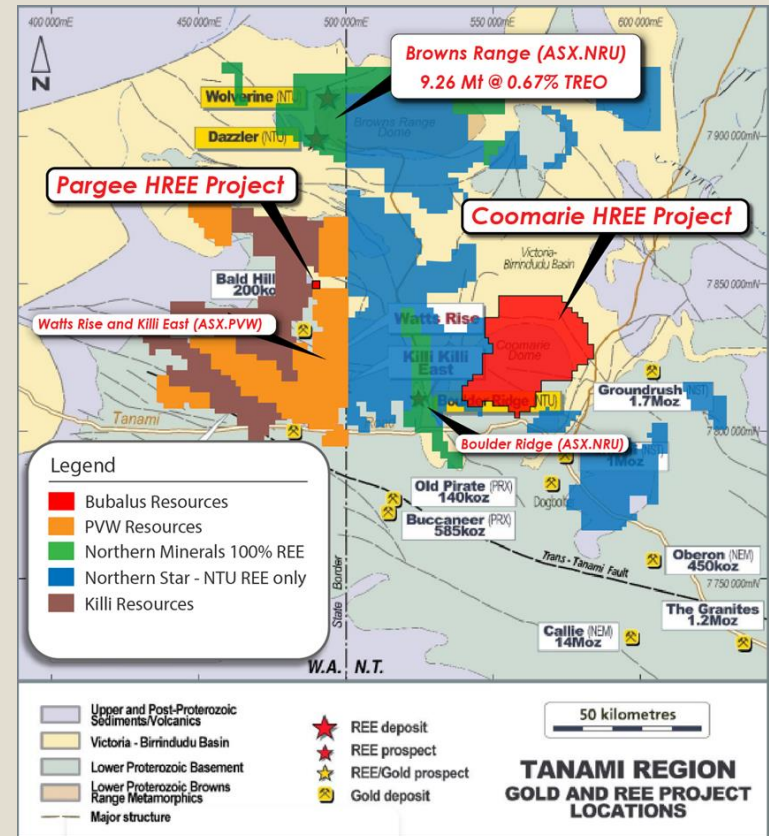
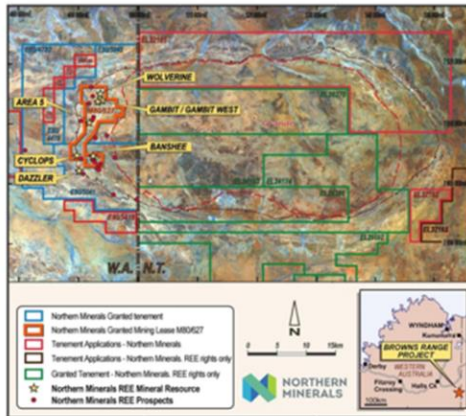
### Coomarie analogous to NTU Browns Range

- The Coomarie Dome project presents as a geological analogue to Browns Dome, host to NTU's Browns Range REE deposit.
- The Pargee project is prospective for heavy rare earths and located adjacent to PWV Resources, 30kms from their Watts Rise HREE discovery.

### Coomarie & Pargee Project Location

#### Exploration – “Own the Dome” strategy

- 100% owned tenure and/or 100% rare earth rights over the Browns Range Dome
- More than 2,300 square kilometres of tenure to evaluate
- Strategy to increase Mineral Resource and the life of mine potential at Browns Range to 20+ years



Source: Northern Minerals ASX investor presentation 9/06/22

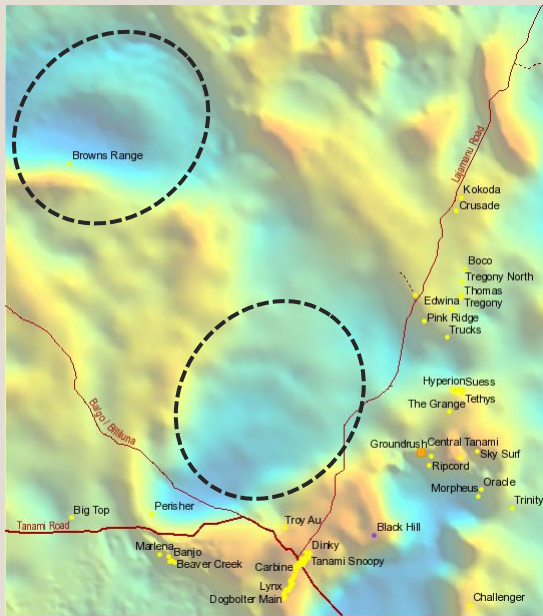
# Heavy REE's - Coomarie Project

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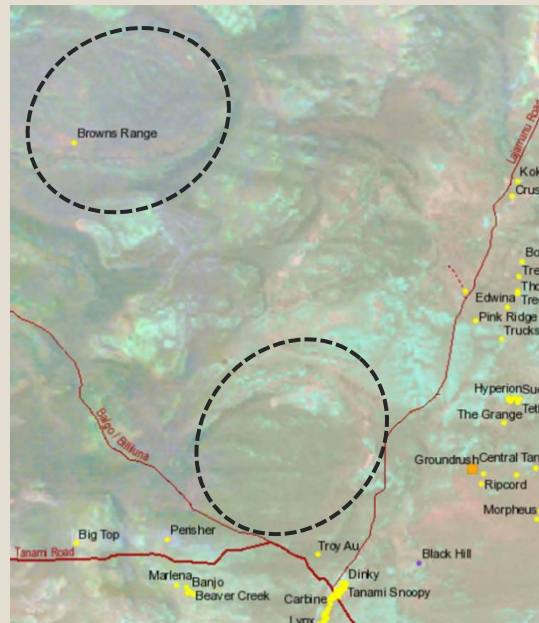
***Large granitoid intrusive known as Coomarie Dome presents an opportunity to pursue the same “own the dome” strategy as Northern Minerals – Browns Range Project.***

