# **Iluka Resources**







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This document provides an indicative outlook for the Iluka business in the 2021 financial year. The information is provided to assist sophisticated investors with the modelling of the company, but should not be relied upon as a predictor of future performance. The current outlook parameters supersede all previous key physical and financial parameters.

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#### Non-IFRS Financial Information

This document contains non-IFRS financial measures including cash production costs, non production costs, Mineral Sands EBITDA, Underlying Group EBITDA, EBIT, free cash flow, and net debt amongst others. Iluka management considers these to be key financial performance indicators of the business and they are defined and/or reconciled in Iluka's annual results materials and/or Annual report. Non-IFRS measures have not been subject to audit or review.

All figures are expressed in Australian dollars unless stated otherwise.

#### Mineral Resources and Ore Reserves Estimates

As an Australian company with securities listed on the Australian Securities Exchange (ASX), Iluka 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 2012.

Information that relates to Mineral Resources estimates has been announced to ASX on 25 February 2021 in the 2020 Annual Report, 21 February 2019 in 2018 Annual Report, on 24 July 2019 in Eneabba Mineral Sands Recovery Project Updated Mineral Resource Estimate, and on 20 February 2017 in Updated Mineral Resource and Ore Reserve Statement, all available at <a href="https://www.iluka.com/investors-media/asx-disclosures">www.iluka.com/investors-media/asx-disclosures</a>. Iluka 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. Iluka 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 outlook

Production outlook and the basis thereof are noted within the relevant disclosure. The outlook included in this presentation is indicative only and should not be construed as guidance. The information is subject to changes in market and operating conditions; political risk; and any significant unplanned operational issues.



# **Delivering Sustainable Value**

### **Disciplined Performance in 2020**

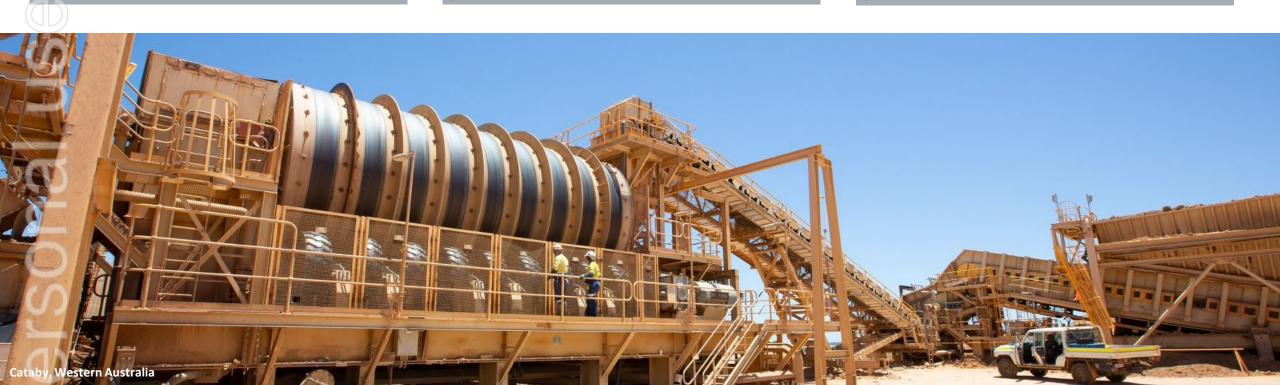
- Prioritised safety of people and communities
- Operational settings flexed to market conditions
- Measures implemented to maintain cashflow
  - Preservation of margins

### Well Placed for 2021

- Net cash position and significant funding headroom
- Positive indicators in mineral sands markets
- Operations returned to full production
- Maturing project pipeline

### **Promising Future**

- Emerging position in rare earths
- Encouraging trial of new technology at Balranald
- Progressing processing solution for Wimmera
- Attractive long term industry dynamics



