

# **Boonanarring Mineral Sands Project: Marching to Production**



Finance News Network 19 June 2018 Sydney, NSW

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Managing Director
Image Resources NL
ASX: IMA

## **Forward Looking Statements**



This presentation has been prepared by the management of Image Resources NL ("Image", "IMA" or the 'Company') in connection with meetings with investors and potential investors and not as specific advice to any particular party or person. The information is based on publicly available information, internally developed data and other sources. Where any opinion is expressed in this presentation, it is based on the assumptions and limitations mentioned herein and is an expression of present opinion only. This presentation does not constitute or form part of any offer or invitation to sell, or any solicitation of any offer to purchase any shares in the Company, nor shall it or any part of it or the fact of its distribution form the basis of, or be relied on in connection with, any contract or commitment or investment decisions relating thereto, nor does it constitute a recommendation regarding the shares of the Company. Past performance cannot be relied upon as a guide to future performance. Please refer to the back of this presentation for information concerning the calculation of reserves and resources referred to herein, and the consents provided by the respective Competent Persons. For further details on the content of this presentation, please refer to the ASX releases on the Company's website.

Certain statements in this investor presentation, and in subsequent oral statements made by and on behalf of Image, constitute "forward-looking statements" or "forward-looking information" within the meaning of applicable securities laws. Such statements involve known and unknown risks, uncertainties and other factors, which may cause actual results, performance or achievements of the Company, the Boonanarring Project, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements or information. Such statements can be identified by the use of words such as "may", "would", "wold", "will", "intend", "expect", "believe", "plan", "anticipate", "estimate", "scheduled", "forecast", "predict" and other similar terminology, or state that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved. These statements reflect the Company's current expectations regarding future events, performance and results, and speak only as of the date of this investor presentation.

Statements in this investor presentation that constitute forward-looking statements or information include, but are not limited to statements regarding the Boonanarring/Atlas Project: Production, Cashflows, NPV, IRR, construction timelines, life of the mine; funding; and use of proceeds of the Placement.

The forward-looking information and statements also include metal price assumptions, projected capital and operating costs, metal recoveries, mine life and production rates and other assumptions used in the 2017 Bankable Feasibility Study (as hereinafter defined). Readers are cautioned that actual results may vary from those presented. Certain of the factors and assumptions used to develop the forward-looking information, and the risks that could cause the actual results to differ materially, are contained in the Bankable Feasibility Study lodged with the ASX and disclosed on the Company's website at <a href="https://www.imageres.com.au">www.imageres.com.au</a>.

## **Forward Looking Statements**



All such forward-looking information and statements are based on certain assumptions and analyses made by the Company's management in light of their experience and perception of historical trends, current conditions and expected future developments, as well as other factors management believe are appropriate in the circumstances. These statements, however, are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those projected in the forward-looking information or statements including, but not limited to, unexpected changes in laws, rules or regulations, or their enforcement by applicable authorities; the failure of parties to contracts to perform as agreed; changes in commodity prices; unexpected failure or inadequacy of infrastructure, or delays in the refurbishment or development of infrastructure, and the failure of exploration programs or other studies to deliver anticipated results or results that would justify and support continued studies, development or operations. Readers are cautioned not to place undue reliance on forward-looking information or statements.

This investor presentation also contains references to estimates of mineral resources and ore reserves. The estimation of mineral resources is inherently uncertain and involves subjective judgments about many relevant factors. Mineral resources that are not ore reserves do not have demonstrated economic viability. The accuracy of any such estimates is a function of the quantity and quality of available data, and of the assumptions made and judgments used in engineering and geological interpretation, which may prove to be unreliable and depend, to a certain extent, upon the analysis of drilling results and statistical inferences that may ultimately prove to be inaccurate. Mineral resources and ore reserve estimates may have to be re-estimated based on, among other things: (i) fluctuations in zircon, ilmenite or other mineral prices; (ii) results of drilling; (iii) results of metallurgical testing and other studies; (iv) changes to proposed mining operations, including dilution; (v) the evaluation of mine plans subsequent to the date of any estimates; and (vi) the possible failure to receive required permits, approvals and licences.

Although the forward-looking statements contained in this investor presentation are based upon what management of the Company believes are reasonable assumptions, the Company cannot assure investors that actual results will be consistent with these forward-looking statements. These forward-looking statements are made as of the date of this investor presentation and are expressly qualified in their entirety by this cautionary statement. Subject to applicable securities laws, the Company does not assume any obligation to update or revise the forward-looking statements contained herein to reflect events or circumstances occurring after the date of this investor presentation.

## **Company Description and Focus**



#### Image Resources NL **ASX: IMA**

**Emerging mineral sands producer** 

Totally focused on **fast-tracking the development** of its **100%-owned**, high-grade, zircon-rich flagship Boonanarring mineral sands project located 80km north of Perth in Western Australia.

First production targeted for 4<sup>th</sup> QTR 2018.