- Northern Minerals (NTU) Browns Range mineralisation hosted on margins of granite dome intrusive where the unconformity between Gardiner Sandstone and Browns Range Metamorphics exist.
- Whole rock grab samples highlight anomalous NdPr Values on periphery of Coomarie Dome intrusive complex, without any follow up exploration having been undertaken.

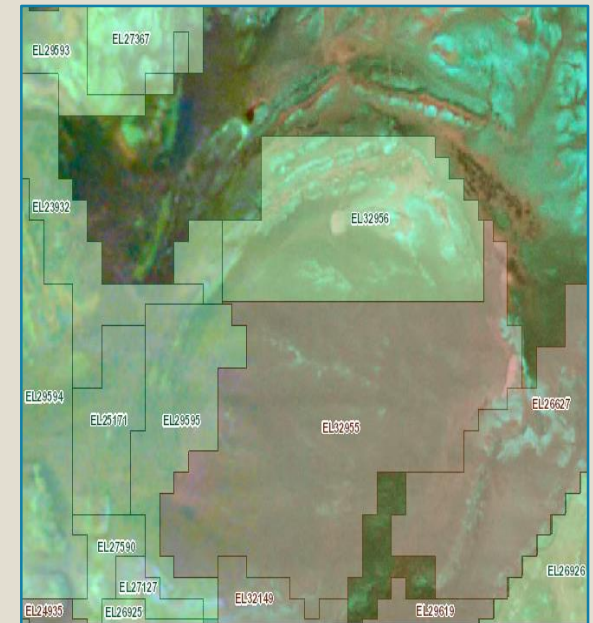
## Similar structural dome setting



## Radiometric signature similarities



## EL32956 straddling domal margin of interest



Source: Independent Geologists Report



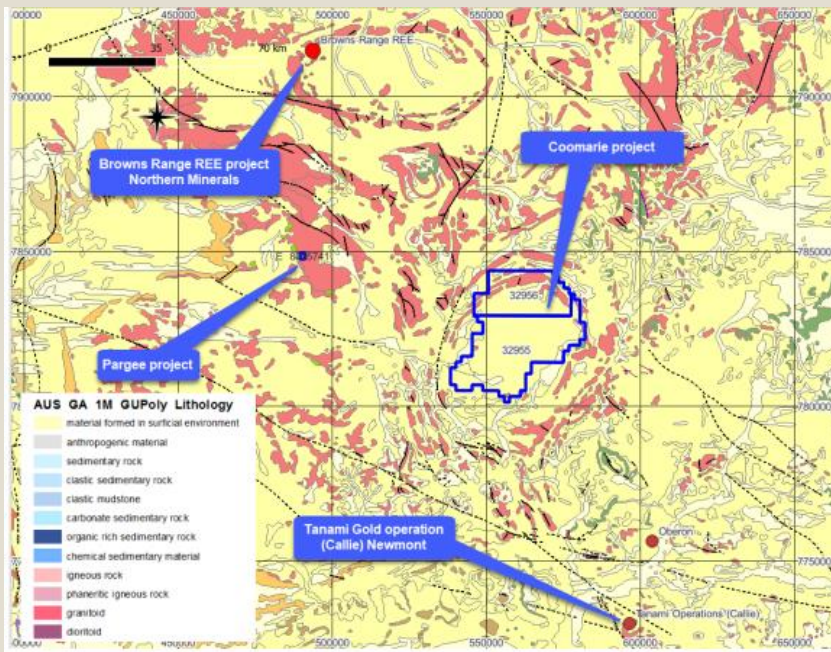


# Heavy REE's - Coomarie Project

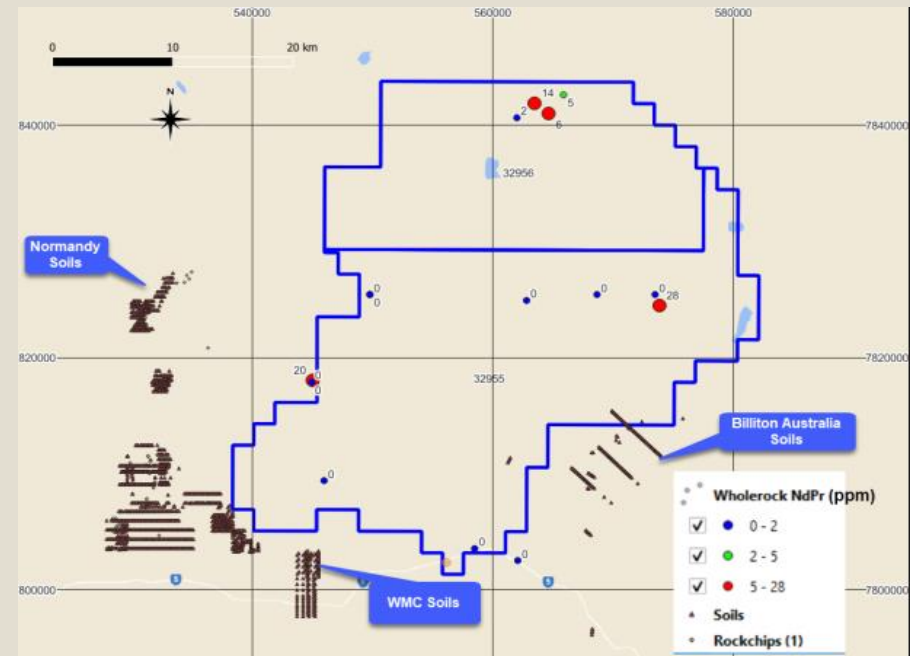
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- Exploration upside abundant, with limited systematic or modern exploration techniques previously applied.
- Sporadic geochemical soil sampling was constrained to the southern flank of the Coomarie Dome, with four anomalous NdPr grab samples on the north-eastern flank never followed up.
- Work programs will concentrate on advancing our understanding of the anomalous NdPr grab samples and applying a methodical exploration approach, to vector in on potential drill targets and discoveries.

