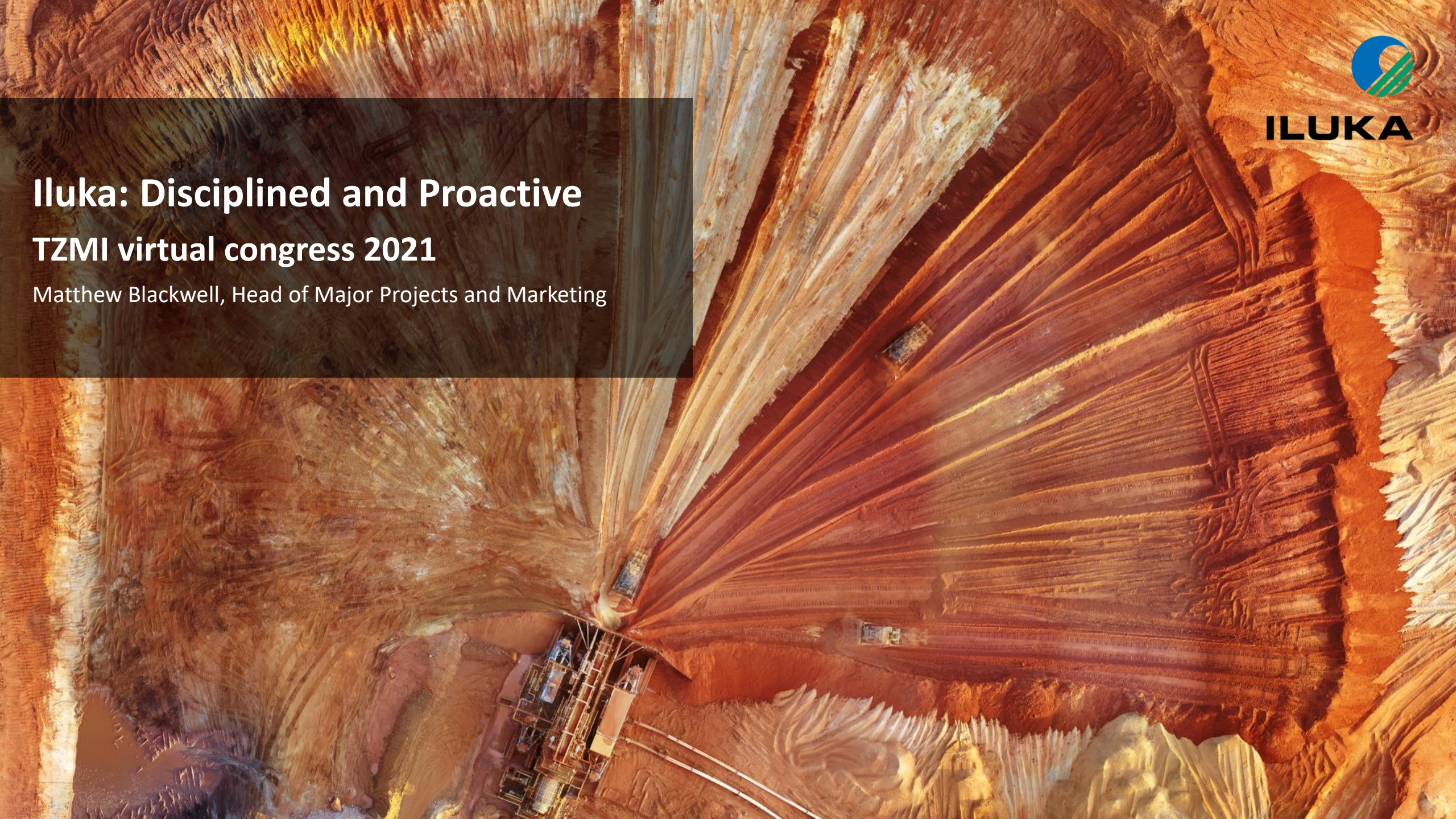


Iluka: Disciplined and Proactive

TZMI virtual congress 2021

Matthew Blackwell, Head of Major Projects and Marketing

ILUKA

Disclaimer and compliance statement

This presentation has been prepared by Iluka Resources Limited (Iluka). By accessing this presentation you acknowledge that you have read and understood the following statement.

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.

This information is based on Iluka forecasts and as such is subject to variation related to, but not restricted to, economic, market demand/supply and competitive factors. It is Iluka's approach to modify its production settings based on market demand, and this can have a significant effect on operational parameters and associated physical and financial characteristics of the company.

Forward Looking Statements

This presentation contains certain statements which constitute "forward-looking statements". Often, but not always, forward looking statements can generally be identified by the use of forward looking words such as "may", "will", "expect", "plan", "believes", "estimate", "anticipate", "outlook" and "guidance", or similar expressions, and may include, without limitation, statements regarding plans; strategies and objectives of management; anticipated production and production potential; estimates of future capital expenditure or construction commencement dates; expected costs or production outputs; estimates of future product supply, demand and consumption; statements regarding future product prices; and statements regarding the expectation of future Mineral Resources and Ore Reserves.

Where Iluka expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and on a reasonable basis. No representation or warranty, express or implied, is made by Iluka that the matters stated in this presentation will in fact be achieved or prove to be correct.

Forward-looking statements are only predictions and are subject to known and unknown risks, uncertainties, assumption and other important factors that could cause the actual results, performances or achievements of Iluka to differ materially from future results, performances or achievements expressed, projected or implied by such forward-looking statements. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date thereof. Such risks and factors include, but are not limited to: changes in exchange rate assumptions; changes in product pricing assumptions; major changes in mine plans and/or resources; changes in equipment life or capability; emergence of previously underestimated technical challenges; increased costs and demand for production inputs; and environmental or social factors which may affect a licence to operate, including political risk.

Capital estimates include contingency and risk allowances commensurate with international estimating classification systems.

To the extent permitted by law, Iluka, its officers, employees and advisors expressly disclaim any responsibility for the accuracy or completeness of the material contained in this presentation and exclude all liability whatsoever (including in negligence) for any loss or damage which may be suffered by a person as a consequence of any information in this presentation or any error or omission therefrom. Iluka does not undertake to release publicly any revisions to any forward-looking statement to reflect events or circumstances after the date of this presentation, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.

