

Investor Presentation | January 2018

Citronen – Unlocking a Zinc-Lead Colossus

#### Disclaimer



#### FORWARD LOOKING STATEMENTS

The following information is not intended to guide any investment decisions in Ironbark Zinc Limited.

This material contains certain forecasts and forward-looking information, including possible or assumed future performance, costs, production levels or rates, reserves and resources, prices and valuations and industry growth and other trends. Such forecasts and information are not a guarantee of future performance and involve many risks and uncertainties, as well as other factors. Actual results and developments may differ materially from those implied or expressed by these statements and are dependent on a variety of factors.

The Citronen zinc project is considered to be at an early development stage and will require further regulatory approvals and securing of finance and there is no certainty that these will occur. Nothing in this material should be construed as either an offer to seek a solicitation or as an offer to buy or sell Ironbark securities. Consideration of the technical and financial factors requires skilled analysis and understanding of their context.

#### **■**JORC CODE COMPLIANCE AND COMPETENT PERSON STATEMENT & DISCLOSURE

#### **Competent Person Statement**

The information included in this report relates to Exploration Targets, Exploration Results & Mineral Resources based on information compiled or reviewed by Mr Ionathan Downes (B. Sc, MAIG) and Ms Elizabeth Laursen (B. Esc (Hons.), MAIG, MSEG, GradDipAppFin), both employees of Ironbark Zinc Limited. Mr Downes and Ms Laursen have sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Targets, Exploration Results, Mineral Resources. Mr Downes and Ms Laursen consent to the inclusion in the report of the matters based on this information in the form and context in which it appears.

#### **Competent Persons Disclosure**

Mr Downes and Ms Laursen are employees of Ironbark Zinc Limited and currently hold securities in the company.

#### **Cautionary Statement**

tronbark has concluded it has reasonable basis for providing the forward looking statements included in this presentation. The detailed reasons for that conclusion are outlined throughout this presentation. This announcement has been prepared in accordance with the JORC Code (2012) and the ASX Listing Rules.

The Company believes there is a reasonable basis for the production targets and the forecast financial information and income-based valuation derived from those production targets provided in this document based on the detailed reasons and material assumptions which are outlined throughout the ASX announcement dated 12 September 2017 titled Feasibility Study Update and Appendix 1 of this presentation.

### Introduction



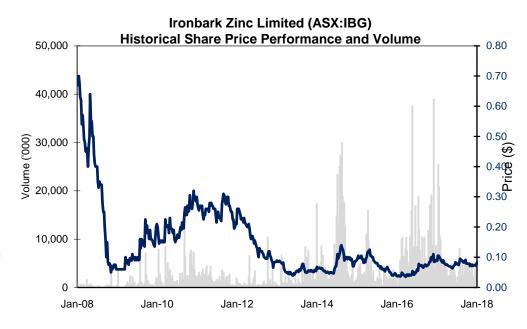
Ironbark Zinc Limited (ASX:IBG) is poised to begin the development process at one of the world's largest zinc deposits, the 100% owned Citronen Project.

Citronen, located in Greenland, is adjacent to water and consists of simple, flat and continuous ore zones that form a giant Zinc (Zn) + Lead (Pb) JORC 2012 resource of 132Mt @ 4.4% Zn + Pb, equivalent to 12.8 billion pounds of Zn; a genuine tier one base metal resource.

Recently, Germanium (Ge) has been identified in the Citronen ore. Zn smelters are able to extract and pay for the Ge from Zn concentrate with no changes required to the Citronen process flow-sheet.

Fundamentals for Zn are decidedly bullish and the time is now for Ironbark to position itself to obtain the funding needed to put the Citronen Project into construction in 2018 with mining slated for 2019.

At a market capitalisation of \$44m with no debt, a credible team and a premium project, Ironbark presents as deeply undervalued relative to its ASX listed peers...



