

ASX ANNOUNCEMENT

PROJECT UPDATE PRESENTATION

18 May 2021



Arafura Resources Limited (ASX:ARU) (“Arafura” or the “Company”) is pleased to attach a copy of its Nolans Project Update presentation. The presentation has been updated to reflect the information contained in the Nolans Project Update (refer to ASX Announcement dated 11 May 2021).

-ENDS-

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NdPr

Nolans Project Update

May 2021





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Mineral Resources and Ore Reserves

The information in this presentation that relates to Mineral Resources is extracted from the Company's ASX announcement dated 7 June 2017 (Detailed Resource Assessment Completed) and was completed in accordance with the guidelines of the JORC Code (2012). The information in this presentation that relates to Ore Reserves is extracted from the Company's ASX announcement dated 16 March 2020 (Major Increase in Mine Life for the Nolans Project) and was completed in accordance with the guidelines of the JORC Code (2012). Arafura Resources confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the original market announcements continue to apply and have not materially changed. Arafura Resources confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcements.

Production Targets and Forecast Financial Information

The information in this presentation that relates to production targets and financial information is extracted from the Company's ASX announcement dated 11 May 2021 (Nolans Project Update). The production target is based on 12% Proved Reserves, 62% Probable Reserves and 26% inferred resources as reported in the Company's ASX announcement dated 11 May 2021. There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised. Arafura confirms that all material assumptions underpinning the production target and forecast financial information derived from the production target set out in the Company's ASX announcement dated 11 May 2021 (including any assumptions referred to in the Company's ASX announcement dated 11 May 2021 that were used from the DFS as set out in the Company's ASX announcement dated 7 February 2019 (Nolans Project Definitive Feasibility Study) or from the Updated Mining Study as set out in the Company's ASX announcement dated 16 March 2020 (Major Increase in Mine Life for the Nolans Project)), continue to apply and have not materially changed.

Corporate Snapshot



Nolans is a shovel-ready world class NdPr project



NdPr is the key input for high performance NdFeB permanent magnets



NdPr is central to many clean energy applications including EVs and wind turbines



Arafura is aiming to be a trusted global leader for sustainably mined and processed rare earth products



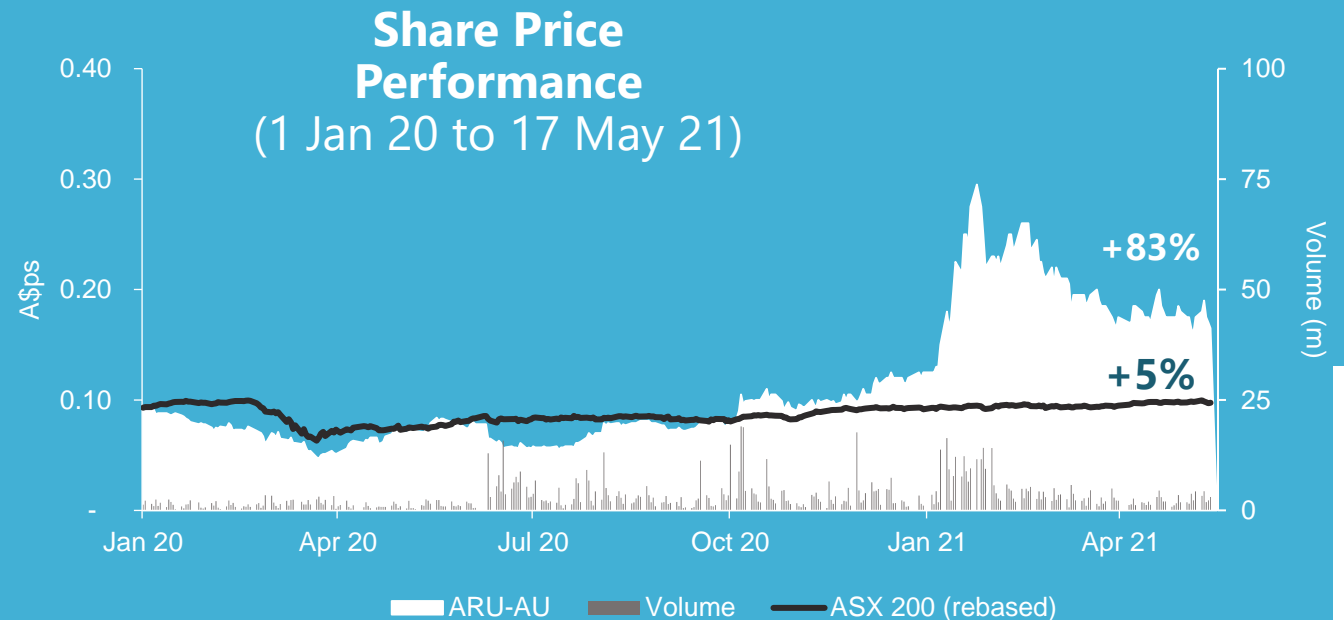
Production is aligned with forecast supply shortage



Nolans aims to supply **5-10% of global demand** for NdPr oxide

Capital Structure	
ASX Code	ARU
ASX Share Price (17 May)	\$0.170
Shares on Issue	1,171m
Market Capitalisation	\$199.0m
12 Month Liquidity	\$129.3m
Cash*	\$12.9m
Debt	Nil
Enterprise Value*	\$186.1m

* Data based on 31 March 2021 Quarterly Report



Investment Highlights



The Nolans NdPr Project has strong support from the Australian Government with Federal Ministers committed to growing Australia's critical minerals sector.

- ✓ The Nolan's Project is a **globally significant resource for rare earths** with the potential to supply **5-10% of the world's rare earths magnet supply** and a mine life of **~38 years¹**
- ✓ The Nolans Project has attractive economics which includes an **NPV₈ of A\$1.4 billion¹** and a **LOM cash costs of US\$24.76/kg¹**
- ✓ **NdPr oxide demand** is forecast to increase to **~98kt²** by 2030, primarily driven by the use of magnets in **electric vehicles** and **wind turbines** which have very strong structural demand outlook
- ✓ The **NdPr oxide** current price is **US\$86/kg³** which is **up > 130%** over the past twelve months, with the market benefiting from **Chinese inventory stockpiles** which are down by **~60%** since mid-2020 as EV demand growth continues to accelerate
- ✓ The Nolans Project would be **Australia's first vertically integrated** source of separated rare earth oxides and **the world's second large-scale** non-Chinese source of rare earths
- ✓ Arafura is targeting **FID in 2H 2022** at a time when the rare earth market is expected to **enter deficit** given there has been **underinvestment** in the supply chain, there is a strong demand outlook and China is short of resources