No independent third party has reviewed the reasonableness of the forward looking statements or any underlying assumptions.

Iluka cautions against reliance on any forward-looking statements or guidance, particularly in light of the current economic climate and the significant volatility, uncertainty and disruption caused by COVID-19.

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 previously announced to ASX on 25 February 2021 in 2020 Annual Report, on 18 February 2020 in Eneabba Mineral Sands Recovery Project Ore Reserve Estimate, 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 www.iluka.com/investors-media/asx-disclosures. 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.

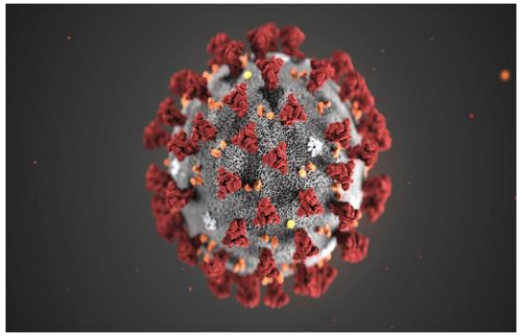
Production outlook

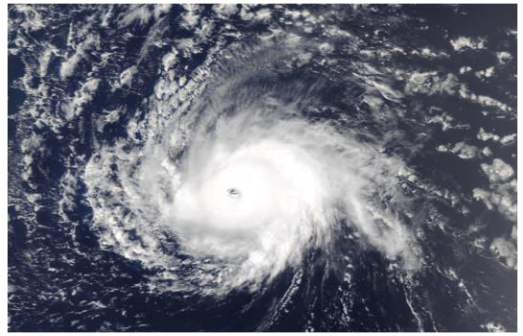
Production outlook and the basis thereof are noted within the relevant disclosure. The outlook included in this presentation is indicative only and should not be construed as guidance. The information is subject to changes in market and operating conditions; political risk; and any significant unplanned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

2021 – Industry challenges continue

A combination of both existing and emerging challenges continue to impact our industry

- Covid pandemic
- Logistics challenges
- Climate change and severe weather
- Escalating sovereign risks
- Declining grades at existing mines
- New projects delayed





Iluka's commitment to sustainability

Key pillars of Iluka's sustainability approach

- Health and safety
- Our people
- Our communities
- Environmental stewardship
- Governance and integrity
- Value creation

Member of Dow Jones Sustainability Indices Powered by the S&P Global CSA

FTSE4Good

1.7 TRIFR
(H1 2020: 3.2)
(Total Recordable Injury Frequency Rate)

43%
female representation Executive and Board

MSCI ESG RATINGS A
CCC | B | BB | BBB | A | AA | AAA

26%
Indigenous employment at Jacinth-Ambrosia

Zero
major (level 5) environmental incidents

BRONZE 2021 ecovadis Sustainability Rating

Inaugural Modern Slavery Statement

319ha
rehabilitated in H1 2021

Variegated Fairywren, Jacinth-Ambrosia, South Australia

Jacinth-Ambrosia - hybrid power evolution

Iluka commissioned its first solar farm at Jacinth-Ambrosia in Q3 2021 with the plant expected to produce power from Q4 2021. The project is now being used as a template for future developments across Iluka's sites

3.5MW
solar farm

1460MW hours
Forecast production for November and December 2021

Energy from waste
(exhaust recovery)

ETC technology
(electric turbo compounding)

~18%
of consumed power at Jacinth-Ambrosia

5,500 tonnes
of CO_2 expected to be saved per annum

Jacinth-Ambrosia, South Australia

Operational settings

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 non-magnetic products.

Eneabba

Processing and sale of monazite concentrate from a strategic stockpile. Operations began in April 2020 and is now world's highest grade monazite operation.

Further developments involving additional value addition are being progressed.

Sierra Leone

World's largest rutile mine, operating since 1960s. Acquired by Iluka 2016 and expansion projects completed 2019.

Return to maximum production settings in 2021

- Australian operations returned to maximum production settings following decisions in 2020 and early 2021 to manage inventory levels
  - Synthetic Rutile Kiln 2 at Capel returned to full production in Q2 following its idling in Q1
  - Narngulu mineral separation plant returned to full capacity in Q1, processing both Cataby and Jacinth-Ambrosia material
- SRL Operations continue to operate – decision to operate beyond January 2022 pending

Mineral sands markets

Zircon

Result

- Q3 21 YTD sales 266kt (Q3 20 YTD: 142kt)
  - Q3 sales of 89kt (+40% YoY) after Q2 sales of 91kt
- Demand in key markets reflecting a return to pre-pandemic production levels

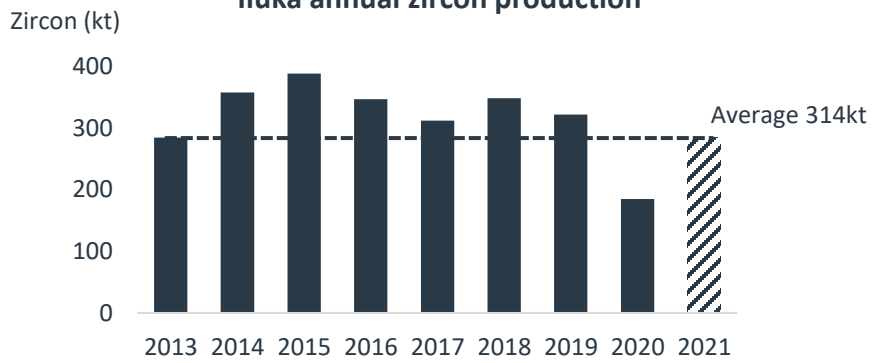
Pricing

- Q3 21 YTD weighted average received zircon (premium and standard) price US$1,372/t
- Zircon sand prices increased US$125/t in Q3, with a further US$120-$170/t increase effective 1 October
  - continued focus on delivering sustainable pricing

