



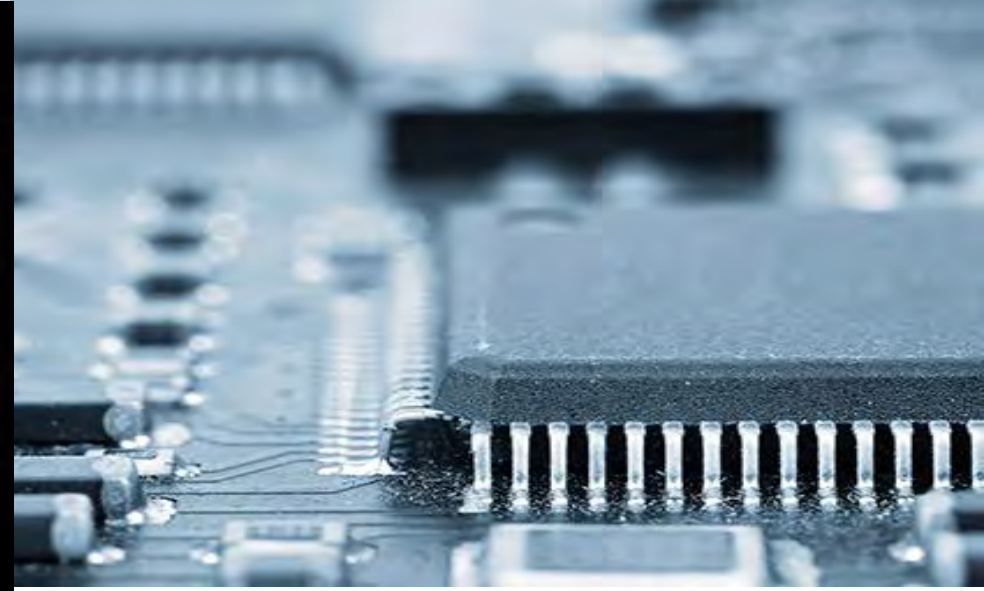
Developing a long-term strategic source of Rare Earths

January 2020

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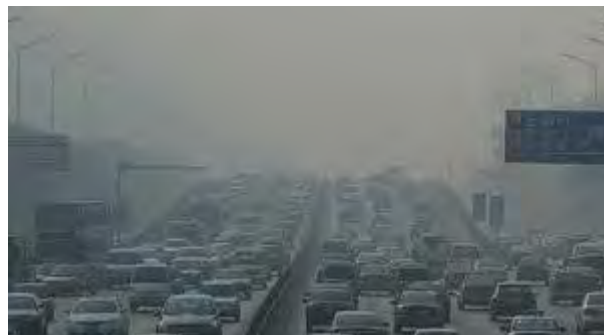
**Rare Earths - critical to the needs
of our changing world**

THE RISE OF RARE EARTHS

RARE EARTHS ARE CRITICAL TO THE NEEDS OF A GROWING, CHANGING WORLD

Key drivers of demand for REs are:

- Technological progress
- Environment/climate change
- Pollution/health
- Energy security
- Energy efficiency



WHAT ARE RARE EARTHS?

RARE EARTHS ARE A GROUP OF 17 METALS FREQUENTLY FOUND TOGETHER



H																	He	
Li	Be											B	C	N	O	F	Ne	
Na	Mg											Al	Si	P	S	Cl	Ar	
K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge	As	Se	Br	Kr	
Rb	Sr	Y	Zr	Nb	Mo	Tc	Ru	Rh	Pd	Ag	Cd	In	Sn	Sb	Te	I	Xe	
Cs	Ba	La-Lu	Hf	Ta	W	Re	Os	Ir	Pt	Au	Hg	Tl	Pb	Bi	Po	At	Rn	
Fr	Ra	Ac-Lr	Rf	Db	Sg	Bh	Hs	Mt										
Lanthanides ▶		La	Ce	Pr	Nd	Pm	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Xe		
Actinides ▶		Ac	Th	Pa	U	Np	Pu	Am	Cm	Bk	Cf	Es	Fm	Md	No	Lr		

Although not 'rare', economic deposits are scarce and separation difficult

Scandium (Sc)

Yttrium (Y)

Lanthanum (La)

Cerium (Ce)

Praseodymium (Pr)

Neodymium (Nd)

Promethium (Pm)

Samarium (Sm)

Lutetium (Lu)

Europium (Eu)

Gadolinium (Gd)

Terbium (Tb)

Dysprosium (Dy)

Holmium (Ho)

Erbium (Er)

Thulium (Tm)

Ytterbium (Yb)

WHAT ARE RARE EARTHS USED FOR?

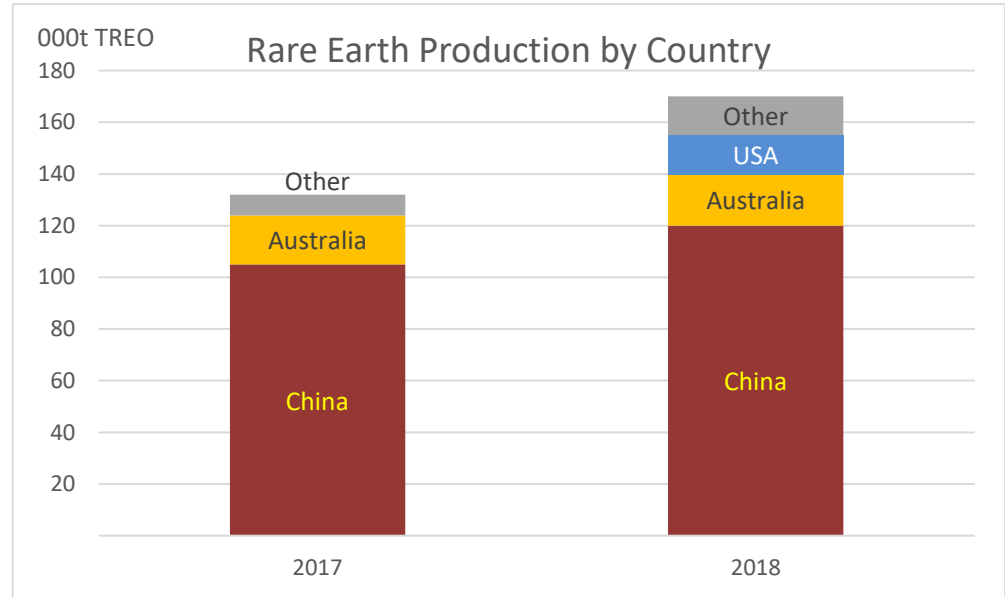
RARE EARTHS ARE USED FOR A VARIETY OF INDUSTRIAL AND TECHNOLOGICAL APPLICATIONS

APPLICATION	RARE EARTHS	DEMAND DRIVERS
Magnets	Nd, Pr, Sm, Tb, Dy	Automotive, Wind turbines, Drives for computers, mobile phones, mp3 players, cameras, Voice coil motors. Hybrid and Electric vehicles, Cordless power tools, Sensors, Medical imaging (MRIs)
Nickel Metal Hydride Batteries	La, Ce, Pr, Nd	Hydrogen absorption alloys for re-chargeable batteries
Phosphors	Eu, Y, Tb, La, Dy, Ce, Pr, Gd	LCDs, PDPs, LEDs. Energy efficient fluorescent lights/lamps
Fluid Cracking Catalysts	La, Ce, Pr, Nd	Petroleum production – greater consumption by ‘heavy’ oils and tar sands
Polishing Powders	Ce, La, Nd	Mechano-chemical polishing powders for TVs, monitors, tablets, mirrors and (in nano-particulate form) silicon chips
Auto Catalysts	Ce, La, Nd	Tighter NO _x and SO ₂ standards – platinum is re-cycled, but for rare earths it is not economic
Glass Additive	Ce, La, Nd, Er	Cerium cuts down transmission of UV light. La increases glass refractive index for digital camera lens
Fibre Optics	Er, Y, Tb, Eu	Signal amplification

RARE EARTHS – A STRATEGIC IMPERATIVE

RARE EARTHS ARE CRITICAL TO KEY ECONOMIC AND MILITARY APPLICATIONS

- China dominates RE production with few non-Chinese mines
- REs critical to:
 - Hi-tech economic growth
 - Green revolution
 - Military applications
- China using REs as a bargaining tool



