



(ASX:ABX)

# Delivering Materials for a Cleaner Future

## International Mining and Resources Conference

ICC Sydney – Wednesday 30 October, 11:30am AEDT

**Mark Cooksey**  
Managing Director and CEO

30 October 2024



# Disclaimer

This presentation has been prepared by ABx Group Limited ACN 139 494 885 ("ABx" or the "Company"). It should not be considered as an offer or invitation to subscribe for or purchase any securities in the Company or as an inducement to make an offer or invitation with respect to those securities. No agreement to subscribe for securities in the Company will be entered into on the basis of this presentation.

This presentation contains forecasts and forward looking information. Such forecasts and information are not a guarantee of future performance, involving unknown risks and uncertainties. Actual results and developments will almost certainly differ materially from those expressed or implied. ABx has not audited or investigated the accuracy or completeness of the information, statements and opinions contained in this presentation. Accordingly, to the maximum extent permitted by applicable laws, ABx makes no representation and can give no assurance, guarantee or warranty, express or other implied, as to, and take no responsibility and assume no liability for, the authenticity, validity, accuracy, suitability or completeness of, or any errors in or omission, from any information, statement or opinion contained in this presentation.

You should not act or refrain from acting in reliance on this presentation material. This overview of ABx does not purport to be all inclusive or to contain all information which its recipients may require in order to make an informed assessment of the Company's prospects. You should conduct your own investigation and perform your own analysis in order to make an informed assessment of the company's prospects. You should also conduct your own investigation and perform your own analysis in order to satisfy yourself as to the accuracy and completeness of the information, statements and opinions contained in this presentation and making any investment decision.

Prices for aluminium fluoride (AlF<sub>3</sub>) were sourced from Asian Metals, China Customs and verified by comparison with prices from Bloomberg. The price actually achieved will depend upon market conditions at the time of sale.

## Competent Person Statement

The information in this report that relate to Exploration Information and Mineral Resources are based on information compiled by Ian Levy who is a member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Levy is a qualified geologist and a director of ABx Group Limited.

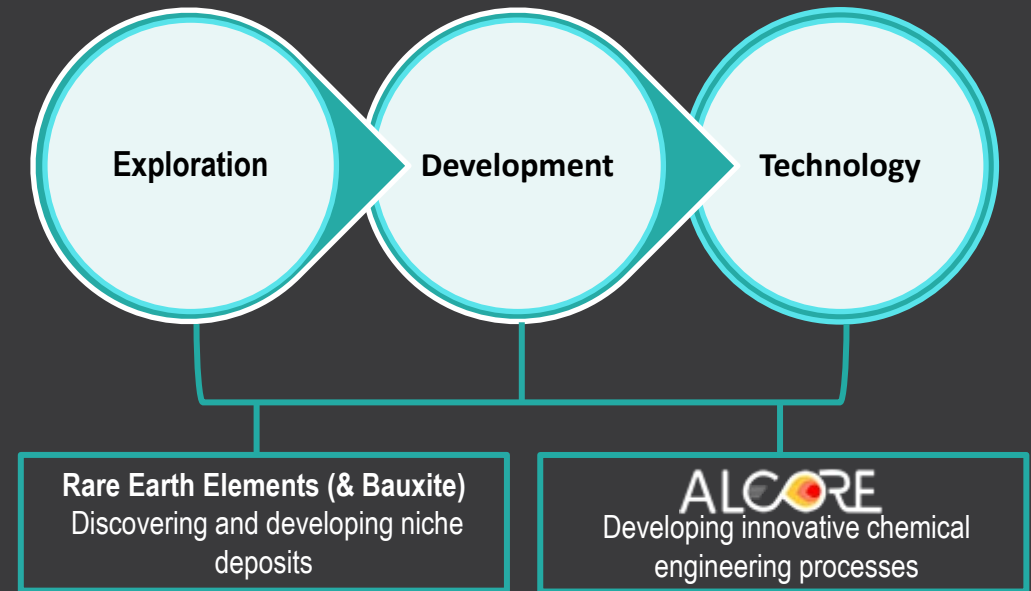
Mr Levy has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Levy has consented in writing to the inclusion in this report of the Exploration Information in the form and context in which it appears.

