COLLERINA
Cobalt Limited

ASX: CLL

October 2017

Collerina Cobalt Limited

Mining the Metals of the Future

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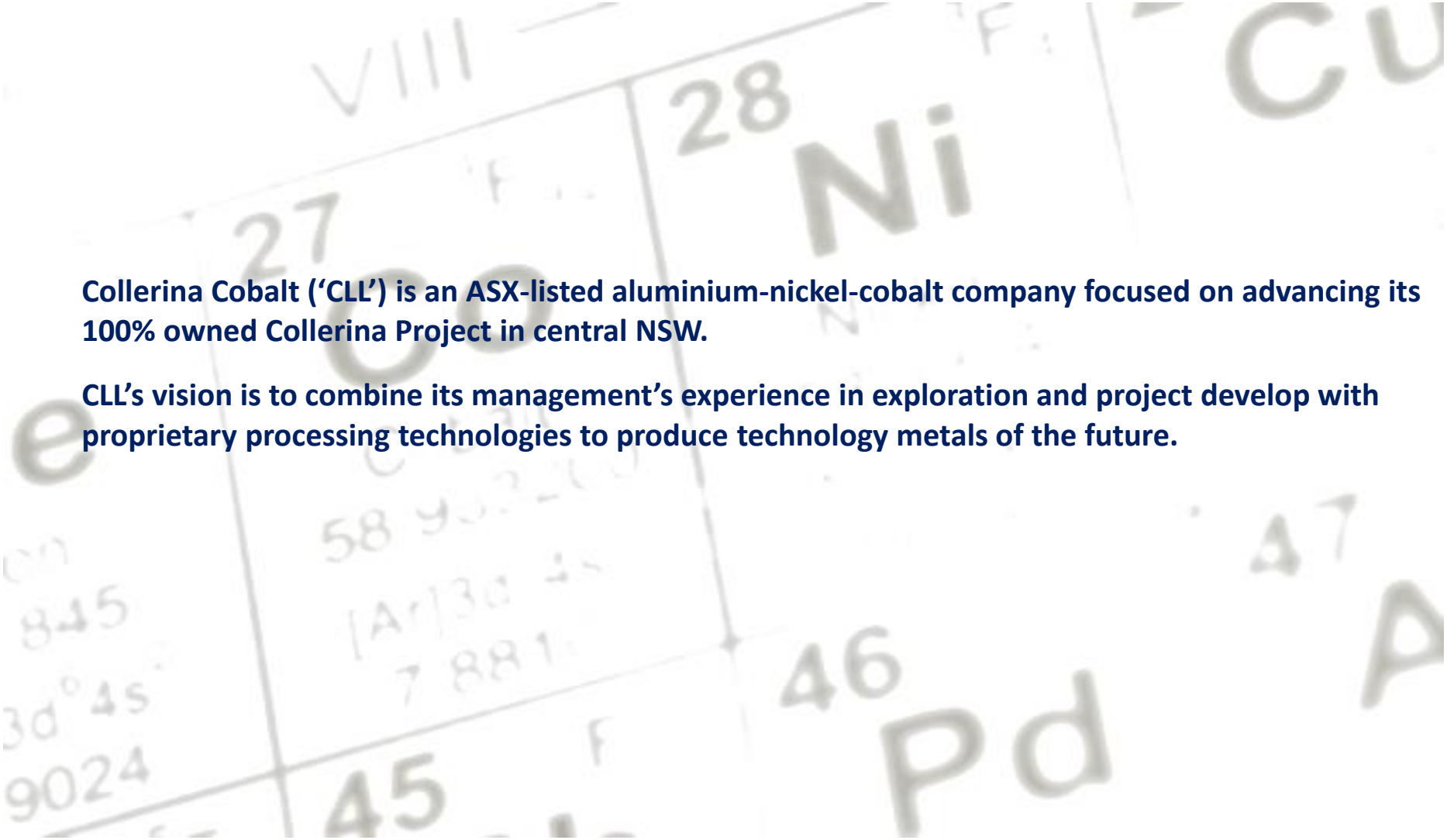
Collerina Cobalt Limited (ASX : CLL)



Collerina Cobalt ('CLL') is an ASX-listed aluminium-nickel-cobalt company focused on advancing its 100% owned Collerina Project in central NSW.