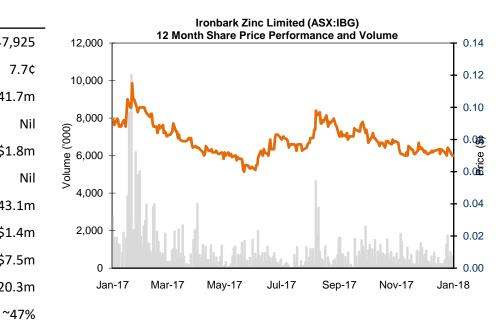


# Corporate Snapshot



Capital	Structure
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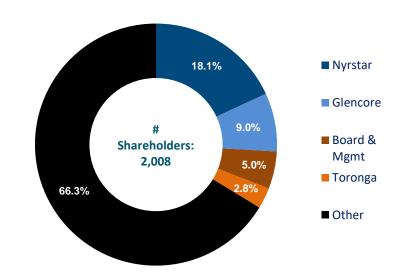
Capital Structure	
Shares on Issue	541,447,925
Share Price (ASX: IBG)	7.7¢
Market Cap	\$41.7m
Options	Nil
Cash (30 Sept' 17)	~\$1.8m
Debt	Nil
Enterprise Value	~\$43.1m
1 Month Liquidity	18.5m shares for ~\$1.4m
6 Month Liquidity	92.2m shares for ~\$7.5m
12 Month Liquidity	237.1m shares for ~\$20.3m



#### Board

Top 20 (27 October 2017)

Board	
Peter Bennetto Banking & Finance, GAICD, SA Fin	Non-Executive Chairman
Jonathan Downes Geologist, BSc. Geology, MAIG	Managing Director
Kelly Strong (Nyrstar)  Mining Engineer, BE (Mining)	Non-Executive Director
Gary Comb Engineer, BE (Mech), BSc, DipEd	Non-Executive Director
David Kelly (Glencore)  Accountant, BCom, Ca	Non-Executive Director



# Investment Highlights



★ World Class Zinc Resource: Citronen's 132Mt @ 4.4% Zn + Pb JORC 2012 resource contains a higher grade portion of 71Mt @ 5.7% Zn + Pb and an exploration target of 302 – 347Mt @ 4.4 – 5.0% Zn + Pb. The deposit is open-ended with mining and processing studies reporting to simple, tried and tested methods\*.

**Near-term Production Potential:** Ironbark intends to commence construction at Citronen in 2018 with mining anticipated in 2019. The Citronen Feasibility Study presents compelling economics with a pre-tax NPV8% of US\$1.034b, IRR of 36%, annual EBITDA generation of up to US\$270m and capital costs of US\$514m at an assumed Zn price of US\$3,044 (current Zn price circa US\$3450)\*\*.

**Stable Jurisdiction:** Greenland is strategically located between North American and European Zn end-users and has a history of successful zinc concentrate production. Ironbark has been granted a 30 year Mining License for the Citronen Project.

**Globally Significant Strategic Partners:** Ironbark has a Memorandum of Understanding ("MOU") with SOE China Non-Ferrous for an EPC lump sum, fixed price construction and commissioning contract with associated 70% debt funding and 20% direct project investment. In addition, mining conglomerates Nyrstar and Glencore are substantial shareholders at 18.1% and 9.0% respectively and maintain positions on the Board.

**The Right Team:** Board and management have a track record of delivering significant project financing with key personnel covering all technical, commercial and operational requirements for development.

<sup>\*</sup>The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration completed to date to estimate a Mineral Resource in accordance with the JORC 2012 Edition Guidelines. It is uncertain if further exploration will result in the delineation of a Mineral Resource.

