**10 November 2022** 

#### Andromeda Metals Limited

ABN: 75 061 503 375

#### Corporate details:

ASX Code: ADN

Cash (30 Sep 2022): \$27.6m

Issued Capital:

3,110,008,432 ordinary shares 69,480,000 unlisted options 22,333,325 performance rights

#### **Directors:**

Mick Wilkes

Non-Executive Chair

James Marsh

Managing Director

Joe Ranford

**Operations Director** 

Melissa Holzberger

Non-Executive Director

**Austen Perrin** 

Non-Executive Director

### Company Secretary: Andrea Betti

#### **Contact details:**

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#### **Andromeda presents at Noosa Mining Conference**

Andromeda Metals Limited (ASX: **ADN**) (**Andromeda**, the **Company**), a nearterm producer of the halloysite-kaolin industrial mineral, is pleased to announce it will present at the Noosa Mining Investor Conference on Thursday 10 November at 5.00pm AEDT/4.00pm AEST.

James Marsh, Andromeda's Managing Director, will provide an overview of the Company which is focused on the development of its flagship Great White Kaolin Project, located near Poochera on South Australia's Eyre Peninsular.

**Event:** Noosa Mining Investor Conference

Date: Thursday 10th November 2022

Time: 4.00pm AEST / 5.00am AEDT

A copy of the presentation has been lodged with the ASX and is also attached to this Announcement. Shareholders and investors wishing to attend the free virtual presentation by registering at <a href="https://www.noosaminingconference.com.au">www.noosaminingconference.com.au</a>

This ASX announcement has been approved for release by the Board of Directors of Andromeda Metals Limited.

For more information about the Company and its projects, please visit our website www.andromet.com.au or contact:

#### Manager, Investor Relations & Corporate Affairs

Patrick Sinclair T: 08 7089 9819 M: 0403 708 431

E: Patrick.Sinclair@andromet.com.au



**ASX:ADN** 

www.andromet.com.au













Noosa Mining Conference
10 November 2022

Our Vision: Leading the world in the sustainable supply of superior quality industrial minerals and advancement of nanotechnologies

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#### Mineral Resources and Ore Reserves Estimates

As an Australian company with securities listed on the Australian Securities Exchange (ASX), Andromeda is subject to Australian disclosure requirements and standards, including the requirements of the Corporations Act and the ASX. Investors should note that it is a requirement of the ASX listing rules that the reporting of ore reserves and mineral resources in Australia comply with the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the **JORC Code**) and that the Ore Reserve and Mineral Resource estimates underpinning the production targets in this presentation have been prepared by a Competent Person in accordance with the JORC Code.

Information that relates to Mineral Resources estimates has been previously announced to ASX on 23 December 2019, "Significant increase in Mineral Resource for the Poochera Kaolin Project", 29 September 2020, "New mineral resource estimate for Hammerhead Halloysite-Kaolin Deposit" and 11 August 2020, "New Mineral Resource for the Mount Hope Kaolin project", all available at <a href="https://www2.asx.com.au/markets/company/adn">https://www2.asx.com.au/markets/company/adn</a>. Andromeda confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed. Andromeda 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.

#### **Competent Person's Statements**

Information in this announcement has been compiled by Mr. James Marsh a member of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr. Marsh is an employee of Andromeda Metals Limited who holds shares and options in the company and has sufficient experience, which is relevant to the style of mineralisation, type of deposits and their ore recovery under consideration and to the activity being undertaking to qualify as Competent Persons under the 2012 Edition of the 'Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code). This includes Mr. Marsh attaining over 30 years of experience in kaolin processing and applications. Mr. Marsh consents to the inclusion in the report of the matters based on the information in the form and context in which it appears.

## Andromeda (ASX: ADN)

A near-term mining producer well placed for growth

AU\$146m

Market
Capitalisation
(9 November 2022)

Flagship project
GWKP
NPV1
A\$613M
(pre-tax)

3,110,008,432
Ordinary Shares
69,480,000
Unlisted Options
22,333,325
Performance
Rights
Issued Capital

14,200

Number of Shareholders

AU\$27.6m
Cash on Hand
(30 September 2022)

AU\$0.0m



**Tier 1 Mining Jurisdiction** 



**Exploration Endowment** 



**Mineral Resources** 



(9 November 2022)

**Ore Reserves** 



**Experienced Team** 

South Australia

Large portfolio of exploration tenements, totalling 8,313.7km<sup>2</sup> including earn-ins

Kaolin Mineral Resource: >110Mt of JORC Resources<sup>2,3,4,5,6</sup>

Kaolin Ore Reserve (GWKP): 15.1Mt of JORC Reserves<sup>7</sup>

Experienced and industry focused Board and Executive team

ASX 6 April 2022 Great White Kaolin Project - Definitive Feasibility Study

ASX 23 December 2019, "Significant increase in Mineral Resource for the Poochera Kaolin Project".