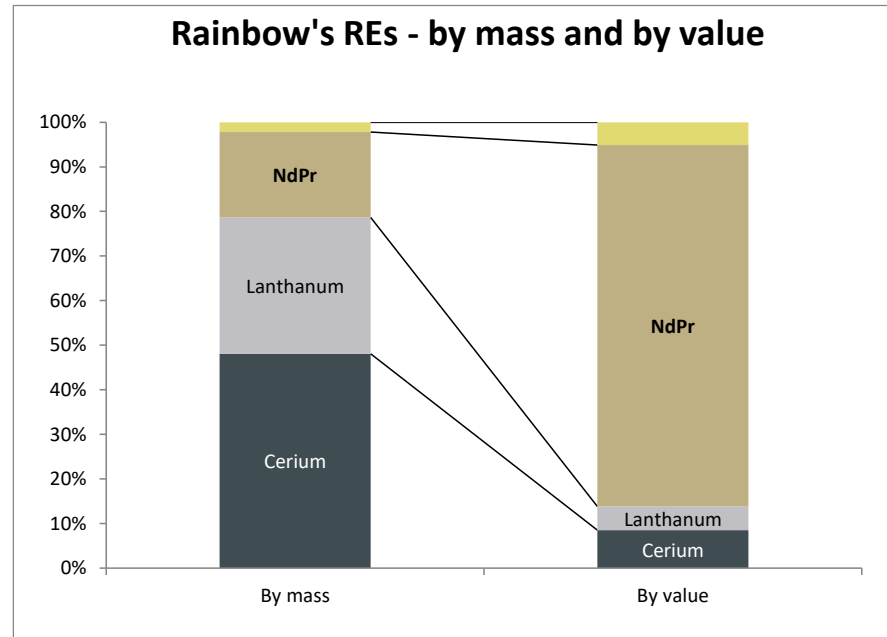
Source: US Geological Society



RARE EARTH MAGNETS – THE KEY VALUE DRIVER

NEODYMIUM AND PRASEODYMIUM ARE THE KEY VALUE DRIVERS FOR RAINBOW AND THE RE MARKET AS A WHOLE

- In most RE deposits, Neodymium (Nd) and Praseodymium (Pr) account for >80% of the value
- The primary use of NdPr is in the manufacture of permanent magnets
- RE magnets are the most powerful magnets in the world
- This means they make the most efficient and powerful drive motors in EVs, wind turbines
- Their strength means they can be made smaller – allowing for use in hi-tech applications such as smartphones, headphones, and iPads



PERMANENT MAGNETS – KEY USE OF REs (PARTICULARLY NDPR)

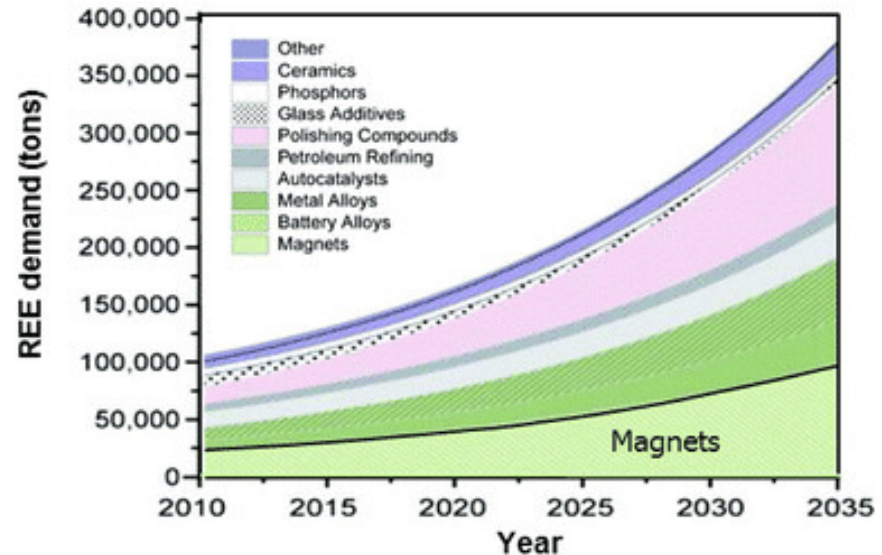
DEMAND FOR PERMANENT MAGNETS WILL DRIVE DEMAND FOR REs

Permanent magnets rule in:

- Electric Vehicles
- Wind farms
- Industrial motors
- Robots

REEs by weight in Permanent magnets

- NdFeB magnets contain ~31-32% REEs by weight.



Source: Adamas Intelligence Research, "EV, Motor Capacity, and Motor Metals Tracker" (Dysprosium oxide chart)

ELECTRIC VEHICLES – HUGE GROWTH ANTICIPATED

ELECTRIC VEHICLE USE IS SET TO ACCELERATE OVER THE NEXT 20 YEARS

New electric vehicle demand will dominate consumption of:

- Neodymium
- Praseodymium
- Terbium
- Dysprosium
- Lanthanum – hybrid EV batteries
- Samarium – high-power batteries
- Holmium – high-power batteries
- Lutetium – LEDs