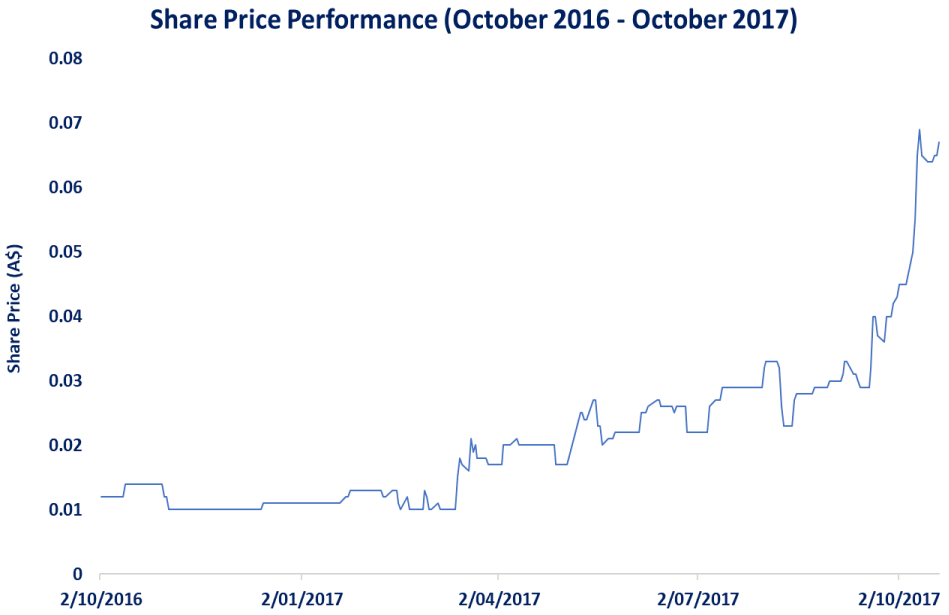
CLL's vision is to combine its management's experience in exploration and project develop with proprietary processing technologies to produce technology metals of the future.

Corporate snapshot

Trading Information

ASX Code	CLL
Share Price (23-Oct-17)	6.4c
52 trading low/high	1.7c-6.9c
Issued shares	441.8M
Unlisted options (@2c)	10.0M (expire 24 October 2018)
Market Capitalisation	$28.3M
Cash (30-Jun-17)	$0.5M
Debt	-
Enterprise Value	$27.8M

Substantial Shareholders	**%**
PT Archi Indonesia	25.02
Permgold Pty Ltd	11.79
Budworth Capital Pty Ltd	6.90
BT Portfolio Service Limited	6.21
Top 20 Shareholders	77.38



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Board and management

Norman Seckold - Chairman
30+ years in the full time management of natural resource companies.
Past Chairman and Director of listed companies including Bolnisi Gold NL, Timberline Minerals Inc., Perseverance Corporation Limited, Valdora Minerals NL**,** Palmarejo Silver & Gold and Cockatoo Coal Limited. Currently Chairman of Santana Minerals Limited and Planet Gas Limited and unlisted public company Nickel Mines Limited.

Justin Werner – Managing Director
20+ years' mining experience as a resource company consultant and developer.
Founding partner of PT Gemala Borneo Utama (BUDUK Gold Project and Romang Island Project).
Romang Island was successfully sold to Robust Resources Limited.
Currently Managing Director of unlisted public company Nickel Mines Limited.