ASX 29 September 2020, "New mineral resource estimate for Hammerhead Halloysite-Kaolin Deposit".

ASX 11 August 2020, "New Mineral Resource for the Mount Hope Kaolin project"

<sup>&</sup>quot;The Company is not aware of any new information or data that materially affects the information in the relevant market announcements. All material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed."

<sup>6.</sup> ASX 23 March 2022, Maiden Tiger Kaolin Resource and Regional Rare Earth Element Potential. Halloysite reported with kaolinite

<sup>7.</sup> ASX 6 April 2022 Great White Kaolin Project - Definitive Feasibility Study

## Ideally positioned to meet growing global demand



Estimated Size of Global Kaolin Market

US\$9.0 billion<sup>1</sup>

in 2023 (41Mt)

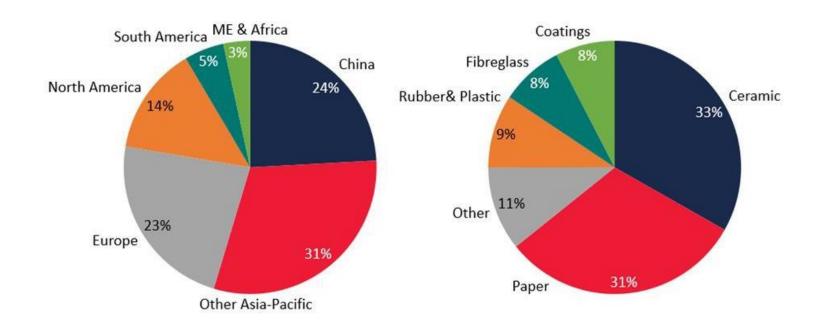


Estimated Growth of Global Kaolin Market

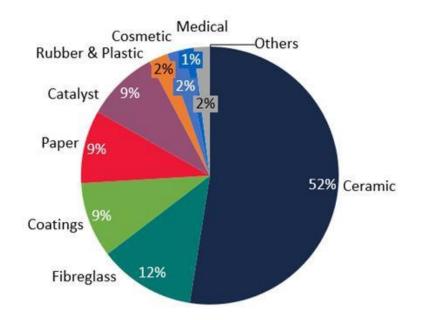
11.1% p/a<sup>1</sup>

2020-2027 CAGR (Asia Pacific)