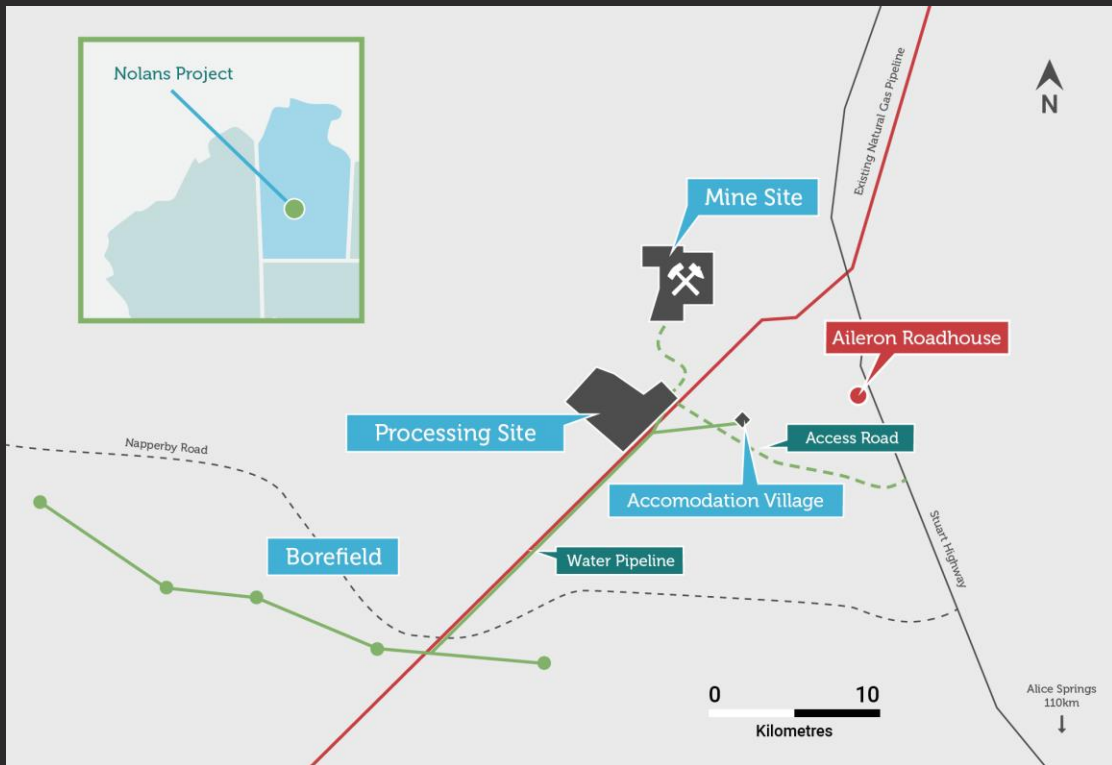
1. Refer to ASX Announcement Nolans Project Update dated 11 May 2021, which assumes a long-term NdPr oxide price of US\$87/kg and based on a life of mine of 38 years ; 2. Arafura internal Supply Demand forecast referencing against data from CRU, Rare Earth Market Analysis 2018, Adamas Intelligence, Rare Earth Market Outlook to 2030; 3. Asian Metals (April 2021 average price).

Nolans Project Overview



Close to existing key infrastructure

- ✓ Stuart Highway 10 km east
- ✓ Water supply 25km southwest
- ✓ Alice Springs railyard, airport and other services 135km south
- ✓ Amadeus natural gas pipeline- adjacent to project site
- ✓ Tailings and process wastes at site



Attractive Project Economics

Mining and Production		
Mine Life (years)	38	
NdPr Oxide (tpa)	4,440	
SEG/HRE Oxide (tpa)	474	
Phosphoric Acid (tpa 54% P ₂ O ₅ MGA)	144,393	
Financial	US\$	A\$
Capital Cost (\$m)	768	1,056
NdPr Oxide (US\$/kg)	87	120
Rare Earth Sales Revenue (\$m/pa)	388	534
Phosphoric Acid Sales Revenue (\$m/pa)	58	79
Mining Costs (\$m/pa)	(30)	(42)
Processing Costs (\$m/pa)	(105)	(145)
General and Administration Costs (\$m/pa)	(15)	(21)
EBITDA (\$m/pa)	257	354
KPI Analysis	US\$	A\$
Operating Cost \$/kg NdPr	33.91	46.60
Operating Cost \$/kg NdPr net of P ₂ O ₅ credit	24.76	34.06
NPV ₈ after tax (\$m)	1,011	1,402
IRR after tax (%)	18.1%	
NPV ₈ after tax (\$m) at current NdPr oxide price*	982	1,363
IRR after tax (%) at current NdPr oxide price*	17.86%	

Refer to ASX Announcement Nolans Project Update dated 11 May 2021 which assumes a long-term NdPr oxide price of US\$87/kg. Average production and costs are calculated as the arithmetic annual average following the anticipated two year ramp up and excluding the final years of production from low grade stockpiles.

- ✓ Definitive Feasibility Study (DFS) update released in May 2021
- ✓ **Post-tax NPV₈ of A\$1.4 billion** and IRR of 18.1%
- ✓ Capital cost **A\$1,056m**
- ✓ **Annual average EBITDA of A\$354m**
- ✓ Low-cost producer at **US\$24.76/kg NdPr**
- ✓ Robust economics at current NdPr oxide price **US\$86/kg***

* Asian Metals (April 2021 average price).

Nolans NdPr Shovel Ready



Regulatory

- ✓ Federal & NT Environmental Approvals secured
- ✓ Government and Minister support for senior debt facility



Security of Tenure & Social License to Operate

- ✓ Native Title Agreement
- ✓ Mining License Granted
- ✓ Federal & NT Major Project Status
- ✓ Indigenous Engagement Strategy



Technical

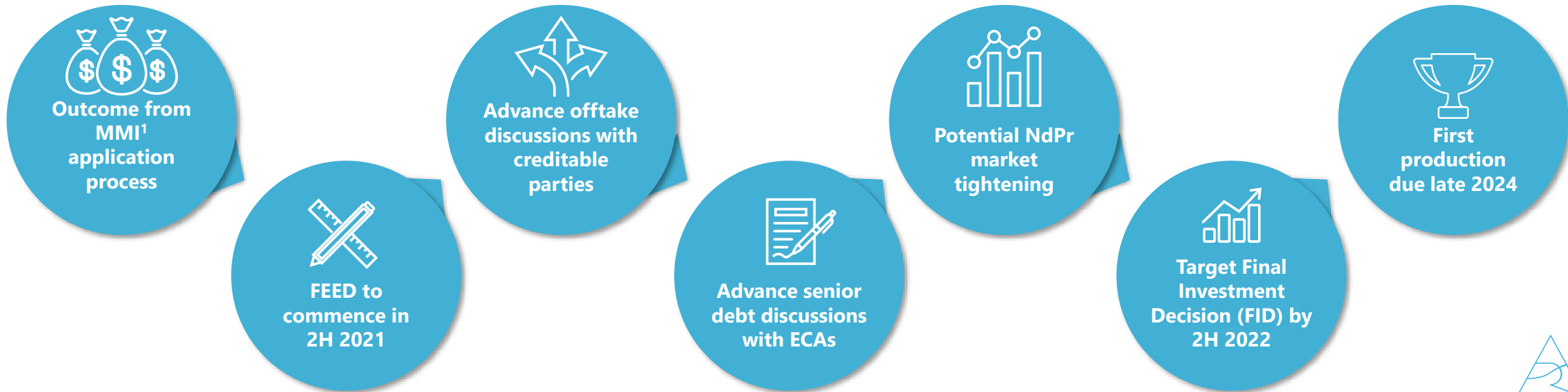
- ✓ DFS and Project Update complete
- ✓ Extensive piloting of ore to oxides flowsheet
- ✓ Appointment of KBR & Wave to in-house team
- Front End Engineering & Design commencing 2H 2021