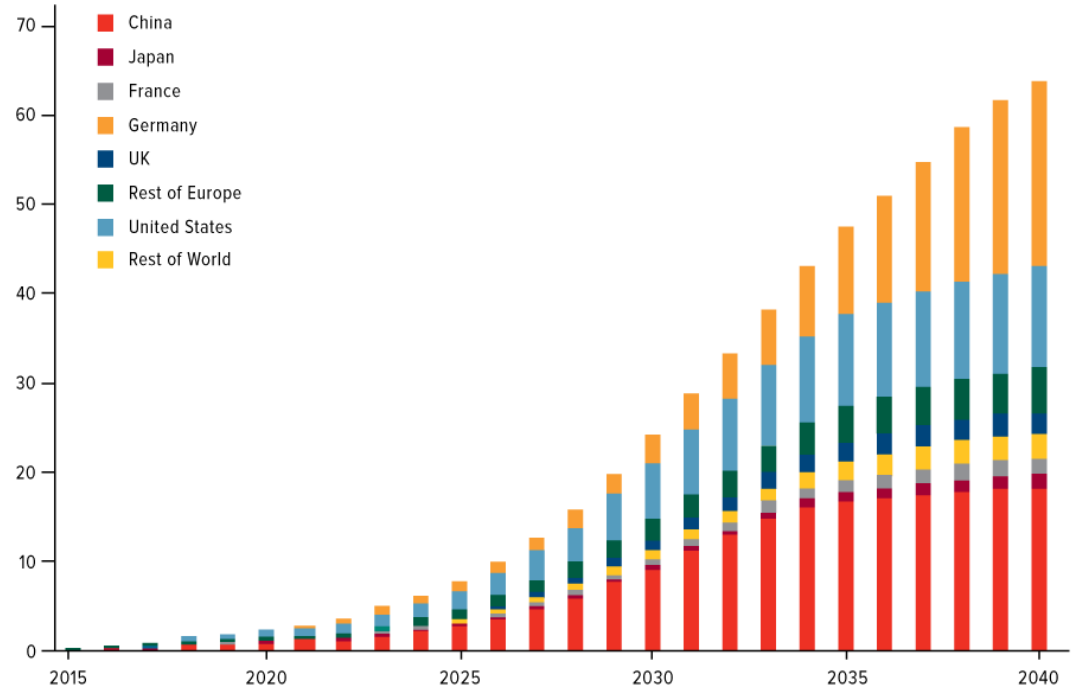
**Scientific American*

Other metals

- Cobalt
- Lithium
- Copper

Projected Annual Global Electric Vehicle Sales

Annual EV Sales In Millions



Source: Bloomberg New Energy Finance, Katasa Research, U.S. Global Investors

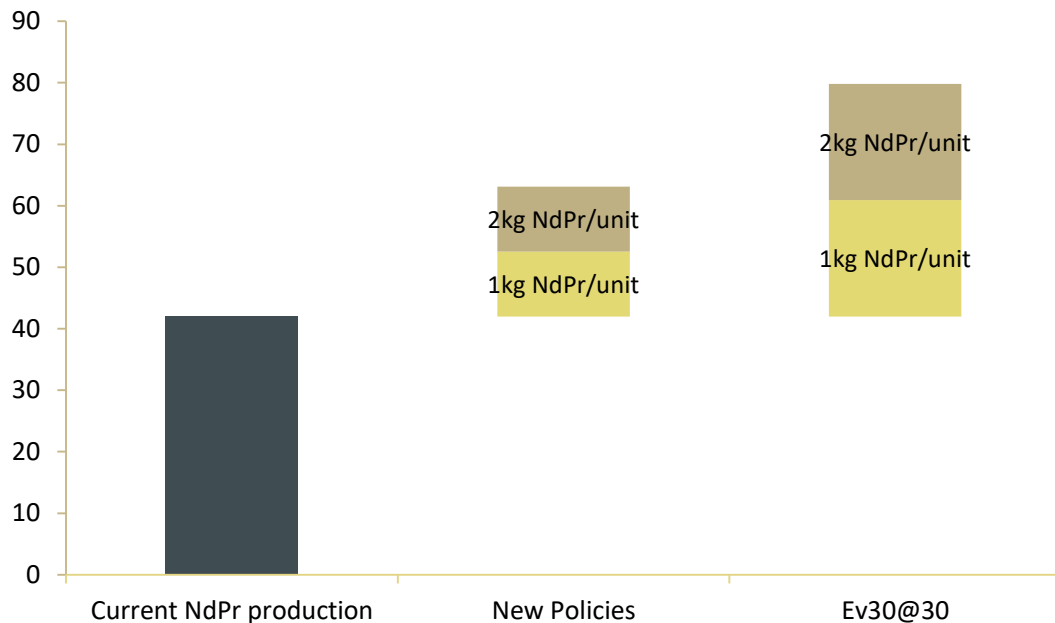
EVS WILL DRAMATICALLY INCREASE DEMAND FOR RES

INCREASE IN DEMAND FOR NdPr ALONE FORECAST TO BE BETWEEN 25 AND 90% BY 2030

- Each new EV requires between 1-2kg of NdPr
- Growth in EV production alone forecast to lead to increase in demand for NdPr of 25-90% by 2030
- Excludes demand growth from
 - Wind turbines
 - Drones
 - Motors
 - Robots

Increase in NdPr demand from EVs alone by 2030

Tonnes NdPr pa



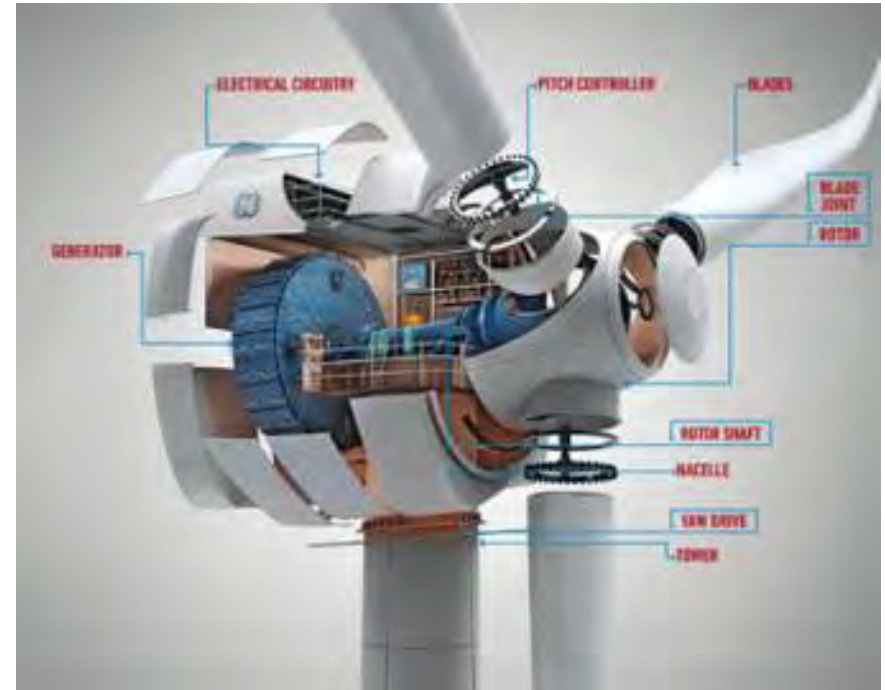
Source: International Energy Agency, Edison Investments Research note

WIND TURBINES – A MAJOR CONSUMER OF RE MAGNETS

MOST EFFICIENT WIND TURBINES USE CONSIDERABLE AMOUNTS OF RES

A 3MW direct drive turbine consumes close to 2/3rds tonne of rare earths in its permanent magnet

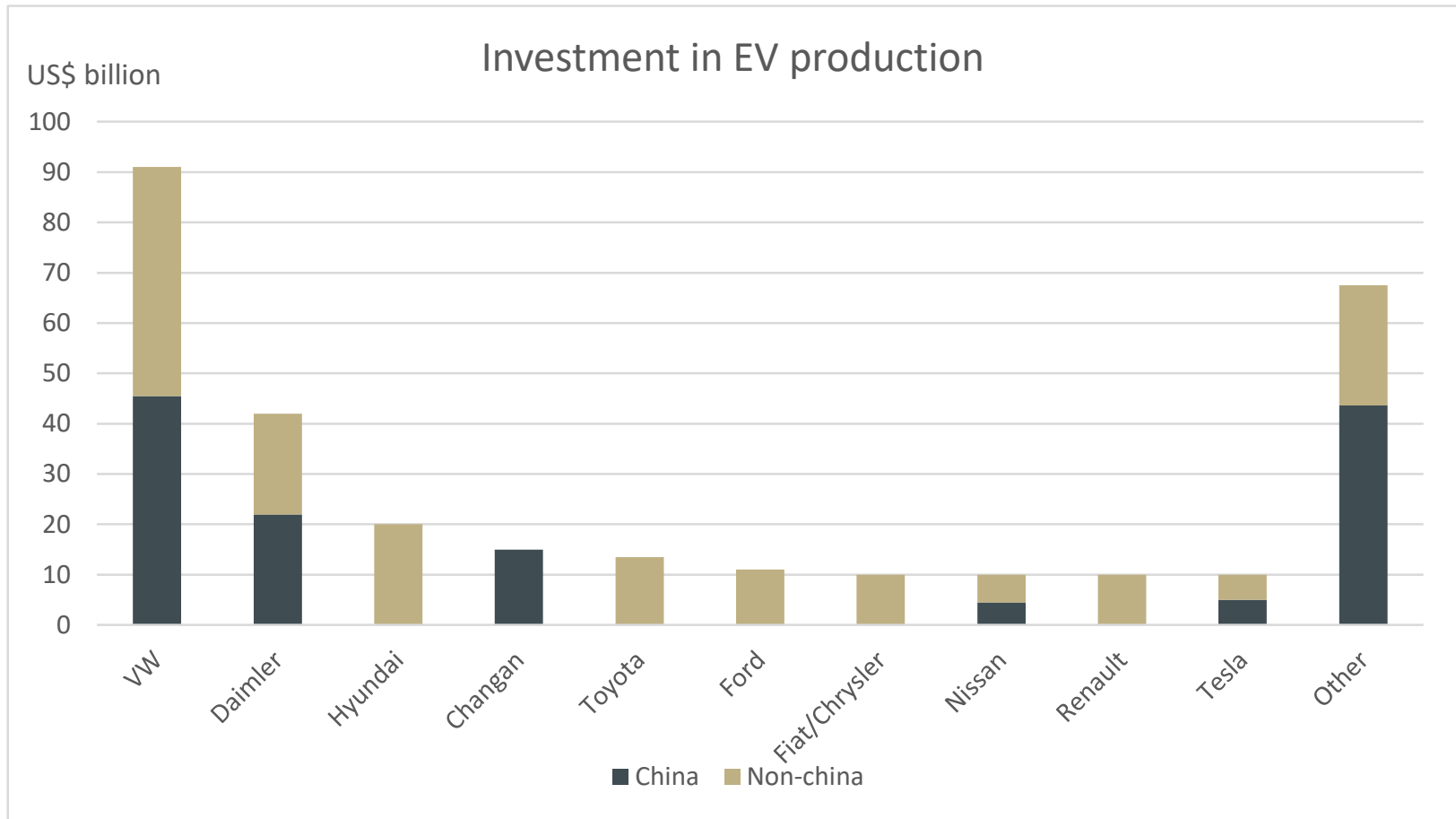
The wind turbine market is expected to account for approximately 30% of the global growth in the use of rare earths magnets from 2020 to 2025