### Global kaolin demand by end use and region in 2021

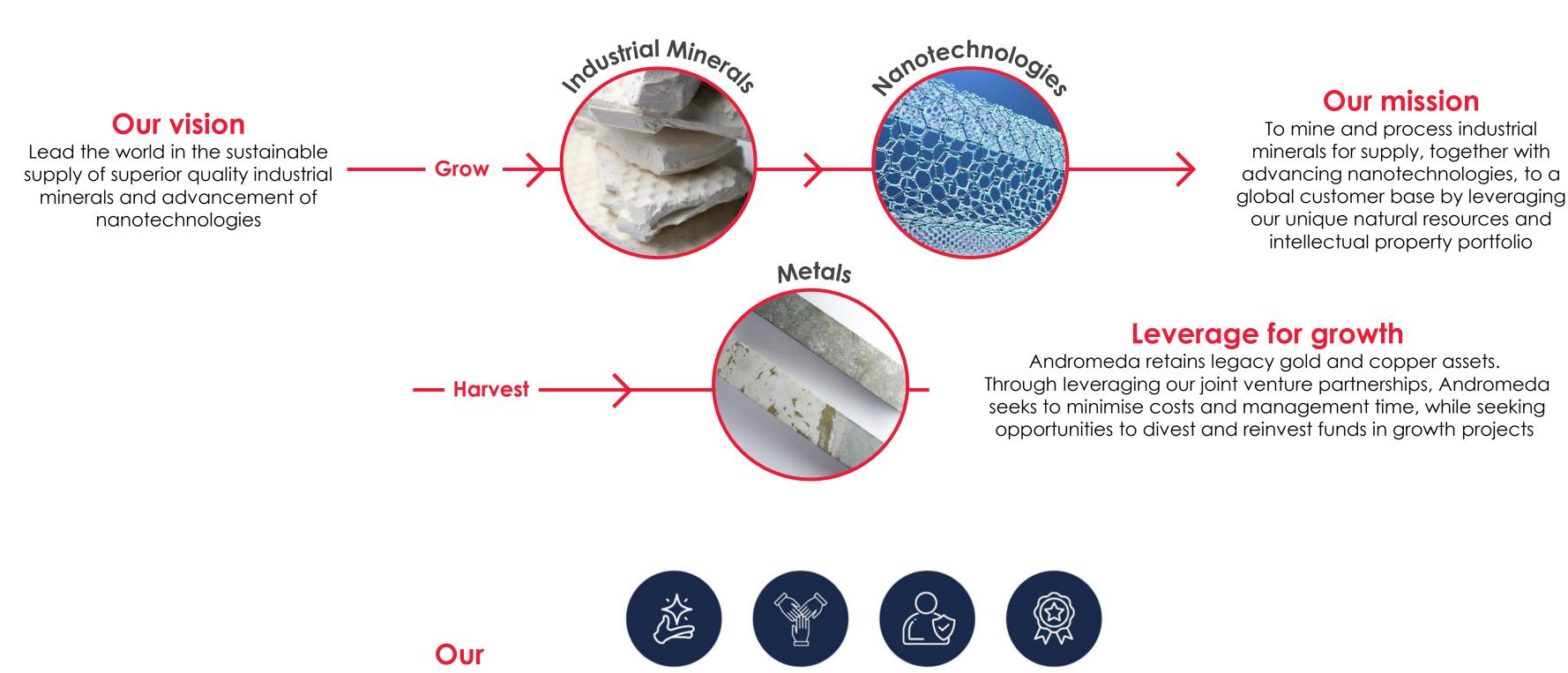


### Chinese kaolin demand by end use in 2021



### Our purpose

Through the use of our halloysite-kaolin and nanotechnologies we strive to enrich the lives of people by improving the environment, creating prosperity for our shareholders and delivering value for our stakeholders



**Values** 

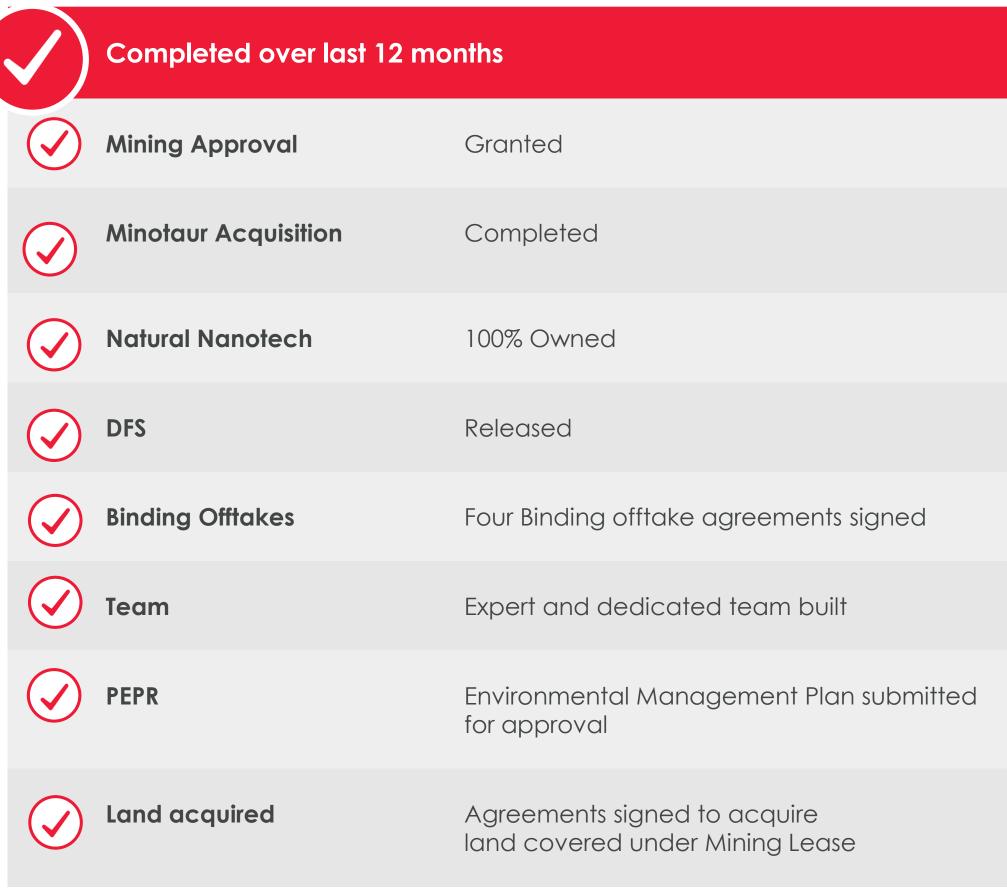
The safety and wellbeing of our employees and our communities is our first priority