Commercial

- ✓ Customer verification of oxide products
- Offtake engagement advanced
- Project Funding discussions underway

Key Development Milestones Aligned With NdPr Market Tightening



1. Modern Manufacturing Initiative.

Ore to Oxide at Single Site



Nolans is the only NdPr focused project in Australia that plans to mine and process **ore to oxide at a single site**.



Nolans aims to be a **non-Chinese supplier of choice for sustainably mined NdPr oxide**.



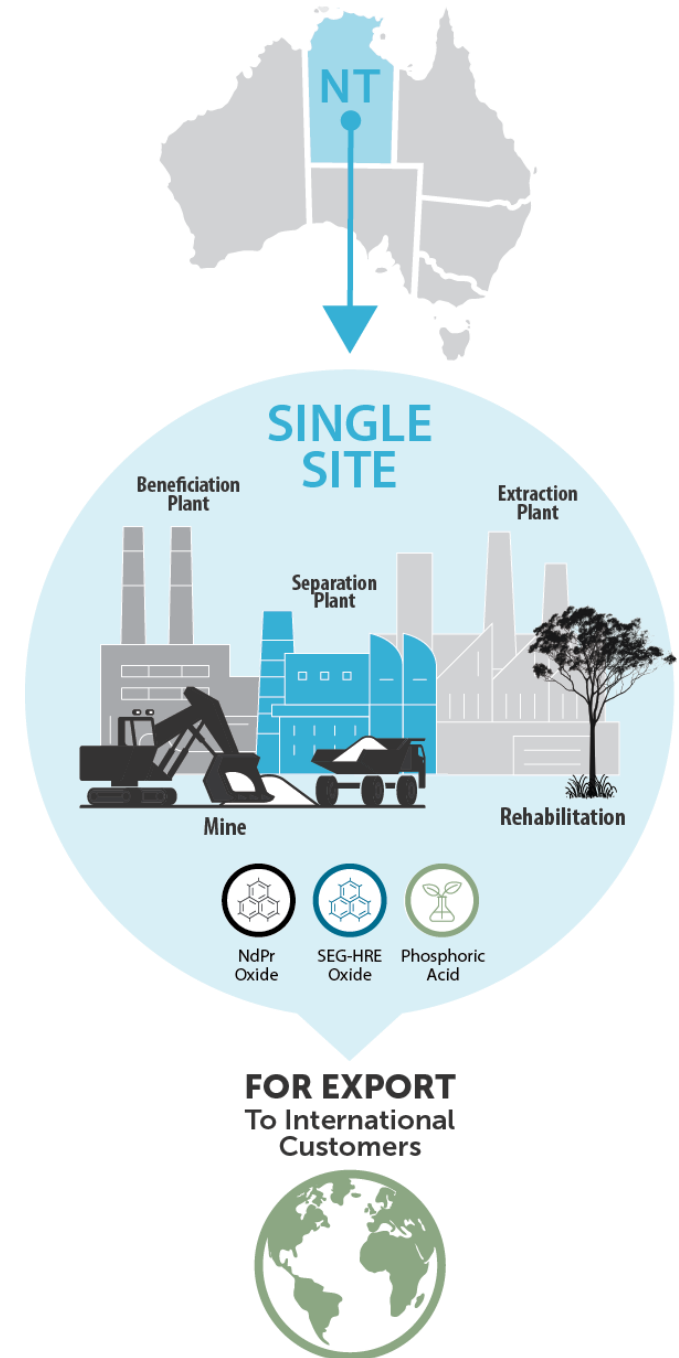
CAPEX & OPEX include ore – oxide processing, infrastructure, waste management & rehabilitation.



All environmental approvals have been secured and waste management & site rehabilitation fully costed.



Arafura's **single site processing** provides traceable product and waste management certainty which is **aligned with customers' ESG expectations**.



ESG - Current activities and initiatives

"Arafura's ESG commitment is to be a trusted global leader and supplier of choice for sustainably mined rare earth products, helping our customers deliver clean and efficient technologies. We are committed to delivering positive intergenerational economic, environmental and social benefits to our stakeholders."



Prioritise GHG Emissions and Water Management

- Water reduction strategy
- GHG Emissions Audit and reduction study
- Renewable energy – Solar power initiative, Commitment to Net Zero GHG



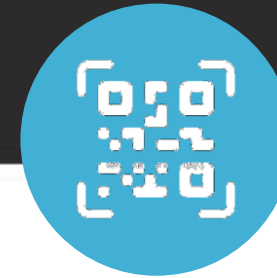
Finalise Update of Sustainability Report

- Membership of UN Global Compact
- Comprehensive report that satisfies requirements of global ESG ratings agencies and reporting standards
- Due 2H 2021



Independent Certification with IRMA

- Arafura will complete the IRMA Ready assessment standard as soon as it is launched



Traceability – Blockchain Technology

- Aligned with customers' ESG expectations
- Will allow tracing of Nolans sustainably produced products through entire supply chain to customers



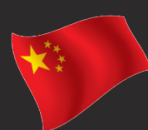
Innovation and Technology

- Downstream value add opportunities
- Ongoing R&D, low carbon metallisation process
- Options for hydrogen or other energy storage solutions

Offtake Strategy and NdPr Sales Targets

Customer engagement targeted at NdPr users not aligned with *Made in China 2025* strategy

- ✓ Offtake engagement advanced with end users seeking supply security with a sustainable NdPr producer
- ✓ NdPr oxide prices have increased and inventories have materially tightened since Q4 2020 which in turn increased momentum with customer engagement
- ✓ Arafura in advanced engagement with 9 parties for over 120% of Planned Production* with a view of securing 85% as binding offtake
- ✓ Current indicative sales opportunities by jurisdiction are represented below:



Europe	Japan	Korea	China
	3,850t		1,800t

OEMs
Wind Turbine
Manufacturer
E-Motor

E-Motor
Magnet

OEM/Motor

MOU JingCi
Material
Science
MOU Tianhe
Magnetics

Offtake Strategy

FOR EXPORT TO INTERNATIONAL CUSTOMERS



EUROPE
JAPAN
SOUTH KOREA
USA
CHINA



JAPAN
USA
CHINA

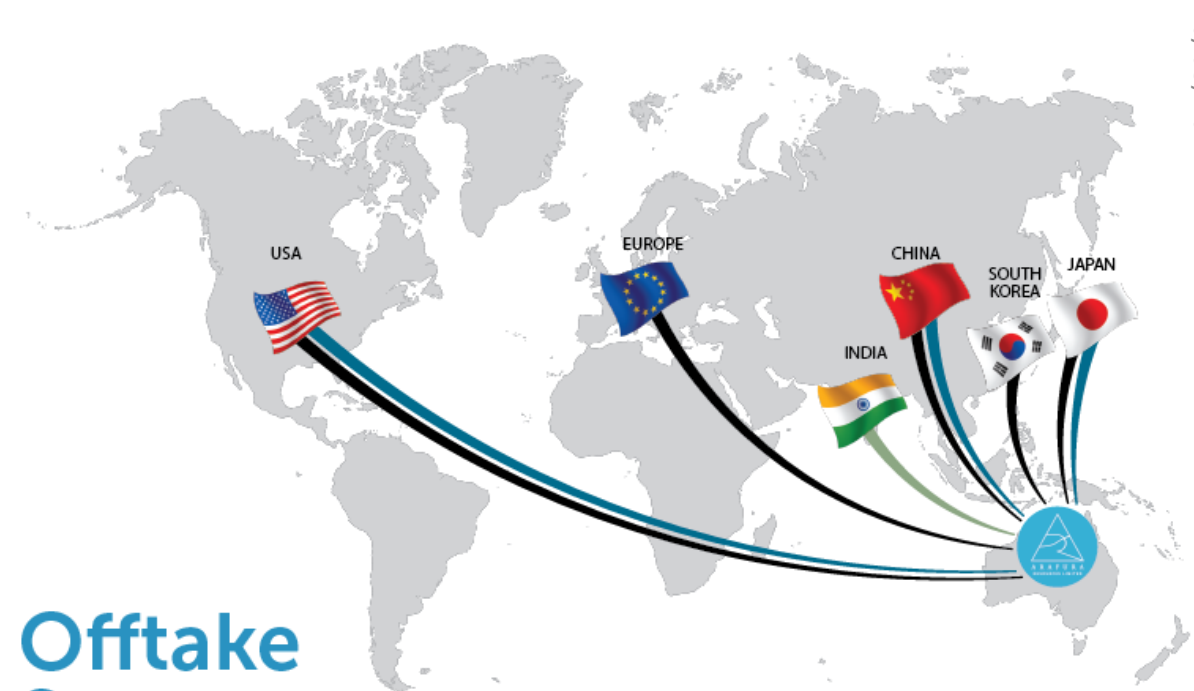


INDIA

*Planned Production refers to the average annual production from Nolans of 4,440 tpa (Refer ASX Announcement dated 11 May 2021).

The Company is in discussion with various parties for sales volumes greater than Planned production. Volumes allocated to China may be reduced where offtake is secured in other jurisdictions.

Arafura will keep the market informed of entry into any binding offtake arrangements.



Arafura's Debt Funding Strategy

Global Government Initiatives Creating Momentum

- Most countries targeting net-zero emissions
- Europe initiatives for a low carbon economy
- Made in China 2025 Strategy focused on e-mobility and renewables
- Korea to reshore production and create downstream processing
- Japan reshoring production and diversity of supply chains
- Biden pledges to slash greenhouse gas emissions in half by 2030
- Morrison launches the Resources Technology and Critical Minerals Processing road map



Funding Strategy leverages Nolans as a strategic geopolitical asset

- ✓ Targeting approximately half of the project financing through senior debt
- ✓ Conditional letter of support received from Export Finance Australia (EFA) for a 5-year facility for \$200m
- ✓ Aligned with Australian Government's critical minerals strategy to create ethical value chains for critical minerals
- ✓ Foreign ECAs seeking well structured projects for the supply of critical materials for the manufacturing of EVs and renewable technologies

Critical Minerals Supply – a Global Issue



NdPr Market Opportunity

DEMAND



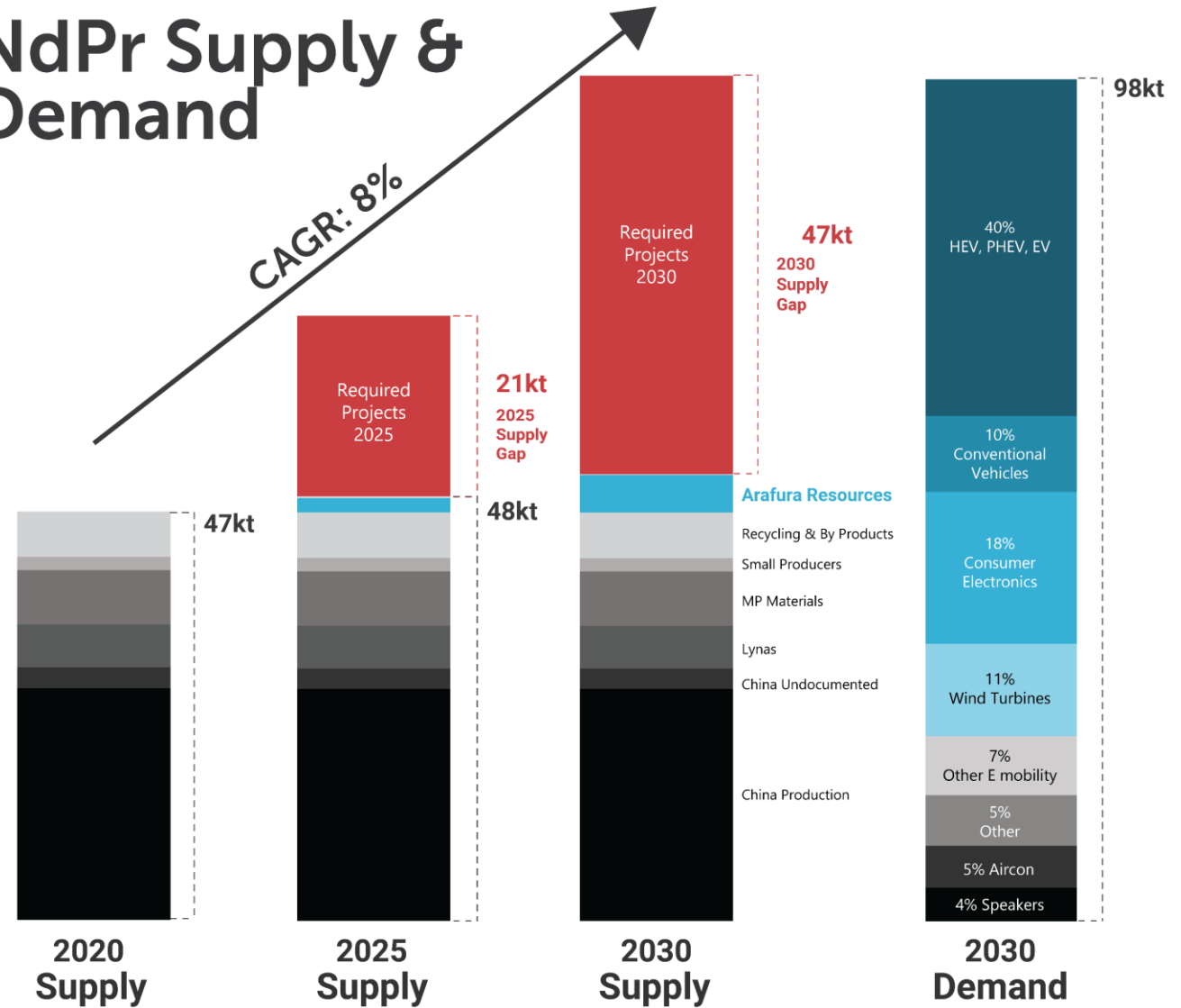
- ✓ Automotive sector is forecast to consume nearly 50% of NdFeB supply
- ✓ Supply gap is growing at a cumulative annual growth rate (CAGR) of 8%
- ✓ 2030 forecast assumes ~34 million EVs
- ✓ 2021 demand is forecast to increase by 14%

