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Ardea Resources Limited

A Strategic, Independent Nickel-Cobalt Supply Chain for Global Markets

Andrew Penkethman
Managing Director & CEO

MINING FORUM · Diggers & Dealers · KALGOORLIE, WESTERN AUSTRALIA

Australian Federal Government
- Major Project Status

Disclaimer

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Important notice

This presentation contains general information only and is, or is based upon, information which has been released to ASX: Kalgoorlie Nickel Project Mineral Resource Estimate Exceeds 6 Million Tonne Contained Nickel (30 June 2023), KNP Goongarrie Hub Ore Reserve and Feasibility Study Defines +40 Year Operation with Strong Financial Metrics (5 July 2023), Kalgoorlie Nickel Project Goongarrie Hub Tenement Consolidation (17 July 2023), ARL SMM and MC to form a JV to develop KNP Goongarrie Hub ASX Announcement (29 April 2024), KNP – Goongarrie Hub Joint Venture Transaction Completion with Japanese Consortium (30 August 2024).

This presentation is not an invitation, offer or recommendation (express or implied) to subscribe for, or apply for the purchase of, or to take any other action in respect of securities of any entity described herein and is not a prospectus, product disclosure statement or disclosure document for the purposes of the Corporations Act 2001 (Cth) and has not been lodged with ASIC. None of Ardea Resources Limited (Ardea or the Company) or its representatives are providing or offering investment advice or services by making this presentation.

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The Goongarrie Project has completed the Pre-Feasibility Study phase and has commenced programs that are part of the Definitive Feasibility Study. Though reasonable care has been taken to ensure that the facts are accurate and/or that the opinions expressed are fair and reasonable, no reliance can be placed for any purpose whatsoever on the information contained in this document or on its completeness. Actual results and developments of projects and the market development may differ materially from those expressed or implied by these forward looking statements depending on a variety of factors. A key conclusion of the Pre-Feasibility Study, which is based on forward looking statements, is that the Goongarrie Project is considered to have positive economic potential.

No stock exchange, regulation services provider, securities commission or other regulatory authority has approved or disapproved the information contained in this news release.

Project Summary

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Long life battery metal project for an independent nickel supply chain

- > 40-year project life, producing 30ktpa nickel & 2ktpa cobalt[1]
- Japanese partners with 75% offtake[2] have established downstream refining and supply chains
- Operating to high ESG standards, certified by Digbee ESG[3]
- Teir 1 mining jurisdiction of Kalgoorlie, Western Australia

(1) 5 July 2023 Pre-Feasibility Study (PFS) ASX Announcement.
(2) 30 August 2024 ASX release (3) 9 May 2023 ARL ESG ASX Announcement.

Multi-decade nickel-cobalt Mineral Resource[1]

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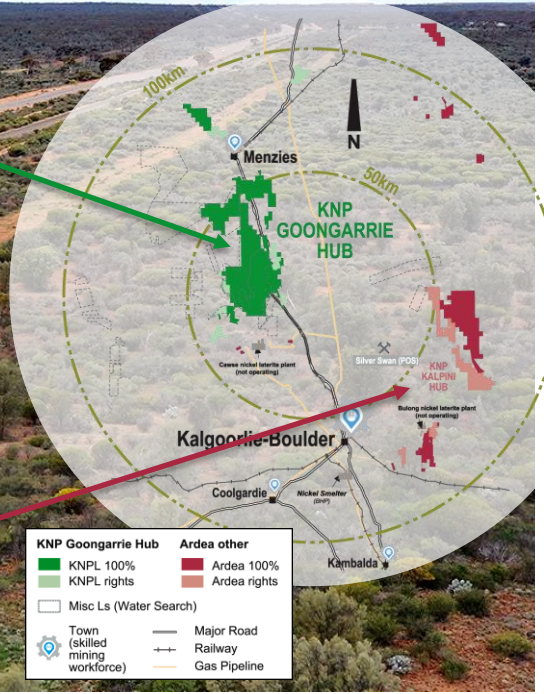
The largest nickel-cobalt MRE[1] in Australia, located in Tier 1 jurisdiction

KNP Goongarrie Hub -
584Mt at 0.69% Ni and 0.043% Co for **4Mt of contained Ni** and 250kt of contained Co [1]
DFS fully funded by Partners [2]

Infrastructure Advantages:

- ✓ Highway
- ✓ Fibre optic link
- ✓ Power & nearby gas
- ✓ Rail link to 2 ports

KNP Kalpini Hub – 100% ARL
270Mt at 0.76% Ni and 0.05% Co for **2Mt of contained Ni** and 136kt of contained Co [1]
Plus Ni Sulphide at Kalpini [3]

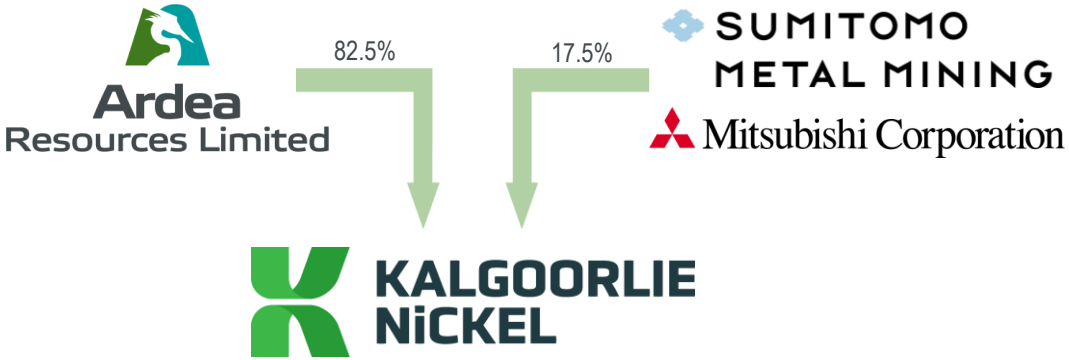


1. See full Mineral Resource Estimate (MRE) tables in Appendix 1 of this presentation and 30 June 2023 ARL ASX Announcement. Also see GSWA rankings 20 June 2024 Flyer
2. See 30 August 2024 ASX release Kalgoorlie Nickel Project (KNP) Goongarrie Hub Joint Venture Transaction Completion with Japanese Consortium
3. See 14 January 2022 ASX release Emu Lake Nickel Sulphide discovery confirmed with 2.72m at 5.42% Ni

Experienced international partners

Partnership validates project, connects to global market

- Staged earn-in agreement with Sumitomo Metal Mining & Mitsubishi Corporation[1]
- Support from Ministry of Economy, Trade and Industry (METI)
- Together, sole funding of in-progress DFS up to A$98.5M[1,2]



Kalgoorlie Nickel Pty Ltd (KNPL)

Managing Kalgoorlie Nickel Project Definitive Feasibility Study (DFS)

DFS UNDERWAY

1. Sumitomo Metal Mining (SMM) and Mitsubishi Corporation (MC), together the Consortium, fully funding DFS up to A$98.5M to earn 35% interest in KNPL, and a further 15% interest in KNPL on Final Investment Decision (FID). Consortium earned its first 17.5% in July 2025 - see Ardea 4 July 2025 ASX announcement
2. See 30 August 2024 ASX release KNP Goongarrie Hub Joint Venture Transaction Completion with Japanese Consortium

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Sumitomo Metal Mining and Mitsubishi Corporation

Material scale and experience in mining, metals and finance

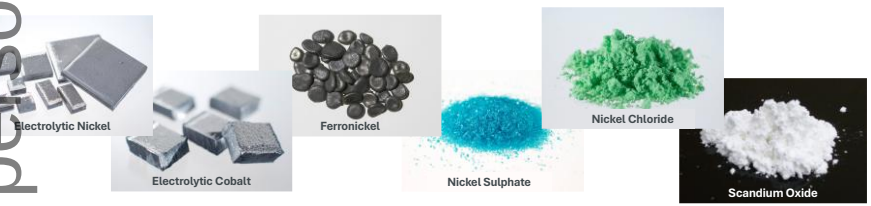
SUMITOMO METAL MINING

Mitsubishi Corporation

SMM's Long Term Vision:

"Become the world leader in the non-ferrous metals industry"

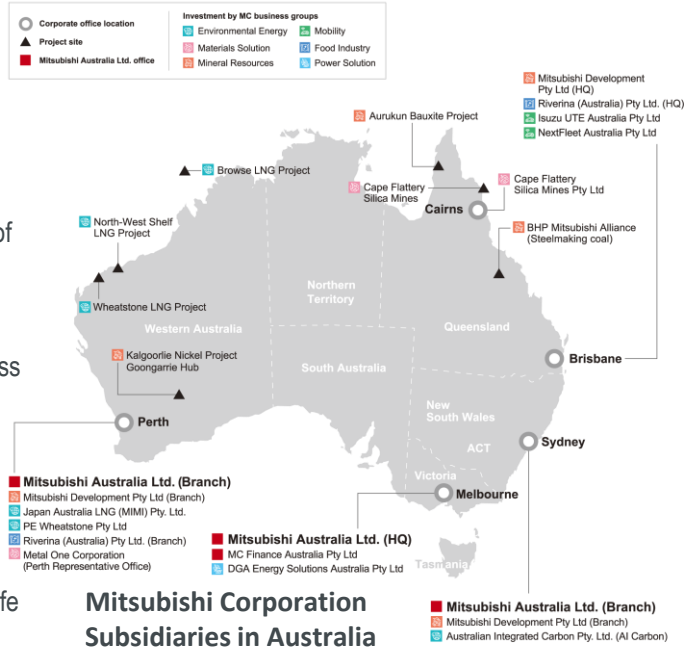
Grow nickel production from **81ktpa (FY23) to 150ktpa**[1]



"Sumitomo Metal Mining Co., Ltd. (SMM) dates from the 16th century and copper processing in Japan. SMM is an integrated producer spanning from mineral resources development, smelting and refining, to the production of battery materials and functional materials. For nickel, its strength lies in HPAL (High Pressure Acid Leach). SMM successfully developed and operates two HPAL operations in the Philippines, at Coral Bay and Taganito."

Active in Australia for ~70 years

"Mitsubishi Corporation operates a wide range of businesses spanning multiple industries and overseen by eight industry-specific business groups: Environmental Energy, Materials Solution, Mineral Resources, Urban Development & Infrastructure, Mobility, Food Industry, Smart-Life Creation, and Power Solution."



Mitsubishi Corporation Subsidiaries in Australia

Image Source: https://www.mitsubishicorp.com/au/en/about/group.html

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1) Source: https://www.smm.co.jp/en/ir/management/vision/
Images Source: https://www.smm.co.jp/en/business/refining/products/

Proven, mature, “off the shelf” technology

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HPAL now into 5th generation of technical advances

Moa Bay Nickel, Cuba

1950’s

Coral Bay, Philippines (SMM)

2000’s

Industrial Parks, Indonesia

2020’s

1990’s

Eastern Goldfields, WA

2010’s

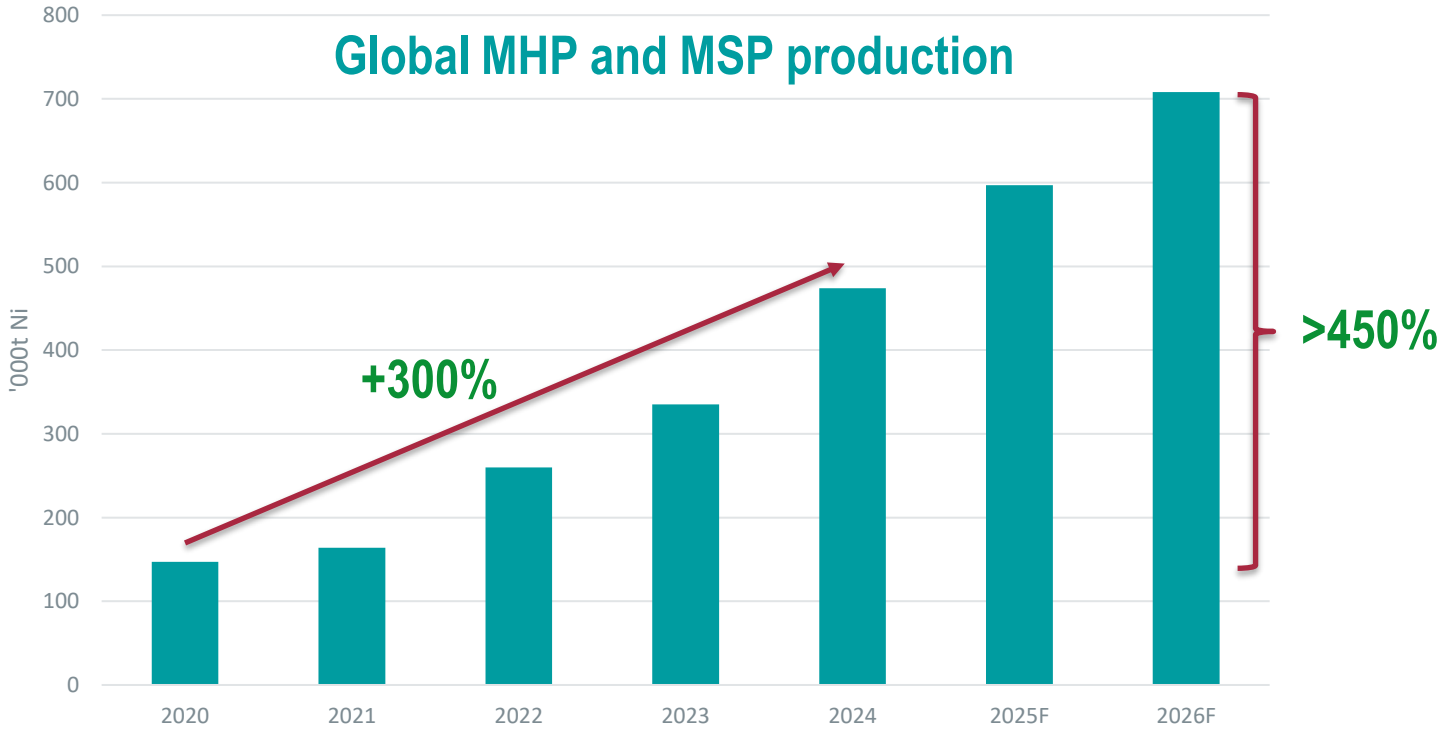
Ramu, PNG Taganito, Philippines (SMM)

KALGOORLIE NiCKEL

Example HPAL Image Sources (left to right): https://thecubaneconomy.com/articles/tag/sherritt-international/ ; https://www.australianmining.com.au/glencore-reduces-capacity-at-murrin-murrin/ ; https://www.smm.co.jp/en/corp_info/location/overseas/ ; https://www.smm.co.jp/en/corp_info/location/overseas/ ; https://www.petromindo.com/news/article/mbma-gem-team-up-to-develop-600m-hpal-processing-plant

HPAL Nickel Production

Rapid growth in HPAL nickel production since 2020



Source: Company reports, Ferroalloynet, Macquarie Commodities Strategy, March 2025

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Goongarrie Advantages

Global industry has moved on from the "WA perception"

- Project partners have deep experience in HPAL, mega project development, and operations.
- Demonstrated peer project delivery and ramp-up
- Major partners DFS funding allows a quality study aligned with scale of project
- Vendor HPAL experience has grown materially
- Consistent ore means reliable, cost-competitive operation