**Innovation Teamwork** 

Quality

Integrity

## Why Andromeda?



### Halloysite - Kaolin

- Rare world class resource
- Halloysite is the highest value form of kaolin
- Developed significant in-house knowledge base



### New High Value Product Opportunities

Developing new high value products including High Purity Alumina (HPA) and a concrete additive for existing markets



### **Nanotechnologies**

Strategic research relationship with University of Newcastle



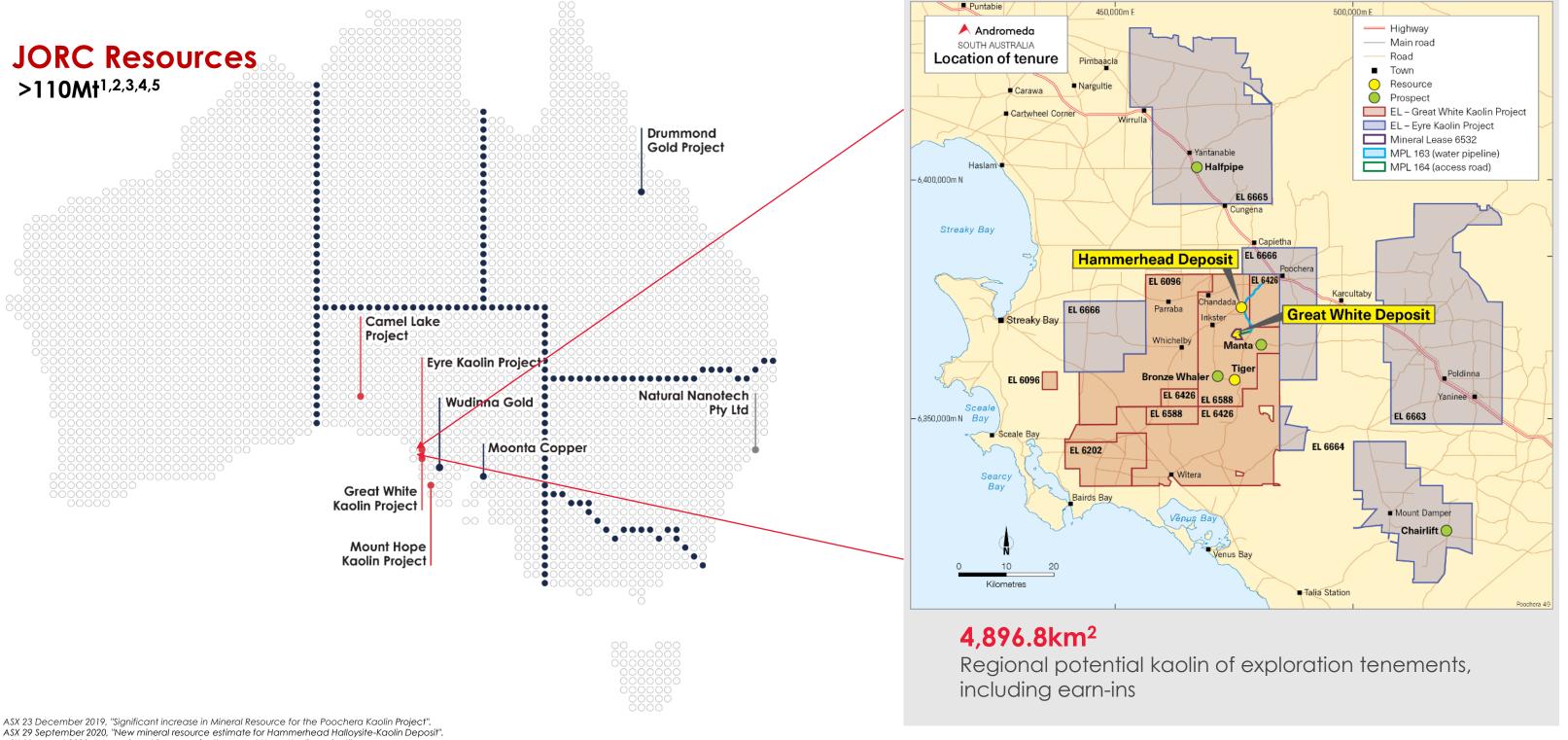
### Intellectual Property

#### **Building our IP portfolio**

- Carbon capture international patent application filed
- Carbon dioxide conversion provisional patent application filed
- HPA production process provisional patent application filed
- HRM approved for use in concrete

## Halloysite - Kaolin Resources & Exploration

Exploration efforts by our experienced Geological Team to grow the market base for value products



ASX 11 August 2020, "New Mineral Resource for the Mount Hope Kaolin project".

<sup>&</sup>quot;The Company is not aware of any new information or data that materially affects the information in the relevant market announcements. All material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed."

ASX 23 March 2022, Maiden Tiger Kaolin Resource and Regional Rare Earth Element Potential. Halloysite reported with kaolinite.

## Great White Kaolin Project– Post DFS Works

- Pilot Plant scaled-up for product samples to support marketing for Ceramics, Coatings, HPA and Nanotechnologies
- Starter Plant sized for production to match offtake profile
- Up-front capital requirements reduced
- Procurement process for long lead items underway