SUPPLY



- ✓ Market analysts forecast a supply gap that represents 109% of global supply today and is in excess of 11 Nolans Projects
- ✓ NdFeB magnets will move to the best value in use
- ✓ The emerging supply gap has extra significance for companies not aligned with the China 2025 strategy
- ✓ China's import of rare earth ore surged 174% in March 2021; average import price rose 23.1%

NdPr Supply & Demand

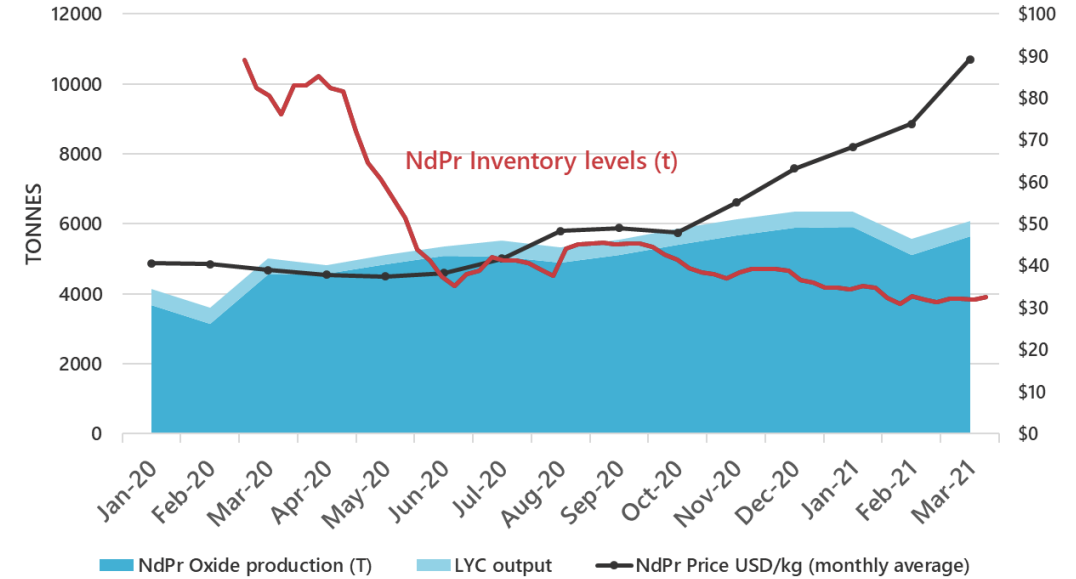


Source: Arafura internal Supply Demand forecast referencing against data from CRU, Rare Earth Market Study 2020; Roskill, Rare Earth Market Analysis 2018, Adamas Intelligence, Rare Earth Market Outlook to 2030.

NdPr Price Rise

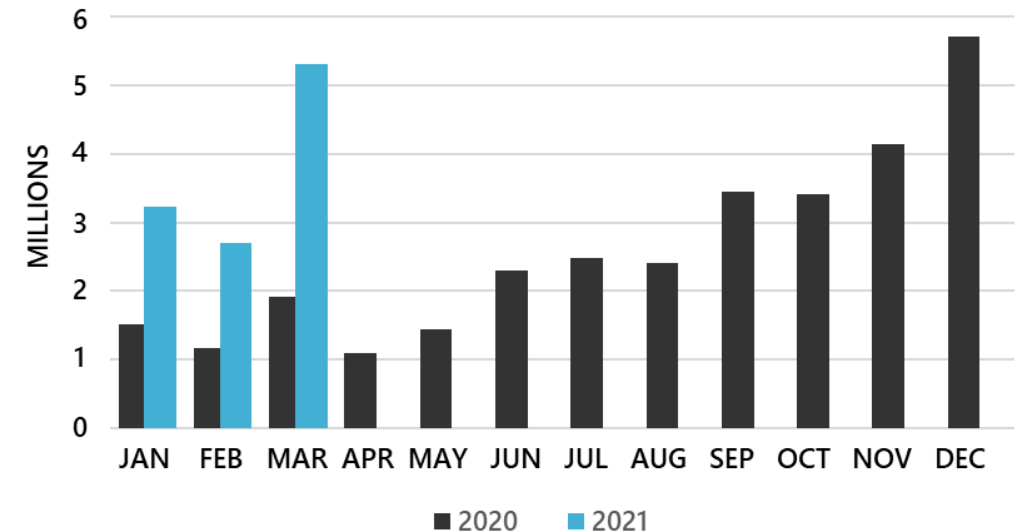
- ✓ Chinese inventory stockpiles down by ~60% since mid-2020
- ✓ Chinese producers near full capacity
- ✓ Supply chain issues highlighted by growing EV sales
- ✓ Critical Minerals Initiatives and supply chain de-risking required to facilitate government policies and targets for E-mobility and renewables