## CONVENTIONAL, CONVENTIONAL, CONVENTIONAL

Dry open cut mining

Coarse grained mineralisation

Standard suite of products

## **Investor Snapshot**



## Opportunity to invest in a company transitioning from advanced explorer to profitable miner before it realises full valuation

- Company fully funded to positive cashflow
  - \$50M as debt; \$25M as equity
- > Project construction underway (only \$52M project capital<sup>1</sup>)
- Plant and equipment already acquired
- > First production scheduled for 4th QTR 2018 (6-month build)
- Cashflow positive forecast in 1<sup>st</sup> QTR 2019

Notes: 1 – Per bankable feasibility study results announced 30 May 2017

## **Investor Snapshot**



## Opportunity to invest in a company transitioning from advanced explorer to profitable miner before it realises full valuation

- > Binding off-take agreement in place for 100% of production
- Project NPV A\$197 million¹; IRR 104%¹; <2 year payback¹</p>
  - metrics do not include 1 April 2018 zircon price rise
- ➤ Company market cap. A\$114M²
- ➤ Share price \$0.12²

Notes: 1 – Per updated bankable feasibility study results announced 27 November 2017. Image confirms that all the material assumptions from that announcement underpinning the production target and the forecast financial information derived from the production target continue to apply and have not materially changed.

2 - as at 4 June 2018

## **Project Location**





- North Perth Basin in Western Australia
- > 80 km north of Perth CBD
- Proven mineral sands address.
  - Including majors Iluka and Tronox
- Infrastructure rich
  - paved roads, power, gas pipeline water, telecommunications etc.
- Local communities and landowners experienced with, and accepting of, mineral sands mining.



## **Projects Types and Locations**

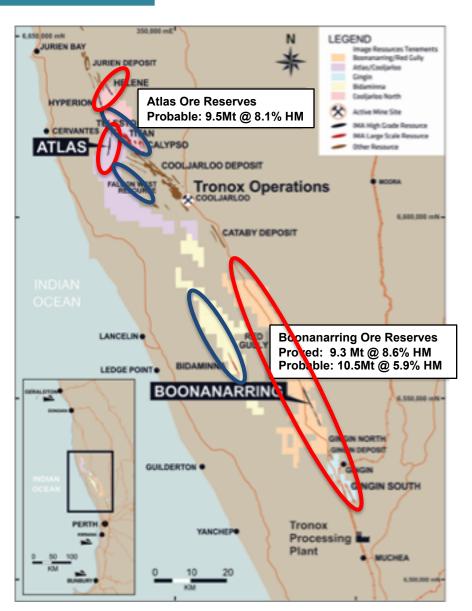


- > 1,000 km² tenements portfolio
- > 100% focus on mineral sands
- Strandline projects (dry mining)



Dredge mining prospects



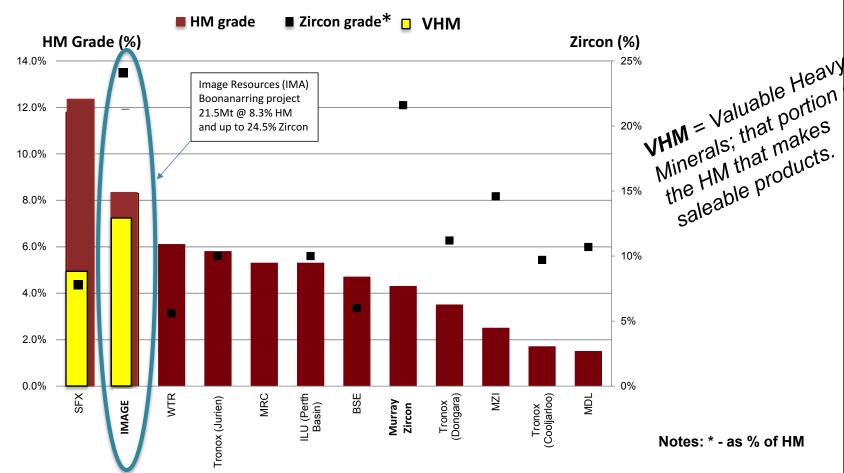


## **Boonanarring Project Comparison**



## High HM and Zircon grades relative to peers

avy s; not all of make ble products.



Source: Released on 4th May 2015 - Morgan's Research Note

### **Ore Reserves**





- > JORC Code (2012) Compliant
- High HM, VHM and very high zircon at Boonanarring