Peter Nightingale - Director and CFO
20+ years as a Director or Company Secretary for a range of resource companies including Pangea Resources Limited, Timberline Minerals Inc., Perseverance Corporation Limited, Valdora Minerals NL, Mogul Mining NL, Bolnisi Gold NL, Cockatoo Coal Limited and Sumatra Copper & Gold plc.
Currently a Director Planet Gas Limited, Argent Minerals Limited, and unlisted public companies Nickel Mines Limited and Prospech Limited.

Richard Edwards - Company Secretary
10+ years providing financial reporting and company secretarial services to a range of publicly listed companies.
Currently Company Secretary of ASX listed companies Indo Mines Limited, and unlisted public companies Nickel Mines Limited and Prospech Limited.

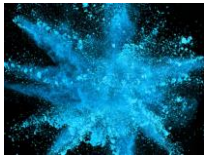
Technology Metals of the Future

Why invest in this space?

With the increasing adoption of clean, energy efficient technologies such as lithium-ion batteries and LED lighting, CLL sees a strong future demand growth for the Nickel, Cobalt and High Purity Alumina (HPA) products it intends to produce.

Strong demand fundamentals

Laptops/tablets

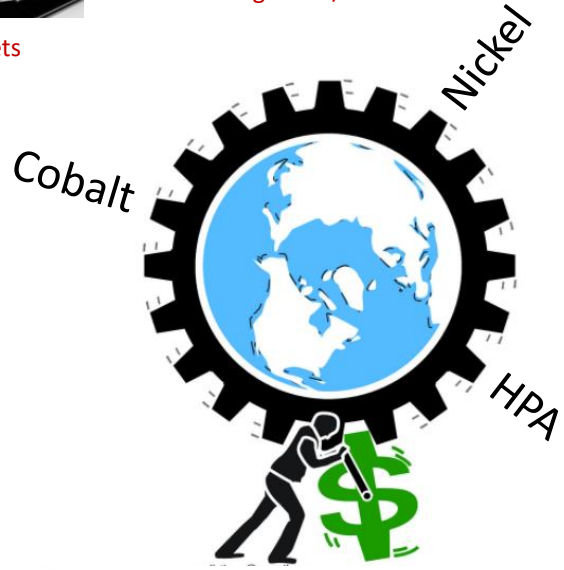


Pigments/Ceramics

LED Lighting

Limited supply capacity

Lithium-ion batteries



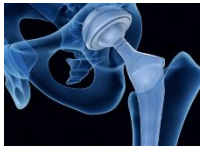
Electric Vehicles

Super alloys

Semi-conductors

Strong commodity price outlook

Mobile phones



Medical applications

Industrial tools

Robust margins

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High Purity Alumina (HPA)

CLL has identified an opportunity to monetise its Aluminium resource by producing a High Purity Alumina (HPA)

What is HPA?

HPA is a white, granular, powder form chemical that is a pure form of Aluminium oxide (Al_2O_3)

Al_2O_3 - alumina or aluminium oxide is the primary feedstock for the fabrication of metallic aluminium.

~90% of Alumina is Smelter Grade Alumina (SGA) used for aluminium metal production.

~10% is used in the non-metallurgical alumina market and directed to specialty or chemical uses.

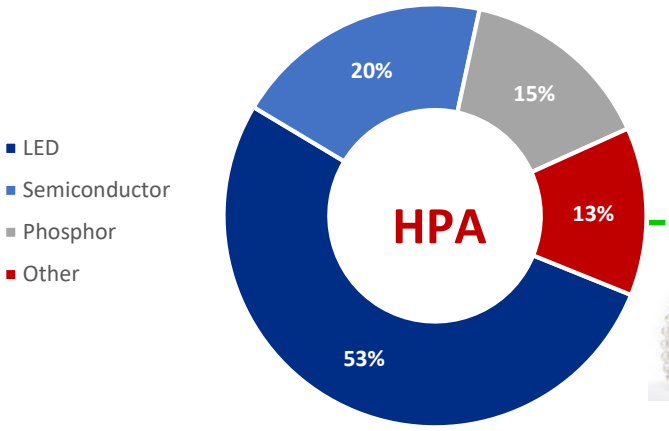
HPA possesses a number of attributes that make it a key base material in the manufacture of sapphire substrates used in a growing range of high-performance products and applications:

- Corrosion resistant
- Extreme harness
- Chemical stability and biocompatibility

Demand for HPA

Demand for HPA is primarily being driven by the increasing adoption of LED (Light Emitting Dioxide) products, separators in lithium ion batteries and scratch resistant artificial sapphire glass for smartphone screens and watches.

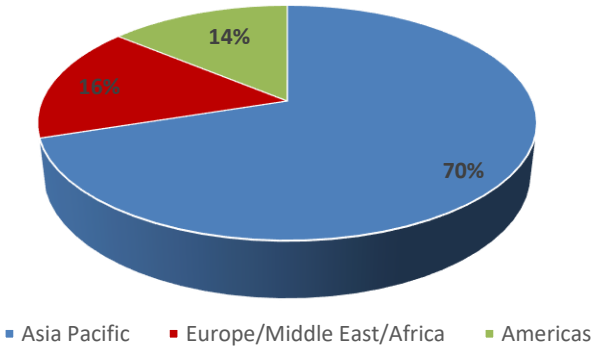
4N HPA Consumption by Application (2016)



Source: Persistence Market Research

- Growth for HPA has predominantly been driven by LED- based lighting applications which currently account for ~53% of the HPA market. LEDs are expected to account for ~60% of the HPA market by 2020.
- Scratch resistant sapphire glass for mobile phone screens and watches, separators in lithium ion batteries and lenses are the fastest growth areas in the HPA market.

HPA Demand by Geographic Region (2016)



- Growth demand is dominated by the APAC Region (~70% in 2016) primarily China, Japan and South Korea.
- As a would-be Australian based HPA producer, CLL is ideally placed to service the most dominant region of global HPA demand.

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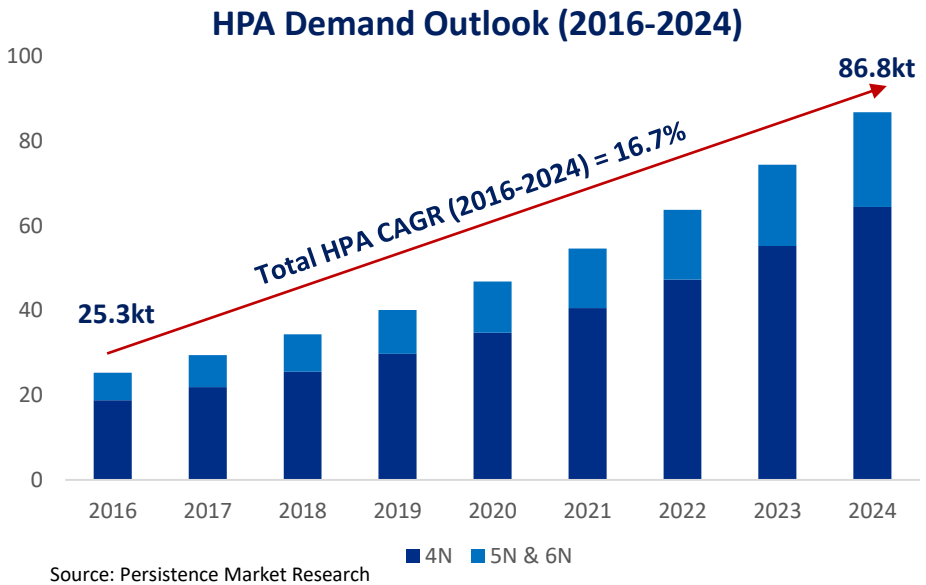
HPA - Pricing for purity

- Price and performance of HPA varies upon product density, particle size and distribution and degree of purity.
- Purity is determined by the concentration of trace elements in the alumina compound eg, Iron Magnesium, Sodium
- 4N HPA is the largest sector of the HPA market and is seen by CLL as the most logical sector of the market in which to focus in terms of demand volumes and margin optimisation.