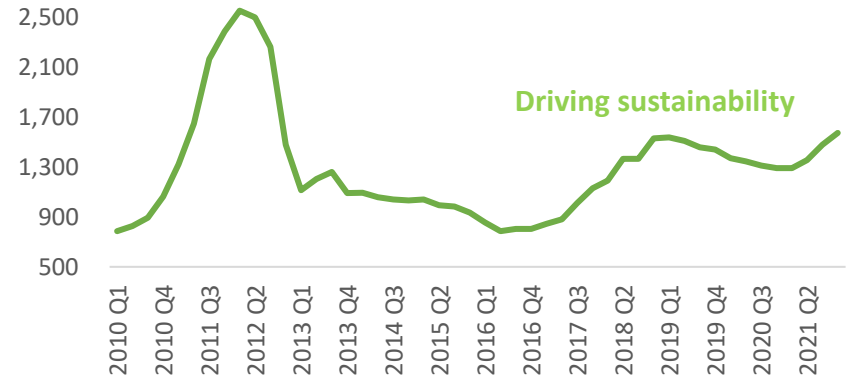
Supply/Demand

- Chinese tile production was steady and tile production rates in key tile producing countries in South America and in Turkey returned to pre-pandemic levels
- Tile production rates in India continue to recover despite exports being negatively impacted by container shortages and subdued domestic tile demand while European tile production continued to outperform
- Overall, the ceramics industry is experiencing sustained growth in sales. However, profitability is being challenged by increasing costs throughout the supply chain
- Ongoing supply-side tightness in the market with Iluka's Q4 21 sales volumes fully committed

Iluka annual zircon production



Iluka zircon sand net realised FOB price USD/t



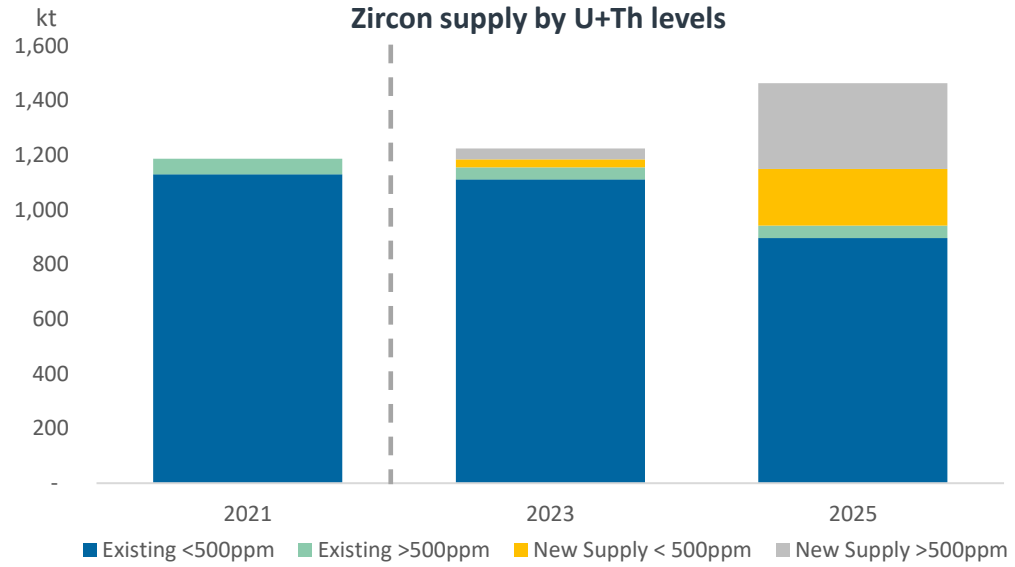
Zircon market – long term market outlook

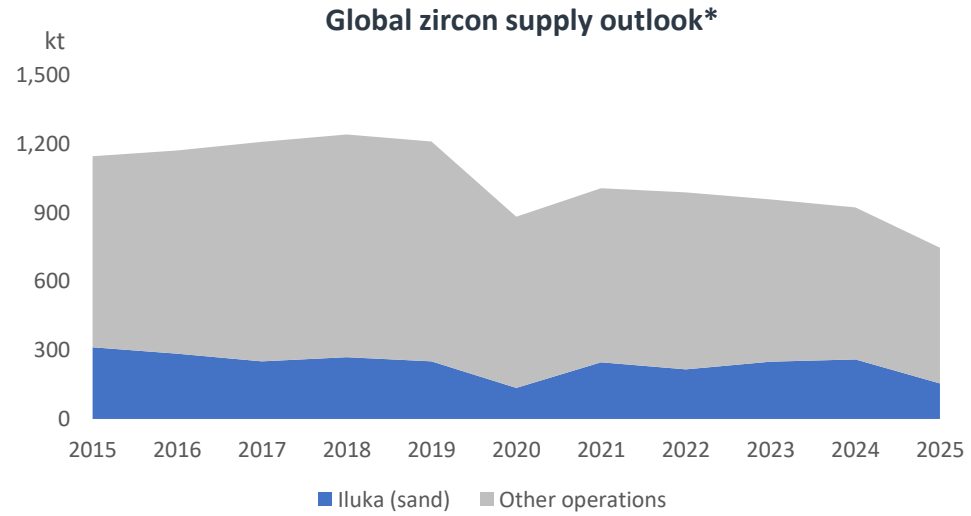
Decreasing supply of low uranium and thorium (U+Th) zircon

- Natural zircon contains uranium (U) and thorium (T) in varying quantities
- China's strict enforcement of radiation limits is impacting some supply
- Supply of low U+Th zircon declining
  - Currently >95% of zircon supply is <500ppm U+Th
  - <45% of potential new projects with zircon <500ppm U+Th
- Absent a processing solution to remove these impurities, the zircon is ineligible for sale into the ceramics market
- Industry responding with new standardised levels

What is Iluka doing?

- Developing technology to unlock deposits
  - Wimmera project in Victoria is focussed on testing and validating a novel zircon processing solution developed by Iluka, the results of which continue to be encouraging
  - If successful, the technology could be applied to unlock other deposits with similar characteristics
- Engaging with customers on product development
- Working with industry bodies and regulators to build understanding of issues
- Maintaining a high level of environmental stewardship





Notes: *Current producers only - no new projects.
Source: Iluka

High-grade titanium feedstocks

Result

- Q3 21 YTD sales 410kt (Q3 20 YTD: 209kt)
  - Q3 sales of 129kt after Q2 sales of 152kt
- Demand in all regions outpacing supply