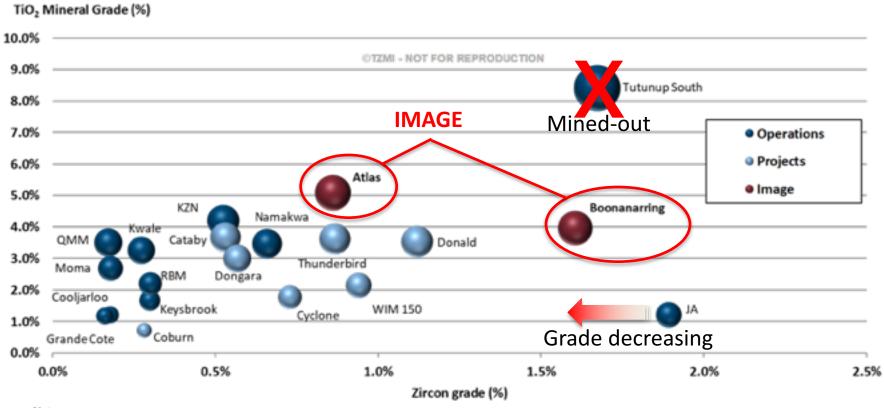
High Grade Ore R	eserves - Stra	ind Deposits; i	n accordanc	e with t	e JORC Cod	de (2012)					
Project/Deposit	Category	Volume	Tonnes	% HM	% Slimes	HM Tonnes	VHM	Ilmenite	Leucoxene	Rutile	Zircon
							(%)	(%)	(%)	(%)	(%)
Boonanarring <sup>2</sup>	Proved	5,008,000	9,344,000	8.6	14.3	803,771	76.081	48.9	1.8	2.2	23.2
Boonanarring <sup>2</sup>	Probable	5,565,000	10,514,00	5.9	17.6	622,429	78.653	52.3	1.8	2.7	21.9
Total Boonanarring		10,573,000	19,858,00	7.2	16.1	1,426,20	77.203	50.4	1.8	2.4	22.7
Atlas <sup>2</sup>	Probable	5,000,000	9,477,000	8.1	15.5	767,637	73.3	50.7	4.5	7.5	100
Total Atlas		5,000,000	9,477,000	8.1	15.5	767,637	73.3	50.7	4.5	7.5	10.6
Total Ore Reserves	·	15,573,000	29,335,000	7.5	15.9	2,193,837	75.8	50.5	2.7	4.2	18.4

#### 2.COMPLIANCE STATEMENT Boonanarring/Atlas Reserve

The Ore Reserves statement has been compiled in accordance with the guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code – 2012 Edition). The Ore Reserves have been compiled by Jarrod Pye, Mining Engineer and full-time employee of Image Resources, under the direction of Andrew Law of Optiro, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Law has sufficient experience in Ore Reserves estimation relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Law consents to the inclusion in the report of the matters compiled by him in the form and context in which it appears.

## **Ore Reserves Comparison**





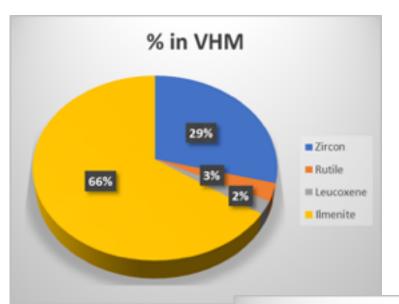
#### Note:

- TiO<sub>2</sub> mineral grade represents the in-ground grade of titanium minerals (ilmenite, leucoxene and rutile)
- Zircon grade represents the in-ground grade of zircon
- Size of bubble represents the VHM grade (ilmenite, leucoxene, rutile and zircon).
- Data includes Proved and Probable Ore Reserves.
- Hard rock deposits are excluded from the analysis

Source: TZMI; May 2017

## **Products and Prices**









Notes: VHM assemblages and commodity prices are estimates based on Boonanarring project heavy mineral concentrate product.

## **Bankable Feasibility Study**



## **Base Assumptions**

- Start mining at Boonanarring
- Dry, open-cut mining
- Production rate 500 dry tonnes per hour
  - 3.7M dry tonnes per year
- Conventional gravity separation using spirals
- Product: Heavy Mineral Concentrate (HMC)
  - Production rate: avg. approx. 220K tonnes/annum
  - Truck to Bunbury for bulk shipments to China

## **Bankable Feasibility Study**



## **Key Financial Metrics**

<b>Original</b>	BFS*	Updated BFS**

Pre-Tax NPV (@ 8%)

A\$135M

**A\$197M** 

Pre-Tax IRR

64%

104%

Payback period (months)

22

16

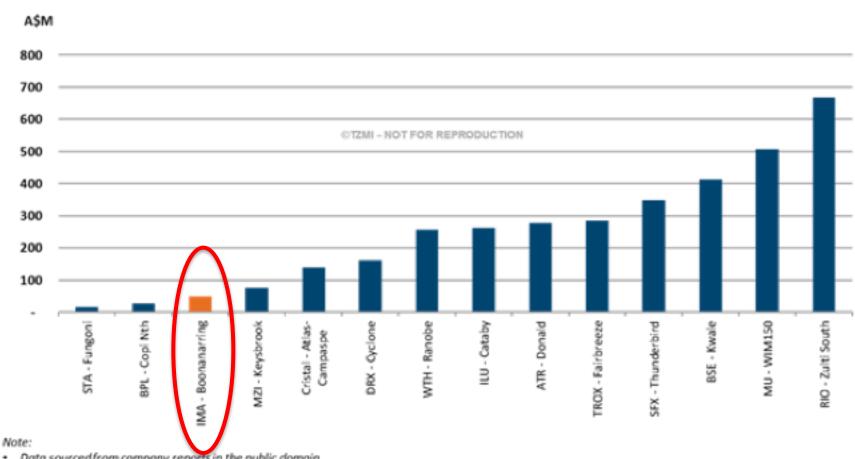
- Mine life 8+ years
- Project capital cost A\$52M
  - includes ~\$8M for land

<sup>\*</sup> ASX Announcement 30 May 2017

<sup>\*\*</sup> ASX Announcement 27 November 2017

## **Project Capital Comparison**





- Data sourced from company reports in the public domain.
- United States dollar capital costs are converted to Australian Dollars using an exchange rate of 0.75 (AUD:USD).
- Cataby has a range of A\$250M to A\$275M, midpoint used in this analysis.
- Ranobe capital cost is based on the 2012 DES estimate.