## Delivering materials for a cleaner future

- Creation of an ionic adsorption clay rare earth project in northern Tasmania
- Establishment of a plant to produce hydrogen fluoride and aluminium fluoride from recycled industrial waste, to replace imports (ALCORE)

## Legacy business

- Mining and enhancing bauxite resources for cement, aluminium and fertiliser production





# Businesses



Ionic adsorption clay rare earths

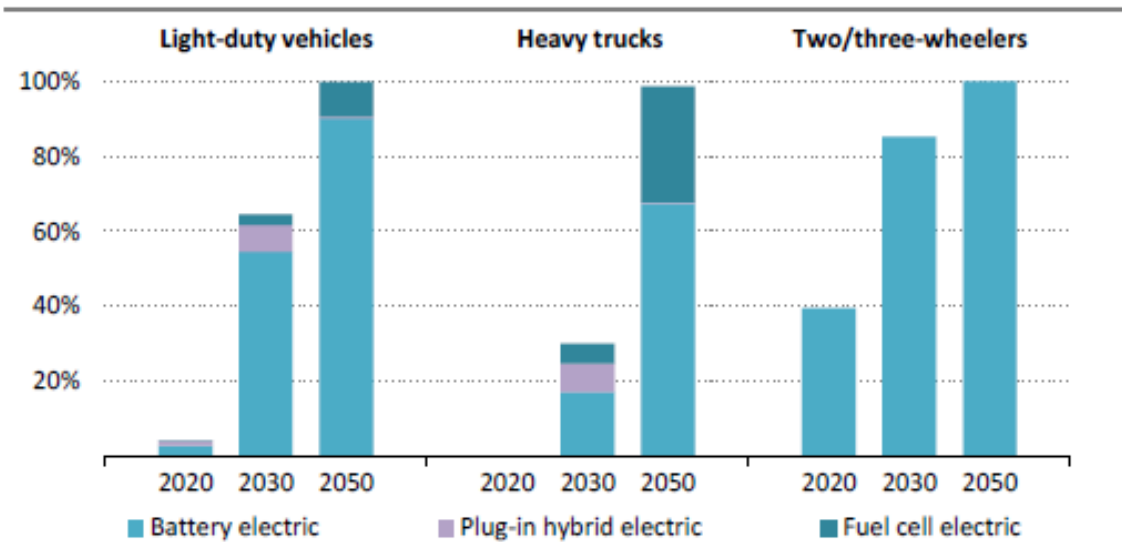


Recycling fluorine waste

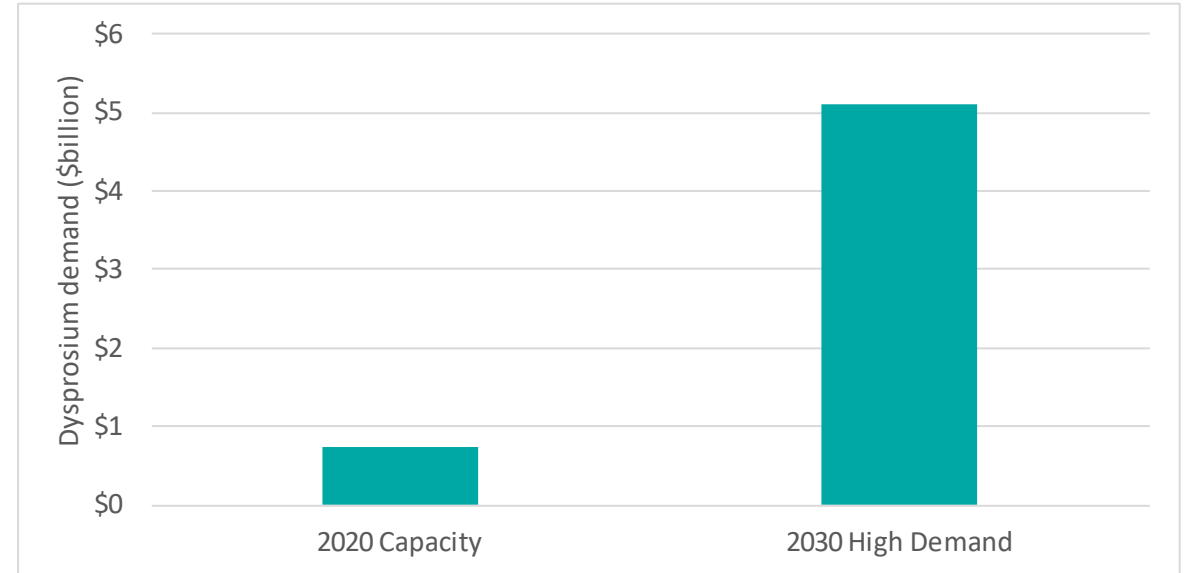
ALCORE

# Rare earth market: massive demand growth

Electric motors require permanent magnets containing rare earths



Source: International Energy Agency, Net Zero by 2050, 2021

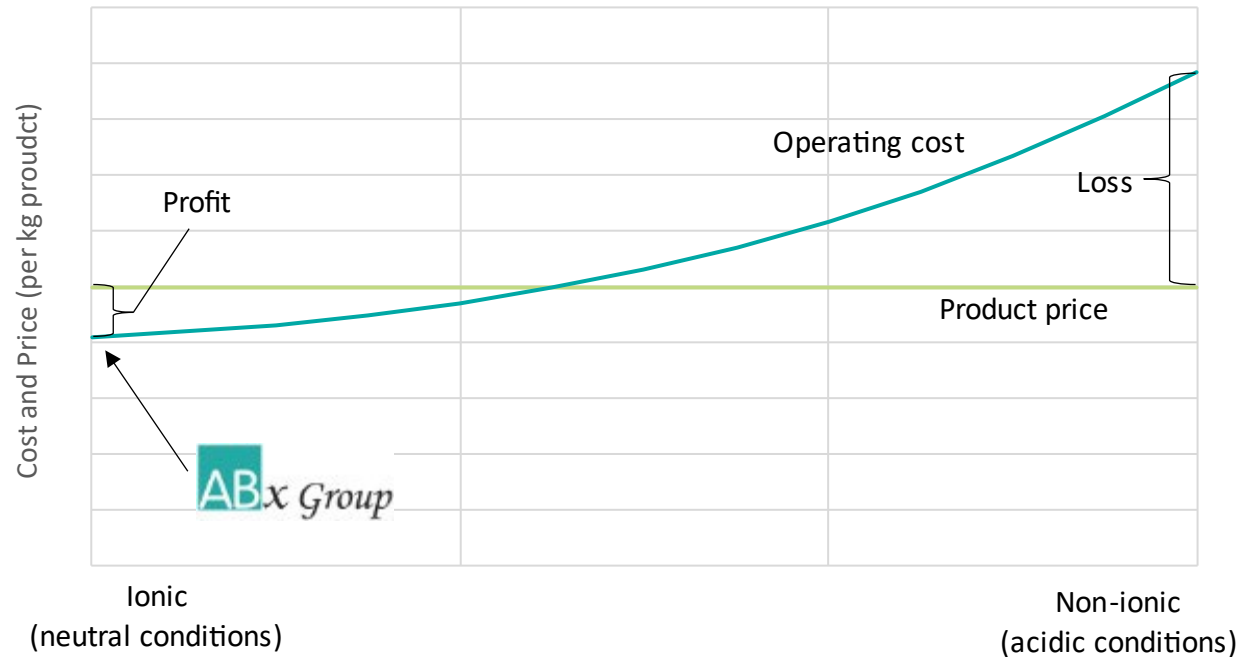


Sources: US DoE, Critical Minerals Assessment, 2023; Ginger International Trade & Investment

- Electric vehicles will become dominant
- Of the rare earths, dysprosium has the most acute supply risk