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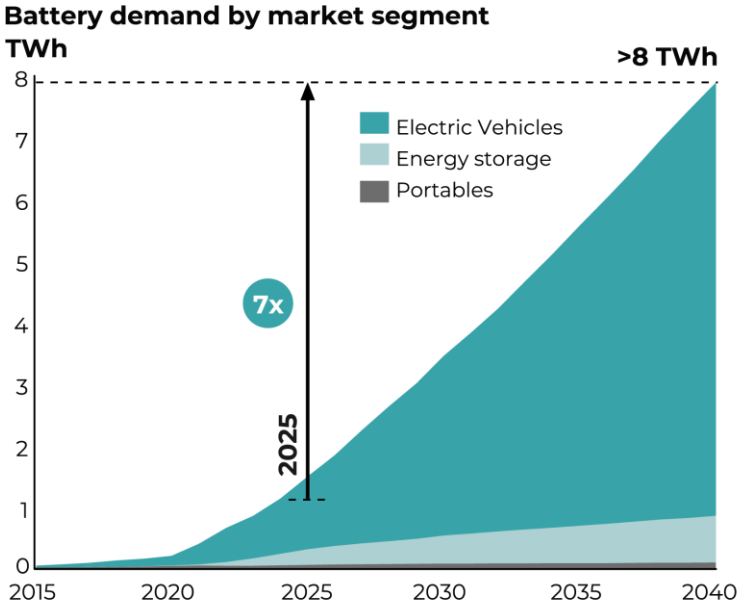
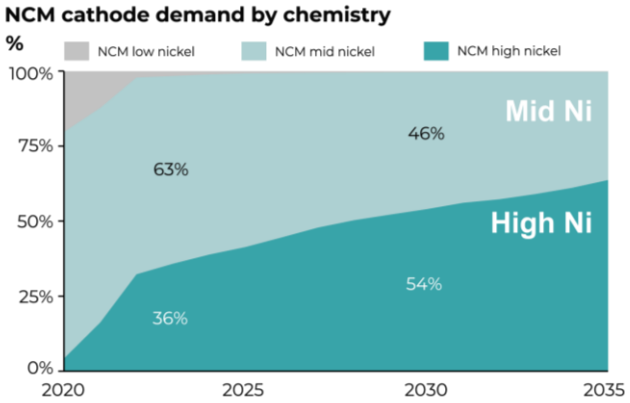
Battery demand to grow 7-fold by 2040

Nickel demand continues to grow via emerging markets and the evolving energy transition

- **9.1 million Electric Vehicles (EV) sales for H1 2025**, representing growth of 28% for Year to Date[1]
- EV sales up **24% June 2025** compared to June 2024, with around 1.8 million units sold June 2025[1]
- **13.6GWh** Global energy storage grid deployments January 2025, **representing 94% year on year increase**[2]

Increasing stainless steel and battery demand, along with growth in high-nickel cathodes will continue to expand nickel demand





Graphs after: © Benchmark Mineral Intelligence, updated 11 February 2025; Used with permission

1. EV Statistics from Rho Motion 15 July 2025
2. Rho Motion Energy 1 March 2025

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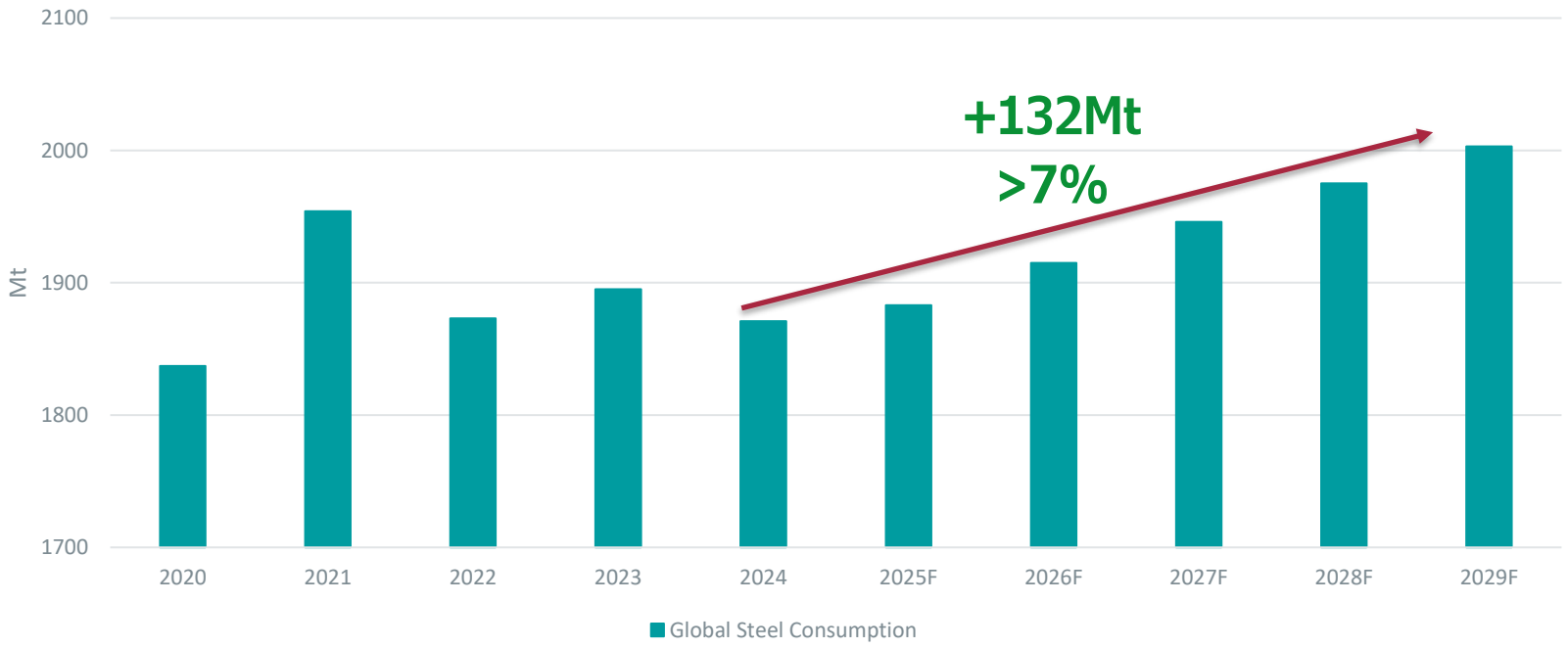
Steel demand growth

Growing production & demand from India helps offset China



Source: WSA, China Customs, WIND, Macquarie Strategy, March 2025

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Potential for Scandium by-product[1]

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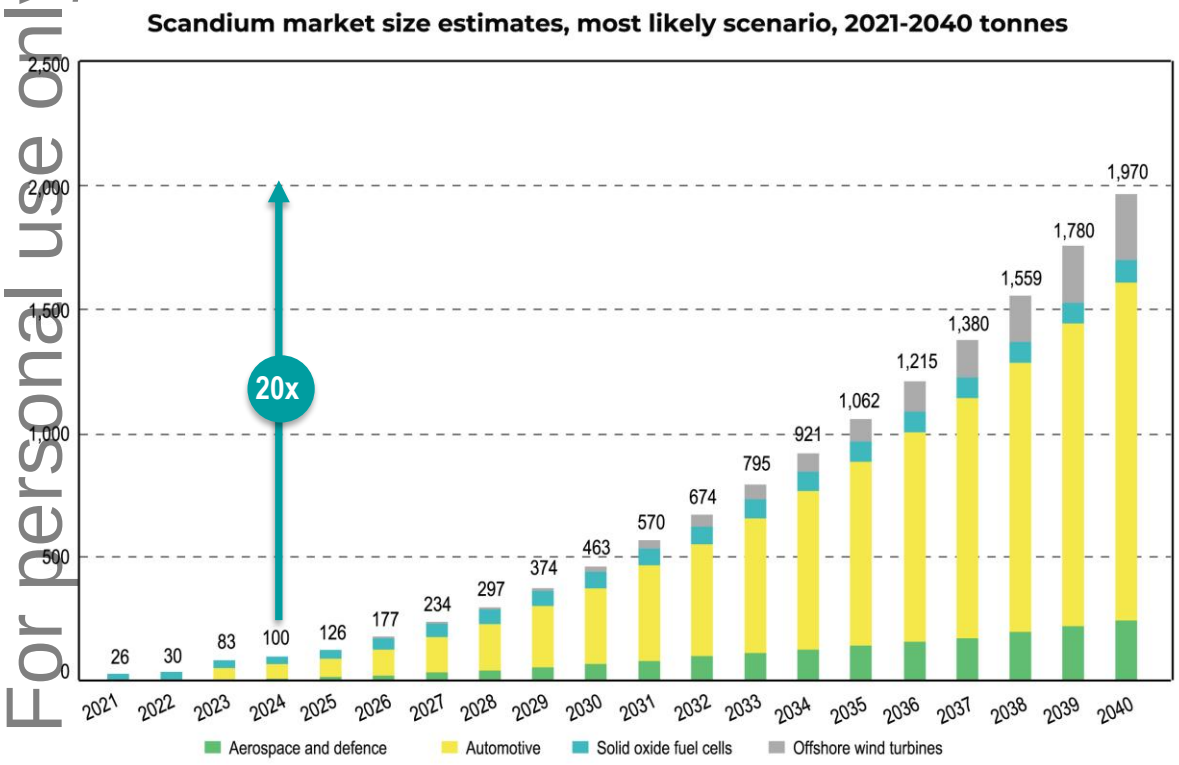