# **Sustainable Development**

**Key Pillars of Iluka's Sustainability Approach** Health and Safety Our People **Our Communities** Environmental Stewardship Governance and Integrity Value Creation



**2020 TRIFR 2.8** (2019: 2.9)

TCFD alignment
Year 2 of 3

Member of
Dow Jones
Sustainability Indices
In Collaboration with RobecoSAM ••

28%
Indigenous Employment at
Jacinth-Ambrosia

584
hectares
rehabilitated in 2020



**20%**Reduction in Serious
Potential Incidents
(2020: 61, 2019: 76)

Female representation

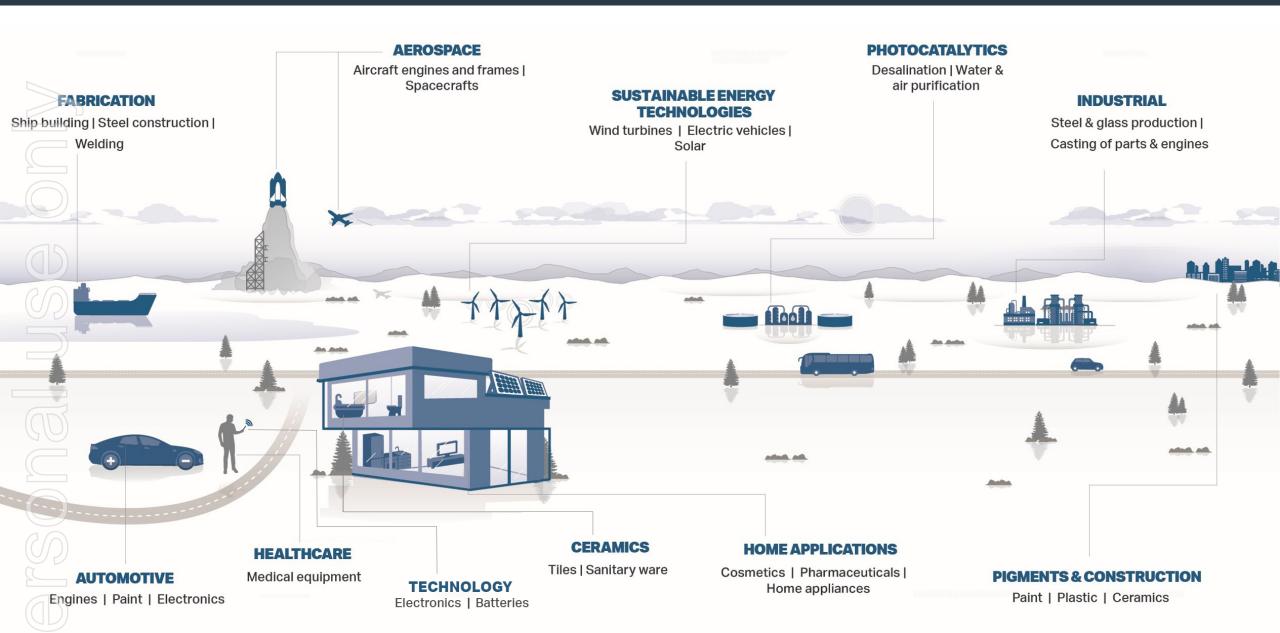
33%

43%

Exec. Mgt.