Source: Lynas Corporation, SP Angel

INVESTMENT IN EVs

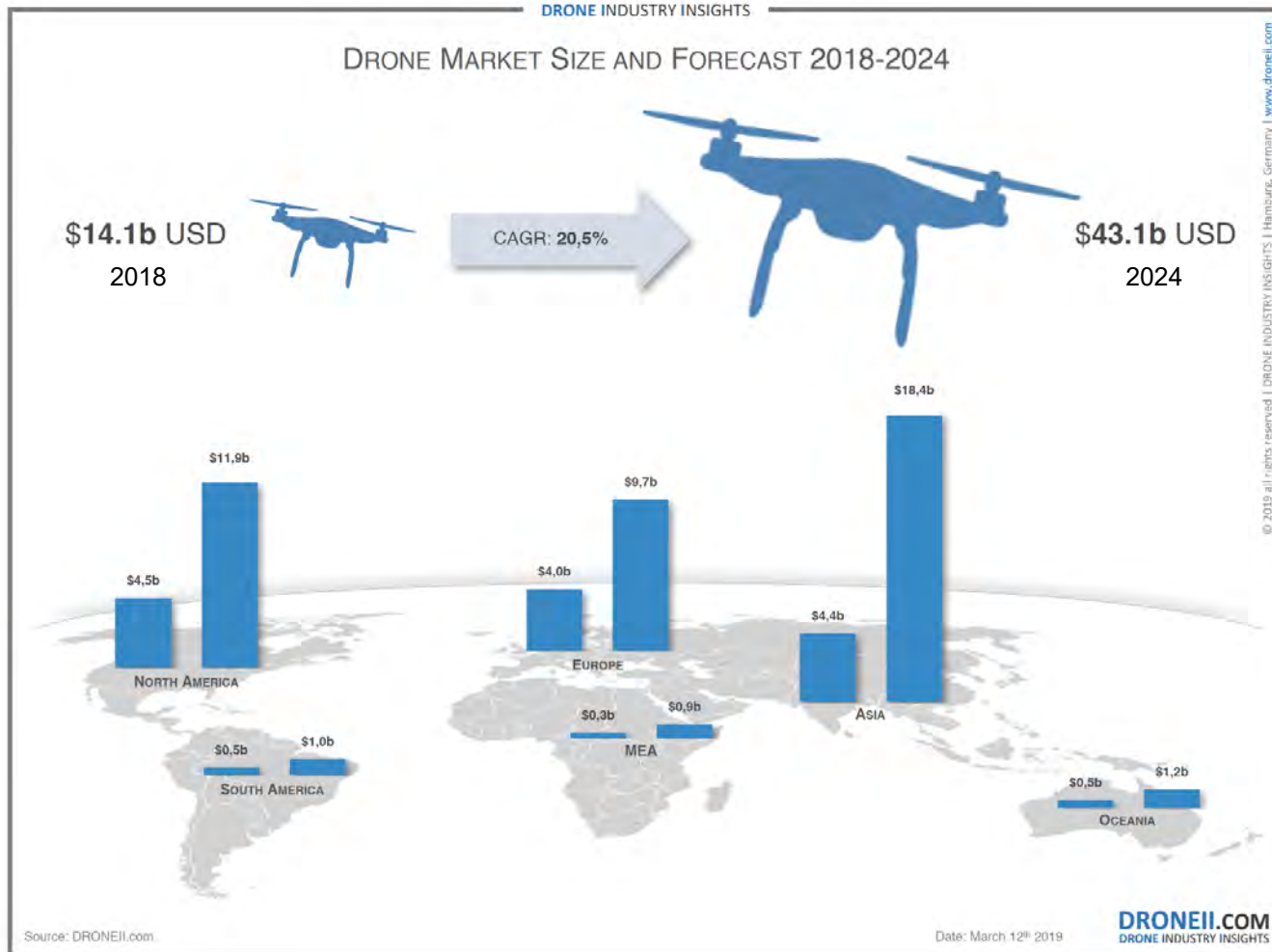
Global automakers have announce over US\$300bn to be invested in EV production



Source: Reuters

OTHER GROWTH AREAS - DRONES

DRONES RELY ON RE MAGNETS IN THEIR MOTORS



MILITARY APPLICATIONS

REs HAVE A NUMBERS OF NICHE MILITARY APPLICATIONS

Rare Earths (not only NdPr) are used in many advanced military applications

This means developed nations (notably US) are reliant on China for supplies of critical parts for their military