## Pargee and Coomarie projects proximal to major resources in region



## Surface grab samples and geochemistry highlighting anomalous NdPr samples never drill tested





# Heavy REE's - Coomarie Project

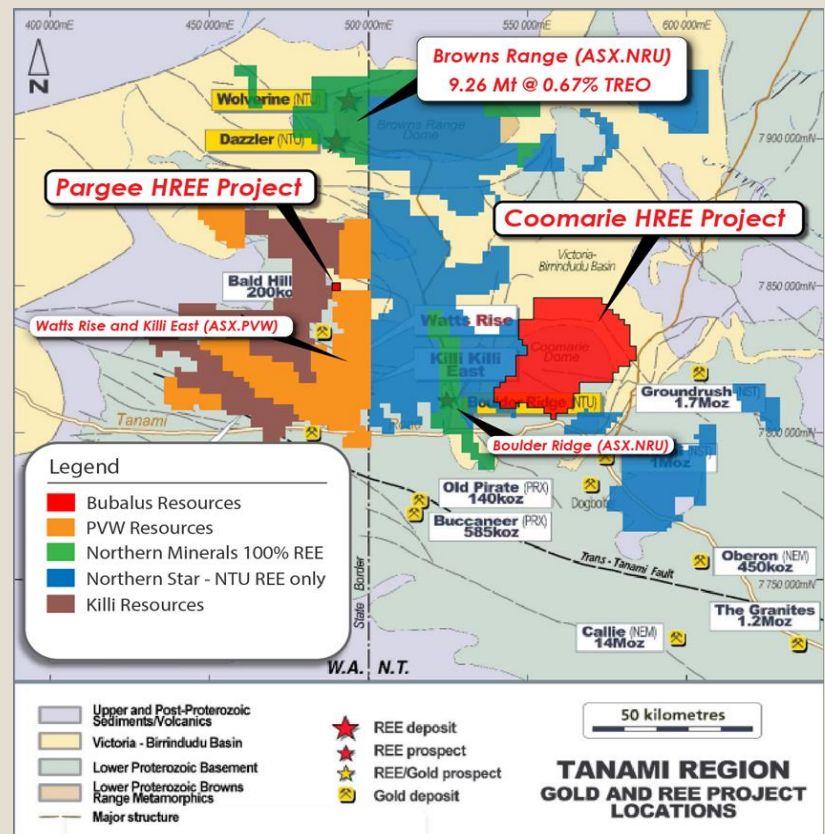
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*1.8kms of Killi Killi unconformity striking through Pargee Project, host of ASX: PVW's recent REE discovery.*

Highly prospective geological setting to host unconformity-related REE deposits

- The contact between the Pargee Sandstone and the Killi Killi Formation is a **regional-scale unconformity considered prospective for hydrothermal unconformity-related REE mineralisation.**
- This important geological unconformity has been mapped by the GSWA to extend for **1.8km through the Pargee project.**
- Exploration programs will target faults and structures that transect this regional unconformity that may have potentially acted as conduits for mineralised fluids.

## Major discoveries proximal to Pargee Project



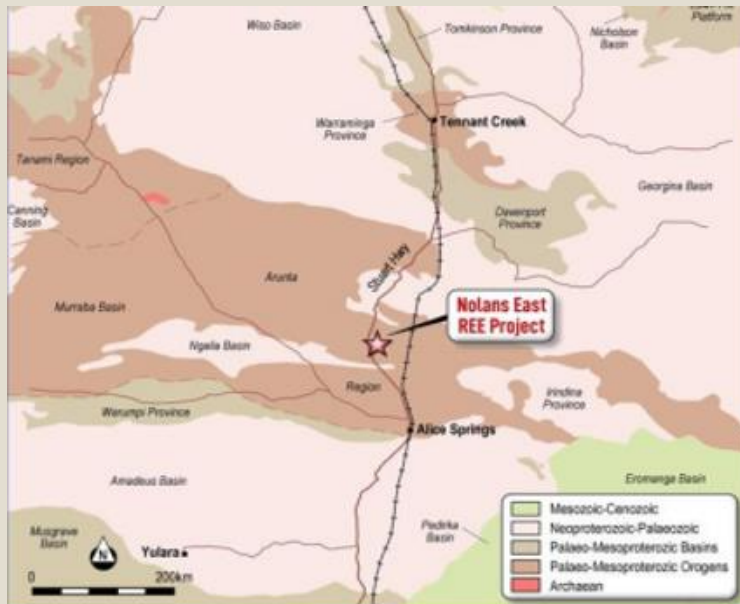
# Light REE's - Nolans East

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*The Nolans East Project is prospective for light rare earths and is located only 15kms east of Arafura's (ASX.ARU) 56Mt NPV \$1.011Bn Light Rare Earth deposit*