Source: TZMI; May 2017

## **Boonanarring – Production Statistics**

Boonanarring Pr	oject Pro	duction					
	2018	2019	2020	2021	2022	2023	Total
Ore processed (Kt) - HG	621	3,683	3,696	3,724	3,766	2,660	18,150
Mined Ore (Kt) - LG	0	0	0	0	0	0	0
Ore grade (%HM)	8.6%	7.8%	11.2%	5.6%	7.8%	10.9%	8.5%
Assemblage (% of HM)							
Zircon	22.4%	25.4%	22.6%	25.3%	25.4%	17.0%	23.0%
Rutile	2.4%	2.4%	2.2%	2.4%	2.4%	4.8%	2.8%
Ilmenite	54.2%	48.8%	50.4%	48.9%	48.8%	53.3%	50.3%
Leucoxene	1.8%	1.7%	2.1%	1.7%	1.7%	2.7%	2.0%
HMC produced (t)	20,530	230,897	336,817	169,717	218,452	253,490	1,229,903
HMC sold (t)	18,700	225,000	320,000	190,000	220,000	170,000	1,143,700
HMC content							
Zircon (t)	4,800	68,600	87,700	39,100	68,800	34,900	303,900
Rutile (t)	430	5,000	6,400	4,600	5,100	7,600	29,130
Ilmenite (t)	11,100	119,100	174,600	116,000	112,900	94,600	628,300
Leucoxene (t)	250	2,700	4,800	2,800	2,200	3,400	16,150
Trash HM/silica (t)	2,120	29,600	46,500	27,500	31,000	29,500	166,220
Total	18,700	225,000	320,000	190,000	220,000	170,000	1,143,700
%VHM	89%	87%	85%	86%	86%	83%	85%

Note: 2023 information includes the start of production at Atlas.

## **Boonanarring – Project EBITDA**



<b>Boonanarring Pro</b>	ject EBIT	DA Sum	mary				
(AU\$'000)	2018	2019	2020	2021	2022	2023	Total
Revenue	8,880	132,600	186,900	97,200	127,200	77,400	630,180
Revenue/tonne HMC	475	589	584	512	578	455	551
Operating Costs							
Mining	22,400	43,800	40,100	39,300	40,900	36,700	223,200
Processing	1,600	7,100	7,200	7,200	7,200	5,700	36,000
Site Administration	3,000	4,500	4,500	4,400	4,400	4,200	25,000
Logistics	1,600	15,500	21,000	12,600	14,500	11,300	76,500
Royalties/Other	440	6,300	8,900	4,600	6,100	3,600	29,940
Capitalised Op. Costs	(19,300)	0	0	0	0	0	(19,300)
Change in Inventory	(800)	(700)	(2,600)	2,700	900	(9,100)	(9,600)
<b>Total Operating Costs</b>	8,940	76,500	79,100	70,800	74,000	52,400	361,740
Operating Costs/t HMC	478	340	247	373	336	308	316
<b>Operating Margin</b>	-1%	73%	136%	37%	72%	48%	74%
Project EBITDA	(60)	56,100	107,800	26,400	53,200	25,000	268,440

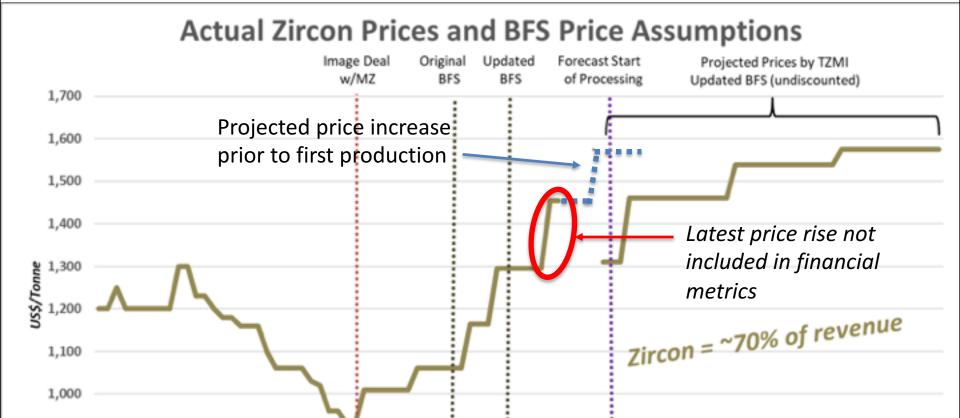
Note: 2023 information includes the start of production at Atlas.

## **Commodity Prices – Actual and Projected**

900

800





Sources: CNFEOL commodity pricing website by subscription (www.cnfeol.com) and Image Updated BFS announced to ASX 27 November 2017.