Board

# Mineral Sands and Rare Earths – Critical Minerals, Part of Everyday Life

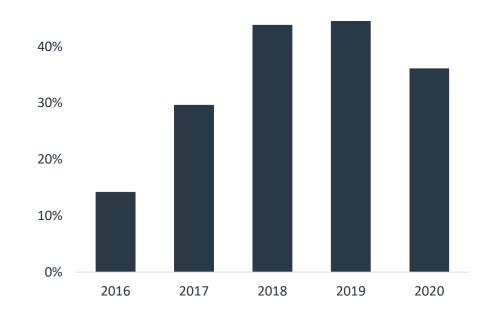


# **Disciplined Performance in 2020**



# Mineral sands business has consistently delivered solid margins

Mineral sands EBITDA margin (%) 50%

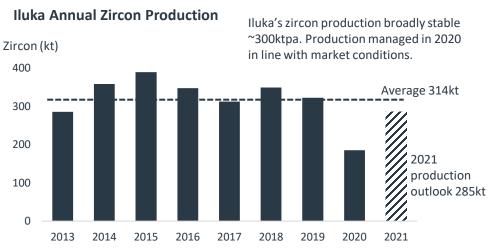


# **Zircon Market Update**

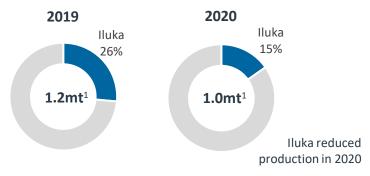


Quick return of Chinese tile manufacturers shortly after Chinese New Year and recovery in other markets contributed to a strong start to 2021

- Iluka's Q1 zircon sales strong in seasonally weaker quarter
- China domestic tile demand solid with increased construction activity
- European tile exports growth servicing increased demand in many markets fuelled by renovation activity and supply-side gaps created by Chinese trade restrictions
- Other end use markets remain robust





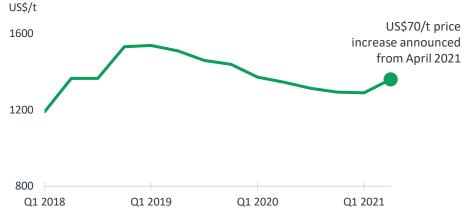


1. Source: TZMI Feb 2021

### **Supply Fundamentals**

Limited new supply due to declining grade of existing major operations, few new projects with meaningful supply and technical and geopolitical challenges for new projects.

### Iluka Zircon (premium and standard) net realised FOB price



# **Global Zircon Use**

### **AMERICAS**

US has diversified end uses in industrial machinery and advanced manufacturing

Brazil and Mexico are major tile manufacturers

### **EUROPE**

Italy and Spain are major ceramic producers

Spain also global hub for ceramic frits, pigment and glazes

Refractory demand from manufacturing and industrial sectors in Germany and France

#### **INDIA**

Small but rapidly growing ceramics market

Foundry and refractory end use in car manufacturing and industrial applications

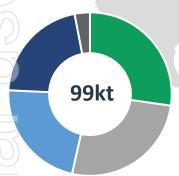
### **CHINA**

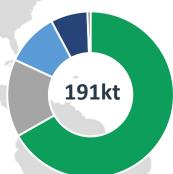
Highly diverse market major tile producer, industrial uses of refractories and foundries including for steel and glass production, diverse specialty applications

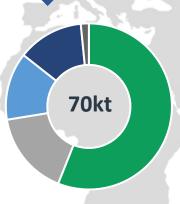
# REST OF ASIA PACIFIC

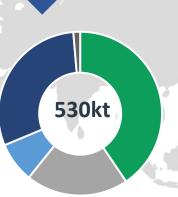
Vietnam, Indonesia and Malaysia large tile producers

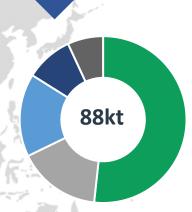
Japan demand from industrial applications













- Urbanisation and growing middle class in Asian economies with preference for tiled flooring
- Increasing array of advanced technological applications
- Ceramics innovation expanding applications and zircon loading
- Growth linked to GDP per capita

Ceramics

Refractory

Foundry

■ Zirconia & Zr Chemicals

Other



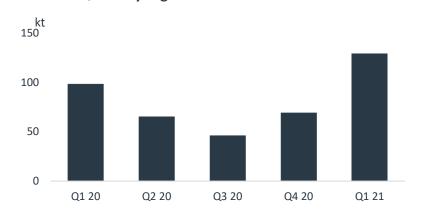
# **High Grade Titanium Feedstock Market Update**