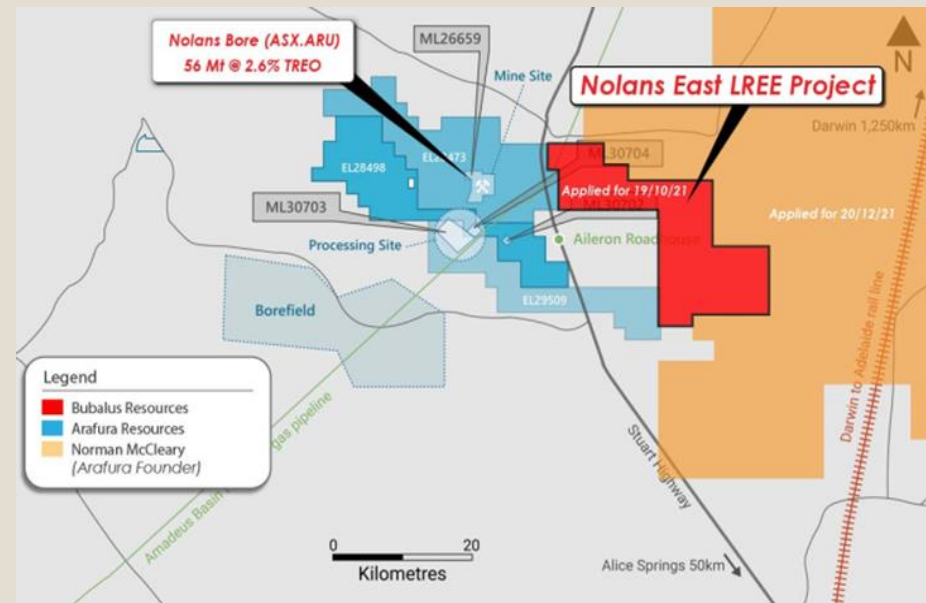
## Excellent infrastructure and project access

- Project covers 380km<sup>2</sup> of the Arunta Province, analogous to Nolan's Bore LREE deposit.
- Excellent project access along the Stuart Highway in the Northern Territory.



## First mover advantage adjacent to Nolan's Bore

- The Aileron Province is seeing a renewed focus of REE exploration, with Arafura Resources progressing towards construction and development of the Nolan's Bore mine and recent **pegging rush by explorers, including Arafura's founding director Norman McCleary.**



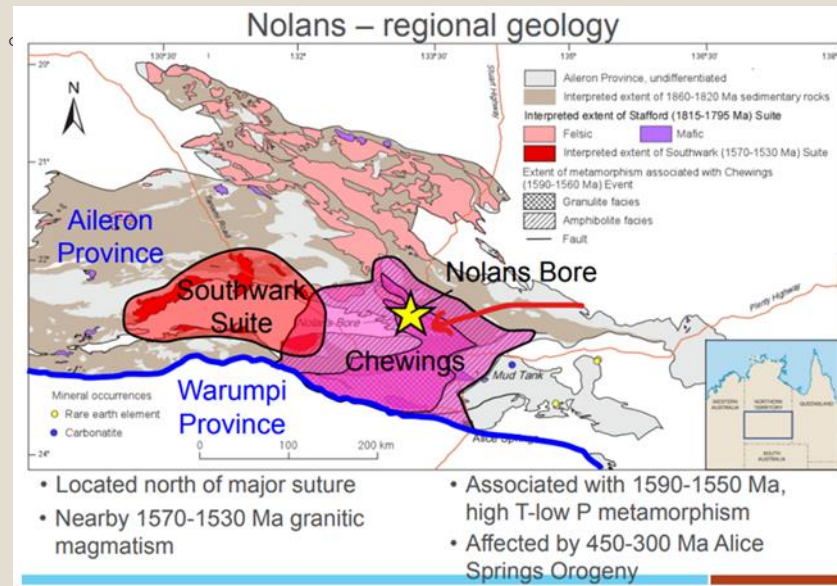
# Light REE's - Nolans East

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**Right structural and geological “plumbing” provides key conduit to the formation of large scale REE deposits**