## **Image Wet Concentration Plant**



## **Site Construction Photos**









## **Project Development Schedule**



## Targeting first production 4<sup>th</sup> Quarter 2018

Simplified Boonanarring Project Construction Schedule - (high level)															
						20:	18							)	
	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
WCP & Equipment Relocation															
Project Construction															
Pre-Stripping															
Ore Mining						**********************									
Plant Commissioning									~~~~~						
Production															

## **Upside Potential**



## **Upside potential at and near Boonanarring**

- Confirmed potential to extend mine life with high grade mineralisation (ASX announcement 13 March & 26 June 2017);
  - Assuming mineralisation in extension area is identical to known Ore Reserves in all aspects and economics; two years of additional mine life could add AU\$60M to project NPV.
- Potential to process lower grade overlying layer of mineralisation;
- Potential to process ores from several other deposits with high grade mineral resources in the vicinity;
  - Red Gully, Regans Ford, and Gingin (South and North).

## **Boonanarring Deposit Extensions**



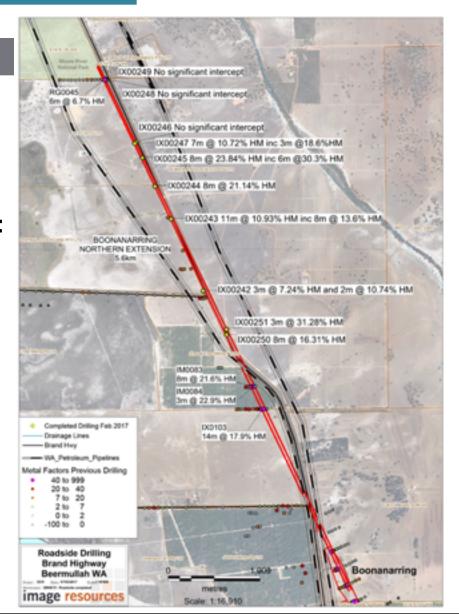
## **ASX - 13 March & 26 June 2017**

#### **New Drilling Results (Feb 2017)**

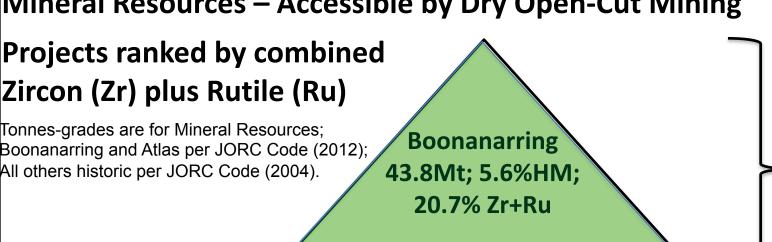
- Confirm 5.6km northern extension of **Boonanarring mineralisation**
- Outstanding high grade intersections:
  - 8m @ 23.8% HM in IX00245
  - 8m @ 21.1% HM in IX00244 and
  - 8m @ 16.3% HM in IX00250

#### Importantly with high grade zircon:

- 21.5% Zr in HM in IX00245 & 247
- 22.1% Zr in HM in IX00243 & 244
- 16.4% Zr in HM in IX00242, 250 & 251



Mineral Resources – Accessible by Dry Open-Cut Mining



**BFS** assumes mir at Boonanarring followed by min at Atlas. Other projects can be added after furtl drilling and stud

Atlas 18.1Mt; 6.0%HM; 15.8% Zr+Ru

Red Gully 6.0Mt; 7.7% HM; 15.5% Zr+Ru

Regans Ford 9.9Mt; 9.6%HM; 14.3% Zr+Ru

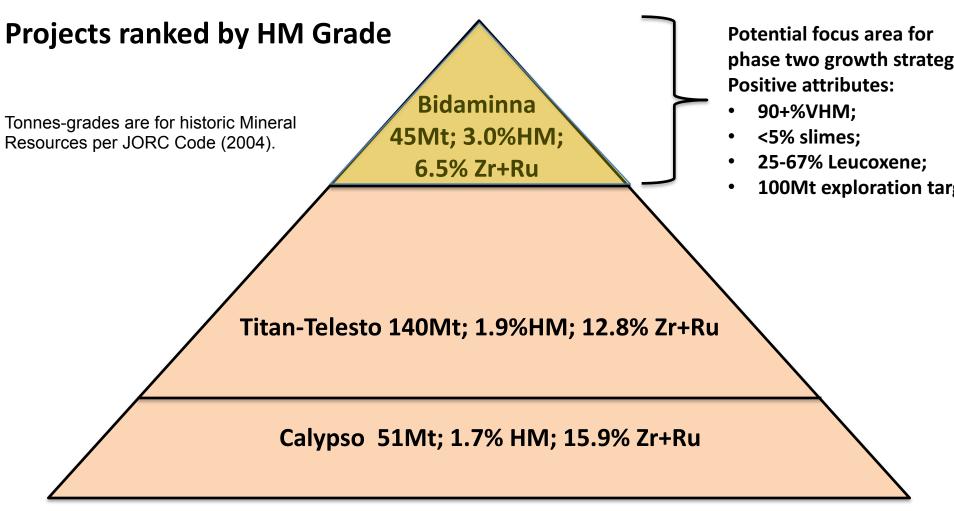
Cooljarloo North 15.2Mt; 5.3%HM; 14.0% Zr+Ru