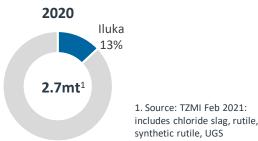
Titanium pigment accounts for around 90% of end use demand and, commencing H2 2020, this market has rebounded strongly

- DIY market has remained strong throughout H2 2020 and in early 2021; traditional peak northern hemisphere painting period still ahead Q2 to Q3
- Pigment producers have announced price increases
- Pigment plant utilisation rates have returned to prepandemic levels and inventory levels are below seasonal norms
- Iluka supplies natural rutile to the welding market where very strong demand is outstripping supply
- High grade feedstock supply is tight with limited new projects in the short to medium term

### **Iluka Quarterly High Grade Titanium Sales**



### **Global High Grade Feedstock Production**



#### **2021 High Grade Feedstock Contracts**

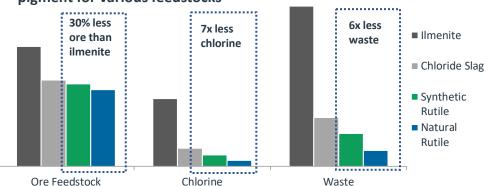
Iluka has 295kt of high grade feedstock subject to take or pay contracts in 2021.

Pricing varies between contracts and typically lags broader market movements by approximately six months.

### **High Grade Feedstock Advantage**

High grade feedstock increase pigment plant utilisation rates and have natural advantage over lower grade feedstocks.

Inputs required and waste produced per tonne of titanium pigment for various feedstocks



# **Operational Flexibility**

Iluka has a portfolio of operations weighted towards premium zircon and high-grade titanium products. Operational configuration is geared to: optimise production in response to market conditions; minimise costs and improve cash flow; and maintain flexibility in line with market conditions

### 2020 adjusted settings

- Narngulu plant reduced zircon production in line with market conditions
- Mine move from Ambrosia to Jacinth at lower unit cost, improving cash flow and delaying further capital spend
- Eneabba commenced production of monazite-zircon concentrate

### Flexibility in early 2021

- Synthetic rutile kiln idled for two months in early 2021 to reduce inventory levels
- Narngulu plant returned to full operations

### Cataby / South West



Large chloride ilmenite rich mine, commissioned in 2019. Ilmenite feeds synthetic rutile kiln with material zircon and rutile production.

### **Jacinth-Ambrosia / Mid West**



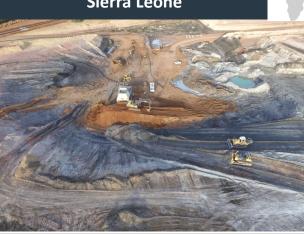
Jacinth-Ambrosia is one of the world's largest zircon mines, discovered and developed by Iluka and operating since 2009. Narngulu mineral separation plant processes Jacinth-Ambrosia and Cataby nonmagnetic products.

### Eneabba



Processing and sale of monazite concentrate from a strategic stockpile. Operations began April 2020 and is now world's highest grade monazite operation. Feasibility study for fully integrated rare earths refinery underway.

### Sierra Leone



World's largest rutile mine, operating since 1960s. Acquired by Iluka in 2016. Sembehun deposit provides potential future production option.

# **Rare Earths Diversification**

Iluka is developing an emerging position in rare earth elements, based on world class assets at Eneabba, Western Australia and Wimmera, Victoria