- **Increasing global interest in security of supply following China's addition of the element to export control list**
- Scandium as an alloy, increases the strength of aluminium, reduces its weight and improves other qualities
- Scandium plays an important role in Solid Oxide Fuel Cells
- Scandium alloy in powders for 3D printing is a rapidly growing market

Published on mining.com.au Oct 2024, source Internal EY market study 2022

1. Scandium was not considered in ARL 5 July 2023 PFS

Security and diversity of Critical Minerals

Production is aligned with forecast nickel market deficits towards end of decade

With global uncertainty increasing, Goongarrie Hub's forecast scale & long life provides strategic benefits:

- ✓ security of supply chain
- ✓ geographic diversification

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+40 year[1] project, significant growth potential

Nationally strategic KNP Goongarrie Hub to strengthen the battery minerals supply chain for decades

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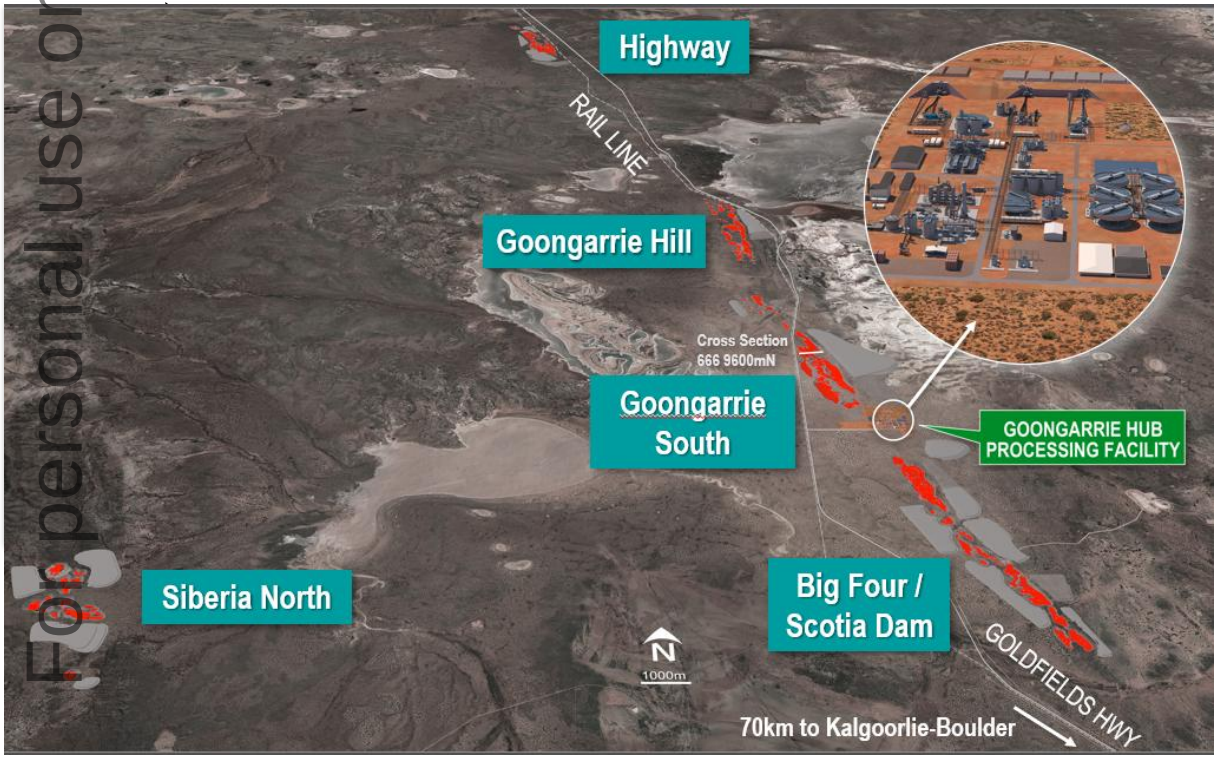


2023 PFS[1]

- Average 30ktpa Ni and 2ktpa Co
- +40 years forecast operation

Growth opportunities

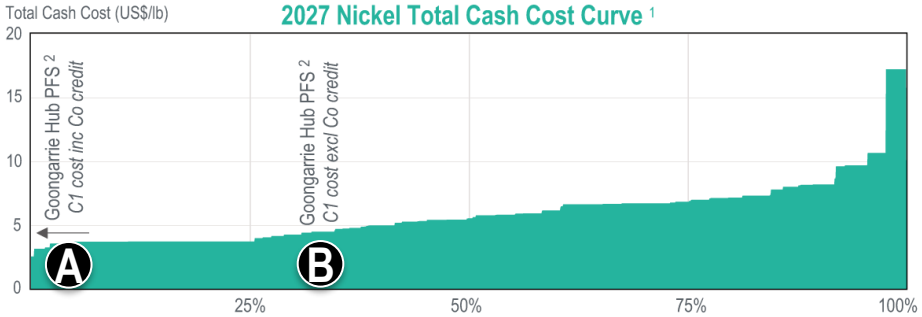
- Only 6 of 9 deposits, hosting ~76% of the Goongarrie Hub Ni Resource, were considered in 2023 Ore Reserve[1,2]
  - ✓ Potential for project expansion or life extension
- Goongarrie DFS investigating flow sheet optimisation
  - ✓ Potential for capacity expansion

1. See full tables in Appendices of presentation & 5 July 2023 Pre Feasibility Study (PFS) ASX Announcement. 2. See full Mineral Resource Estimate (MRE) tables in Appendix 1 of this presentation and 30 June 2023 ARL

Competitive costs

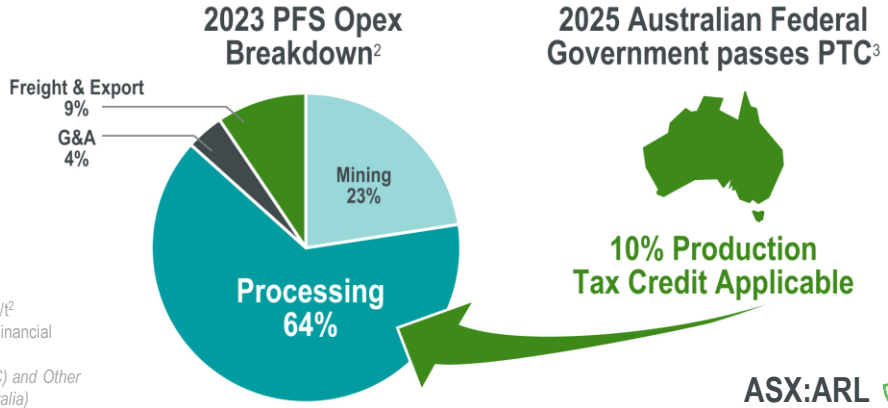
Goongarrie advantages provide margin through nickel price cycles

- PFS[2] Low C1 Opex before Cobalt credit of **US$10,197/t Ni (US$4.62/lb)** in MHP LOM compares well with Indonesian Opex
- **Australia's recently approved tax credit[3]**:
  - ✓ Provides 10% refund against processing costs (64% of PFS Opex estimate[2]) for first decade
  - ✓ Not included in PFS financial analysis
- KNP Goongarrie Hub **low cost** and **long mine life**, mean the project will be able to operate throughout the commodity price cycles.