How Many 9s?

SGA	99.5% purity	~US$400/t
3N HPA	99.9% purity	~US$6,000/t
4N HPA	99.99% purity	~US$25,000/t
5N HPA	99.999% purity	~US$50,000/t
6N HPA	99.9999% purity	By negotiation Very limited market



Source: Persistence Market Research

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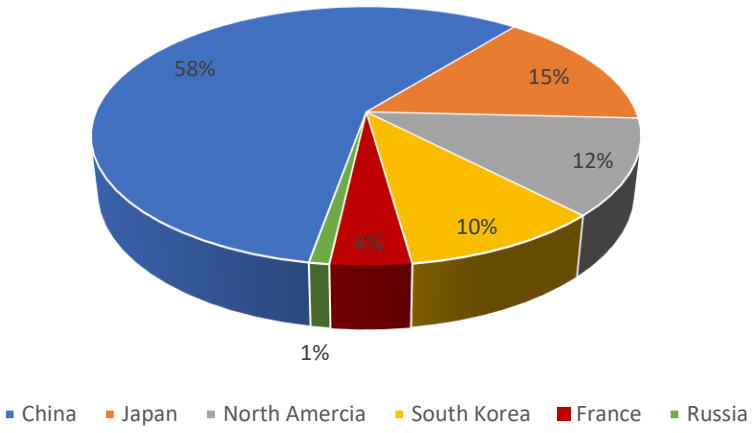
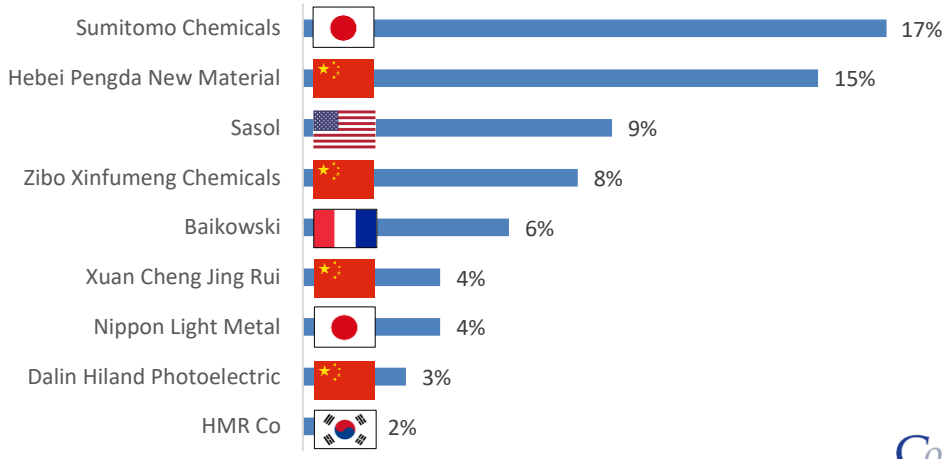
Supply of HPA

- Current HPA supply is concentrated in the Asia Pacific region (~83%) with China the most prolific producer.
- Current production is dominated by large diversified chemical companies where HPA is a non-core product and an immaterial percentage of revenue (< 5% for Sumitomo Chemicals)
- CLL sees enormous opportunity as a focused HPA producer to :
  - Become a genuine alternative supply source to the existing dominant APAC producing countries…..and more importantly
  - Fill an expected supply shortage as forecast HPA demand escalates over the next decade.
- CCL stands to become an extremely low-cost HPA producer with its product mix of Ni-Co products offering potentially significant by-product credits.
- Strong potential exists for long-term offtake agreements prior to commercial production.