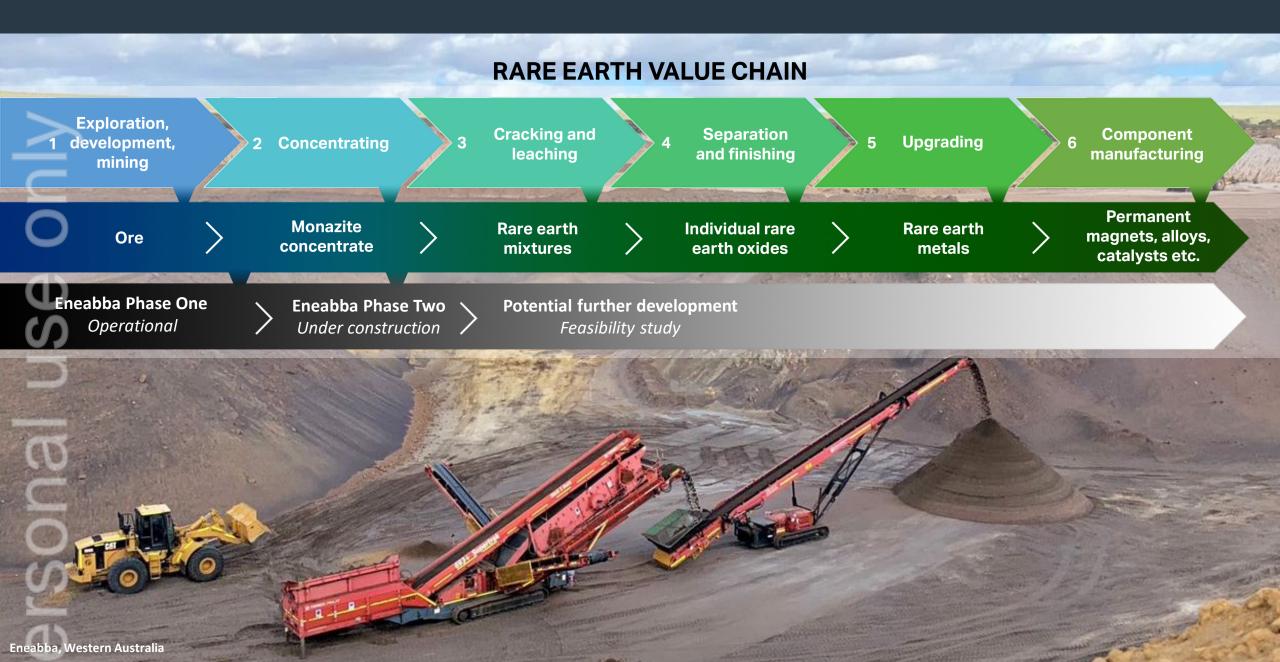
The company has a long history of mining, processing and value addition - rare earths are a logical diversification

# Highlights of Iluka's approach

- Phased development to reduce risk and gain market understanding
- Feasibility study for a fully integrated rare earths refinery underway
- Early engagement with range of external stakeholders
- Support from Australian Government¹