1. S&P Capital IQ.

2. From 5 July 2023 ARL PFS ASX Announcement: LOM C1 Cost including Co credit US$5,763/t (US$2.61/lb)
LOM C1 Cost excluding Co credit US$10,197/t (US$4.62/lb)



2. See Appendix 2 and 5 July 2023 ARL PFS ASX Announcement (A) LOM C1 Cost including Co credit US$5,763/t[2] (B) LOM C1 Cost excluding Co credit US$10,197/t[2] NB: Project MRE, Ore Reserve, Production, Operational and Financial metrics are being updated as part of the in-progress DFS.

3. "Critical Minerals Production Tax Inventive" as part of *The Future Made in Australia (Production Tax Credit (PTC) and Other Measures) Bill 2024 (https://www.industry.gov.au/news/incentive-critical-minerals-production-and-processing-Australia)*

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Near-term news flow from underway Goongarrie DFS

KNP Goongarrie DFS using high quality, global expert consultants

Orelogy

Ausenco

PSM

KALGOORLIE NICKEL

Lycopodium

VEOLIA

worley chemetics

srk 50 YEARS

BUREAU VERITAS 1828

BUREAU VERITAS

jmo EVERYTHING METALLURGY Since 1998

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Operating to high ESG standards

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Recruiting and retaining the best people, building a skilled, passionate team

Workforce of ~60 across Ardea & KNPL with 50:50 gender split

Ardea is leading the way on gender equality

We engage early with

First Nations Communities for meaningful outcomes & partnerships

including Ardea's **Indigenous Education Grant** program

Innovative design

Reducing CO_2 emissions & environmental footprint

Waste heat to power, in-pit tailings disposal

Strong leadership & governance

Delivering a diverse, resilient and sustainable Critical Minerals supply chain

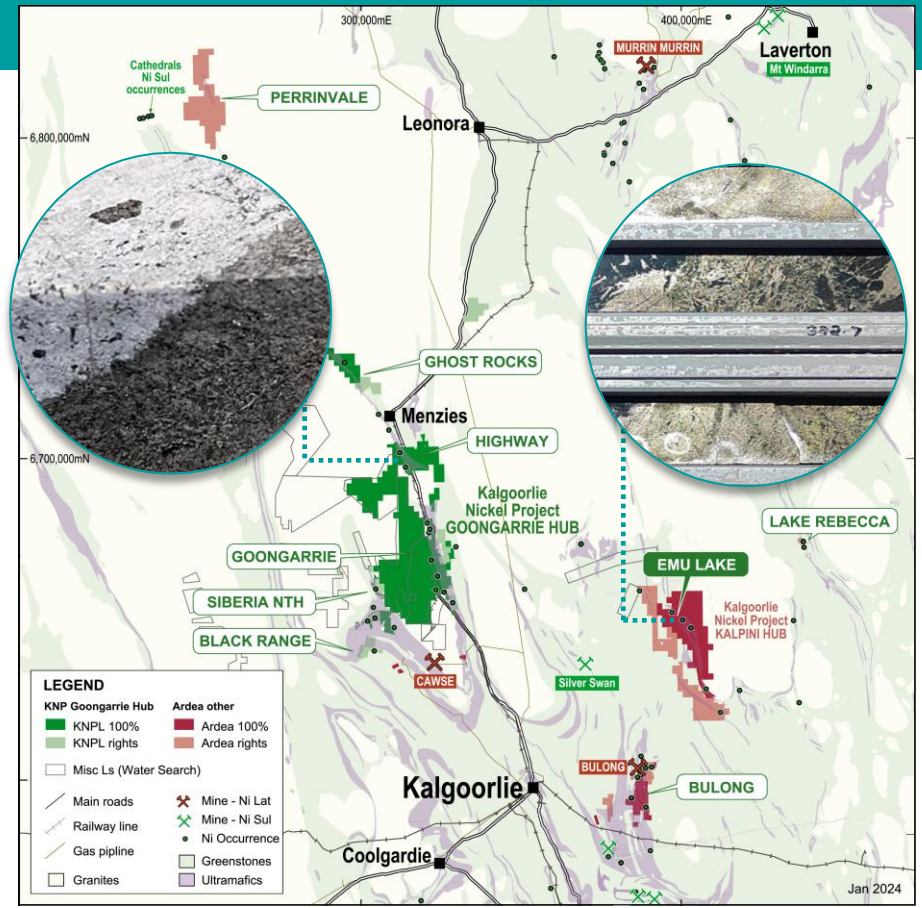
Meeting global and National net zero ambitions

Ardea Exploration Pipeline Upside

Battery and Critical Mineral exploration potential

Ardea controls ~3,500km^2 of tenure in the Eastern Goldfields of WA with unrivalled exploration potential

- **Kalpini Project - Massive nickel-copper-PGE sulphides discovered at Emu Lake** (AELD0003: **2.72m at 5.42% Ni & 0.85% Cu** from 391.04m) within **largely untested 20km of strike**[1]
- EIS[2] hole AHID0024, beneath **Highway** Nickel Laterite confirms Lithium-Caesium-Tantalum mineral system[2] **Two recently completed EIS drill holes targeted Li and REE bearing pegmatites and nickel sulphides. Assays pending**[3]**.**
- Ardea retain **100% ownership** of non-Goongarrie Hub KNP projects (with MRE **270Mt at 0.76% Ni and 0.05% Co for 2Mt of contained Ni & 136kt of containted Co**)[4] providing an internal pipeline for growth
- **Scandium** and **Rare Earth Elements** (REE) identified at Ardea's **KNP Kalpini** tenure[5]



(1) 14 Jan 2022 ASX Announcement (2) 15 Dec 2023 ASX Announcement. EIS is State Government Exploration Incentive Scheme (3) 30 July 2025 ASX Announcement (4) Full MRE tables in Appendix 1 and 30 June 2023 ASX Announcement (5) 14 Mar 2022 ASX Announcement

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KNP Goongarrie Hub:

An Australian nickel project with the best possible Partners, Sumitomo Metal Mining Co., Ltd and Mitsubishi Corporation

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~40 year mine life

with expansion potential

Producing low cost

~30ktpa nickel & 2ktpa cobalt[1,2]

For resilience through multiple price cycles

DFS Underway

Consistent news flow with

A$98.5M

study, fully funded by project partners, in progress

Project to boost

national, state & local economy

Supporting regional communities, large workforce, suppliers & stakeholders including First Nations people

Long term supply of low cost[1,2] **Nickel-Cobalt in best jurisdiction**

Ideally timed for project development into forecast nickel deficit

1. See 5 July 2023 ARL PFS ASX Announcement and Appendices of this presentation for Key Financial Metrics
2. Project Ore Reserve, production, operation and financial metrics are being updated as part of the in-progress DFS

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Want to know more?