# ABx rare earth resource: attractive metallurgy and grade

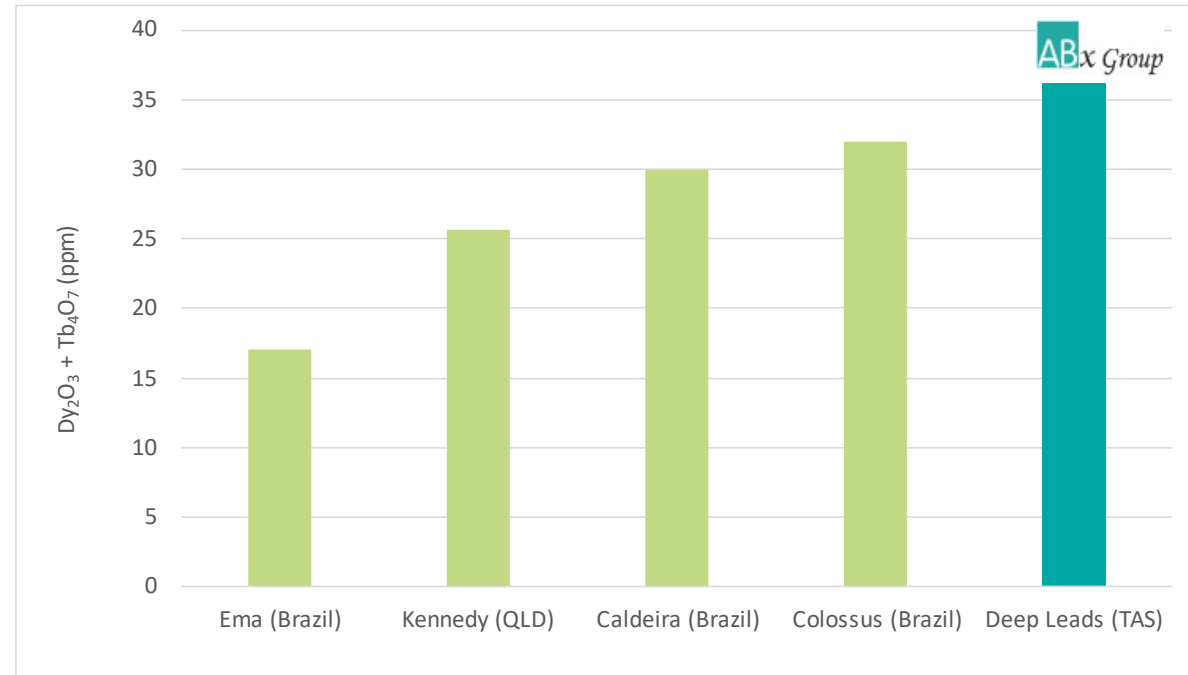
## Metallurgy



Illustrative cost curve for clay-hosted rare earth resources