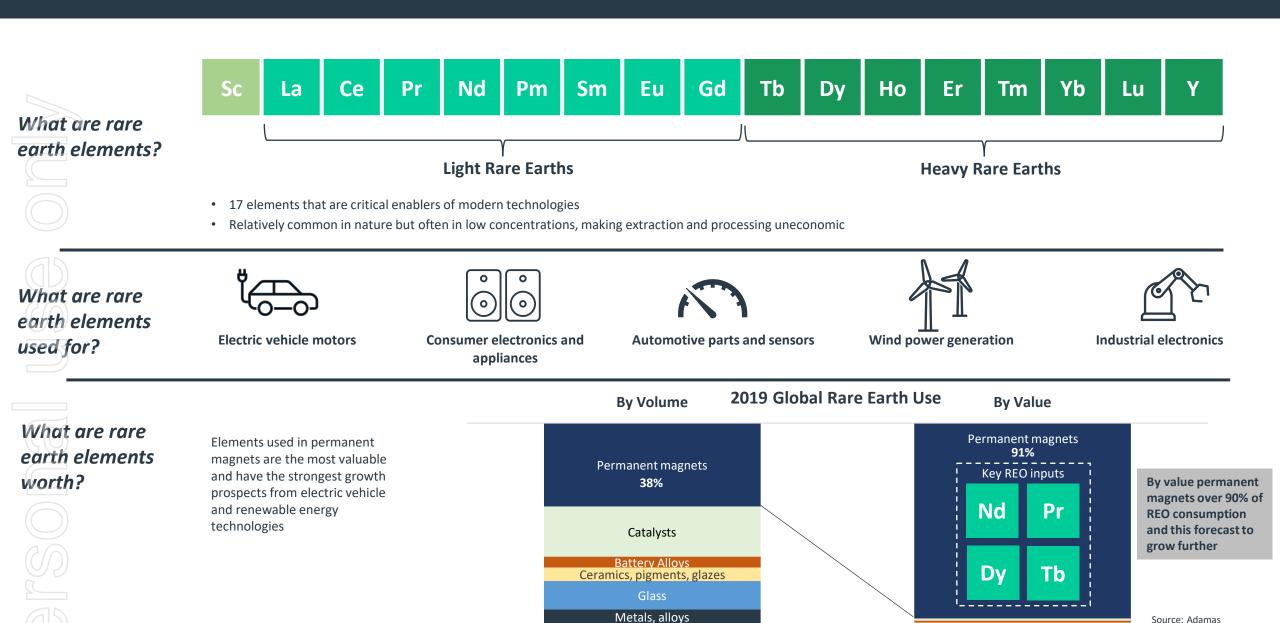


# **Rare Earths Diversification**



Intelligence

# **Rare Earth Markets Overview**



Other

# **Eneabba Deposit Assemblage**



Eneabba is the highest grade operational rare earths deposit (stockpile) globally with high assemblage of valuable neodymium and praseodymium.

#### **Eneabba Rare Earth Oxide Elements and Value** % of Rare Earth Rare Earth Oxide % of Rare Earth Price<sup>2</sup> **Oxide Value** Oxide Assemblage<sup>1</sup> (May 2021 US\$/kg) Lanthanum Lanthanum 22 Light rare earths metal used in Cerium 45 2 <u>Prase</u>odymium permanent magnets (electric vehicle motors, wind turbines) Praseodymium 82 and advanced metal alloys, glass Neodymium 17 88 polishing and catalyst markets. Samarium 2 Valuable neodymium and Europium <1 31 praseodymium account for 54 Gadolinium ~70% of monazite value Neodymium Terbium 1,351 <1 **Heavy** rare earths and Yttrium, Dysprosium <1 445 are also used in magnets and Holmium n/a <1 Erbium n/a <1 Gadolinium Thulium n/a <1 Terbium Ytterbium n/a High contribution from <1 valuable 'heavy' rare earths Lutetium <1 n/a Dysprosium Yttrium 4 6 Total 100

Source: Iluka and Argus

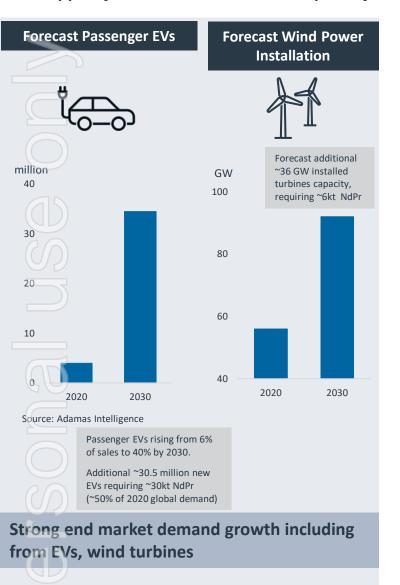
<sup>1.</sup> The estimated Ore Reserve for the Eneabba Rare Earth Stockpile is 0.96mt containing 17.1% monazite + xenotime (rare earth bearing minerals).