Come meet management and the project team at booth #113 during the conference

Keep up to date with news, videos and more at our website:
www.ardearesources.com.au or follow our socials

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Appendix 1
Corporate, Reserves & Resources

Australian Federal Government - Major Project Status

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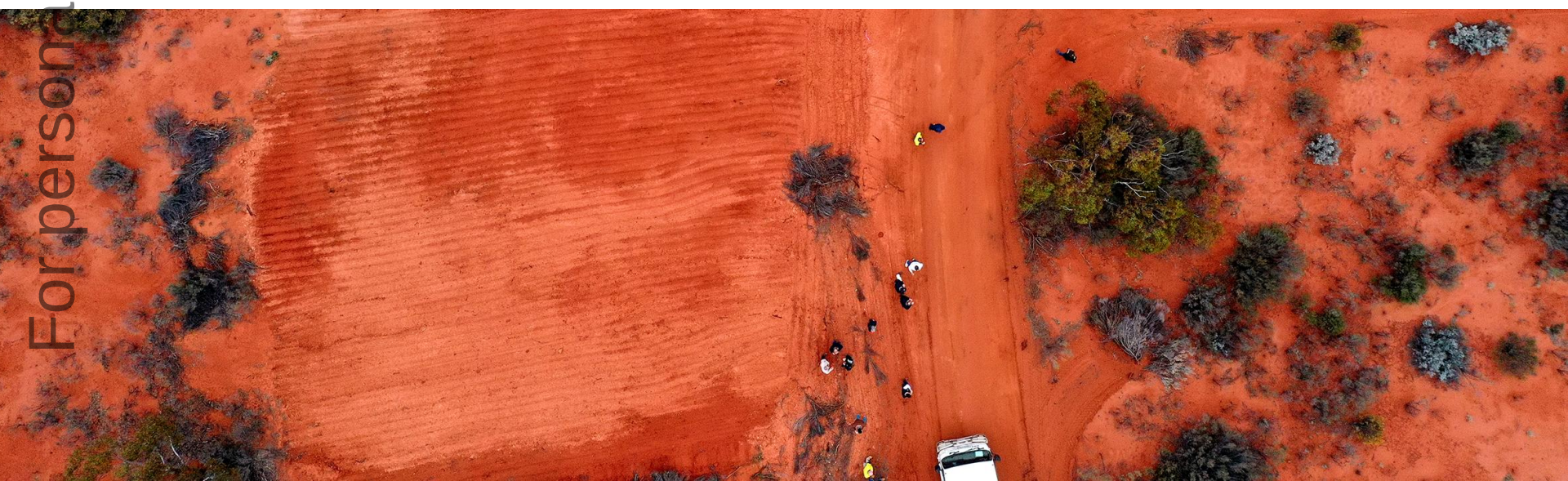

Ardea Resources - Snapshot

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Experienced Board & management, respected Partners, supportive Shareholders, tight capital structure

210,412,915
Shares on Issue
3,513,400 Performance Rights.
3,000,000 Options

Top 40 Shareholders
~55% equity
Board & Management
~10% equity

Cash
$14.6M[2]
No Debt
30 June 2025

Market Cap
$84.2M
$0.40 Share Price
31 July 2025

Consortium fully funding DFS
$98.5M
To earn 35% interest in KNP Goongarrie Hub, and can increase to 50% on successful FID[1]

$49M
remaining to be expended by Consortium in DFS Funding
30 June 2025 [2]

Mat Longworth Non-Executive Chair
Experienced across exploration, project evaluation / development including KNP and corporate management

Andrew Penkethman MD & CEO
Experienced geologist with strong technical and corporate focus including discovery and strategic partner success. ASX, TSX and AIM experience

Maree Arnason Non-Executive Director
Highly experienced director and executive in the natural resources, energy and manufacturing sectors

Michael Rodriguez Executive Director
Metallurgist experienced in the design, construction, commissioning and operation of metallurgical operations including HPAL

Sam Middlemas Company Secretary
Chartered Accountant experienced in providing Company Secretary services

Rebecca Moylan Chief Financial Officer
Experienced CFO with expertise in financial and corporate management, accounting, project financing and contract negotiation

Ian Buchhorn Technical Executive
Mineral economist and geologist, with significant Eastern Goldfields of WA, exploration, evaluation, development and operations experience

(1) See 30 August 2024 ASX release Kalgoorlie Nickel Project (KNP) Goongarrie Hub Joint Venture Transaction Completion with Japanese Consortium (2) Unaudited. 30 June Cash Available of $14.6M, $49M funds remaining - ARL June quarterly report to ASX, 30 July 2025

Appendix 1 - Competent Persons

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Information in this presentation has been summarised from ARL ASX MRE Announcement 30 June 2023, ARL ASX PFS Announcement 5 July 2023 and ARL ASX Consortium Announcement 26 April 2024, 14 August 2024 and 30 August 2024.

Resource Estimation, Exploration Results, and Industry Benchmarking

The Resource Estimation, Exploration Results and Industry Benchmarking summaries are based on information reviewed or compiled by Mr Ian Buchhorn, and Mr Andrew Penkethman. Mr Buchhorn is a Member of the Australasian Institute of Mining and Metallurgy and Mr Penkethman is a Fellow of the Australasian Institute of Mining and Metallurgy and a Member of the Australian Institute of Geoscientists. Both Mr Buchhorn and Mr Penkethman are full-time employees of Ardea Resources Limited and have sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.

Mr Buchhorn and Mr Penkethman have reviewed this press release and consent to the inclusion in this report of the information in the form and context in which it appears. Mr Buchhorn and Mr Penkethman own Ardea shares.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcement noted above and that all material assumptions and technical parameters underpinning the Mineral Resource Estimate in the previous market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcement.

The Mineral Resource Estimate information shown in this ASX release has been previously released on the ASX platform by Ardea in ASX release 30 June 2023, in accordance with Listing Rule 5.8. The Mineral Resource Estimate in the above table is inclusive of the Ore Reserve shown in the table next slide.

Ardea wishes to clarify that its current Kalgoorlie Nickel Project (KNP) Mineral Resource Estimate (MRE) following JORC Code (2012) guidelines is:

					Contained	Contained
KNP Hub	**Resource Category**	**Size (Mt)**	**Ni (%)**	**Co (%)**	**Ni (kt)**	**Co (kt)**
Goongarrie Hub[1]	Measured	18	0.94	0.085	171	15
	Indicated	277	0.7	0.046	1,923	127
	Inferred	289	0.67	0.037	1,951	108
Sub Total	Combined	**584**	**0.69**	**0.043**	**4,044**	**250**
Kalpini Hub including Yerilla Hub[2]	Measured	4	0.94	0.048	36	2
	Indicated	84	0.83	0.050	699	42
	Inferred	182	0.73	0.051	1,321	92
Sub Total	Combined	**270**	**0.76**	**0.050**	**2,056**	**136**
Kalgoorlie Nickel Project Total	Measured	22	0.94	0.079	207	17
	Indicated	361	0.73	0.047	2,622	169
	Inferred	471	0.70	0.043	3,272	200
KNP	**Grand Total**	**854**	**0.71**	**0.045**	**6,101**	**386**

Note: 0.5% nickel cutoff grade used to report resources. Minor discrepancies may occur due to rounding of appropriate significant figures.

1. The Goongarrie Hub is part of KNPL Incorporated Joint Venture. See 30 August 2024 ASX release, KNP Goongarrie Hub Joint Venture Transaction Completion with Japanese Consortium. The Goongarrie Hub Resources are reported on a 100% basis, with Ardea holding an 82.5% interest.
2. The KNP Kalpini and Yerilla Hubs are known collectively as the Kalpini Hub and remain a 100% owned Ardea asset.

Appendix 1 - Competent Persons cont

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Ore Reserves

Information in this presentation that relates to Ore Reserves at the Kalgoorlie Nickel Project Goongarrie Hub is based on and fairly represents information and supporting documentation compiled by Mr Jake Fitzsimons, a Competent Person who is a full-time employee of Orelogy Mine Consulting, a company engaged by Ardea. Mr Fitzsimons is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Fitzsimons has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 JORC Code). Mr Fitzsimons does not hold securities in Ardea and consents to the inclusion in this announcement of all technical statements based on his information in the form and context in which they appear.

Ardea confirms that all the material assumptions underpinning the production target, and the forecast financial information derived from the production target continue to apply and have not materially changed. Noting that the PFS included the inclusion of a small amount of Inferred Mineral Resource (20Mt or 9%) spread over the Life of Mine (page 26 of Ardea 5 July 2023 PFS ASX announcement).

The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcement noted above and that all material assumptions and technical parameters underpinning the Ore Reserve in the previous market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcement.

KNP Goongarrie Hub Ore Reserve Summary

					Contained	Contained
Goongarrie Hub	Ore Reserve Category	Size (Mt)	Ni (%)	Co (%)	Ni (kt)	Co (kt)
Ore Reserve[1]	Proven	16.7	0.96	0.09	160	15
	Probable	177.4	0.68	0.05	1,204	84
	Grand Total	194.1	0.70	0.05	1,365	99

Note: Minor discrepancies may occur due to rounding of appropriate significant figures.