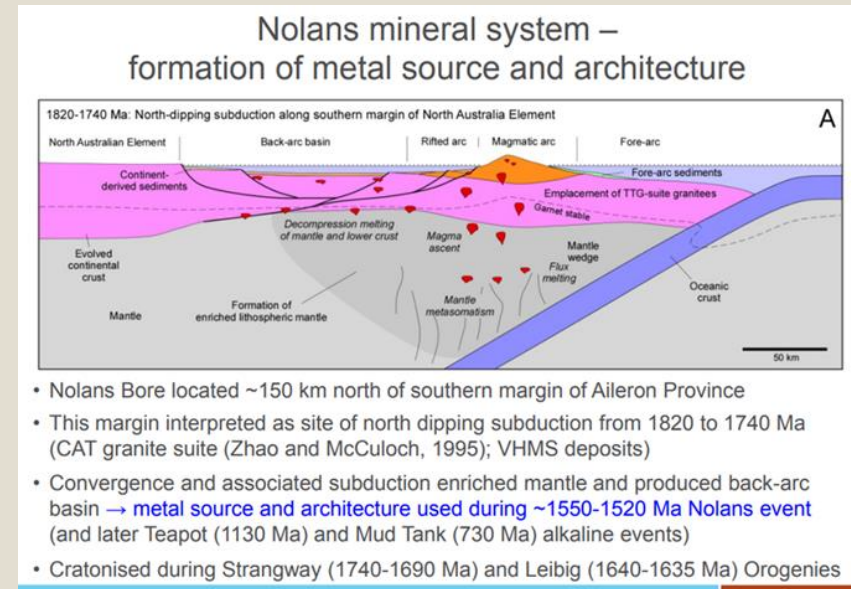
## Fertile geochronology and stratigraphic settings

- On a regional scale, within a 250km radius, the Nolans Bore deposit and other REE occurrences are spatially and structurally associated with a series of tin and tantalum pegmatites, and REE-bearing carbonatite/alkaline complexes.



## Structural faults into the unconformity are prime hosts of mineralisation

- Geological processes leading to formation of Nolans Bore began with north-dipping subduction along the south margin of the Aileron Province resulting in alkaline low-degree partial melts.





# Light REE's - Nolans East

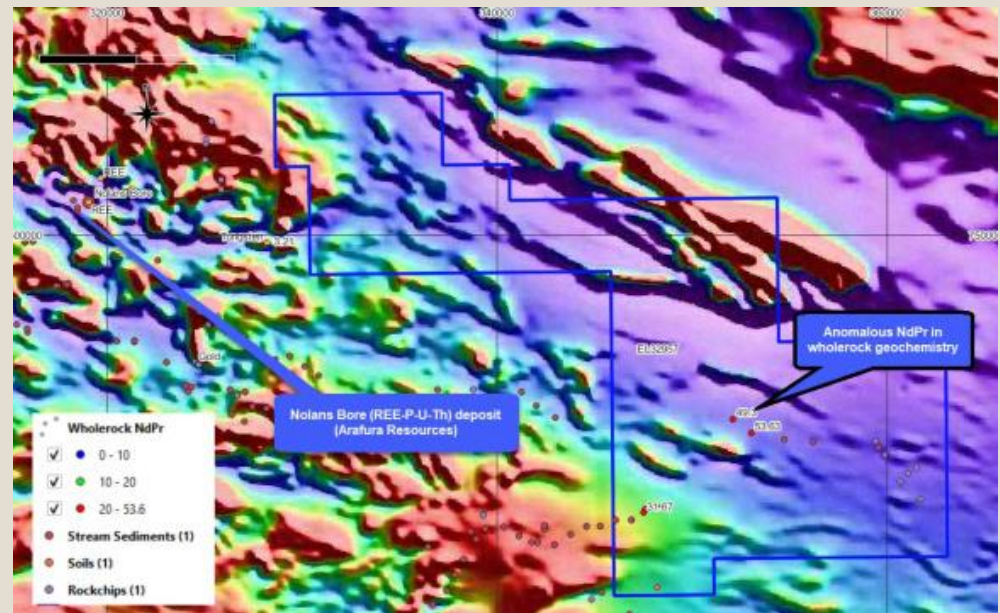
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## *Encouraging geochemical and geophysical correlations to Nolans Bore REE deposit*

Prospective geological architecture acts as prime host unconformity REE deposits

- The project area is **underexplored for its hydrothermal stockwork vein-style Light Rare Earths (LREEs) potential**, in particular minerals neodymium, and praseodymium associated with these types of rare earths-phosphate-uranium-thorium (REE-P-U-Th) deposits such as Nolans Bore.
- Follow up exploration will focus on identifying radiometric targets with signatures similar to Nolans Bore.

Surface geochemistry over TMI Magnetics displays strong correlation to Nolans Bore