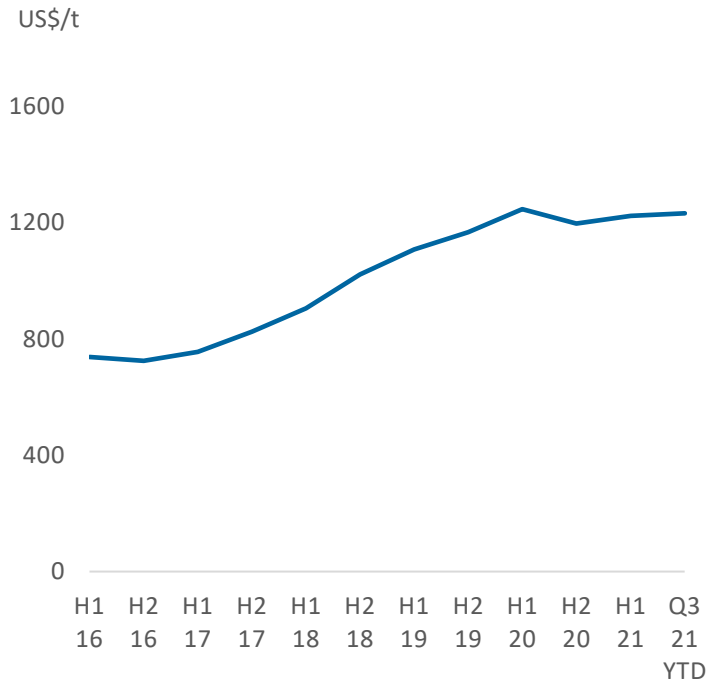
Pricing

- Q3 21 rutile price up 1.5% to US$1,242/t[1]
- Pigment pricing momentum continues with increases of US$175-200/t announced by all major producers for Q4

Supply/Demand

- Chinese Production of pigment and titanium feedstocks impacted by unprecedented logistics costs associated with container shortages
- Pigment inventories well below seasonal norms and long lead times persist as North American and European pigment producers continue to face shortages of chlorine
- Pigment producers are increasingly looking to boost head grades in order to reduce requirements for chlorine, driving increased demand for high grade feedstocks such as synthetic rutile and natural rutile
- All of Iluka's synthetic rutile and natural rutile is under contract for the remainder of 2021

Rutile net realised FOB price US$/t



Notes: 1. Excluded from rutile sales prices is a lower value titanium dioxide product, HYTI, that typically has a titanium dioxide content of 70-90%. This product sells at a lower price than rutile, which typically has a titanium dioxide content of 95%

High-grade titanium feedstock - long term market outlook

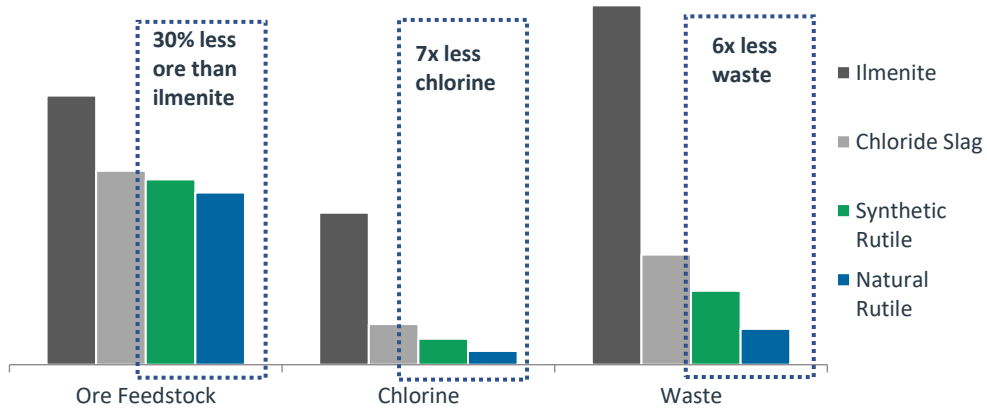
High grade feedstocks essential to pigment and welding industries

- Used to increase capacity utilisation of pigment plants and is an essential input to the blend of feedstocks used in the pigment industry
- Less chlorine consumption per unit of pigment output and less waste produced
- Rutile essential for production of electrodes in welding industry
- Long term demand dynamics reflect growing Chinese pigment sector and increasing environmental emphasis
- High grade feedstock from existing producers is declining and there is limited new supply from projects due to:
  - high capital cost of building new upgrading facilities
  - low rutile assemblage of new projects
  - increasing jurisdictional risk considerations

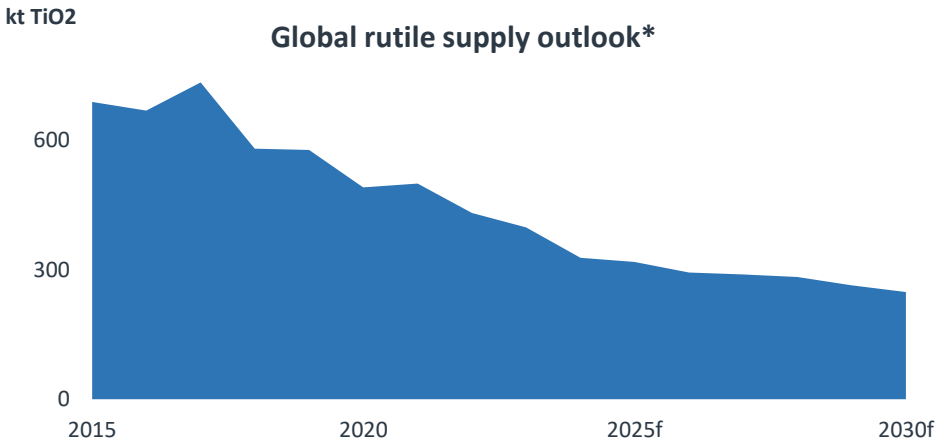
What is Iluka doing?