Full details on the Ore Reserve are available in the 5 July Ardea ASX announcement, see Section 5 and Appendix 1.

The Ore Reserve information shown in this ASX release has been previously released on the ASX platform by Ardea in ASX release 5 July 2023, in accordance with Listing Rule 5.9.

[1] KNP Goongarrie Hub Ore Reserve is reported on a 100% basis. Ardea Resources holds an 82.5% interest in the KNP Goongarrie Hub.

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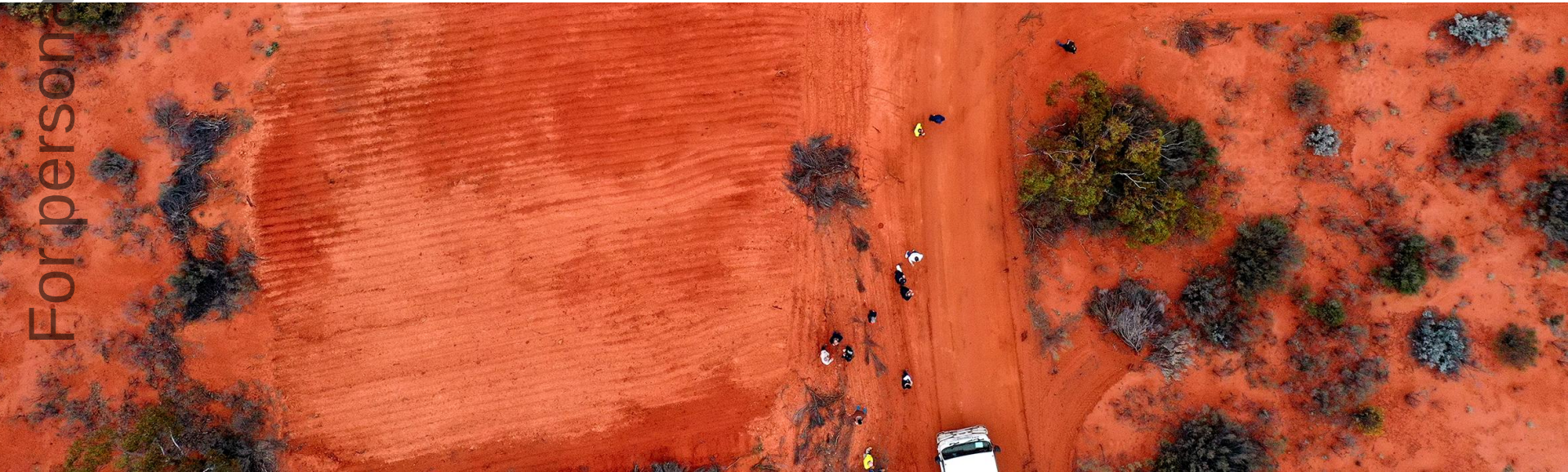
Appendix 2
2023 PFS

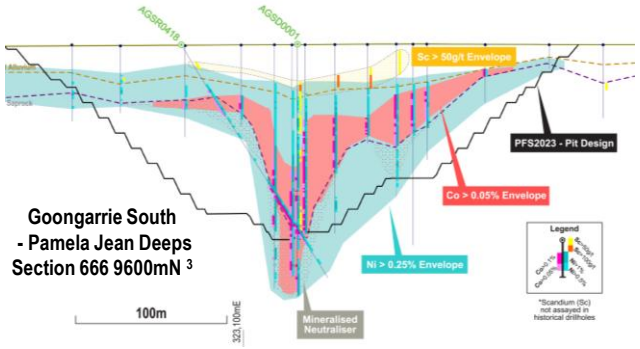
Australian Federal Government
- Major Project Status

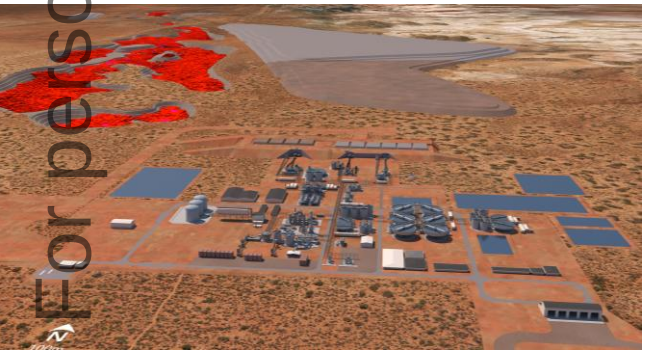
ESG CERTIFIED
Digbee ESG™



Unique characteristics drive low cost

Potential lowest cost producer thanks to KNP Goongarrie Hub ore deposit characteristics & geometry





Goethite Premium Ore

- 25km continuous strike
- Mainly free-digging ore makes up ~70% of Plant Feed[1]
- Low acid consumption and energy requirements[1]

Conventional low-cost open pit mining

- Mining costs <12% of total OPEX[1]
- Very low strip ratio of 1.8:1 (waste:ore)[1]

Mineralised Neutraliser (MN)[2]

- Replace imported neutraliser (lime) with MN from within designed pits
  - ✓ Increased metal recovery
  - ✓ Reduced costs and emissions.
  - ✓ International Patent Application lodged[2]

1 See 5 July 2023 ARL PFS ASX Announcement. NB: Project MRE, Ore Reserve, Production, Operation & Financial numbers are being updated in current in-progress DFS
2 See 16 November 2022 ARL MN ASX Announcement, Appendix 1 for assays of MN in AHID0012 20-22m photographed and 15 June 2023 ARL MN ASX Announcement
3 See 8 October 2018 High-grade nickel-cobalt mineralisation extended at Goongarrie for AGSD001 as shown on cross section and in photograph for the 96-102m interval.

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PFS Key Financial Metrics

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PFS defines > 40-year operation with strong financial metrics[1]:

- Pre-tax NPV_7 of **A$7,625M** (IRR 30%)
- Post-tax NPV_7 of **A$4,980M** (IRR 23%)
- Average **Annual EBITDA of A$800M**
- Project **pay back within 3.1 years**
- Low cost after Cobalt credit of **US$5,763/t Ni in MHP LOM**

1. See 5 July 2023 ARL PFS ASX Announcement.
2. Post tax.
3. From start of operation.

NB: Project MRE, Ore Reserve, Production, Operation and Financial numbers are being updated as part of the in-progress DFS

Financials		
Nickel Revenue	A$ M	**44,429**
Cobalt Revenue	A$ M	**7,880**
Revenue - combined	A$ M	**52,309**
EBITDA LOM	A$ M	**34,217**
EBITDA Annual (average)	A$ M	**800**
EBITDA margin	%	**65%**
Net Cash Flow (Pre-tax)	A$ M	**31,100**
Valuation		
Net Present Value (NPV_7)[2]	A$ M	**4,980**
Internal Rate of Return (IRR)[2]	%	**23%**
Total Capital Payback[3]	years	**3.1**
Assumptions		
Exchange rate	AUD:USD	0.67
Nickel Price	US$/t	25,000
Cobalt Price	US$/t	60,000

PFS 2023 Capital Cost Estimate

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KNP – Goongarrie Hub

- Contingency considered appropriate to the level of the capital cost estimate has been included
- Base date March 2023
- Refer to 5 July 2023 ARL PFS ASX Announcement for full details and Reasonable Basis Statement

Preproduction Cost Category	Costs (A$)
Mining – overheads, mobilisation, pre-strip and other	98M
Process plant & infrastructure	2,264M
Sulphuric acid, steam and power plant	574M
Borefield	181M
Total Capital Cost[1]	3,117M

Ardea 5 July 2023 PFS capital cost estimate based on a 3.5Mtpa processing operation consisting of x2, 1.5Mtpa HPAL autoclaves and a 0.5Mtpa Atmospheric leach circuit.