# Rare Earths Supply Chain Dynamics

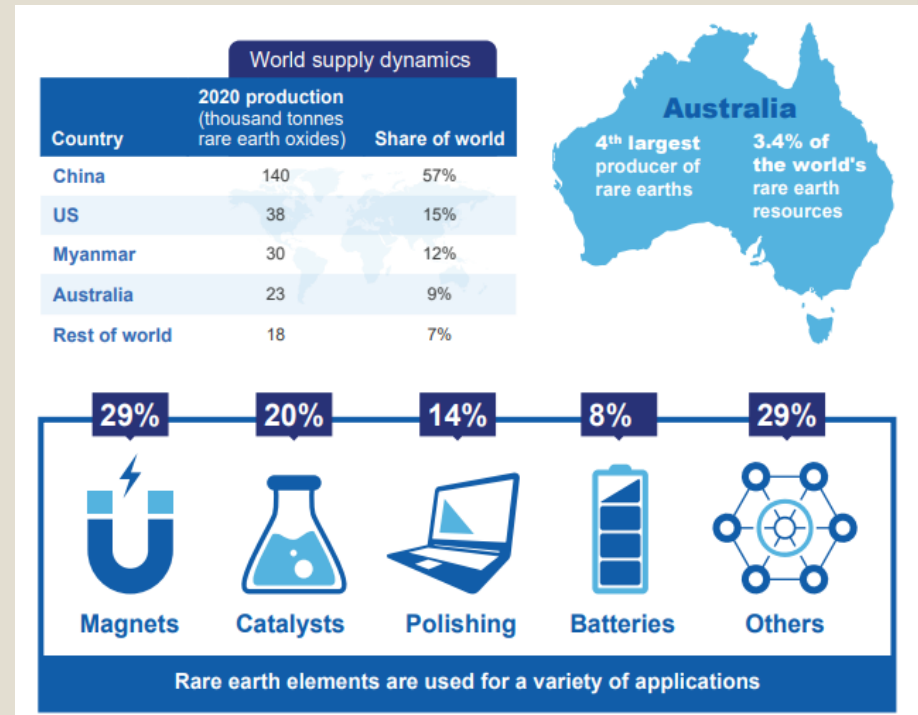
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*Geopolitical tensions have highlighted critical need to secure supply ex China*

## Heightened demand and tailwinds for REE's

- The priority of securing a rare earths supply chain outside of China has escalated for both the United States and Australian governments.
- Executive Orders (EO) from new US President Joe Biden enforce climate change measures including moving to zero emission vehicles.
- \$700b US Energy and Climate bill recently passed, set to underpin demand.
- Former President Donald Trump's EO singled out the US's undue reliance on China for multiple critical minerals.
- The US currently imports 80 per cent of its rare earth elements directly from China.
- Importantly, the EO supports Policy to build resilient critical mineral supply chains in the US and with strong allies.

## Rare Earths Supply and Uses

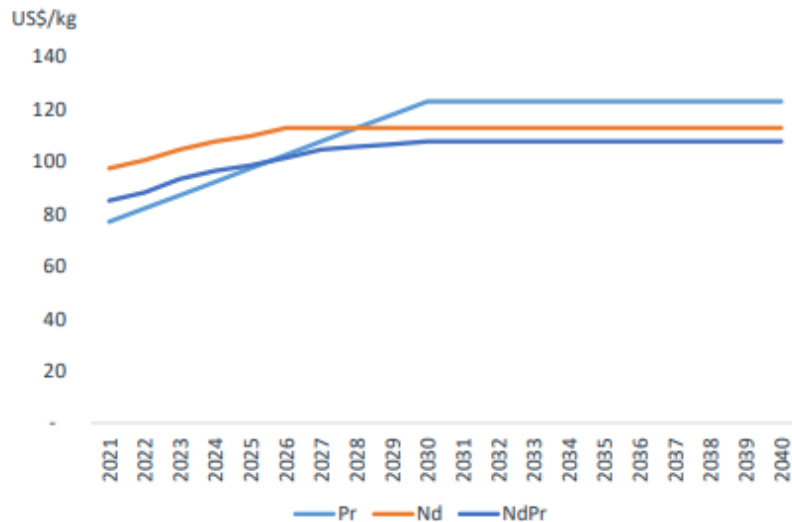


# Light and Heavy REE Pricing Forecast

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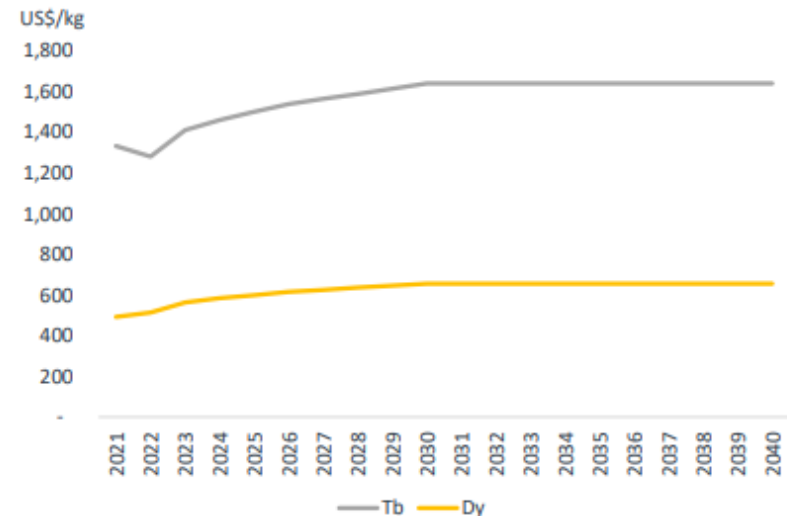
*Demand placing upward pressure on sustained pricing forecasts, with global push for carbon neutrality underpinning demand*