NdPr Oxide Output & Price EXW China



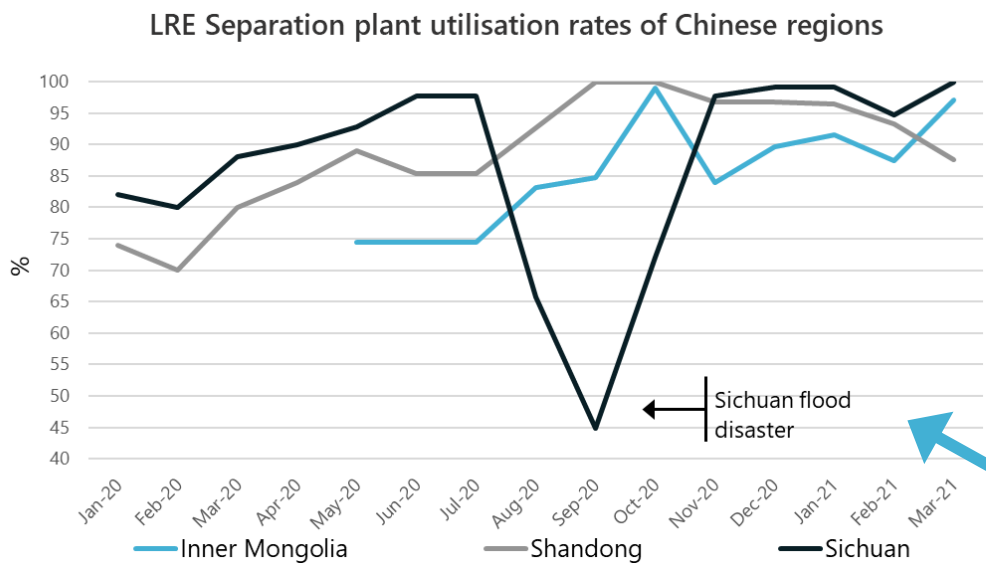
Source: Lynas, BAINFO, Asian Metals

Global EV Sales (BEV & PHEV) by Month

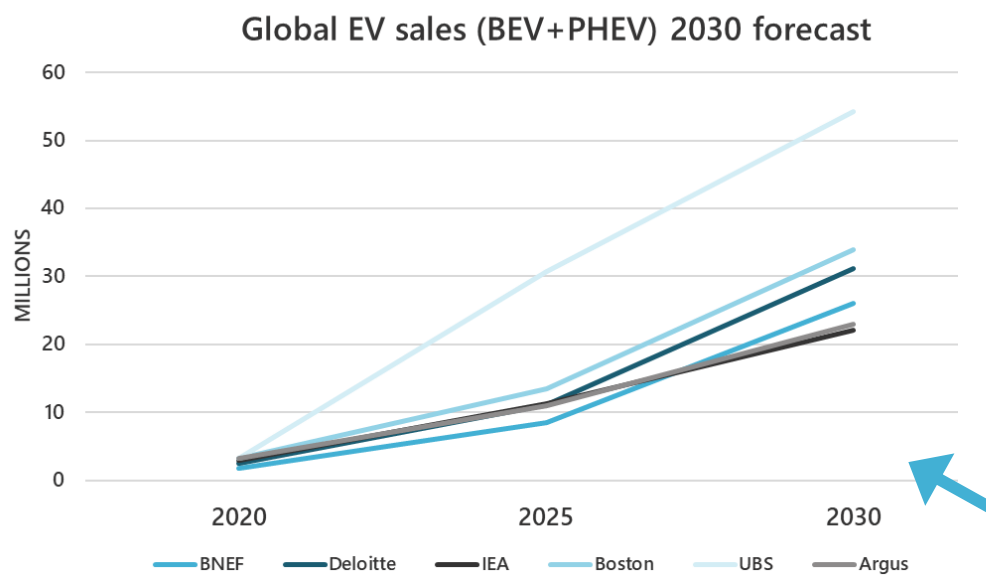


Source: EV Volumes, Inside EV

Supply expansion challenge



Source: Baiinfo and Argus



Source: BNEF / Deloitte / IEA / Boston / UBS / Argus (Global EV Sales Forecast)

- 1
- 2
- 3
- 4
- 5

Tighter environmental and regulatory controls in China have resulted in production volumes contracting

China Northern Rare Earths (largest producer) will increase production but will require plant expansion to significantly improve capacity

New capacity will have higher capital and operating costs to meet new ESG standards



China production expansion and imported semi-finished materials required to meet growing domestic demand driven by EV and renewables objectives

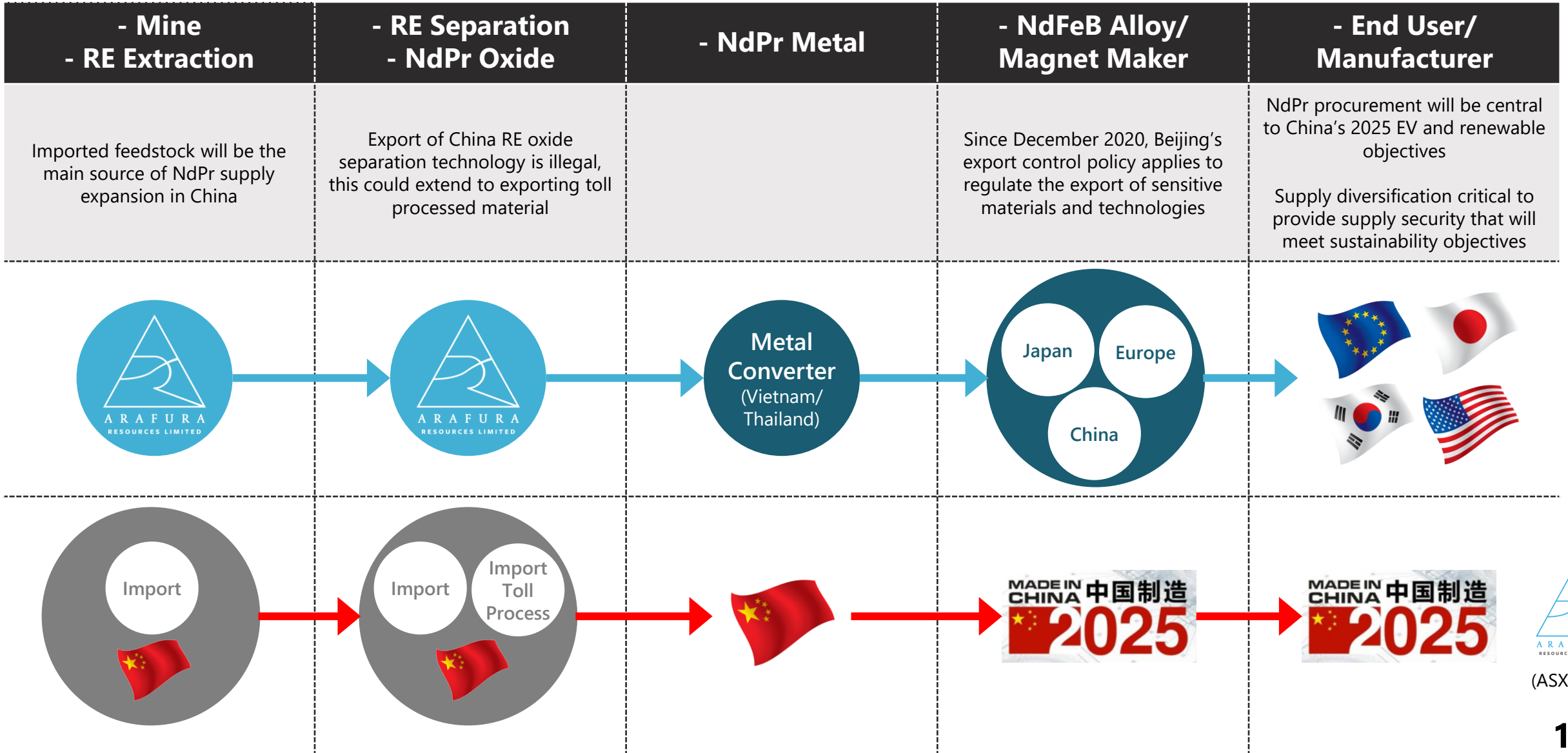
Other global NdPr users will require alternative supply chain solutions to satisfy their procurement needs