Global HPA Supply Distribution -2016E



% expected 2016 output



Source: Persistence Market Research

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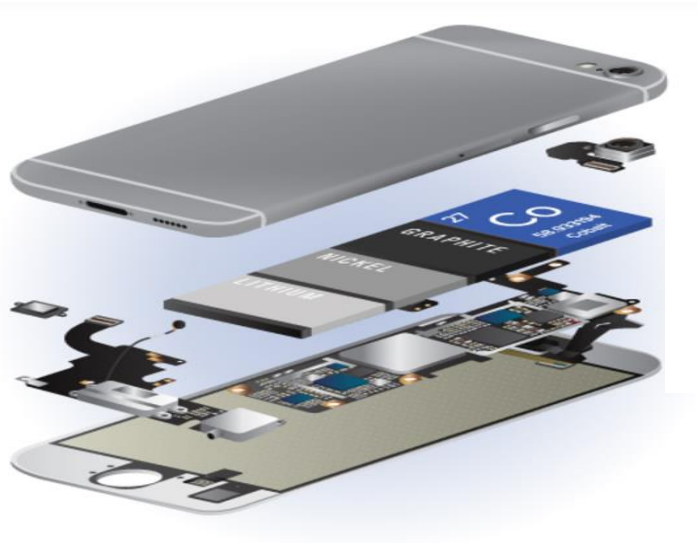
Li-B's are driving cobalt demand

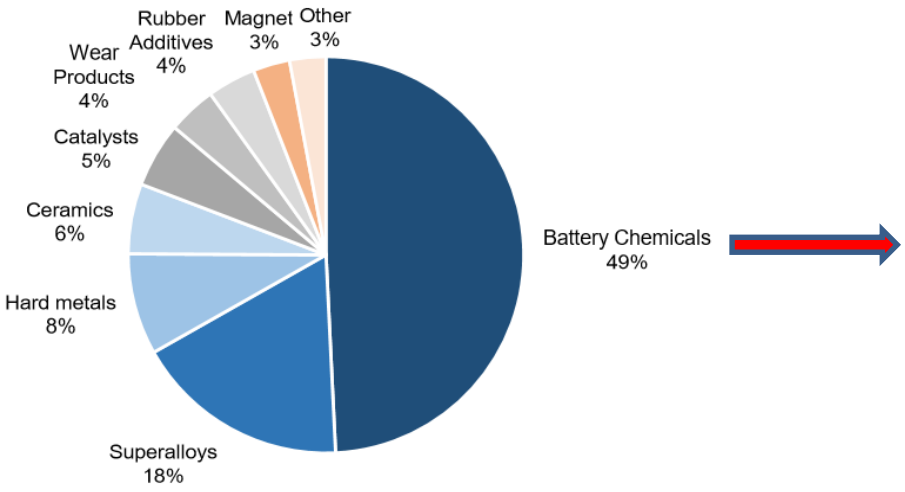
Cobalt is a critical component in the cathode of rechargeable lithium-ion batteries (Li-B's), playing an important role in improving battery life, energy density and stability

~50% of the worlds' cobalt demand comes from the Li-B market with this percentage set to grow to >75% by 2025

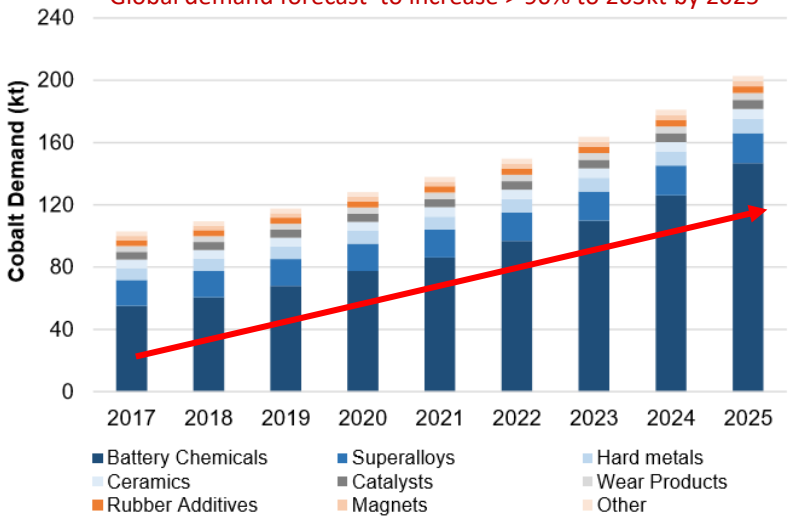
~75% of all batteries are expected to contain cobalt in some capacity led by the continued adoption of mobile phones and EV's