**Gingin South** 8.1Mt; 6.1%HM; 13.5% Zr+Ru **Gingin North 2.4Mt; 5.5%HM; 9.1% Zr+Ru** 

Total 103Mt; 6.2%HM; 17% Zr+Ru

## **Projects Pyramid – Dredge Deposits**

Mineral Resources – Accessible by Dredge Mining



Total 236Mt; 2.1%HM; 11.5% Zr+Ru

## **Potential Royalty from Tronox**

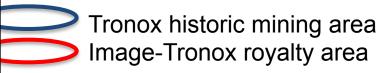


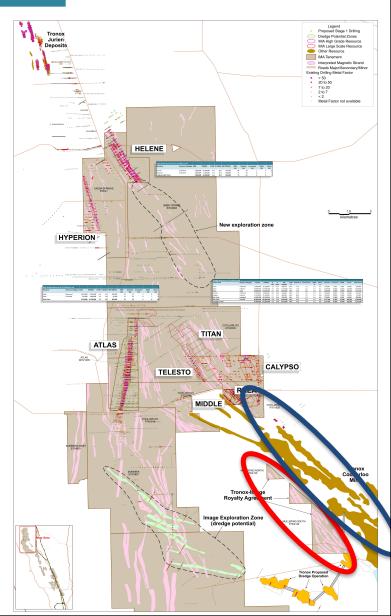
### Royalty agreement in place as of 2014

- Small cash payment (already received)
- Sliding-scale royalty on production

Avg. HM Grade	<u>Royalty</u>
2.5%	1.25%
3.0%	2.50%
3.5%	3.75%
4.0%	5.00%

- Indefinite production schedule
- Potential for future arrangements with Tronox or others based on large area of potential dredge mining mineralisation within Image's tenements in the vicinity of Tronox's historic dredge operations.





## **Image Corporate Snapshot**



## Diverse and experienced Board and Management

ASX Code:

Share Price:

12-Month Price Range:

Shares on Issue:

Market Cap:

Cash on hand:

Debt:

Top 20 Shareholders:

IMA

A\$0.12\*

A\$0.07-0.17

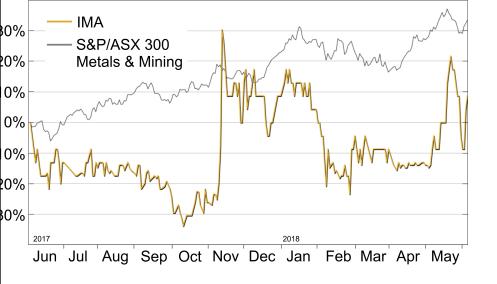
953m

A\$114m\*

A\$64.5m\*\*

A\$54.0m

70%



#### **Board of Directors**

Bob Besley – Independent Chairman Patrick Mutz – Managing Director Chaodian Chen - Non-Executive Director Aaron Chong Veoy Soo – Non-Executive Dir George Sakalidis – Executive Director Peter Thomas – Non-Executive Director Fei (Eddy) Wu – Non-Executive Director Huang Cheng Li – Non-Executive Director

#### **Key Management**

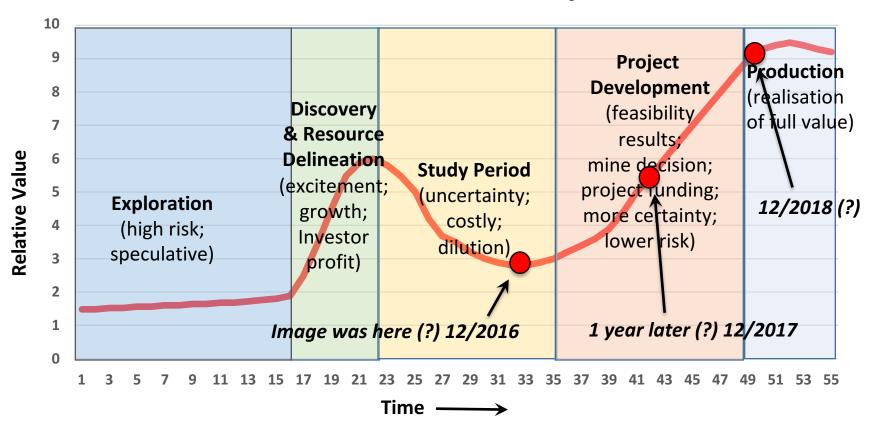
Patrick Mutz – CEO George Sakalidis – Exploration Director John McEvoy – Chief Financial Officer Todd Colton – General Manager – Dev.

<sup>-</sup> as at 4 June 2018

<sup>-</sup> as at 31 May 2018

## **Transition from Explorer to Producer**

## **Generalisation of Transition from Explorer to Producer**



## **Use of Solar Energy**



Heads of Agreement with Sunrise **Energy Group Pty Ltd** to provide 3-4 MW<sub>AC</sub> solar farm to be:

- Constructed and operated by Sunrise Energy;
- Located on Image owned land adjacent to Boonanarring mine site; and
- Providing 25% of total electricity requirements for mine and processing operations.