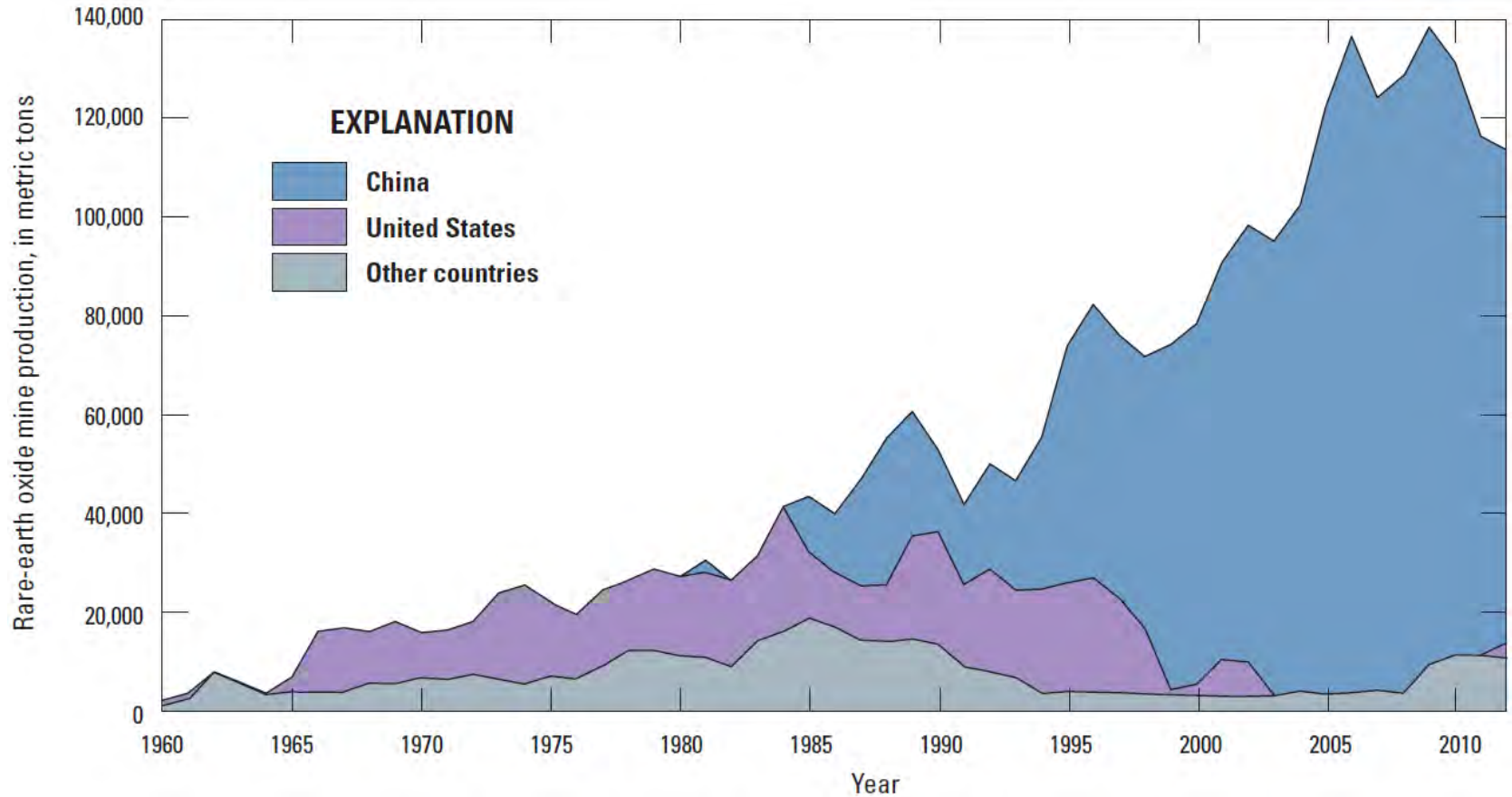




Production of REs – Chinese domination

WORLD PRODUCTION DOMINATED BY CHINA

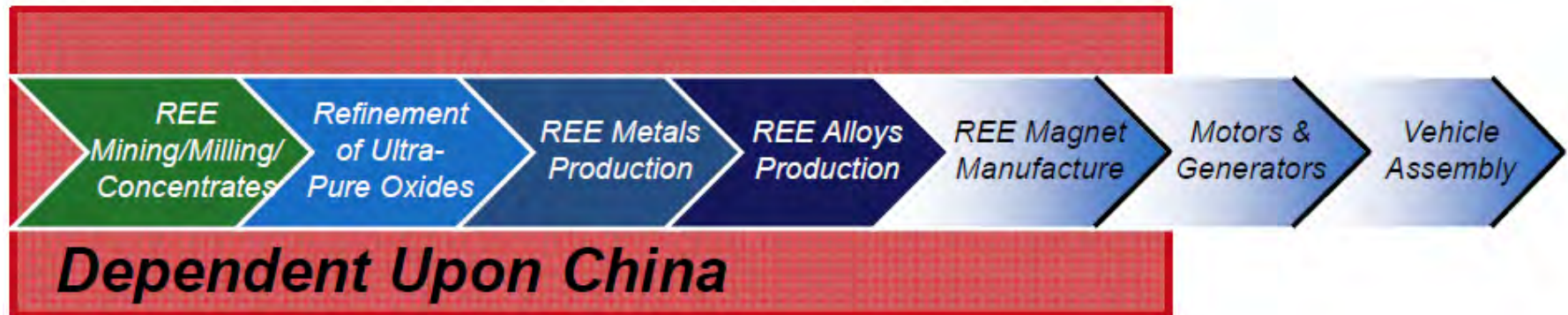
CHINA TOOK OVER FROM US AS THE DOMINANT RE PRODUCER IN THE MID 1980s



Source: US Geological Society

CHINA CONTROLS MOST OF THE SUPPLY CHAIN

CHINESE CONTROL OF EV SUPPLY CHAIN IS EXTENSIVE



Source: NATO Supply and Technology Organisation Collaboration Support Office

RARE EARTHS WEAPONIZED IN US-CHINA TENSIONS

INVESTORS AND GOVERNMENTS INCREASINGLY FOCUSED ON SECURING REs

There is no time to waste in the race for rare earth metals

Follow JULIAN TREGGE The Telegraph

17 SEPTEMBER 2019 - 6:00AM



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US-China trade dispute + Add to myFT

China's state planner suggests using rare earths in US trade war

FINANCIAL TIMES

NDRC statement follows Xi Jinping visit to magnet plant last week



Xi Jinping reviews the JL MAG Rare-Earth Company in Ganzhou last week © Xinhua News Agency/eyevine

US-China trade: what are rare-earth metals and what's the dispute?

The metals are used to produce a number of goods, including mobile phones and cameras



▲ Mountain Pass mine in California. Photograph: David Becker/Reuters

REUTERS'

Rare earths are Xi's ace card in 'Long March' of trade war



Save 54



Invoking China's history and Mao's 'Long March' shows Xi is digging in for a long fight with the US in the trade war

The Daily Telegraph

CHINA STATE MEDIA ON RARE EARTHS

- Global Times: China can play the "rare earths card"
- People's Daily: "Don't say we didn't warn you!"

CHINA THREATENS USING RARE EARTHS IN U.S. TRADE WAR

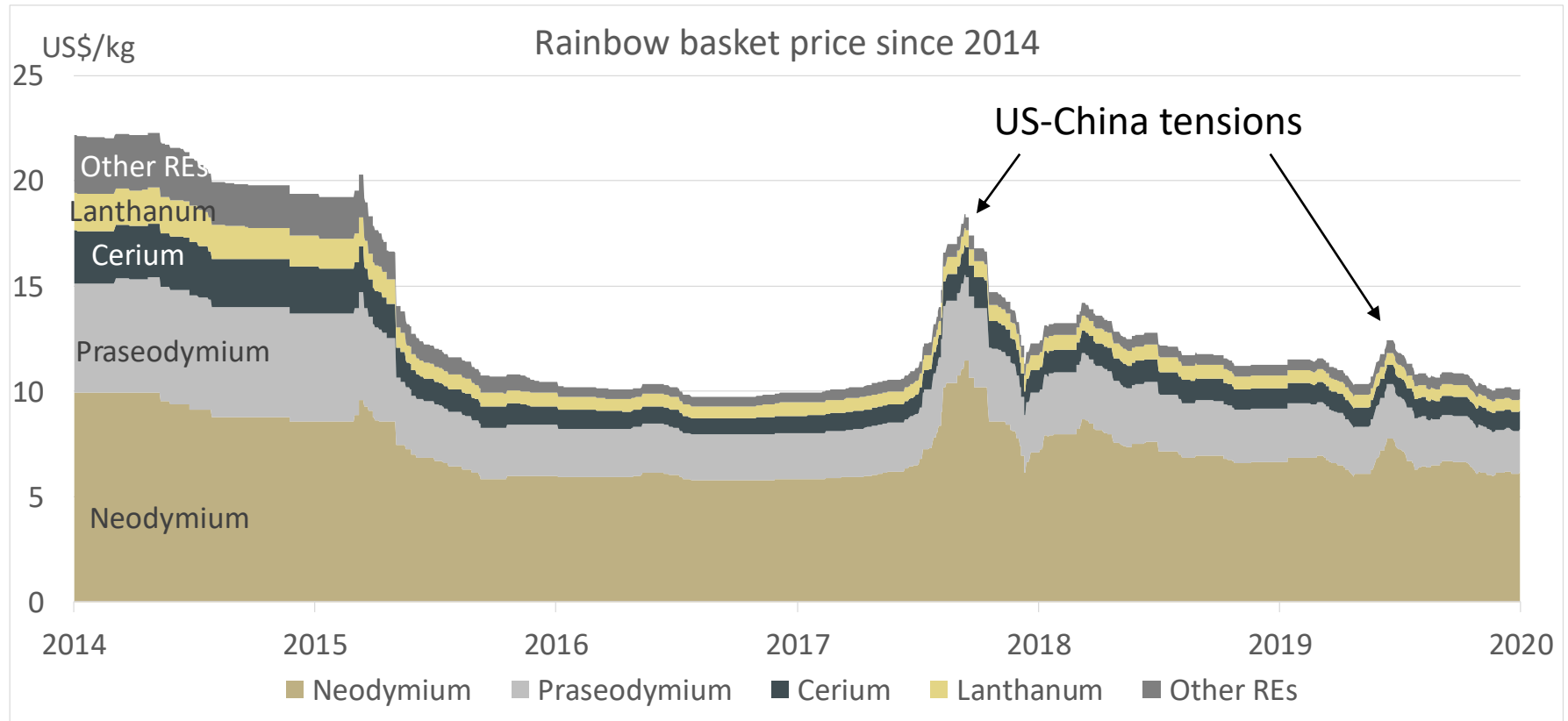
CNBC



Global Rare Earth Compounds Market 2019 is expected to demonstrate an enormous growth in the upcoming years. The analysts also have analyzed drawbacks with on-going Rare Earth Compounds trends and the opportunities which are devoting to the increased growth of the market. International Rare Earth Compounds market research report provides the perspective of this competitive landscape of worldwide

RE PRICES HAVE STAGNATED RECENTLY

Despite anticipated growth in demand, RE prices are close to 10-year lows



- Short-term prices are dictated by stock levels in China – and production quotas set by the government

Source: Argus Media. Prices based on standard composition of ores at Rainbow's Gakara project