- Operational readiness establishment, construction and starter pit detailed planning

#### Great White Deposit and Starter Processing Plant Design

DFS design concept minimises capital with a staged approach to production capacity and product quality to self-fund capital upgrades.



- 3D elevation of Great White Kaolin Project Stage 4 capacity plant
- ASX 6 April 2022 Great White Kaolin Project Definitive Feasibility Study
   ASX 26 August 2022 Andromeda Commencing Procurement of Long Lead Time Items for Great White Kaolin Project

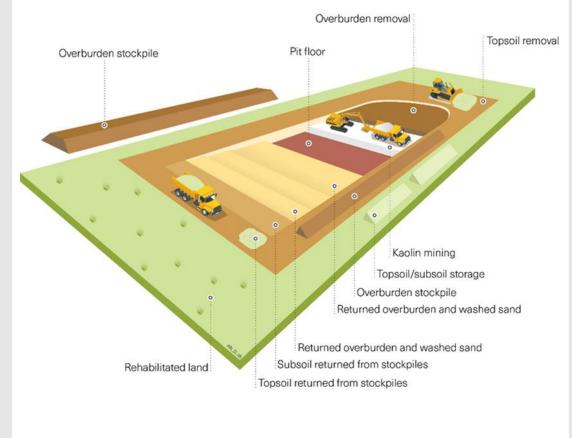
### DFS Highlights<sup>1</sup>

NPV<sub>8</sub> A\$613M (pre-tax)

- IRR = 36%
- Stage 1 capital of A\$93.8M

LOM 28yrs 15.1Mt Total Ore Reserves

 Stage 1A capital includes Starter Plant<sup>2</sup> capital of A\$50-60M



## Great White Kaolin Products & Marketing

Andromeda is developing four high-grade Kaolin products with a Kaolin Concentrate, 'Great White KCM,' the first of a phase of a releases.

## Concentrate Product Great White KCM™90

A semi-refined high-quality kaolin for direct use, further refinement or upgrade of resources

#### Concrete Product Great White HRM™

A refined kaolin for sale for use as a concrete and building product additive

#### Ceramic Product Great White CRM™

A fully refined product for the highend ceramics market

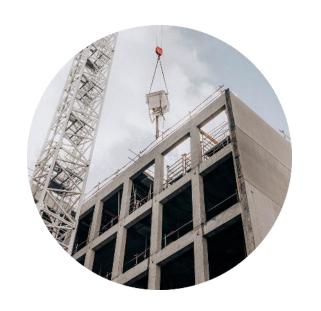
#### Coatings Product Great White PRM™

A fully refined product for the coatings and polymers markets



- Highly consistent premium grade
- Halloysite optimised
- Suitable as feed for HPA

2 Binding Offtakes signed for minimum 66,000t during first 3 years with remaining capacity under negotiation



- Decarbonisation of concrete
- Performance improvements
- Cost and labour savings