- Trialling a novel, internally developed, underground mining technology
  - Balranald project in New South Wales commencing DFS
  - Anticipated 8-14 year mine life
- Sembehun – one of the largest and highest quality known rutile deposits
  - Seeking strategic investment partner
- Additional deposits in the South West of Western Australia
- Synthetic Rutile Kiln 1 (SR1) restart

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



Global rutile supply outlook*



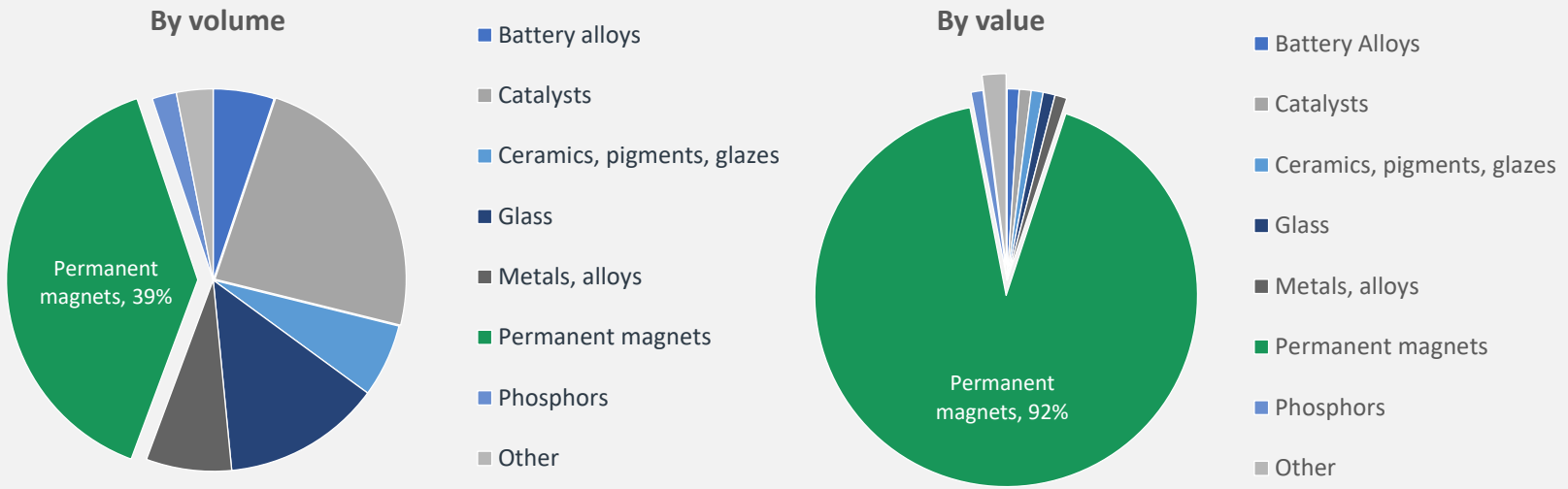
Notes: *Current producers only - no new projects.
Source: Iluka

Rare earths markets

Rare earths – increasing global demand

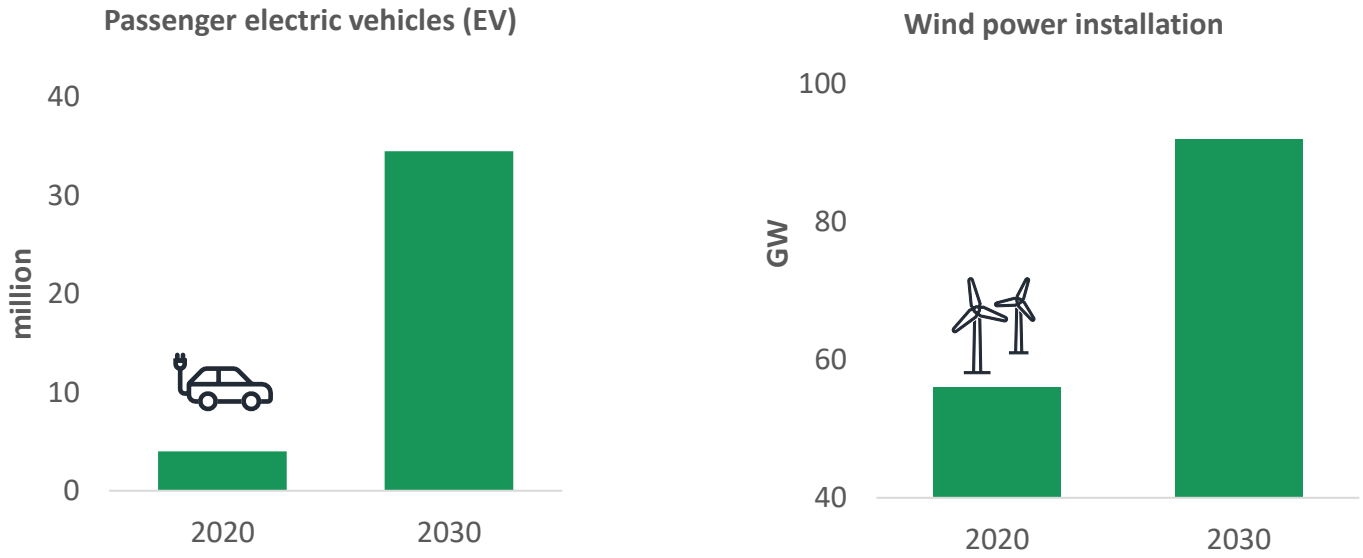
2019 rare earth use

- By volume permanent magnets accounted for nearly 40% of global consumption in 2019
- By value permanent magnets accounted for over 90% of consumption and this is forecast to grow further