## Light Rare Earths Forecast Pricing



Notes: Prices shown are US\$/kg real 2021 incl VAT

## Heavy Rare Earths Forecast Pricing



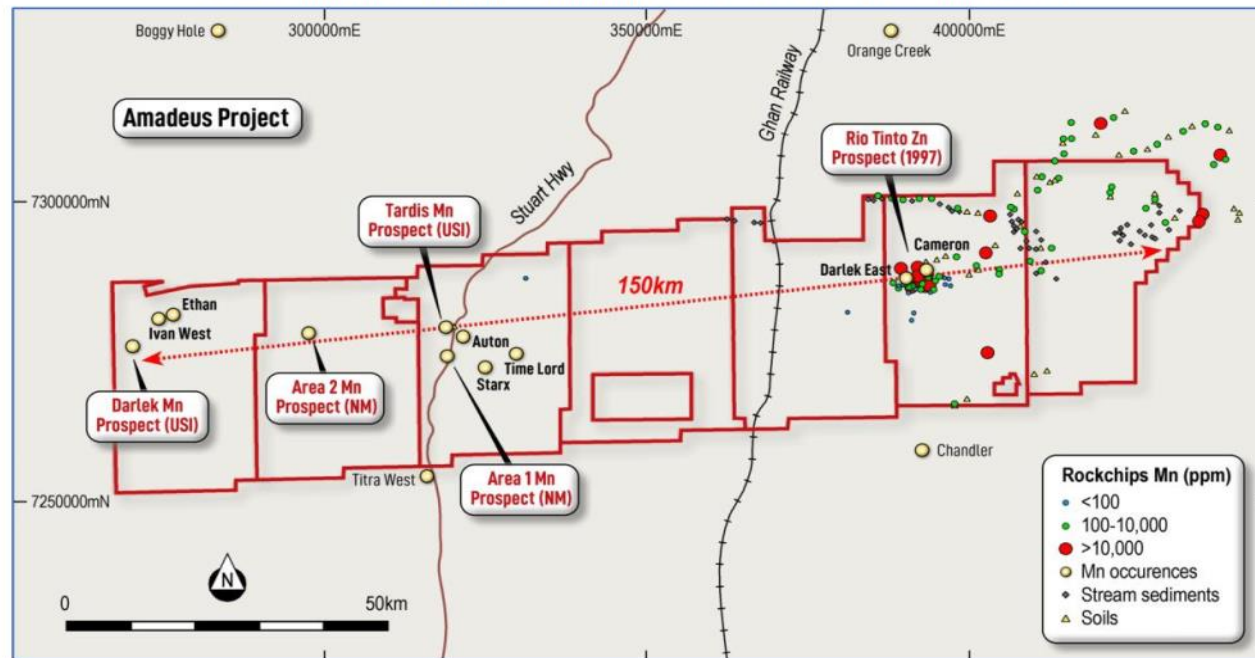
# Manganese - Amadeus Project

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*Commanding land package with 150kms of strike containing outcropping high grade manganese*

Historic work identified 11 manganese occurrences, along with cobalt and Ni-Zn-Cu also identified

**Figure 4.1.9\_2**  
Surface Sampling data (Mn >1% highlighted as red dots) (Source – Strike, 2022)



- Substantial land package 125km south of Alice Springs along the Stuart Highway.
- Multiple access roads across tenements as well as airstrips and rail.
- Focus on manganese and, in particular, high purity manganese for the battery metals industry.

Source: Independent Geologists Report

***Walk-up drill targets provides initial focus with reprocessing of historical data anticipated to yield further targets***

## **Immediate on ground activity**

- Re-visit all previous mineral occurrences in the Amadeus project with the focus of gathering new data and prioritising each occurrence for future exploration.
- Occurrences include Ivan, Ivan West, Ethan, Cameron, Dalek, Dalek West, Dalek East, Time Lord, The Doctor, Auton and Strax.
- Complete drilling program at Dalek.
- Drill IP anomaly at Ethan.
- Investigate a potential hard rock potash project at Tardis.
- Investigate a potential bauxite project at Auton.
- Geophysics over mineral occurrences if drilling at Dalek and Ethan are successful.