(ASX:ARU)

Non-China Value Chain Map

 Non-China Value Chain
 China Value Chain



Concluding Remarks



**Long life asset
enriched in
NdPr**



**Extensive &
successful
large-scale pilot
completed**



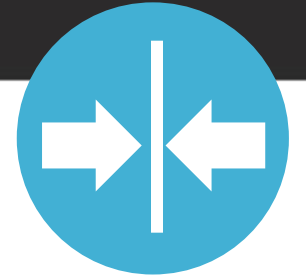
**Definitive
Feasibility
Study
completed,
fully costed
from Ore to
Oxide to
Rehabilitation**



**Only single site
Australian NdPr
focused project
with all
approvals**



**Low-cost
operation**



**Production of
NdPr oxide
aligned with
Government &
customers'
critical raw
material
diversification
plans**

Appendices



Long Life Asset

RESOURCES	TONNES (m)	RARE EARTHS TREO %	PHOSPHATE P ₂ O ₅ %	NdPr ENRICHMENT %
Measured	4.9	3.2	13	26.1
Indicated	30	2.7	12	26.4
Inferred	21	2.3	10	26.5
TOTAL	56	2.6	11	26.4

As announced on 7 June 2017. 1% TREO cut-off grade. Numbers may not compute exactly due to rounding. "NdPr enrichment" is the proportion of TREO comprising Nd₂O₃ and Pr₆O₁₁.

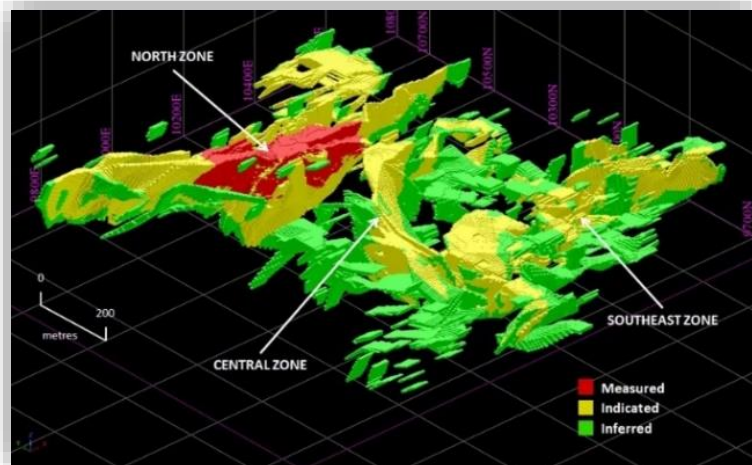
RESERVES	TONNES (m)	RARE EARTHS TREO %	PHOSPHATE P ₂ O ₅ %	NdPr ENRICHMENT %
Proved	5.0	3.0	13	26.2
Probable	24.6	2.8	13	26.5
TOTAL	29.5	2.9	13	26.4

As announced on 16 March 2020. Numbers may not compute exactly due to rounding. "NdPr enrichment" is the proportion of TREO comprising Nd₂O₃ and Pr₆O₁₁.

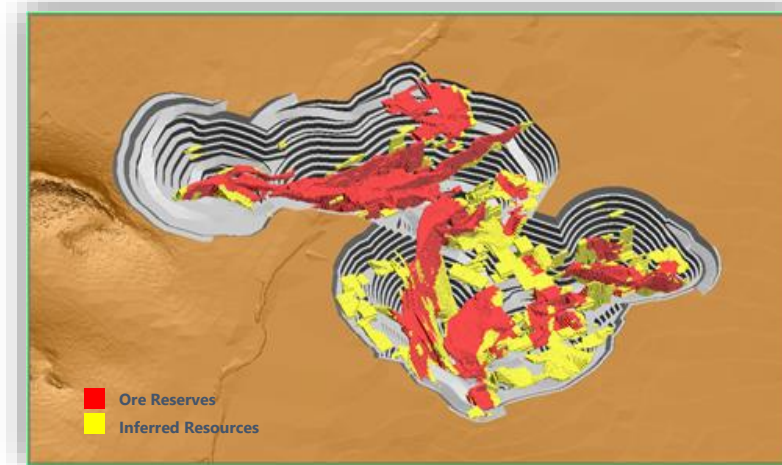
NdPr rich & open at depth

- ✓ Over 90km drilled to define and classify material types
- ✓ 33 year Ore Reserves
- ✓ 38 year Mining Inventory
- ✓ Single pit
- ✓ Expansion potential

Mineral Resources



Ore Reserves



Rehabilitation & Waste Management

- ✓ Waste rock dumps designed to “encapsulate” naturally occurring radioactive materials (NORM) rock at mine site
- ✓ Mine area surface water management captures sediment
- ✓ Residue storage facility (RSF) with two cells
- ✓ Progressive rehabilitation



Environmental Approval and Project Costing includes all costs for Waste Management System and Rehabilitation.



ESG/Sustainability Program Plan



Ambition

Arafura Sustainability Goal

"Our goal is to be a trusted global leader and supplier of choice for sustainably mined and processed rare earth products, helping our customers deliver clean and efficient technologies. We are committed to delivering positive intergenerational economic, environmental and social benefits to our stakeholders."



Prioritisation

1. Mapped the Arafura stakeholder mix
2. Materiality assessment assessing ESG topics for their importance to both Arafura and our stakeholders
3. Exploration of the external environment and global landscape