<sup>\*\*</sup>There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

#### Zinc – The Time Has Come



# The world is running out of Zinc (the fourth most consumed metal by volume)



Major mine closures in recent years due to depletion

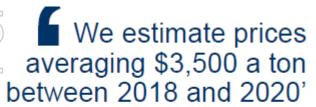
- Century (500,000 tpa)
- Brunswick (200,000 tpa)
- Perseverance (128,000 tpa)
- Lisheen (167,000 tpa)



Yet at the same time demand is growing - forecast at 2.5-3% pa (or approximately an extra required 400,000tpa) to 14.7Mt zinc over 2017

The falling supply against rising consumption is driving a price rise

Ironbark has the rare opportunity to rapidly bring on a large scale zinc operation



Wood Mackenzie commodities-industry consultancy

#### 12 Month Relative Performance – XAO, XSR, Zinc, IBG

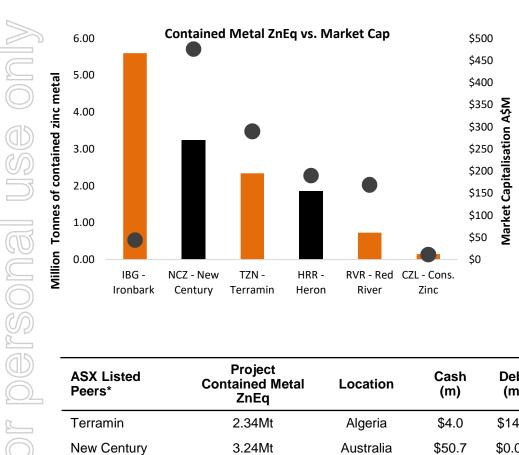


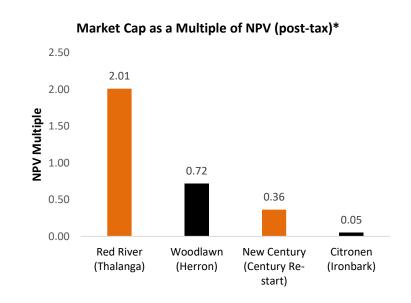
#### Zinc LME Warehouse Level to 29 Dec '17 (Kt)



### A Giant Amongst Peers – Yet to be Realised







ASX Listed Peers*	Project Contained Metal ZnEq	Location	Cash (m)	Debt (m)	Market Cap (m)	Enterprise Value (m)	EV/Contained Metal ZnEq
Terramin	2.34Mt	Algeria	\$4.0	\$14.3	\$289.7	\$300.0	\$128.21
New Century	3.24Mt	Australia	\$50.7	\$0.0**	\$476.0	\$425.3	\$131.27
Heron	1.85Mt	Australia	\$124.0	\$24.0**	\$189.7	\$89.7	\$48.49
Red River	726Kt	Australia	\$15.6	\$0.0	\$169.0	\$153.4	\$211.30
Consolidated Zinc	154Kt	Mexico	\$3.0	\$0.0	\$11.2	\$8.2	\$53.25
Ironbark	5.6Mt	Greenland	\$1.8	\$0.0	\$44.4	\$42.6	\$7.60

<sup>\*</sup>Sources: Company Presentations, PSL estimates – data valid as at 18 January 2018

<sup>\*\*</sup>Undrawn Debt Facilities Available

### Adjacent to Water in a Prime Location



- Simple, flat and continuous ore zones
  - Open-pit fresh sulphide potential with very low strip ratios to supplement higher grade underground mined mineralisation
  - Simple, predominantly underground room and pillar mining operation. Proven DMS and flotation techniques to produce separate zinc and lead concentrates
  - Will operate the mine all year round with 3 months shipping window



# A Globally Significant Zinc Project



- Citronen is one of the world's largest credible zinc projects - JORC 2012 Compliant Resource
  - Considerable exploration potential in addition to existing resource
  - Many of the ore bodies are constrained only by drilling