- Extraction from ionic adsorption clay is much lower cost
- ABx has one of the few ionic adsorption clay resources

## Grade



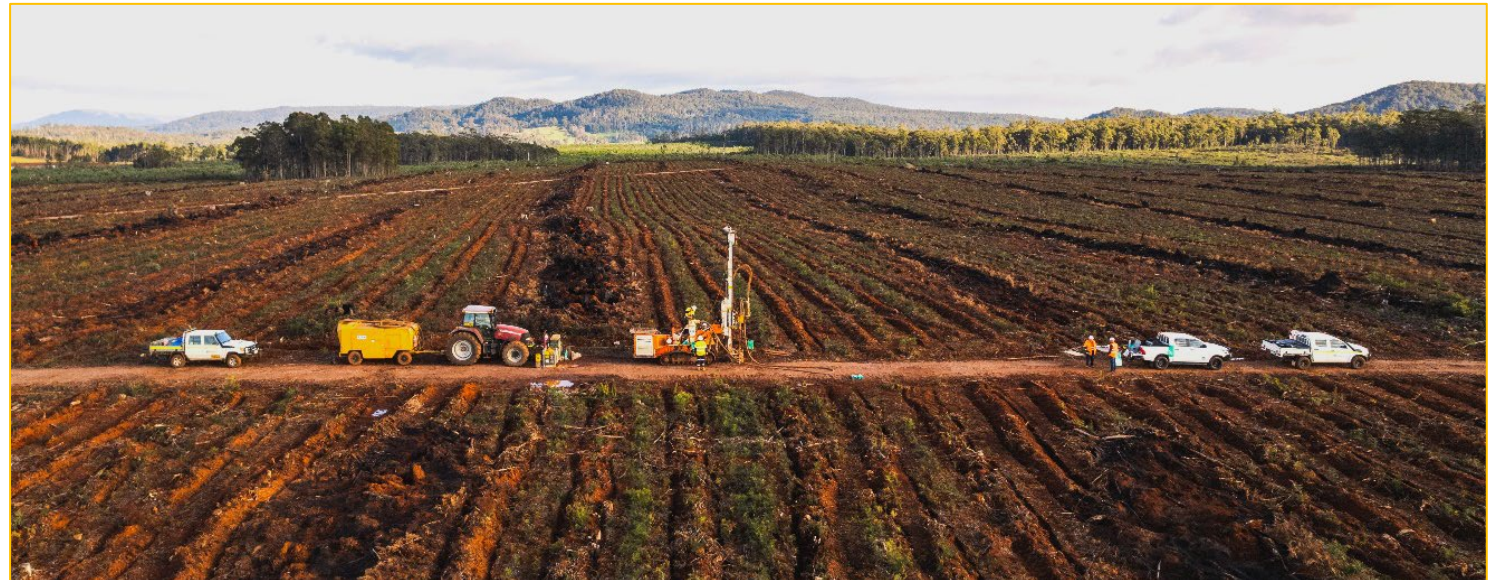
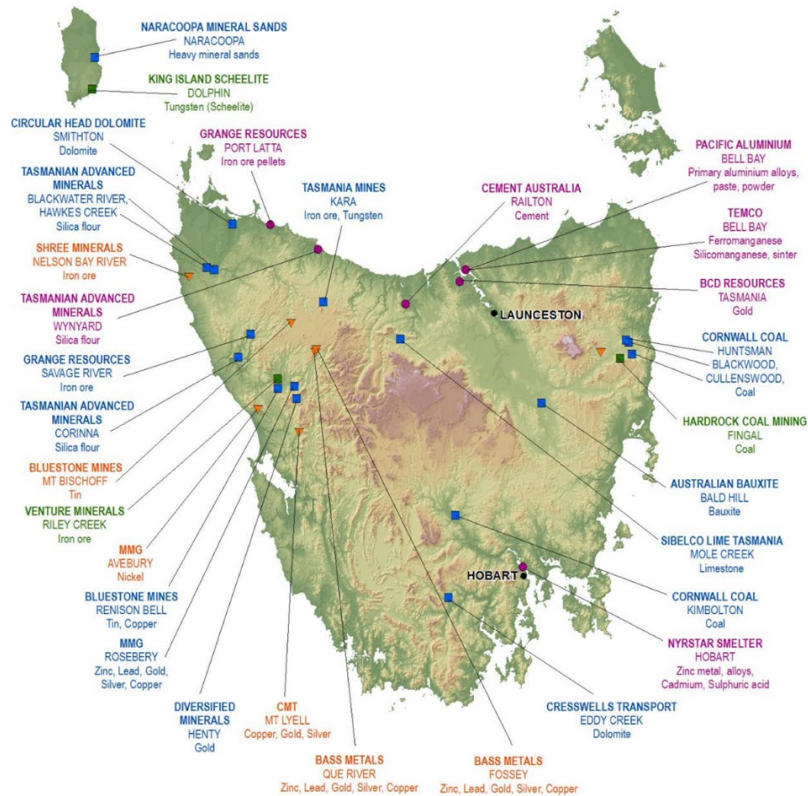
Sources: See Appendix