Action



Membership application to **UN Global Compact** submitted



Registered to complete **IRMA Ready assessment standard**



Commitment to achieve **net-zero by 2050**



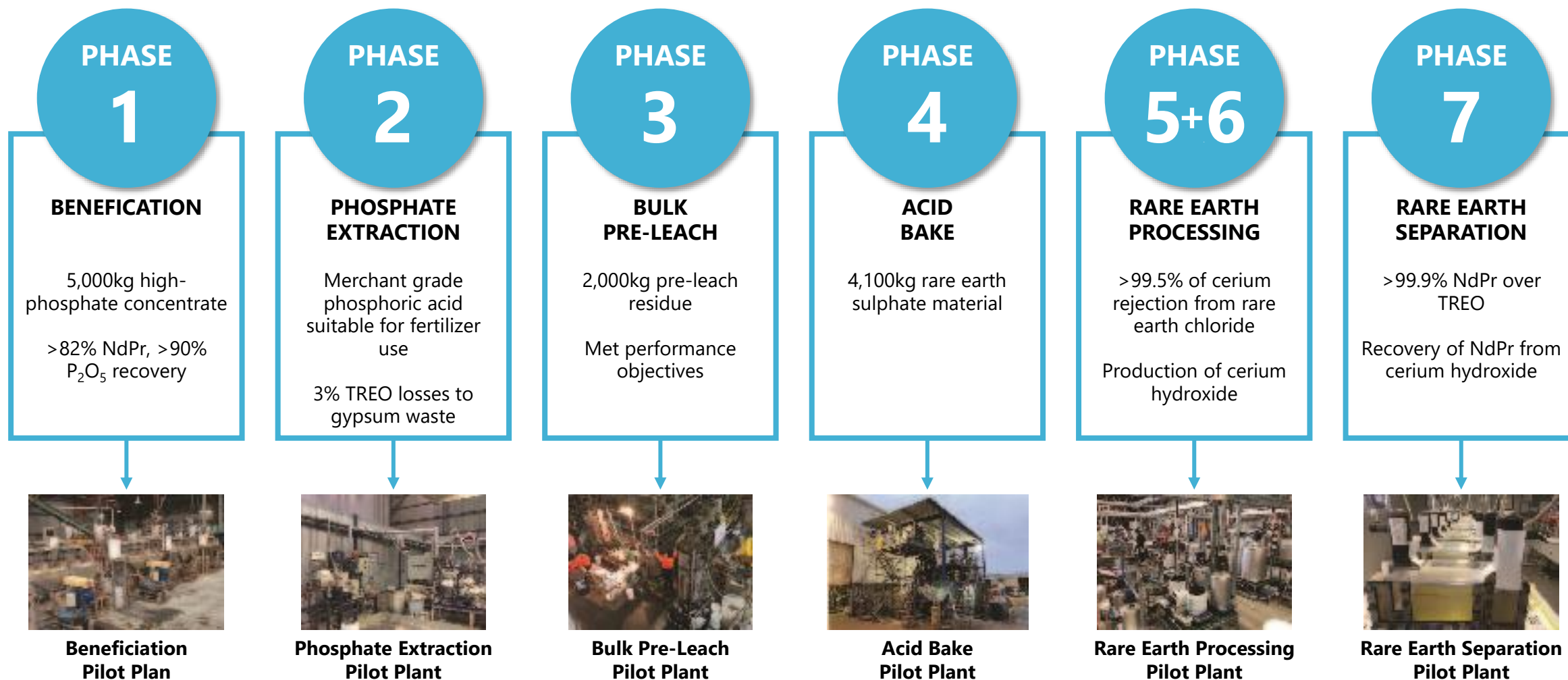
Comprehensive **Sustainability Report** to be released mid-2021



(ASX:ARU)

Technology Program Complete

Flowsheet Pilot

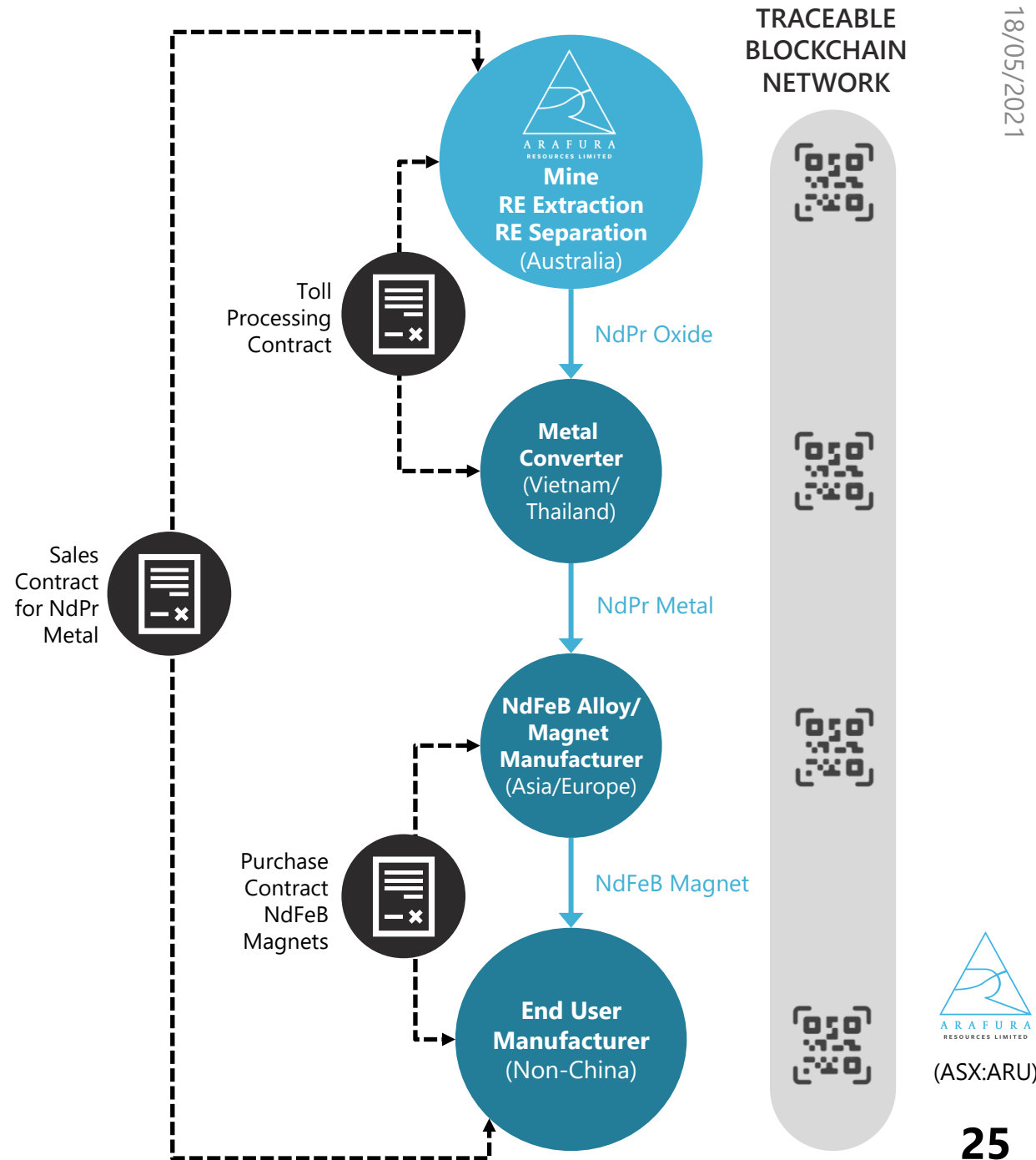


Nolans Supply Chain Model

Sustainable producer of NdPr to align to “green procurement” strategy

- 1** Offtake Model proposes ‘Toll Processing’ of metal providing a complete traceable and verified supply chain solution to satisfy end users sustainability requirements
- 2** Offtake Model proposes delivery of NdPr metal into End Users existing supply chain
- 3** Provides customers with security of NdPr supply, verified traceable supply and optionality to direct material to a chosen magnet maker

ARU has an MoU with SE Asia based toll metal converter and aiming to execute a tolling agreement



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