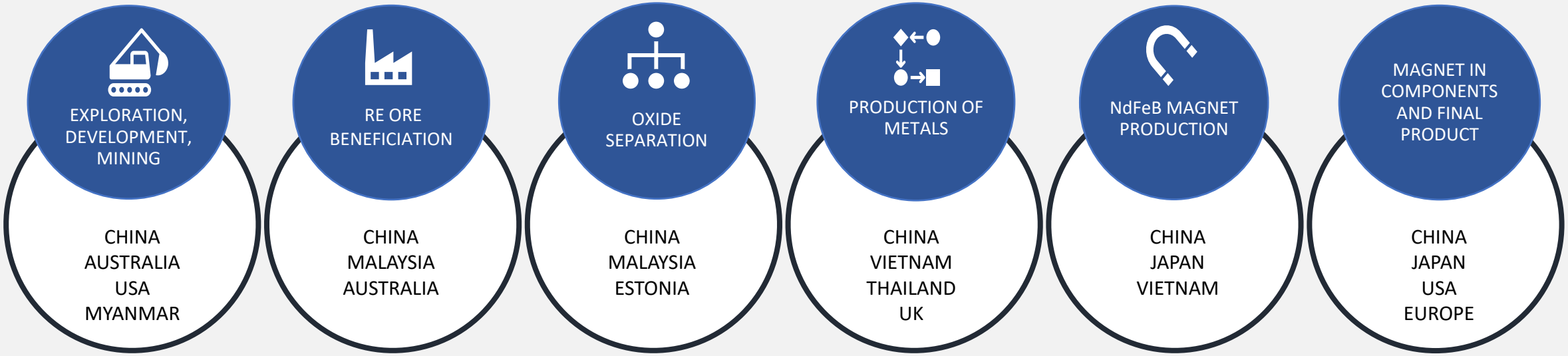
Forecast rare earth demand

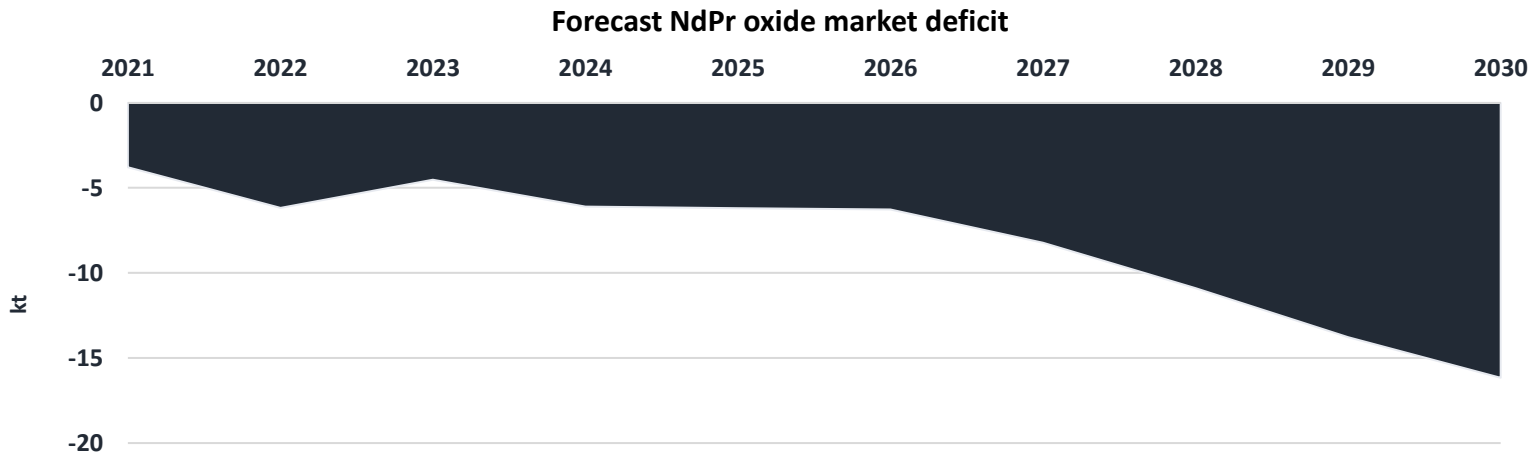
- Strong end market demand growth from electric vehicles and wind turbines
- Rapid growth in rare earth oxide demand forecast – a key input to permanent magnets used in EVs and wind turbines



Source: Adamas Intelligence

Rare earths – global magnet supply chain





Source: Adamas Intelligence, Roskill (2021). Department of Industry Science, Energy and resources (2021), MARC Group (2021)

Projects

Eucla Basin, South Australia

Project pipeline

The company develops and progressively gates projects towards execution subject to: improving confidence and satisfaction with the risk-return attributes; continued strategic alignment; and sequencing to take advantage of economic and market outlook

Region	Mineral Resource[1]	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		Euston; Wimmera	Balranald		
Mid West / South West WA	986Mt @ 5.6% HM for 54.9Mt In Situ HM		South West Deposits; Eneabba (Phase 3)		SR1 Kiln Restart; Eneabba (Phase 2)	Eneabba (Phase 1); Cataby
Sierra Leone	715Mt @ 1.1% Rutile for 7.9Mt In Situ Rutile		Sembehun			Lanti; Gangama
	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*

No Resource estimate | Resource estimate | Reserve estimate | Other

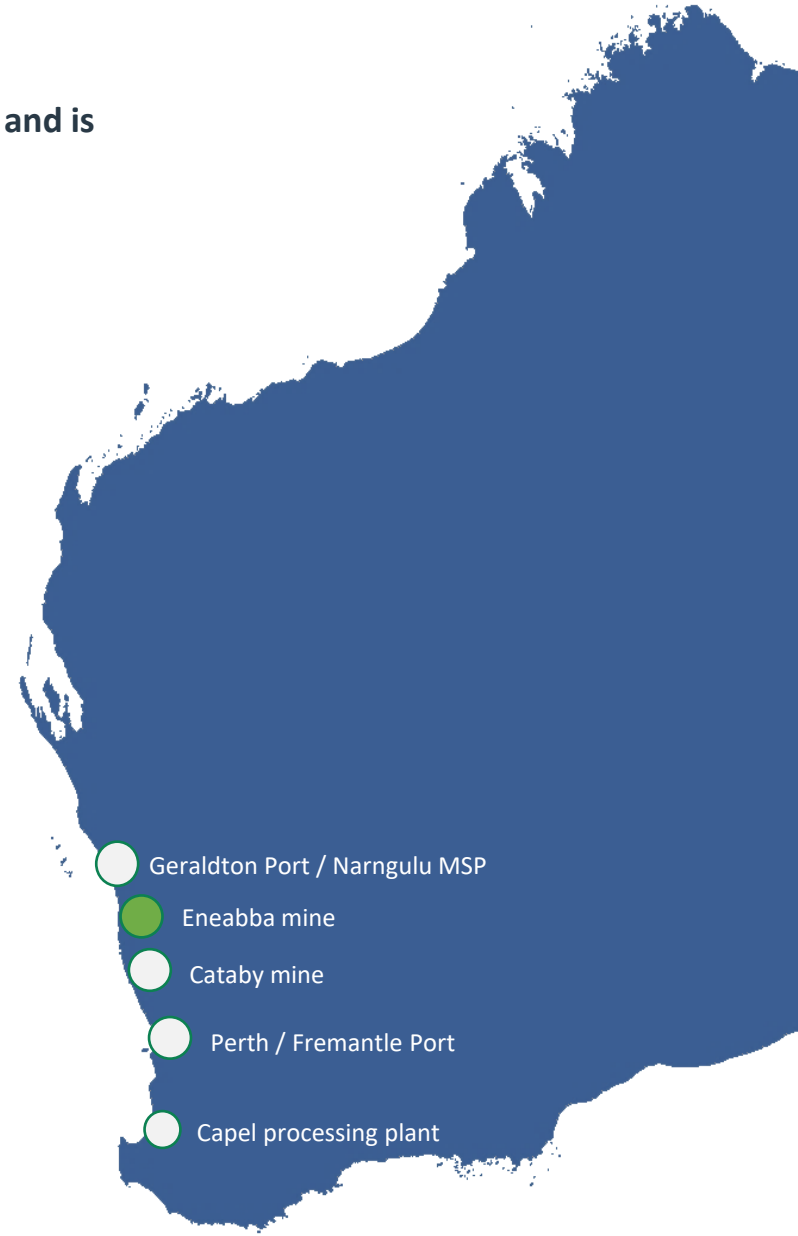
1. Refer to the 2020 Annual Report for additional information. The Mineral Resource (MR) information on this indicative growth pipeline summary is extracted from the company's previously published MR statements and are available at: www.iluka.com.au . Iluka confirms that it is not aware of any new information 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.