- ABx has among the highest Dy and Tb grades in ionic adsorption clay deposits



# ABx rare earth resource: outstanding location

Plantation forest area in favourable jurisdiction



- ABx resource is located in recently harvested hardwood plantation, close to Launceston and Bell Bay port
- Australian supply highly attractive to global customers



# Businesses



Ionic adsorption clay rare earths



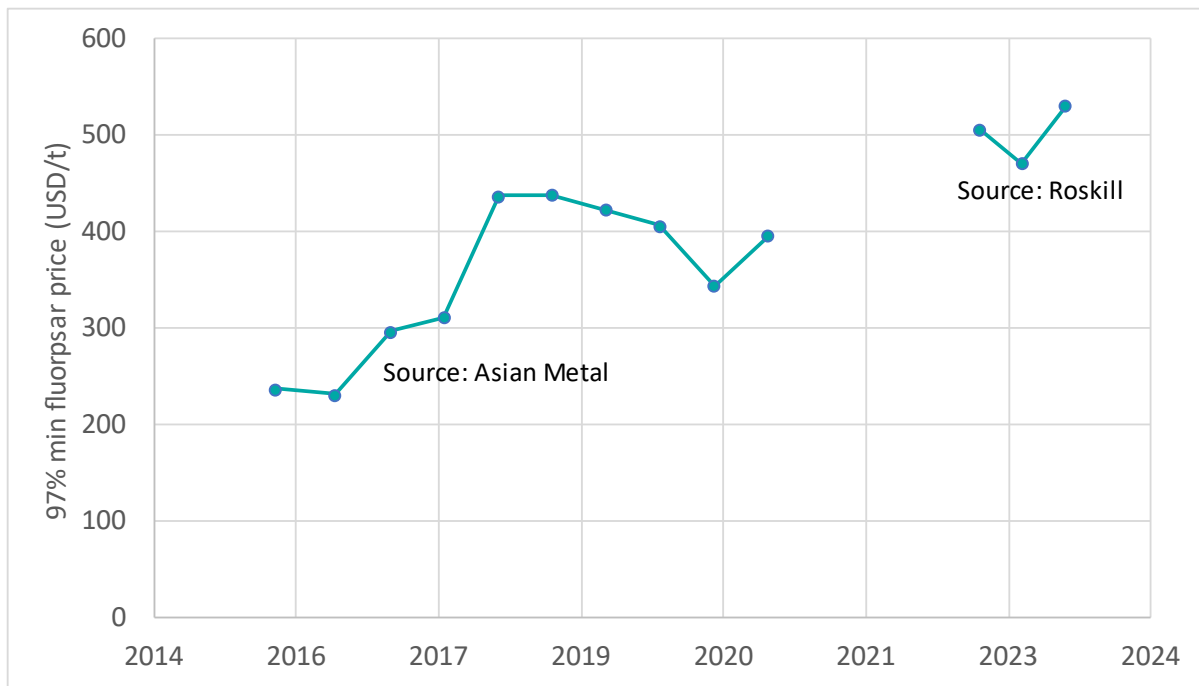
Recycling fluorine waste

ALCORE