Rainbow's project - Gakara

GAKARA PROJECT OVERVIEW

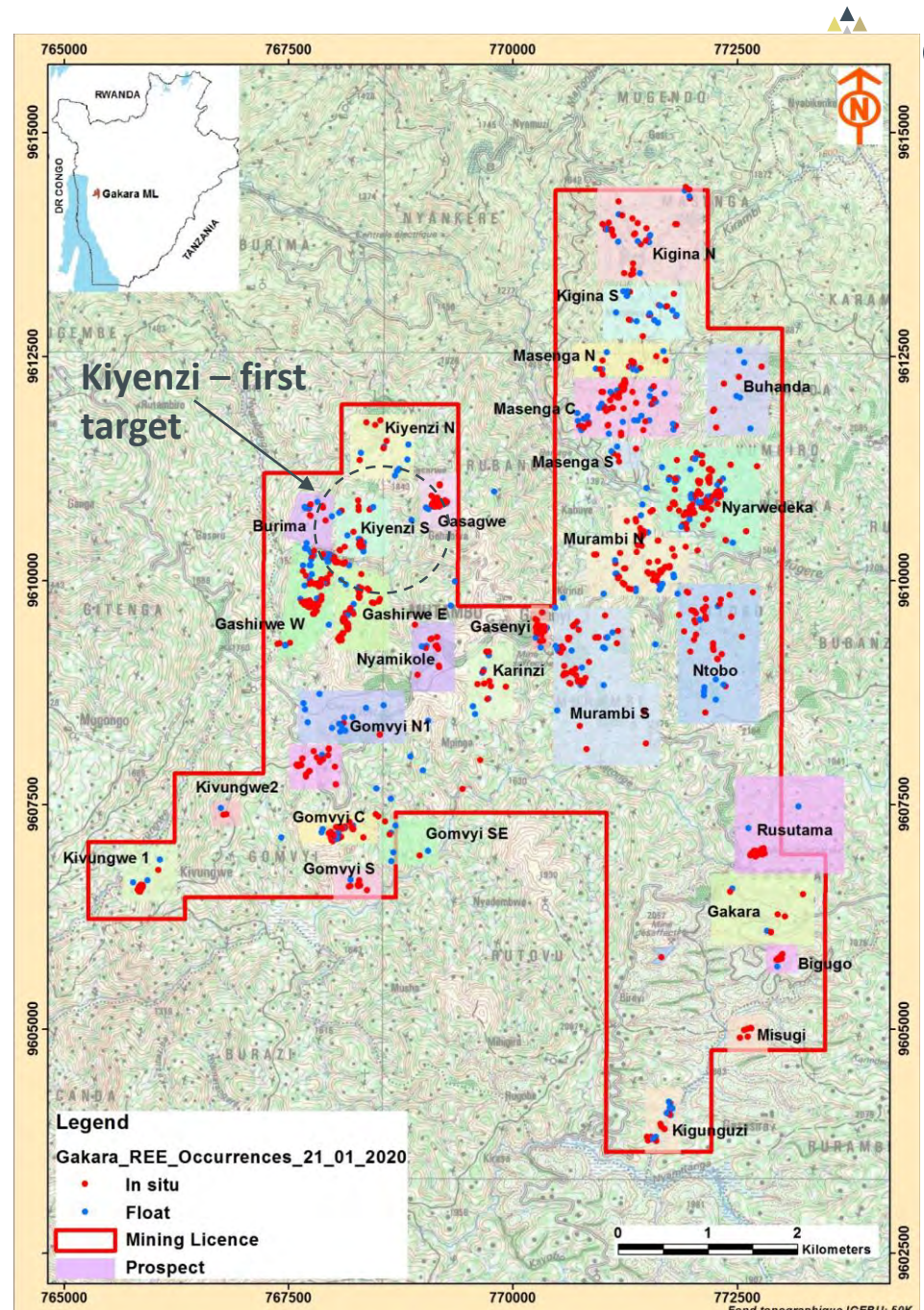
PRODUCING HIGH-GRADE RARE EARTH CONCENTRATE FROM THE ONLY AFRICAN RARE EARTHS MINE IN PRODUCTION

- Africa's only producing rare earth mine
- Commenced trial mining 2017
- Located just south of Bujumbura, Burundi (East Africa)
- Produces a Rare Earth (RE) concentrate of 54-58% TREO
- Basket weighted towards magnet REs: NdPr represent >80% of value (and 19.5% of mass)
- Drilling and expansion programme underway – targeting **10ktpa** concentrate as **first phase**

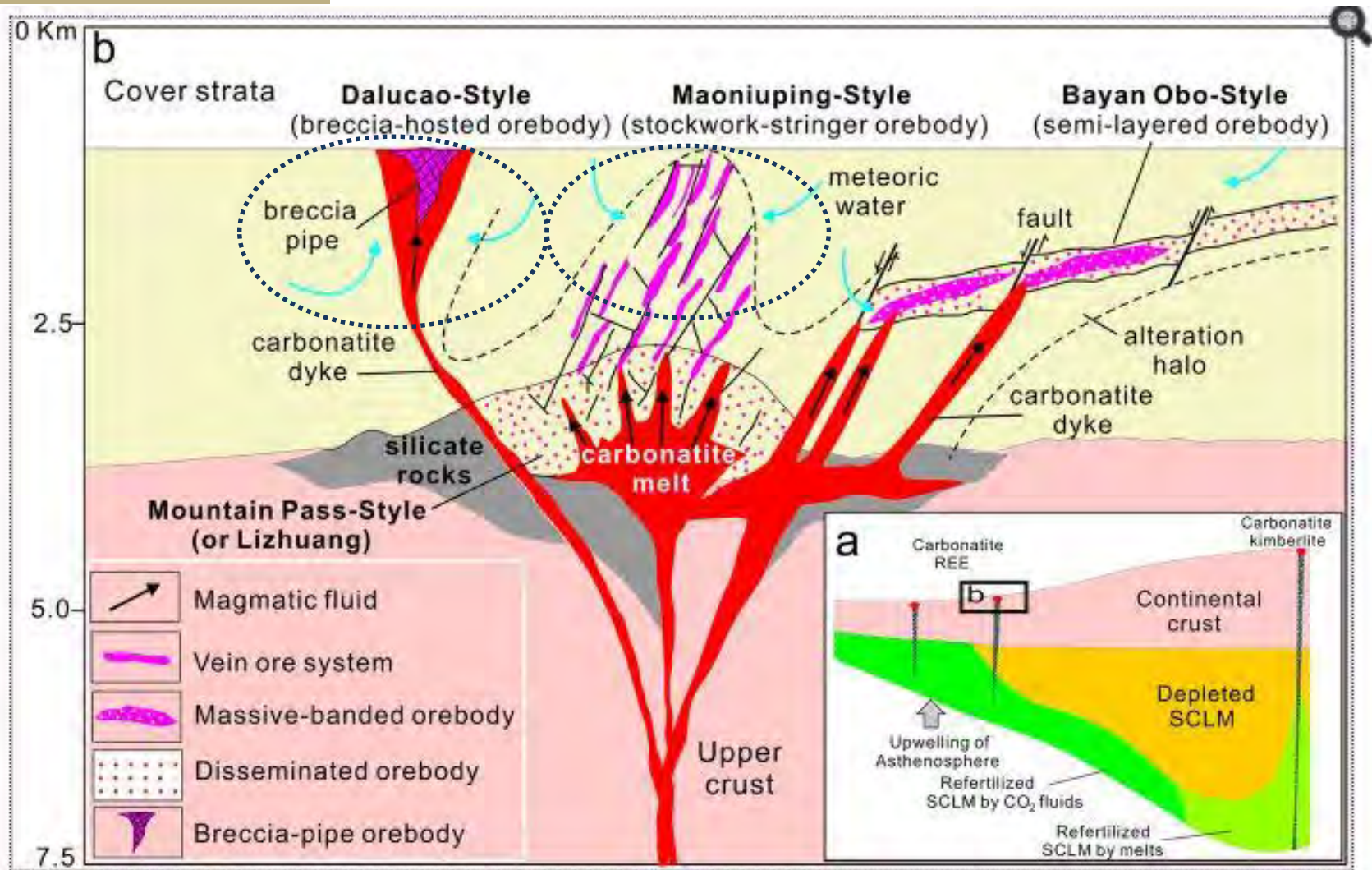


SCALE OF DEPOSIT

- Mining permit large – 39km²
- Over 1,000 occurrences of RE discovered
- 30 exploration targets or prospects with RE occurrences
- 7 historical Belgian mines within licence area
- Exploration focussing on producing initial JORC resource – to support 10ktpa production for 10 year LoM from first target (Kiyenzi)
- JORC Resource due to confirm target in March 2020