Rare earths

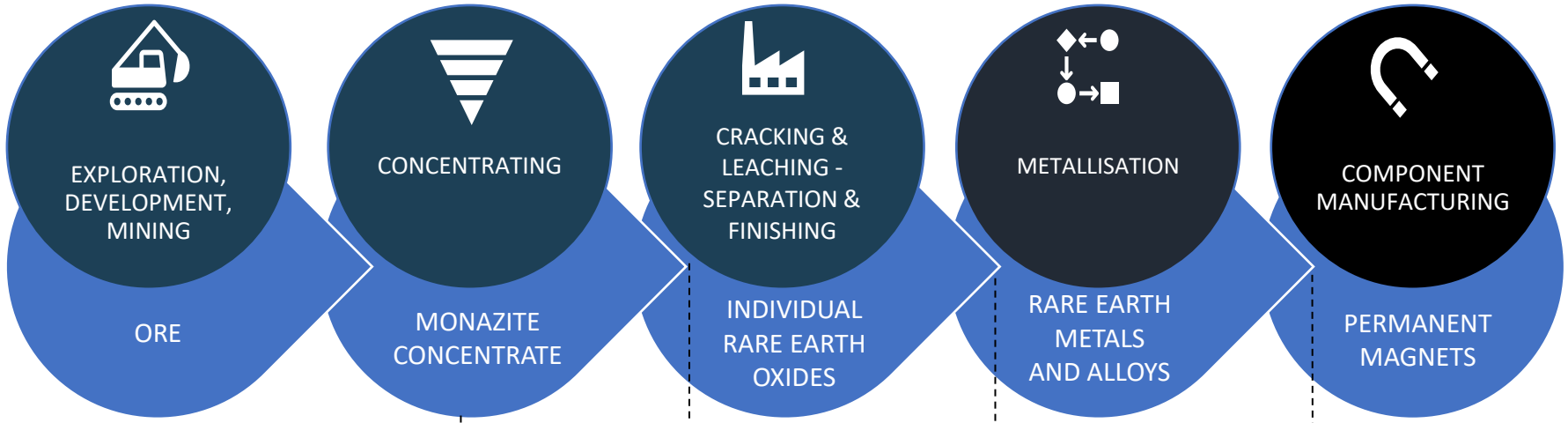
Superior rare earth feedstock

Iluka's Eneabba project in Western Australia, is the world's highest grade operational rare earths deposit and is capable of providing direct feed to a rare earths refinery

- Monazite is a natural mineral sand product and a low cost output from Iluka's current operations, providing an environmentally and economically sustainable source of rare earths
- Iluka's monazite is stockpiled at a former mine-void in Eneabba, Western Australia
- Iluka's monazite is rich in rare earth oxides, neodymium (Nd) and praseodymium (Pr), which are essential to achieve global environmental targets through electrification of transportation and power generation
- The product is readily available at the surface and requires minimal processing
- Iluka has approached the Eneabba project through a phased development



Eneabba development – A phased approach



Eneabba Phase 1 – Screening Plant
Operational: 20% monazite concentrate

Eneabba Phase 2 – Concentrator
Under construction: 90% monazite concentrate

Eneabba Phase 3 – Fully Integrated Refinery
Feasibility study: production of separated rare earth oxides in Australia

Potential for rare earth metallisation in Australia

Domestic rare earth supply could support further development of domestic manufacturing industry and renewable energy technology

Eneabba Phase 3

A fully integrated rare earths refinery

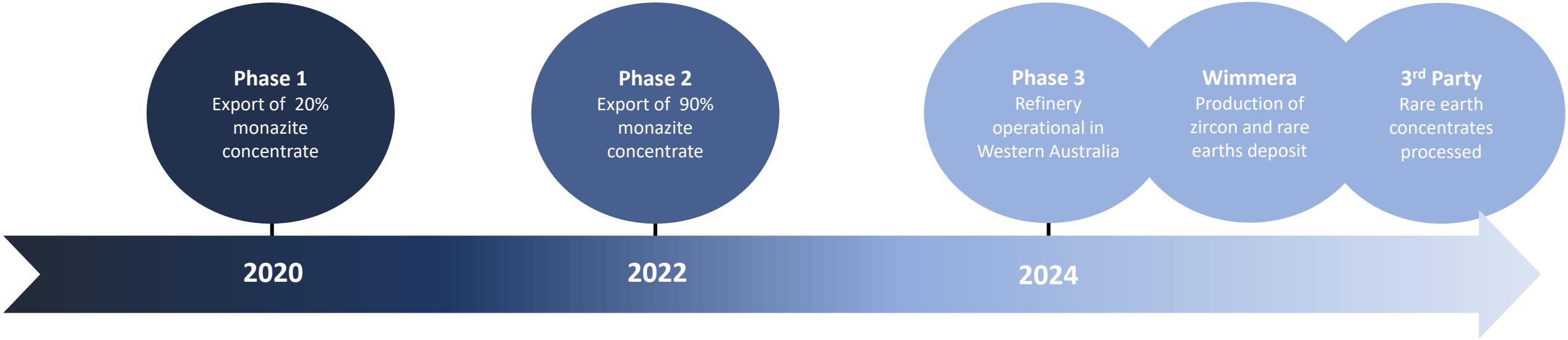
- ✓ Domestic production of rare earth oxides
- ✓ Advantaged position utilising Iluka's existing Eneabba monazite stockpile
- ✓ If developed, Iluka's Wimmera project would serve as a long life, multi-decade rare earth concentrate feed source