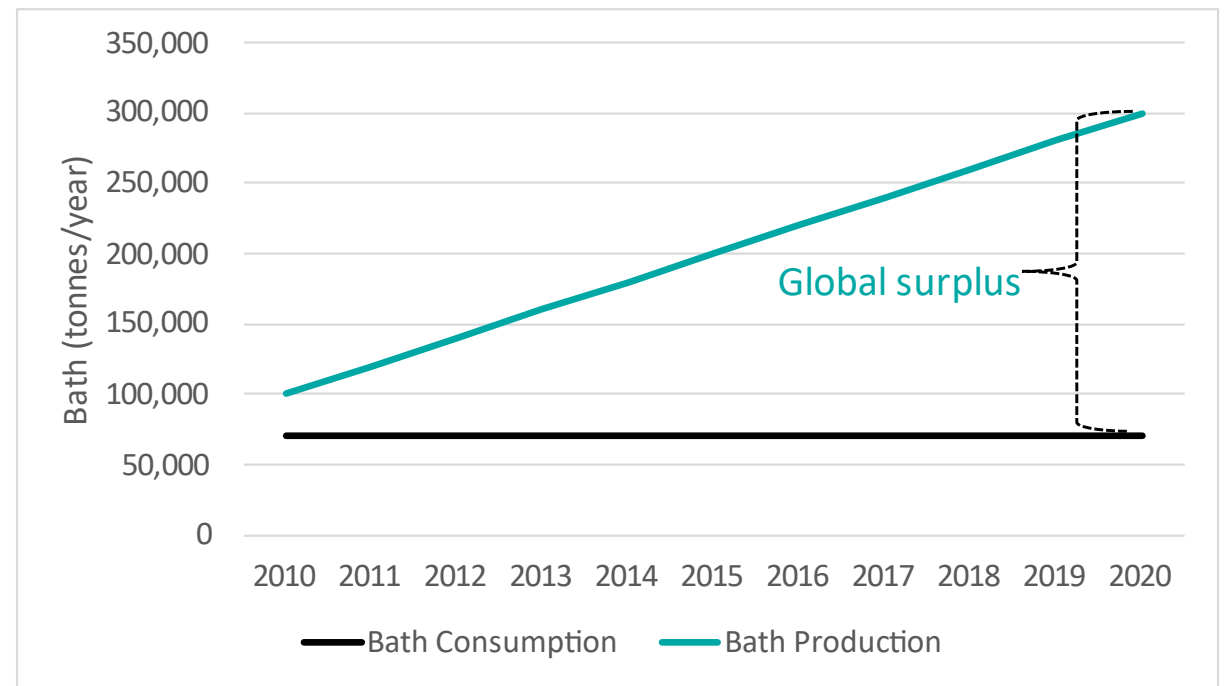
# Fluorine recycling is a significant opportunity

## Increasing fluorspar prices



Fluorspar is the main source of fluorine, and there are limited new resources

## New source of fluorine waste



Source: S.J. Lindsay, Bath generation and management, 10th Australasian Aluminium Smelting Technology Conference, 2011

Increasing surplus of 'aluminium smelter bath'

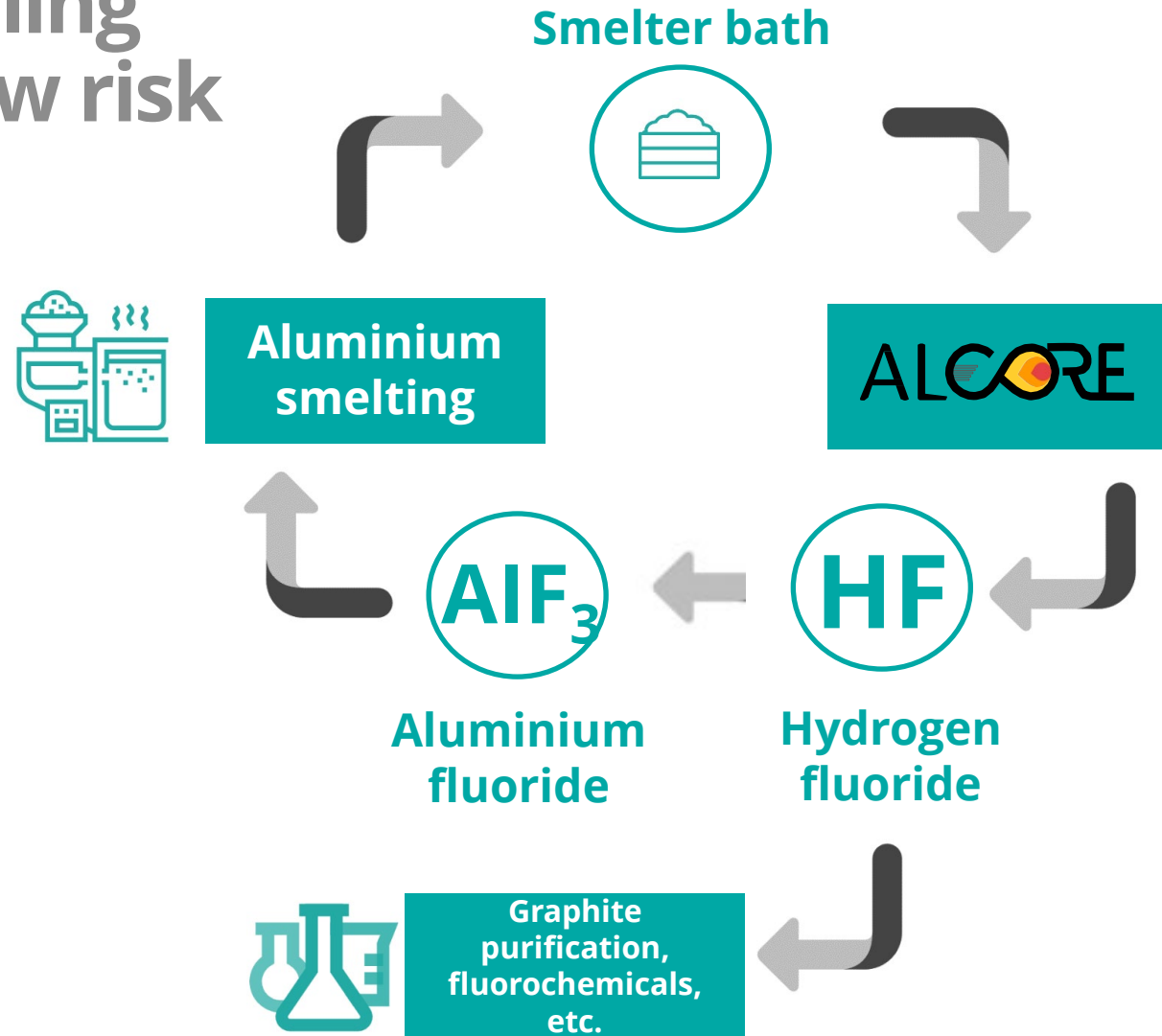
# ALCORE fluorine recycling process is relatively low risk