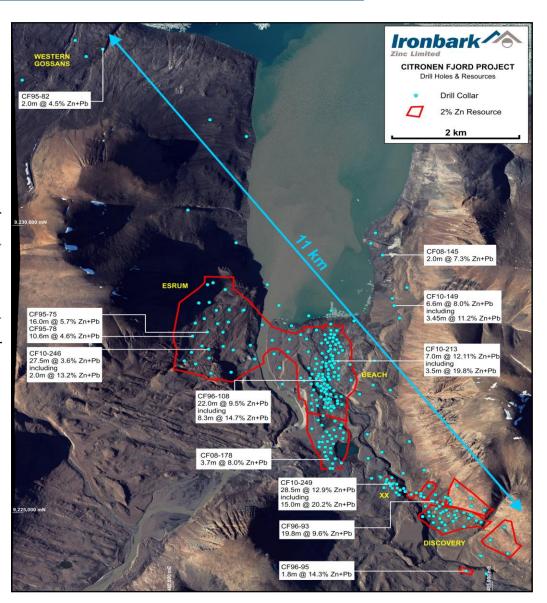
Resource Grade 30Mt @ 7.6% Zn + Pb (3.5% Zn cut-off)

Resource Category	Mt	Zn %	Pb %	Zn+Pb %
Measured	25.0	5.0	0.5	5.5
Undicated	26.5	5.5	0.5	6.0
Inferred	19.3	4.7	0.4	5.1
Total	70.8	5.1	0.5	5.7

#### Within a Larger Resource 132Mt @ 4.4% Zn + Pb (2.0% Zn cut-off)

And an exploration target of 302-347Mt @ 4.4-5.0% zinc+lead\*\*

Resource Category	Mt	Zn %	Pb %	Zn+Pb %
Measured	43.1	4.1	0.5	4.6
Indicated	51.2	4.1	0.4	4.6
Inferred	37.7	3.8	0.4	4.2
Total	132.0	4.0	0.4	4.5



<sup>\*\*</sup>Refer to Presentation Appendix for further detail

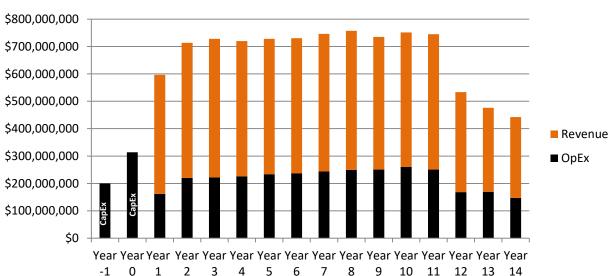
# Compelling Economics



NPV	US\$1,035 million (post tax US\$909 million**)	
IRR	36% (post tax 35%**)	
Capital Cost	US\$514 million	
Operating Cost <sup>1</sup>	(payable US\$ net of by-product credits)	
- Site	52c / lb zinc	
- Smelter Fees	14c / lb zinc	
Total Costs	66c / lb	
Life of Mine NPAT	US\$1,836M**	
Life of Mine Revenue	US\$6,364M**	

<sup>\*</sup> Price assumptions – refer to ASX announcement of 12 September 2017 for full details

<sup>\*\*</sup> Excluding withholding tax



There is a low level of geological confidence associated with inferred mineral resources and there is no certainty that further exploration work will result in the determination of indicated mineral resources or that the production target itself will be realised.

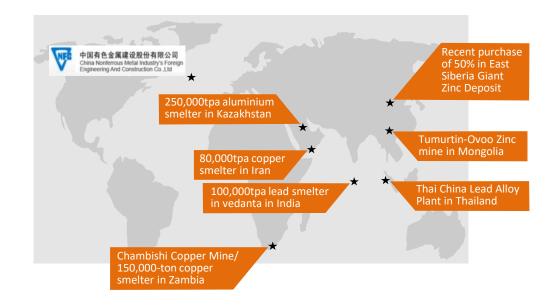
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# SOE Partnership – China Nonferrous (NFC)



- Memorandum of Understanding signed (January 2017) with China Nonferrous Major step towards advancing Citronen project Financing and Construction
  - Incorporating current Chinese equipment and construction costs
  - Financing work commenced -Prepare
     Feasibility Study to comply with Chinese
     banking requirements
  - Ensure criteria meets the laws, regulations, standards and codes of both Greenland and China
  - Assist Ironbark in securing Chinese project debt for the development of Citronen under the pre-existing MOU with NFC
  - NFC Major Chinese construction/engineering firm listed on the Shenzen Stock Exchange (50,000 employees)
  - Ideal Partner from a development and funding perspective

- Globally operates many mines and processing plants including zinc mines and smelters
- NFC rated by US authoritative publication, the Engineering News Record as one of the world's top engineering firms
- Major fabrication facilities
- Experience constructing and operating zinc mines, process plants and smelters.