LOI Signed with IMCD the World's largest additives distributer and conversion to a Binding Offtake in progress



- World class grade
- High whiteness and translucency
- Good green and fired strength

Binding Offtake for 5,000t/pa



- World class grade
- Ultra-high brightness
- Cost savings

Binding Offtake for 70,000t/pa

## High Purity Alumina (HPA) - Adding value through research

### **Subject Matter Experts Directly Engaged**

- Research and Development
- Market Analysis
- Scaling
- Commercialisation

#### **Intellectual Property**

Provisional Patent Application filed for HPA production process

Estimated size & growth of global synthetic sapphire market

US\$6.0B<sup>1</sup>  $7.0\% \text{ p/a}^1$ 

In 2020 2020-2027 CAGR

Estimated size & growth of global lithium-ion battery market

US\$41.1B<sup>2</sup> 12.3% p/a<sup>2</sup>

In 2021 2021-2030 CAGR

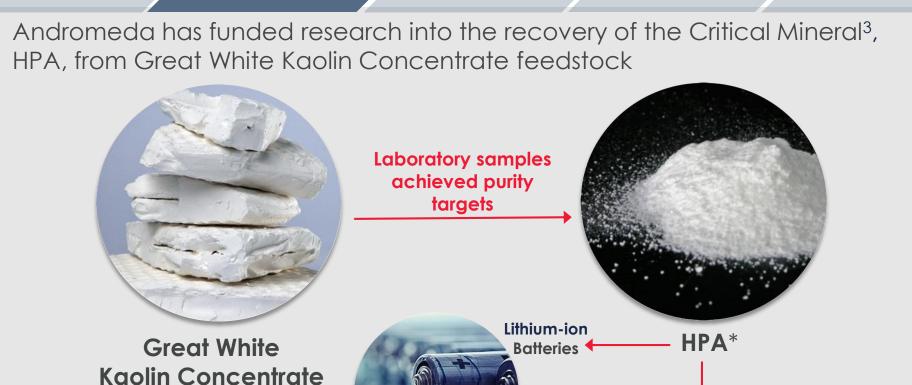
Stage1 Concept Study Stage 2
Business Model

\*\*Photo courtesy of Emerging Markets Research Trends

Stage 3
Business Case

Stage 4
Business Plan

Stage 5
Finalise





Our Projects **Products** Our Future About Andromeda Our Strategy HPA/Nanotechnology

## Nanotechnologies - Adding value through research

#### **Research & Development**

Strategic partnership with Global Innovative Centre for Advanced Nanomaterials (GICAN)

#### **Intellectual Property**

- International (PCT) Patent Application filed for carbon capture
- Provisional Patent Application filed for carbon dioxide conversion

#### Estimated size of global nanomaterials market

US\$8.0B1

In 2020



**Carbon Capture Pilot** Plant designed, manufactured (Height 5.0m) and in Newcastle, Australia

### Estimated growth of global nanomaterials market

14.1% p/a<sup>1</sup> 2020-2027 CAGR



Stage 2

Stage 4

Stage 5 **Finalise** 

## Operational and Corporate Readiness



#### **Long Lead Items**

Progressing procurement of long lead items in parallel with design and construction



#### **Suppliers**

Build relationships with local contractors and suppliers



#### **Site Establishment**

Works scoped and designed



#### **Agreements**

Preparation of agreements to establish site infrastructure and operations



### Logistics

Multiple port facility options with individual attributes remain open



#### **Organisational Capability**

Building our team and organisational structure that is ready for construction and operations



## Management Operating Systems

Enhanced operational enablement ahead of construction and production



#### **Policies & Procedures**

Developed new policies and procedure to support sustainable operations

# Next Steps - Future catalysts

	In Progress	
<b>→</b>	Agreements	Drafting to establish site infrastructure and operations
<b>→</b>	Pilot Plant	Upgrade in progress with installation of centrifuge
<b>→</b>	Binding Offtakes	Remainder of planned capacity under negotiation
<b>→</b>	PEPR	Application with South Australia Government awaiting approval
<b>→</b>	Logistics	Multiple port facility options with individual attributes remain open
<b>→</b>	Suppliers	Long lead items procurement is underway
<b>→</b>	Funding	Various funding options under consideration to fully fund DFS Stage 1, with cash flows funding future expansion to stage 2, 3 & 4
<b>→</b>	High Growth Opportunities	HPA, Carbon Capture/Conversion and Nanotechnologies progressing



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