## Relatively low technical risk

Process is adaptation of existing commercial process to produce hydrogen fluoride from fluorspar

## Exemplary demonstration of circular economy

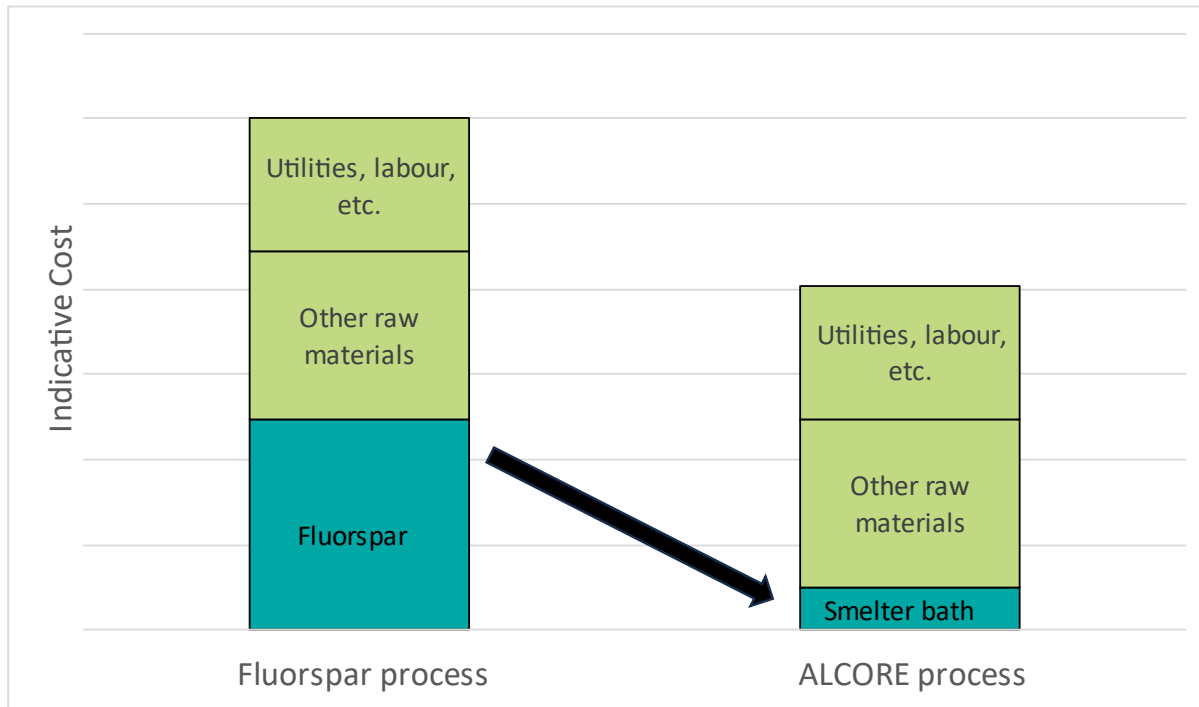
Waste from aluminium smelting used to produce chemical for aluminium smelting