## **43.3% Mn outcrop at Cameron Prospect**



## **Abundance of outcropping Mn at Darlek Prospect**



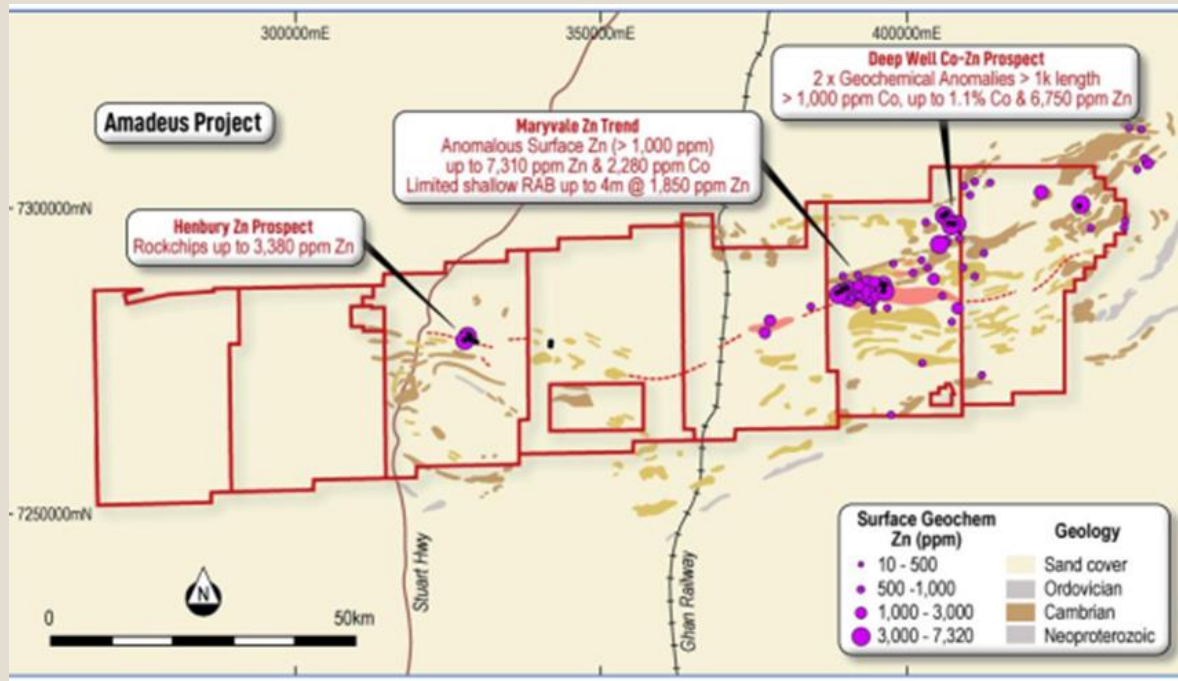


# Amadeus Project – Zinc, Nickel & Cobalt

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## *Kalahari Copper Belt in the Northern Territory?*

### Rio Tinto Geochemistry sampling and RAB Drilling (1997)



### Chance to apply modern geophysics

- Rio Tinto last explored the eastern portion in 1997, returning Cobalt grades up to 1.1% and 1,850ppm Zn in RAB Drilling.
- Competing allocation of major's exploration capital presents an opportunity?
- Limited follow up work conducted since 1997, with no modern geophysics applied.
- Region densely covered by sediments, opportunity to apply modern geophysics to unlock discoveries.

# Manganese Market Dynamics

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*Strong battery cathode end user demand with low substitution risk*

## 148% price increase in 2021

- Manganese rich batteries emerging rapidly with key announcements from Volkswagen, Tesla, Stellantis, Renault and BASF.
- Low substitution risk, nickel-manganese-cobalt (NCM) cathode chemistry expected to dominate EV battery market (~52% today and forecast to grow).
- Emerging use in LFMP, with CATL looking to mass produce lithium manganese iron phosphate (LMFP) batteries as competitor to NCM.
- New manganese –rich cathode formulations expected to reduce costs, with good range, power, safety and charging performance.

## Manganese use in EV batteries with low substitution risk



# Manganese Market Dynamics

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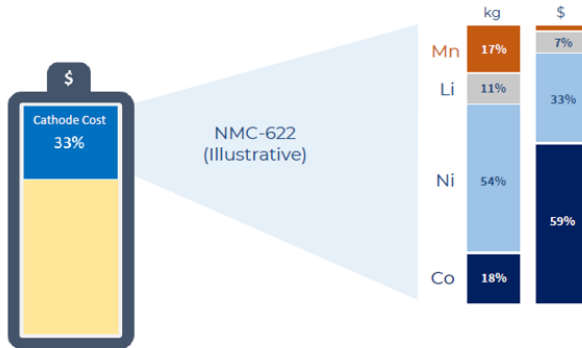
*Strong battery cathode end user demand with low substitution risk*

## Manganese's role in cathode chemistry

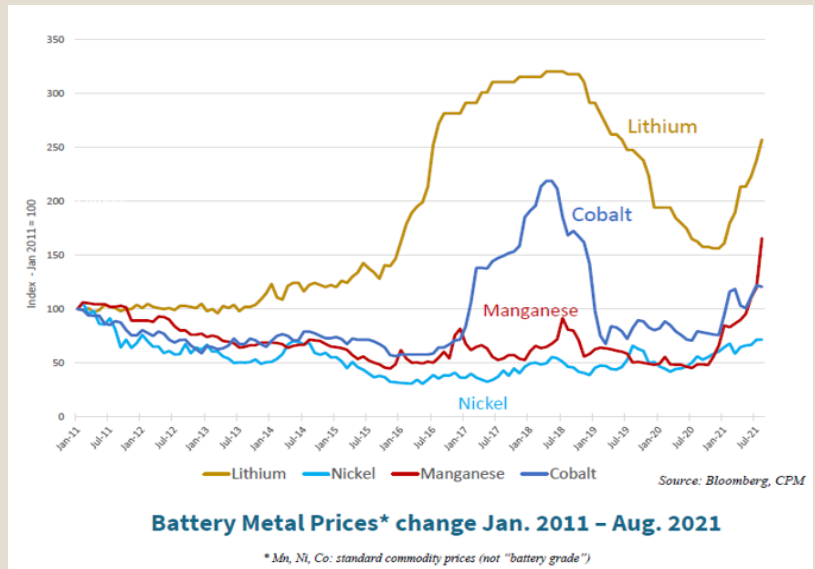
## Manganese price change

By weight, **Manganese** is as important as Cobalt in a modern Li-ion EV battery...

... yet it accounts for **only 1-2%** of the cost of cathode materials



*Nickel-manganese-cobalt (NMC) cathode batteries are the dominant chemistry, with ~ 50% market share (2020)*





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# Contact us

Reach out if you have  
any questions or clarifications

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