# Track Record of Delivery



	,	Zinc Limited
2007	Acquired Citronen Project – raised \$26M	
2008	Drilled Citronen – Resource Upgraded	
2009	Ongoing Drilling – Citronen Pre-Feasibility Study	
2010	Ongoing Drilling – Resource Upgrade	
2011	Ongoing Drilling – Feasibility Study Commenced	
2012	Resource Upgrade-Met Work – Mine Scheduling	
2013	Feasibility Study – Permitting Work Commenced	
2014	Social Impact Assessment Lodged – Mining Licence Application Lodged	
2015	Progressed Mining Licence Application	
2016	Impact Benefit Agreement Signed – Mining Permit Awarded	The state of
2017	Updated Feasibility Costs	February 1
2018E	Financing and Construction Commencement - ONGOING	

### **Project Summary**



- Feasibility Cost Update demonstrates compelling economics
  - NPV US\$1,035M\* (US\$ 909M\*\* post tax)
  - Annual EBITDA up to +US\$270M
  - Mining Licence Granted for 30 years
  - Advancing with NFC towards production under Financing and Engineering, Procurement and Construction (EPC) MoU
  - Over \$50M expended on the Citronen project to date
  - Greenland has a zinc mining history
  - Feasibility Study work to date confirms the world class scale of Citronen project
  - Long life base metal mining operation
  - Excellent recoveries
  - Simple process flow sheet
  - Straightforward infrastructure and logistics
  - Pathway to funding under the MOU with China Nonferrous (NFC)
  - ☐ Ironbark has an MOU with NFC for an EPC lump sum, fix priced construction and commissioning contract with an associated 70% debt funding and 20% direct project investment
  - Poised to be a Globally Significant Zinc Miner in a low sovereign risk location between North America and Europe





<sup>\*</sup> See slide 10

<sup>\*\*</sup> Excluding withholding tax

### All of the Pieces Are Now in Place





Strong Zn Price and underlying commodity fundamentals Feasibility Study
Demonstrates
Tier One Project
even at
significant
discounts to
current traded
prices

Mining Licence granted and valid for 30 years

Pathway to
Funding Clear
and defined
with financing
appointments
already
underway

Allied for
Development
with Nyrstar,
Glencore and
China
Nonferrous

Financing work commenced, targeting construction in 2018



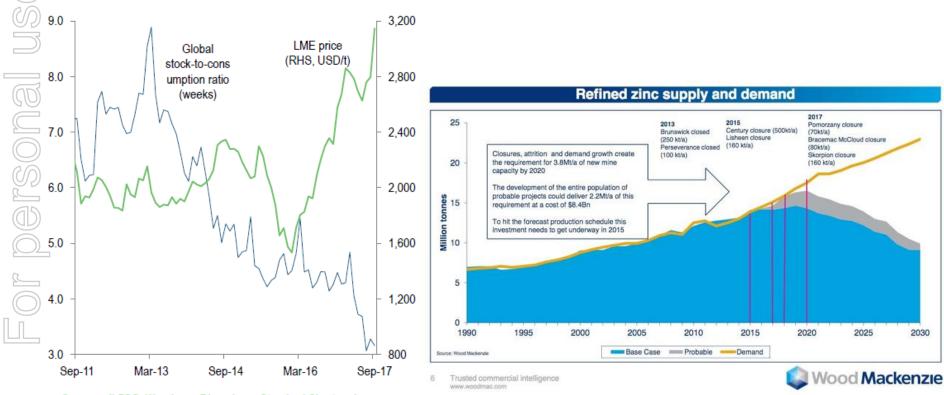
# **APPENDICES**

# Appendix 1 - Zinc Market Summary



#### **Compelling Zinc Market Fundamentals**

- Zinc demand continues to grow strongly
- Zinc stocks are reducing moving towards the critical "stocks: consumption" inflection point of 3 week consumption
- Zinc price is historically closely correlated to available stock levels
- Major zinc mines have closed (e.g. Century, Lisheen, Brunswick, Perserverence) undersupply forecast