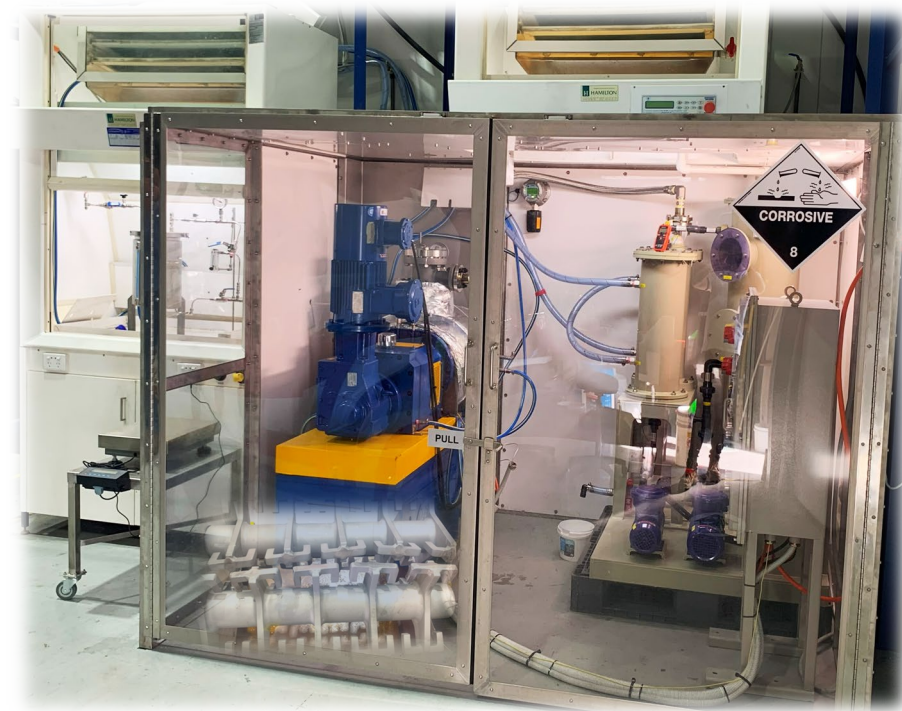
# ALCORE process has compelling advantages

Significantly lower operating cost



Substitute high-cost fluorspar with low-cost smelter bath

First mover



At pilot stage



**ABx Group Limited**

[www.abxgroup.com.au](http://www.abxgroup.com.au)

Level 4, 100 Albert Rd  
South Melbourne VIC 3205  
Australia

Phone: +61 3 9692 7222

E: [corporate@abxgroup.com.au](mailto:corporate@abxgroup.com.au)

**Mark Cooksey**

Managing Director and CEO

E: [mcooksey@abxgroup.com.au](mailto:mcooksey@abxgroup.com.au)



# Appendix

Company	Project	Stage	Study Level	Resource (Mt)		Grade (TREO) (ppm)	Cut-off grade (TREO-CeO <sub>2</sub> ) (ppm)	Tb <sub>4</sub> O <sub>7</sub> (ppm)	Dy <sub>2</sub> O <sub>3</sub> (ppm)	Reference		
Brazilian Critical Minerals	Ema	Exploration	-	1,017	Inferred	793	500	4	13	<a href="#">BCM ASX announcement</a>	Table 1	22 Apr 2024
Devex Resources	Kennedy	Exploration	-	150	Inferred	1,000	325	3.7	22	<a href="#">DEV ASX announcement</a>	Table 2	4 Jul 2024
Meteoric Resources	Caldeira	Exploration	Scoping	409	Inferred	2,626	1,000 <sup>1</sup>	5	25	<a href="#">MEI ASX announcement</a>	Table 2	1 May 2023
Viridis Mining and Minerals	Colossus	Exploration	Scoping	201	Indicated + Inferred	2,590	1,000 <sup>1</sup>	5	27	<a href="#">VMM ASX announcement</a>	Page 4	4 June 2024
ABx	Deep Leads	Exploration	-	89	Meas + Ind + Inf	844	350	5.2	31	<a href="#">ABX ASX Announcement</a>	Table 1	2 May 2024

<sup>1</sup>Cut-off grade is TREO (ppm)

The figures provided are the most recent reported by each company, and at the desired reported cut-off grade provided by each company's headline numbers. Each resource model contains its own economic and geological assumptions not represented in this table. Resource sizes and grades vary depending on the cut-off used by the specific company.