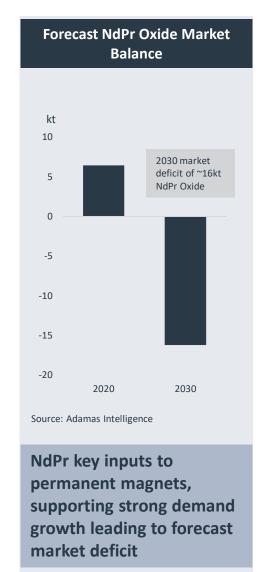
The rare earth oxide assemblage is the rare earth assemblage of the monazite plus xenotime expressed as a percentage distribution of rare earth metals as oxides (REO).

<sup>2.</sup> Historical prices shown as a guide only and not an indicator of potential future prices.

## **Rare Earth Market Outlook**

### Support for rare earth demand and prices from electrification of transport and renewable energy technologies







Monazite price and basket price of Eneabba material (~70% NdPr) move

in tandem...recent gains in NdPr prices forecast to be sustained,

supported by strong growth in demand

# **Eneabba Production and Financial Parameters**

		Phase 1 <sup>1</sup>	Phase 2 <sup>1</sup>	
	Сарех	<\$10 million	~\$35 million	
	Average annual production cash costs	~\$4 million	\$35-40 million	
	Payback period	~6 months	<1 year	
	Average annual production	~50ktpa 20% monazite-zircon concentrate	16-20ktpa 90% monazite concentrate 7-9ktpa zircon, ~20ktpa ilmenite, ~1ktpa HYTI90	
	First production	April 2020	H1 2022	
	Project life	2 years before transitioning to Phase 2 <sup>2</sup>	~10 years²	
	Pricing	Fixed price offtake contract for 50ktpa for 2 years Price received reflects contained monazite, less processing cost and margin for processor. Zircon component sold by Iluka	Under negotiation with customers	

1. All values approximate. Production figures stated as estimated recovered mineral in the concentrate. Payback period based on externally sourced long term monazite price forecast and internal mineral sands prices

2. Based on Ore Reserve and production rates given. ASX release "Eneabba Mineral Sands Recovery Project Ore Reserve Estimate" 18 Feb 2020, available at <a href="www.iluka.com">www.iluka.com</a> Iluka confirms that it is not aware of any new information or data that materially affects the information in the original market announcement and that all the material assumptions and technical parameters underpinning the Ore Reserve estimate have not materially changed.



# **Project Pipeline**

The company develops and progressively gates projects towards execution subject to:

- i. improving confidence and satisfaction with the risk-return attributes;
- ii. continued strategic alignment; and
- iii sequencing to take advantage of economic and market outlook.

Region	Mineral Resource <sup>1</sup>	ASSESS Scoping Study	SELECT Preliminary Feasibility Study	DEVELOP Definitive Feasibility Study	EXECUTE Project execution	PRODUCING Operate and maximise
Eucla Basin	345Mt @ 4.8% HM for 16.6Mt In Situ HM		Atacama			Jacinth- Ambrosia
Murray Basin	195Mt @ 17.2% HM for 33.4Mt In Situ HM		Wimmera Balranald			
Wid West / South West WA	986Mt @ 5.6% HM for 54.9Mt In Situ HM	South Depo			Eneabba (Phase 2)	Eneabba (Phase 1)
Sierra Leone	715Mt @ 1.1% Rutile for 7.9Mt In Situ Rutile		Sembehun			Lanti Gangar
	Stage description:	Determine what it could be	Determine what it should be	Determine what it will be	Deliver the project	Grow and improve
	Estimate Accuracy Range (at end of phase):	-30% to +60%	-15% to +30%	-10% to +15%	n/a	n/a

1. Refer to the 2020 Annual Report for additional information. The Mineral Resource (MR) information on this indicative growth pipeline summary is extracted from the company's previously published MR statements and are available at: <a href="www.iluka.com.au">www.iluka.com.au</a>. Iluka confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources or Ore Reserves, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Iluka confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement. All Mineral Resource figures are estimates. This slide should be read in conjunction with disclaimers and compliance statement on slide 2.