Diversified supply of rare earths

Iluka's Australian refinery would eliminate the need to send concentrate elsewhere for final processing, streamlining the supply of these critical minerals

- Continued government support for Iluka's mineral supply and downstream processing capabilities
- Process design incorporates flexible systems to accommodate low grade concentrate supplies from other rare earth projects, avoiding the risk of Australia developing multiple sub-scale refineries
- Flexibility in the hydrometallurgical leaching, purification, separation circuits and waste handling facilities accommodates the variety of rare earth assemblages in concentrates

Rare earths timeline



Mineral sands

Cataby, Western Australia

Synthetic Rutile Kiln 1 (SR1) restart, Western Australia – execute decision

SR1 and SR2 kilns and SR2 stack, Capel, Western Australia

A capital efficient, incremental synthetic rutile production response, to deliver increased high grade titanium dioxide feedstock in supply constrained market

Project overview

- SR1 kiln is located at Capel, Western Australia, the same site as SR2
- SR1 has been on care and maintenance since 2009
- Restarting SR1 represents a low capital expenditure, low risk opportunity to produce an additional 110ktpa of synthetic rutile, with speed to market in light of industry supply constraints
- Initial SR1 campaign ilmenite feedstock secured from internal and external sources

Recent developments

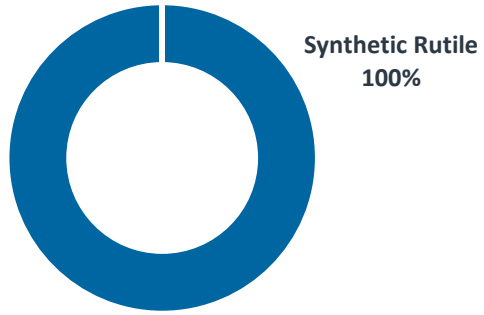
- Board approval to execute project received in August
- Equipment ordered for refurbishment, engineering for restart complete

Outlook for H2 2021

- Verify detailed planning and design of refurbishment scope and commence works
- Advance engagement with customers

Parameters	
Production rates	~110ktpa synthetic rutile
Capital expenditure	~$38 million Payback period of < 1 year
Timing	Upgrading feedstock in Q4 2022

Indicative annual production mix



Balranald, New South Wales – definitive feasibility study decision


Balranald, New South Wales

Third technology trial completed and confirmed effectiveness of the underground mining method; definitive feasibility study (DFS) approved

Project overview

West Balranald is a rutile-rich deposit in the northern Murray Basin, New South Wales. Owing to their relative depth, Iluka is assessing the potential to develop these deposits via a novel, internally developed, underground mining technology

Recent developments

$23 million DFS funding approved by Board in August

Iluka completed the third trial (T3) of the underground mining method in late 2020. The trial confirmed the effectiveness of the underground mining method and validated key elements of the mining unit design. Growing confidence in the application of the underground technology was a key factor in DFS decision

Outlook for H2 2021

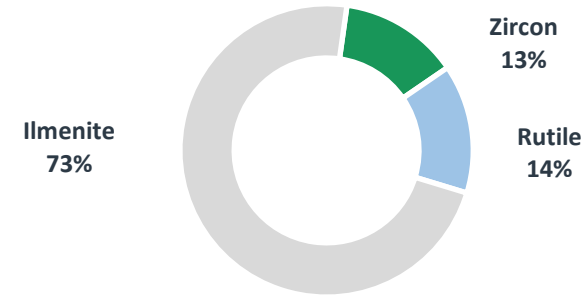
Awarding of DFS engineering contracts

Engagement with local stakeholders

DFS parameters and basis of design

Production rate	Iluka aims for each mining unit to produce ~180-200ktpa HMC per unit[1,2]
Mine life	Anticipated to be 8-14 years (pending production scale-up time)[1,2]
Capex	DFS to determine capex requirements in advance of any execute decision
Timing	FID H2 2022 Potential commissioning 2024

Resource assemblage (VHM)



1. HMC production subject to study outcomes, mine plan and HM grade.
2. The Mineral Resource for West Balranald has been previously announced to the ASX on 20 February 2017 in the announcement "Updated Mineral Resource and Ore Reserve Statement". 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 has not materially changed.

Wimmera, Victoria – move to larger-scale piloting

Wimmera, Victoria

Wimmera is a large-scale deposit with the potential to produce ceramic-grade zircon and rare earth products. Project work is focussed on finding a processing solution to remove impurities from the zircon

Project overview

The Wimmera project involves the mining and beneficiation of a fine grained heavy mineral sands ore body in the Victorian Murray Basin for the potential long-term supply of zircon and rare earths

One characteristic shared by the fine-grained mineral sands deposits located in Western Victoria (those held by Iluka and other project proponents) is higher levels of impurities in their zircon. Absent a processing solution to remove these impurities, the zircon is ineligible for sale into the ceramics market

The rare-earth bearing minerals within the Wimmera deposit are very similar to Iluka's stockpiled minerals at Eneabba (though slightly higher in the heavier rare earths dysprosium and terbium); and would supplement feed to the company's potential downstream refining activities at Eneabba in future years

Recent developments

Iluka's study work for Wimmera is focussed on testing and validating the novel zircon processing solution, the results of which continue to be pleasing. The company is also progressing baseline environmental studies

Outlook for H2 2021

Equipment to pilot the zircon processing solution on a larger scale is expected to be commissioned in Q4 2021. The processing of Wimmera's rare earth minerals through a potential Eneabba refinery would simplify the Wimmera development

Iluka – disciplined and proactive

Iluka has remained focused and steadfast throughout this challenging environment:

- Prioritising the health and well being of our employees
- Matching production to genuine demand in 2020 and ramping up assets to meet increasing demand through 2021
- Continuing to invest in and progress our project pipeline
- Maintaining our disciplined approach and proactively preparing our business for the future

Narngulu, Western Australia

Jacinth-Ambrosia, South Australia