GAKARA DEPOSIT – A MIX OF BRECCIA AND HIGH-GRADE VEINS



ENVIRONMENTAL IMPACT OF RE PRODUCTION

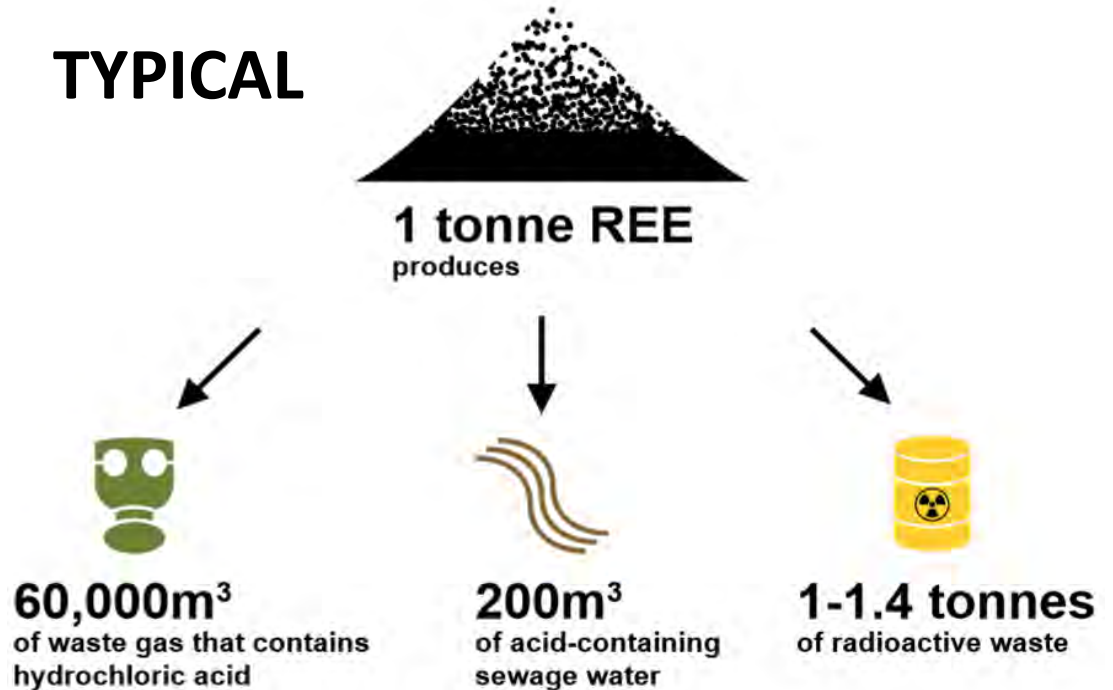
ENVIRONMENTAL IMPACT OF RE PRODUCTION OFTEN CONTRADICTS GREEN USES OF RE

Much of world's RE production is damaging to the environment

This stands in opposition to the green applications of RE products (eg EVs, wind turbines etc)

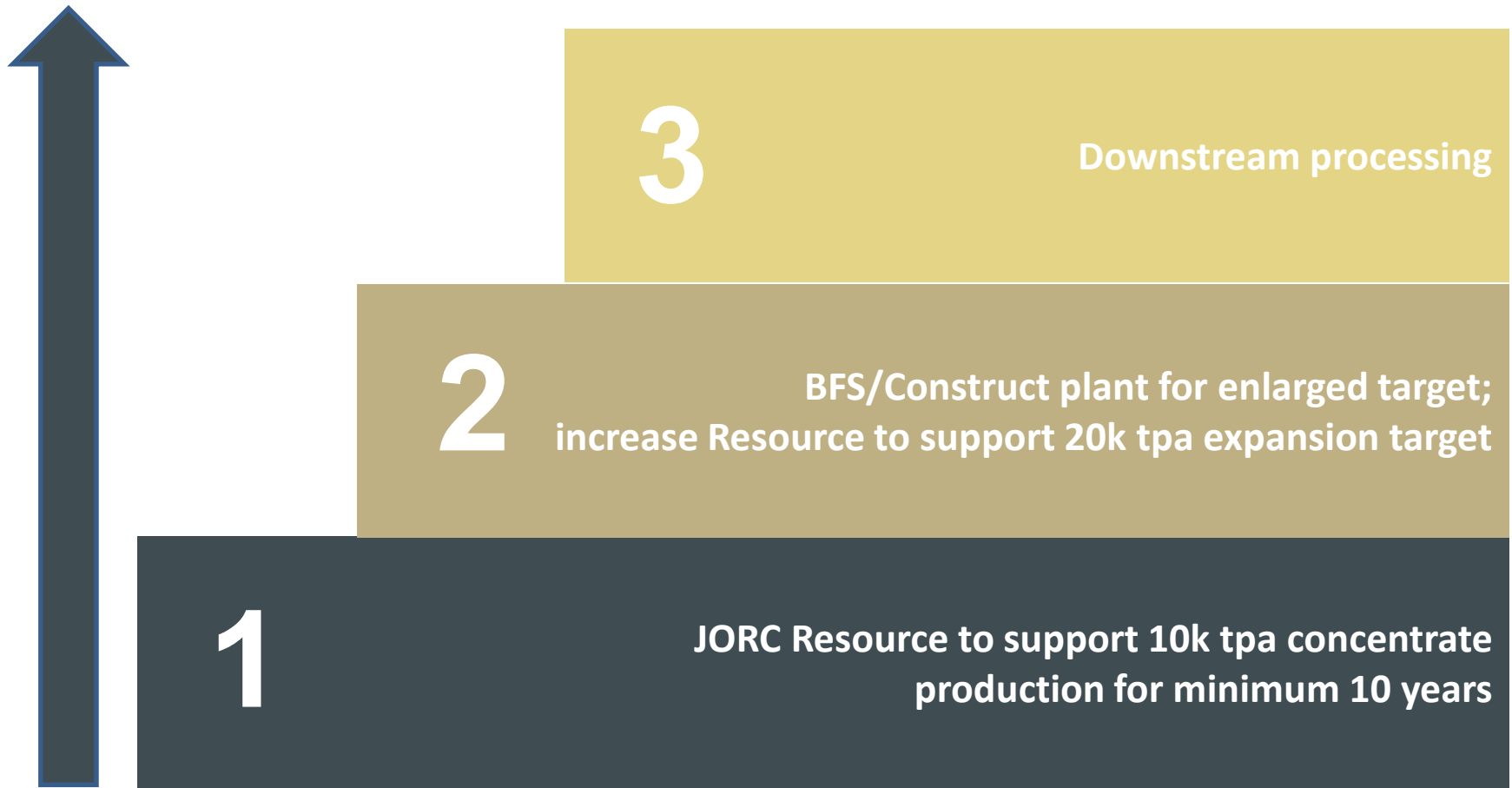
RE end users (eg VW, Tesla, Apple, etc) will increasingly insist on checking provenance

Rainbow's REE produces much less waste than other REE concentrate materials



RAINBOW'S STRATEGY

VALUE PROPOSITION IS BASED ON THREE STRATEGIC ELEMENTS



CURRENT EXPLORATION TO ENHANCE THE RESOURCE

WORK UNDERWAY TO REALISE THE ENORMOUS POTENTIAL OF THE DEPOSIT

- ▶ Existing drill cores (19) in process of being assayed in full
- ▶ Target to publish JORC resource before end of Quarter to 31 Mar 2020
- ▶ Further drilling planned at Kiyenzi to expand resource in terms of size and LoM
- ▶ Mineralogy/metallurgy of orebody – testwork ongoing
- ▶ Pre-feasibility study to be undertaken for much larger, bulk mine and processing plant