# **Project Pipeline**





Balranald and Nepean are two rutilerich deposits. Owing to their depth, Iluka is progressing a novel, internally developed, underground mining and backfilling technology.

Third technology trial completed and confirmed effectiveness of the underground mining method. Work has commenced to scope the Definitive Feasibility Study (DFS).

### Wimmera, Victoria

Wimmera is a large-scale deposit with the potential to produce ceramicgrade zircon and rare earth products.

Project work is focussed on finding a processing solution to remove impurities from the zircon in the deposit. Iluka is sufficiently encouraged with results of its test work and is now refining its flow sheet to focus on value and efficiency.

If this technology proves successful it is likely applicable to other types of challenging zircon beyond Wimmera / Western Victoria (including, for example, in converting Iluka's stocks of chemical zircon to premium grade).

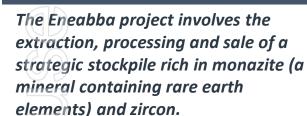
### Sembehun, Sierra Leone

The Sembehun group of deposits are situated 20 to 30 km north-west of the existing Sierra Rutile operations. Sembehun is one of the largest and highest quality known rutile deposits in the world.

A hydraulic mining trial underway. The results of this will help to determine the development pathway for the deposit.





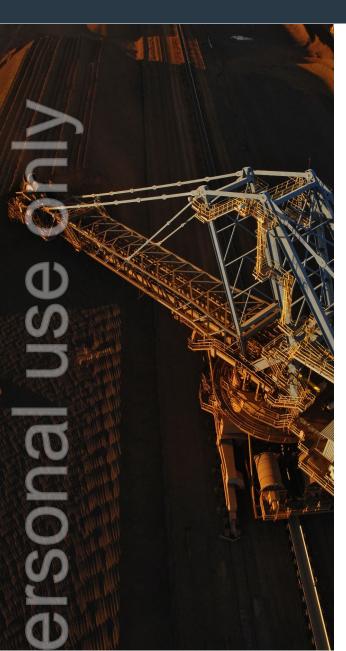


Eneabba Phase 1 delivered and operating. Phase 2 in execute and due for completion H1 2022. Feasibility study for fully integrated rare earths refinery underway – key elements to be completed by late 2021.





# **Deterra Royalties Holding**



Iluka holds a 20% stake in Deterra Royalties (ASX:DRR), the largest ASX-listed resource focused royalty company. Deterra Royalties was created from the demerger of Iluka's royalty business in October 2020.



### Highlights of Iluka's Deterra Royalty holding

#### World class royalty:

- Deterra Royalties holds royalty over BHP's Mining Area C iron ore mine in Western Australia
- Sales from Mining Area C were 54mdmt in 2020 with royalty revenue of A\$95m (100% contribution)

#### **Organic growth:**

- Production from Mining Area C is set to more than double with commencement of South Flank project (royalty payments will be dependent on iron ore prices)
- South Flank commissioning activity on track to commence June quarter 2021<sup>1</sup>

### **Dividend policy:**

 Deterra Royalties dividend policy is 'Intent to pay out 100% of NPAT, franked to the maximum extent possible'

#### Cash flow to Iluka:

 Iluka receives dividends based on its 20% stake, boosting free cash flow

#### Mining Area C sales volumes and royalty Mdmt, A\$ 160 140 120 Mining Area C 100 2020 royalty production post payments A\$95m South Flank ramp 80 up ~140 mdmt 60 2020 iron ore sales 40 from Mining Area C 20 54 mdmt 2023 2020 South Flank ramp up

# Deterra Royalties cornerstone asset – Mining Area C royalty

Mining Area C is an iron ore mine operated by BHP in Western Australia. The royalty terms are:

- one-off \$1 million per 1 million tonne increase in annual production
- ongoing 1.232% of revenue from MAC Royalty Area

1. BHP Operational Review March 2021