DFS Key Budget Items

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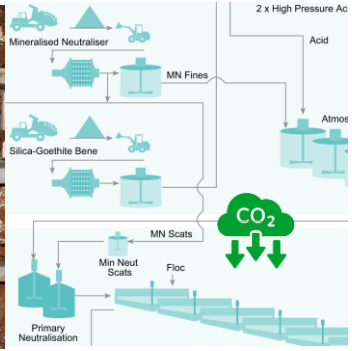
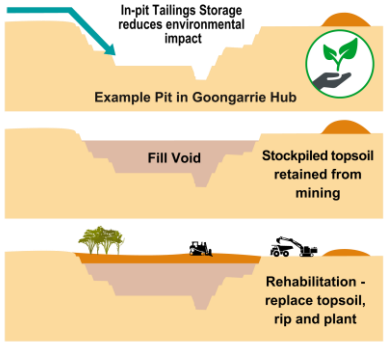
The Consortium (SMM and MC) are funding 100% of the KNP Goongarrie Hub DFS costs, up to the agreed budget of A$98.5 million

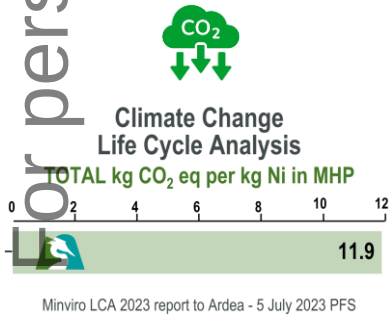
DFS Cost Centre	Costs (A$)
Drilling	13.4M
Metallurgical Test Work	2.3M
Mine Design (incl dewatering & geotechnical)	15.0M
Process Plant Design	28.3M
Buildings and Camp Design	5.3M
Approvals	4.9M
Staff, Corporate and Other	26.2M
Other Expert Consultants	1.5M
Tenement Costs	1.6M
DFS Total Budget	98.5M

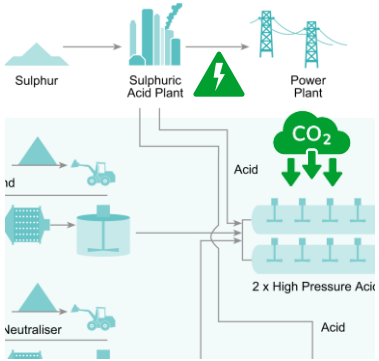
Innovated approach to elevate ESG performance

Continual improvement within a responsible ESG framework, enhanced by innovation in plant design









- Ardea's R&D defined **MN**, within designed pits. This material can replace imported neutralising material – reducing need to import lime, **increasing metal recovery, reducing costs and emissions**. An International Patent Application has been lodged for this process[1]
- **In-pit tailings storage** evaporation, suited to the semi-arid environment, improving rehabilitation outcomes[2]
- Excess steam from Acid Plant will be fed to **onsite power plant** reducing CO_2 emissions[2]
- **Life Cycle Assessment** (LCA) is expected to be **11.9 kg CO_2 eq. per kg nickel in MHP** based on project and upstream emissions[2]
- Recent **"A" Score** from Digbee ESG™ for Ardea and KNP activities, demonstrates continuous improvement in ESG performance[3]

1 See 16 November 2022 ARL MN ASX Announcement, Appendix 1 for assays of MN in AHID0012 20-22m photographed and 15 June 2023 ARL MN ASX Announcement
2. See 5 July 2023 ARL PFS ASX Announcement. 3. See 9 May 2023 ARL ESG ASX Announcement.

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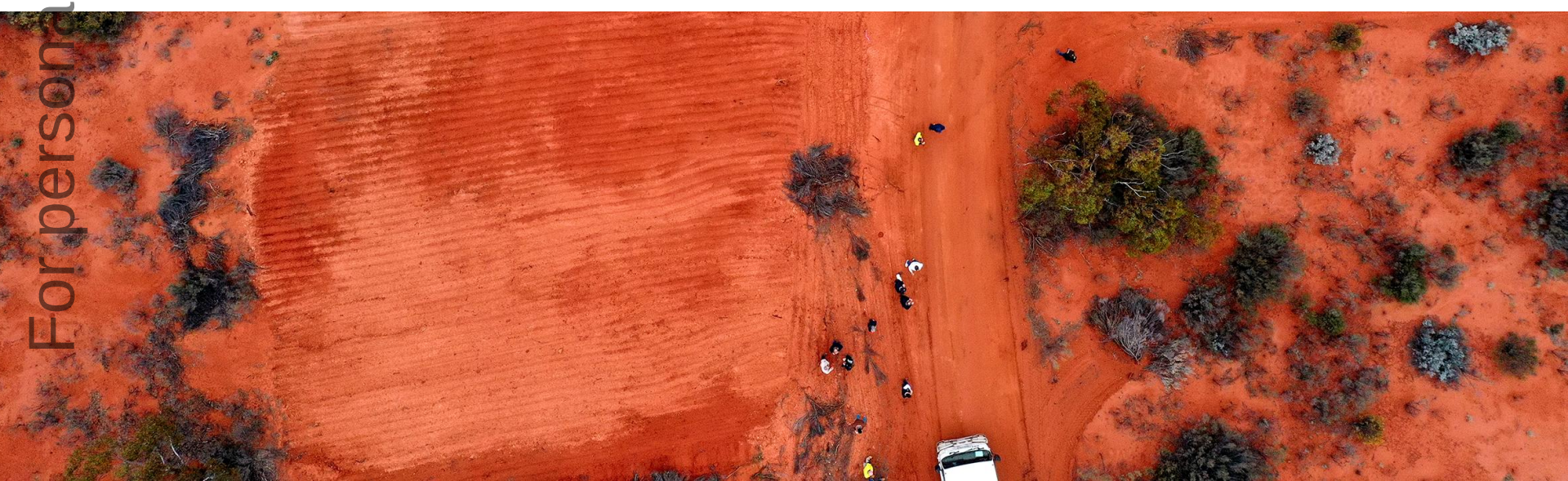
Appendix 3
KNPL

Australian Federal Government
- Major Project Status

ESG CERTIFIED
Digbee ESG™



Partnership detail

Partnership validates KNP Goongarrie Hub's global significance as a desirable Critical Minerals source

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- Non KNP Goongarrie Hub Projects
- KNP Goongarrie Hub

SUMITOMO METAL MINING — 80%

Mitsubishi Corporation — 20%

Incorporated Joint Venture (IJV)

Consortium has received support under Japanese Ministry of Economy, Trade and Industry (METI) Critical Minerals Supply Security Plan

82.5% | 17.5%

Ardea retains 100% of Non KNP Goongarrie Hub Projects including:

KNP Kalpini & Yerilla Hubs (known collectively as Kalpini Hub) MRE 270Mt @ 0.76% Ni & 0.05% Co for 2Mt of contained Ni & 136kt of contained Co^

- Kalpini Project – Massive Nickel Sulphide at Emu Lake
- Scandium & Rare Earth elements identified at KNP Kalpini
- Perrinvale Project prospective for nickel sulphide

KALGOORLIE NICKEL

Kalgoorlie Nickel Pty Ltd (KNPL)

KNPL is 100% subsidiary of Ardea and holds the KNP Goongarrie Hub. KNPL is managing the underway Definitive Feasibility Study (DFS)

The Consortium is contributing financially and technically, to ultimately earn a 50% interest in KNPL*, Ardea will retain 50% interest into production

*** The Consortium comprised of Sumitomo Metal Mining Co., Ltd (SMM) and Mitsubishi Corporation (MC) are fully funding the in progress DFS up to A$98.5M and assisting in optimising debt financing to earn:**

MILESTONE	INTEREST IN KNPL
DFS 50% complete	17.5%
DFS Completion	35%
Positive FID	50%

^ See 30 June 2023 ARL MRE announcement. Or see Appendix 2 in this presentation

* See 30 August 2024 ASX release KNP Goongarrie Hub Joint Venture Transaction Completion with Japanese Consortium. SMM and MC, together the Consortium, fully funding DFS up to A$98.5M to earn 35% interest in KNPL, and a further 15% interest in KNPL on positive Final Investment Decision (FID). Consortium to assist KNPL in optimising debt financing