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## **Additional Information**

## **Project Funding**



#### Boonanarring is now fully funded to positive cashflow and construction has begun

- Overall capital requirement: A\$75 million
  - Includes project capital, corporate, exploration, working capital and fund raising costs
- > Equity Capital: A\$25 million
  - A\$25 million fully-underwritten equity capital raising closed fully subscribed on 14 March (ASX announcement 15 March 2018)
  - 250 million shares allotted 28 March 2018
  - Project construction commenced 14 March 2018
- ➤ Debt Facility: A\$50 million
  - A\$50<sup>1</sup> million Loan Note Subscription Agreement ("LNSA") with Pala Investments Limited ("Pala") and Castlelake IV L.P. and CLV Investment Solutions LLC which are entities controlled by Castlelake L.P. (collectively "Castlelake") as the Loan Note Holders (ASX announcement 8 March 2018)
  - All conditions to drawdown satisfied and drawdown requested 11 May 2018.
  - Single tranche of total funds (less fees) received on 25 May 2018.

## **Compliance Statements**



#### COMPLIANCE STATEMENT FOR EXPLORATION

Information in this presentation that relates to Exploration Results is based on information compiled by George Sakalidis BSc (Hons) who is a member of the Australasian Institute of Mining and Metallurgy. At the time that the Exploration Results, Mineral Resources and Mineral Reserves were compiled, George Sakalidis was a director of Image Resources NL. He has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is 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'. George Sakalidis consents to the inclusion of this information in the form and context in which it appears in this report.

#### 2. COMPLIANCE STATEMENT FOR BOONANARRING AND ATLAS DEPOSITS ORE RESERVES

The Ore Reserves statements for the Atlas and Boonanarring deposits have been compiled in accordance with the guidelines of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code - 2012 Edition). The Ore Reserves have been compiled by Jarrod Pye, Mining Engineer and full-time employee of Image Resources, under the direction of Andrew Law of Optiro, who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Law has sufficient experience in Ore Reserves estimation relevant to the style of mineralisation and type of deposit under consideration to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Mineral Resources and Ore Reserves". Mr Law consents to the inclusion in the report of the matters compiled by him in the form and context in which it appears.

## image resources 34

## **Mineral Resources – Strand Deposits**

Strand Deposits 1 of 2

High Grade Miner	High Grade Mineral Resources - Strand Deposits; in accordance with the JORC Code (2012) @ 2.0% HM Cut-off													
Project/Deposit	Category	Volume	Tonnes	% HM	% Slimes	<b>HM Tonnes</b>	VHM	Ilmenite	Leucoxene	Rutile	Zircon			
							(%)	(%)	(%)	(%)	(%)			
Boonanarring <sup>1</sup>	Measured	6,359,359	11,799,213	8.0	14	942,167	74.3	48.3	1.7	2.2	22.0			
Boonanarring <sup>1</sup>	Indicated	11,802,047	22,265,400	4.9	18.3	1,081,208	71.7	49.2	2.2	2.5	17.8			
Boonanarring <sup>1</sup>	Inferred	4,987,703	9,420,449	4.5	21	422,507	68.8	50.0	3.5	3.4	11.9			
<b>Boonanarring Total</b>		22,886,875	43,485,062	5.6	18	2,445,882	72.2	49.0	2.2	2.6	18.4			
Atlas <sup>1</sup>	Measured	5,210,526	9,900,000	7.9	16.1	782,000	71.0	49.1	4.2	7.2	10.5			
Atlas <sup>1</sup>	Indicated	3,368,421	6,400,000	3.7	17.3	237,000	56.5	41.6	3.4	4.7	6.8			
Atlas <sup>1</sup>	Inferred	947,368	1,800,000	4.0	19.9	72,000	41.5	29.0	3.3	4.4	4.8			
Atlas Total		9,526,316	18,100,000	6.0	16.9	1,091,000	65.9	46.1	4.0	6.5	9.3			
Sub-Total Atlas/Boo	nanarring	32,413,191	61,585,062	5.7	17.7	3,536,882	70.3	48.1	2.8	3.8	15.6			