2030

2025

### Appendix 2 – JORC 2012 Resource



#### Resource Grade 30Mt @ 7.6% Zn + Pb (3.5% Zn cut-off)

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Total	132.0	4.0	0.4	4.5

<sup>\*</sup> For full details refer to ASX announcement dated 25 November 2014 – Citronen Project Resource Update – JORC 2012 compliant resource. Ironbark is not aware of any new information or data that materially affects the information included in this ASX release, and Ironbark confirms that, to the best of its knowledge, all material assumptions and technical parameters underpinning the resource estimates in this release continue to apply and have not materially changed.

<sup>\*\*</sup> The potential quantity and grade of the Exploration Target is conceptual in nature. There has been insufficient exploration completed to date to estimate a Mineral Resource in accordance with the JORC 2012 Edition Guidelines. It is uncertain if further exploration will result in the delineation of a Mineral Resource.

# Appendix 3



Ironbark Zinc Limited ("Ironbark" or the "Company") has concluded that it has a reasonable basis for providing the forward-looking statements and production targets discussed in this announcement. Ironbark also considers that it has reasonable basis to expect that it will be able to fund the development of the Citronen base metal mine. The detailed reasons for those conclusions are outlined throughout the ASX announcement dated 12 September 2017 titled Feasibility Study Update.

ironbark is not aware of any new information or data that materially affects the information included in this ASX release, and Ironbark confirms that, to the best of its knowledge, all material assumptions and technical parameters underpinning the resource estimates in this release continue to apply and have not materially changed

This announcement has been prepared in accordance with the JORC Code (2012) and the ASX Listing Rules. The Company advises that it completed a Feasibility Study in April 2013 and has now completed the re-costing update detailed in the announcement dated 12 September 2017 following the grant of the Mining Licence over the Project. The Production Targets and Financial Information contained in this announcement are preliminary in hature and some of the conclusions are in part based on technical and economic assessments and are subject to certain risks. The outcome of this study provides a reasonable basis for the company to release the results whilst not providing an assurance of the economic development of the Project. This is based on the current mining inventory indicating that for the 14 years following commencement of production the material can be sourced from the resource base.

This announcement includes certain statements that may be deemed 'forward-looking statements'. All statements that refer to any future production, resources or reserves, exploration results and events or production that Ironbark expects to occur are forward-looking statements. Although the Company believes that the expectations in those forward-looking statements are based upon reasonable assumptions, such statements are not a guarantee of future performance and actual results or developments may differ materially from the outcomes. This may be due to several factors, including market prices, exploration and exploitation success, and the continued availability of capital and financing, plus general economic, market or business conditions. Investors are cautioned that any such statements are not guarantees of future performance, and actual results or performance may differ materially from those projected in the forward-looking statements. The Company does not assume any obligation to update or revise its forward-looking statements, whether as a result of new information, future events or otherwise.

#### **CAUTIONARY STATEMENTS**

#### **Project Financing and Sources of Capital**

The Company has appointed financing advisor Cutfield Freeman & Co. to assist with establishing a debt facility. There are no assurances that Project finance will be obtained. However, Ironbark believes there are reasonable grounds that the approximate US\$514 million in initial capital required to develop the Project, plus working capital for first fills and commissioning costs to be incurred prior to first receipt of sales proceeds, will be funded on the basis as set out in ASX announcement dated 12 September 2017 titled Feasibility Study Update.