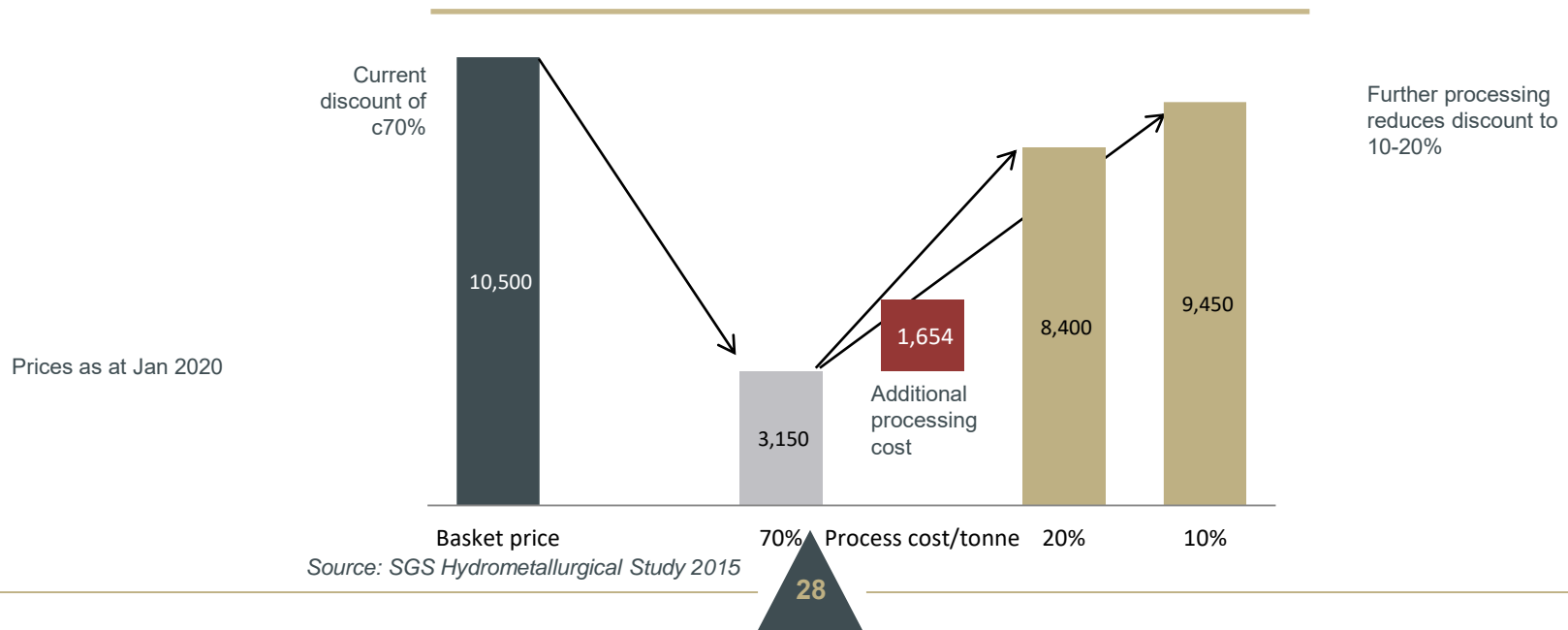


DOWNSTREAM PROCESSING AND SEPARATION

POTENTIAL TO INCREASE REVENUE AND PROFITABILITY SIGNIFICANTLY

- Rainbow takes a c70% discount to the published RE oxide prices
- Further processing of concentrate will reduce this significantly
- SGS scope study indicated capex US\$20-25m, opex US\$1,654 per tonne
- Revenue for 10ktpa would increase from c US\$17m to c US\$48-55m

Potential uplift for RE selling prices if processed to a Mixed Rare Carbonate



POTENTIAL FINANCING OPTIONS

STRATEGIC NATURE OF REs OPENS UP NEW SOURCES OF FUNDING

- Following completion of Resource and a BFS, debt funding will be used to finance the majority of construction costs
- Capital markets remain tough for junior miners – however alternative sources may be available:
 - **Funds driven by environmental, social and governance (ESG) mantra**
 - **Auto manufacturers** – have announced plans to invest US\$300bn in EV production and will need secure supply of strategic REs
 - **Governments** – US and EU already taking steps to secure supply (eg Japan financing of Lynas)

RAINBOW'S ADVANTAGE

Typical mining project takes 7-10 yrs to reach production – Rainbow will take 2-3 yrs



Rainbow represents a route to a cheaper, faster and more reliable source of REs than most alternatives

SUMMARY

RAINBOW – A STRATEGIC SOURCE OF REs FOR A GROWING MARKET

- Huge growth in demand
- RE producers facing pressure – environmental, health & safety, radioactivity
- Growing supply/demand imbalance
- Rainbow’s deposit world-class
- Production scalable – free dig, benign mineralogy, low radioactivity
- Rainbow concentrate production – stage 1: 10ktpa; stage 2: 20ktpa

Rainbow is a unique asset in a market on the cusp of major growth



BOARD

A BLEND OF CORPORATE, AFRICAN, RARE EARTH & PROJECT DEVELOPMENT EXPERIENCE



George Bennett
CEO

- 25 years in finance and management, including as partner in stockbroking/advisory firms in S Africa
- Former CEO of Shanta Gold Ltd, successfully listed on LSE in 2005
- Financed and started MDM Engineering, responsible for building over 100 feasibility studies – sold after 8 years to Foster Wheeler for US\$120m
- Seed-funded and raised initial capital for OreCorp Ltd



Adonis Pouroulis
Non-Executive Chairman

- Mining engineer: an entrepreneur whose expertise lies in the discovery, exploration and development of natural resources across Africa including diamonds, precious/base metals, coal and oil and gas.
- Founder and Chairman of Petra Diamonds (LSE:PDL); Founder and Director of Chariot Oil & Gas (AIM:CHAR) and Founder of Pella Resources Limited



Shawn McCormick
Non-Executive Director

- International affairs specialist
- Over 25 years of political and extractive industries sector experience having served in The White House as Director for African Affairs on the National Security Council (Washington)
- Previously Political Affairs Director of BP (London) and VP of TNK-BP (Moscow)



Robert Sinclair
Non-Executive Director

- Chartered Accountant with over 38 years' experience in finance & accountancy
- Founder and former MD of Artemis Trustees Limited
- Fellow of the Institute of Chartered Accountants in England and Wales



Alexander Lowrie
Non-Executive Director

- Investment banker with 13 years' experience and previous director roles at Deutsche Bank and RBS
- Co-founder of Telemark Capital LLP
- Significant market experience: IPOs and primary and secondary equity offerings



Atul Bali
Non-Executive Director

- Corporate CEO with extensive experience in tech, government contracting and regulated industries
- Currently Non-Executive Director of Gaming Realms Plc and Chairman of Meridian Gaming
- Previously held divisional CEO or President positions with IGT (NYSE), Aristocrat (ASX), and Real Networks (NASDAQ), as well as a venture capital firm

MANAGEMENT

A BLEND OF CORPORATE, AFRICAN, RARE EARTH & PROJECT DEVELOPMENT EXPERIENCE



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Jim Wynn
CFO

- 15 years' experience in mining sector
- Chartered accountant
- Formerly Finance Director of Avocet Mining PLC, having worked at Anglo American plc in Business Development



Cesare Morelli
Chief Geologist

- 29 years' experience in minerals exploration in Africa
- 18 years in diamond exploration with De Beers managing projects in south, west and central Africa
- Member of the South African Geological Society and the South African Council for Natural Scientific Professions.



Dave Dodd
Technical Director

- 45 years of extractive metallurgy experience covering research and development, technical sales and predominantly metallurgical project development and execution
- Technical Director and co-founder of MDM Engineering 1987-2014
- Has designed and commissioned plants across Africa and the RoW, covering minerals from REEs to gold, platinum, diamonds, copper, zinc, phosphate, cobalt and many others



Chris Attwood
Mine Manager

- More than 20 years' experience in mining and extractive industries
- Qualified mining engineer (Cambourne School of Mines)
- Has worked throughout Africa (including Tanzania and Eritrea) as well as the rest of the world
- As well as rare earths, Chris has experience with gold, tin, coal, and quarrying operations



Gilbert Midende
Country Manager

- Former Burundi Minister of Mines (1988-1993)
- Doctor of Geological Science (Université Libre de Bruxelles)
- Former professor of Economic Geology at Bujumbura University
- Consultant to the World Bank since 2007

KEY DATA

TICKER	MARKET	MARKET CAP	SHARE PRICE	SHARES IN ISSUE	BROKERS
RBW.L	LSE	US\$18m	3.65p	380m	SP ANGEL TURNER POPE

As at 27 Jan 2020

BOARD & MANAGEMENT

SHAREHOLDER	HOLDING
Adonis Pouroulis	18.88%
George Bennett	8.61%
Shawn McCormick	2.33%
Alexander Lowrie	1.39%
Robert Sinclair	1.20%
Atul Bali	0.49%
Cesare Morelli	0.50%
Gilbert Midende	0.51%
Jim Wynn	0.27%
Total	34.17%

SHARE PRICE