## **Mineral Resources – Strand Deposits**



### Strand Deposits 2 of 2

Previously Report	ed Mineral F	Resources - St	rand Deposit	s; in acc	ordance w	vith JORC Co	de (2004	l) @ 2.5%	HM Cut-off		
Project/Deposit	Category	Volume	Tonnes	% HM	% Slimes	<b>HM Tonnes</b>	VHM	Ilmenite	Leucoxene	Rutile	Zircon
							(%)	(%)	(%)	(%)	(%)
Gingin Nth <sup>3</sup>	Indicated	680,175	1,318,642	5.7	15.7	75,163	75.4	57.4	9.3	3.2	5.5
Gingin Nth <sup>3</sup>	Inferred	580,000	1,090,000	5.2	14.0	57,116	78.4	57.3	11.3	3.7	6.0
Gingin Nth Total		1,260,175	2,408,642	5.5	15.0	132,279	76.7	57.3	10.2	3.4	5.7
Gingin Sth <sup>3</sup>	Measured	872,830	1,526,122	4.4	7.2	67,149	79.4	50.7	15.3	5.6	7.8
Gingin Sth <sup>3</sup>	Indicated	3,241,835	5,820,480	6.5	7.1	377,167	90.6	67.6	9.8	5.1	8.1
Gingin Sth <sup>3</sup>	Inferred	398,573	732,912	6.5	8.4	47,566	91.6	67.4	7.5	5.8	10.9
Gingin Sth Total		4,513,238	8,079,514	6.1	7.3	491,882	89.2	65.3	10.3	5.2	8.3
Helene <sup>3</sup>	Indicated	5,568,110	11,466,106	4.6	18.6	522,854	88.7	74.6	0.0	3.6	10.5
Hyperion <sup>3</sup>	Indicated	1,786,781	3,742,471	7.7	19.3	286,673	69.4	55.8	0.0	6.3	7.3
Cooljarloo Nth Tota	al	7,354,891	15,208,577	5.3	18.8	809,528	81.9	67.9	0.0	4.6	9.4
Red Gully <sup>3</sup>	Indicated	1,930,000	3,409,768	7.8	11.5	265,962	89.7	66.0	8.3	3.1	12.4
Red Gully <sup>3</sup>	Inferred	1,455,000	2,565,631	7.5	10.7	192,422	89.0	65.4	8.2	3.0	12.3
Red Gully Total		3,385,000	5,975,399	7.7	11.2	458,384	89.4	65.7	8.2	3.1	12.4
Sub-Total Other		16,513,304	31,672,132	6.0	14.1	1,892,073	85.2	66.0	5.4	4.3	9.6

#### Historic Deposit - Strand deposit; in accordance with JORC Code (2004)

Project/Deposit	Category	Volume	Tonnes	% HM	% Slimes	<b>HM Tonnes</b>	VHM	Ilmenite	Leucoxene	Rutile	Zircon
							(%)	(%)	(%)	(%)	(%)
Regans Ford <sup>4</sup>	Indicated	4,505,285	9,024,226	9.9	16.8	893,398	94.3	70.0	10.0	4.3	10.0
Regans Ford <sup>4</sup>	Inferred	455,933	918,536	6.5	18.5	59,705	90.5	68.3	7.7	4.4	10.1
Regans Ford Total		4,961,218	9,942,762	9.6	17.0	953,103	94.1	69.9	9.9	4.3	10.0

## Mineral Resources – Dredge Deposits



## Dredge Deposits 1 of 1

Previously Repo	Previously Reported Mineral Resources - Dredge deposits; in accordance with JORC Code (2004) @ 1.0% HM Cut-off														
Project/Deposit	Category	Volume	Tonnes	% HM	% Slimes	<b>HM Tonnes</b>	VHM	Ilmenite	Leucoxene	Rutile	Zircon				
							(%)	(%)	(%)	(%)	(%)				
Titan <sup>3</sup>	Indicated	10,335,053	21,163,741	1.8	22.1	378,831	86.0	71.9	1.5	3.1	9.5				
Titan <sup>3</sup>	Inferred	58,517,775	115,445,391	1.9	18.9	2,205,007	85.9	71.8	1.5	3.1	9.5				
<b>Total Titan</b>	Total	68,852,828	136,609,132	1.9	19.4	2,583,838	85.9	71.8	1.5	3.1	9.5				
Telesto <sup>3</sup>	Indicated	1,716,328	3,512,204	3.8	18.4	134,499	83.3	67.5	0.7	5.6	9.5				
Calypso <sup>3</sup>	Inferred	27,113,647	51,457,008	1.7	13.7	854,186	85.6	68.1	1.6	5.1	10.8				
Bidaminna <sup>3</sup>	Inferred	26,260,000	44,642,000	3.0	3.6	1,339,260	96.8	83.11	7.2	1.0	5.5				
Total Dredge		123,942,803	236,220,344	2.1	15.2	4,911,783	88.7	74.1	3.1	2.9	8.6				

## **Compliance Statements**

#### COMPLIANCE STATEMENT FOR MINERAL RESOURCES

#### 1. COMPLIANCE STATEMENT Boonanarring/Atlas Mineral Resources

The information in this presentation that relates to the estimation of Mineral Resources is based on information compiled by Mrs Christine Standing, who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and the Australian Institute of Geoscientists (AIG). Mrs Standing is a full-time employee of Optiro Pty Ltd and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which she is 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'. Mrs Standing consents to the inclusion in this report of the matters based on her information in the form and context in which it appears.

#### 3. COMPETENT PERSON'S STATEMENT – MINERAL RESOURCE ESTIMATES

The information in this presentation that relates to Mineral Resources is based on information compiled by Lynn Widenbar BSc, MSc, DIC MAusIMM MAIG employed by Widenbar & Associates who is a consultant to the Company. Lynn Widenbar has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 edition of the 'Australasian Code of Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Lynn Widenbar consents to the inclusion of this information in the form and context in which it appears.

#### 4. HISTORIC INFORMATION - REGANS FORD DEPOSIT

The information in this presentation that relates to tonnes, grades and mineral assemblage is based on historic information published by Iluka Resources Limited and indicating the mineral resources were compiled in accordance with the JORC Code (2004).