Cobalt's high energy density, low thermal conductivity, ability to alloy and ferromagnetism make it amenable to use in a diverse range of commercial, industrial and military applications



Global demand forecast to increase > 90% to 203kt by 2025



Source : Canaccord Genuity

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Electric vehicles are driving Li-B demand

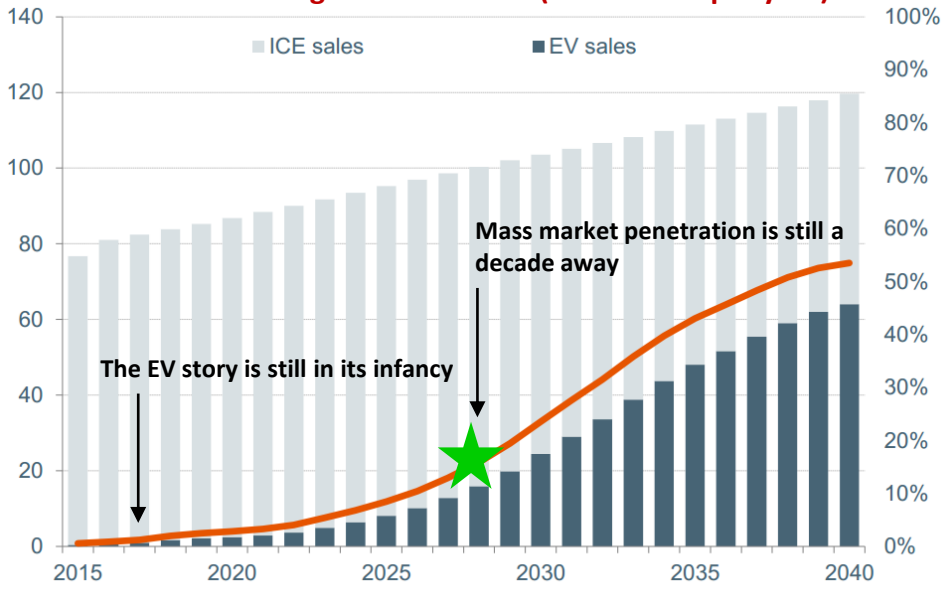
Vehicle electrification is recognised as being the biggest growth driver for cobalt use over the next decade.....

.... but the electric vehicle revolution has only just begun

2017 Global Electric Vehicles (EVs) surpassed the 2m barrier

15% The forecast CAGR for the global EV market through 2025

Annual Global Light Vehicle Sales (Million cars per year)

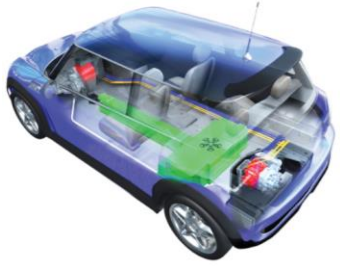


Source: Bloomberg New Energy Finance

Plug-in Hybrid Vehicles (PHEVs) are expected to lead EV penetration until 2025 before Battery Electric Vehicles (BAVs) begin to dominate global EV sales.

An inflection point in EV penetration is expected between 2025 and 2030 as falling battery prices and optimised battery efficiency make EVs economical on an unsubsidised basis compared to traditional ICE vehicles.

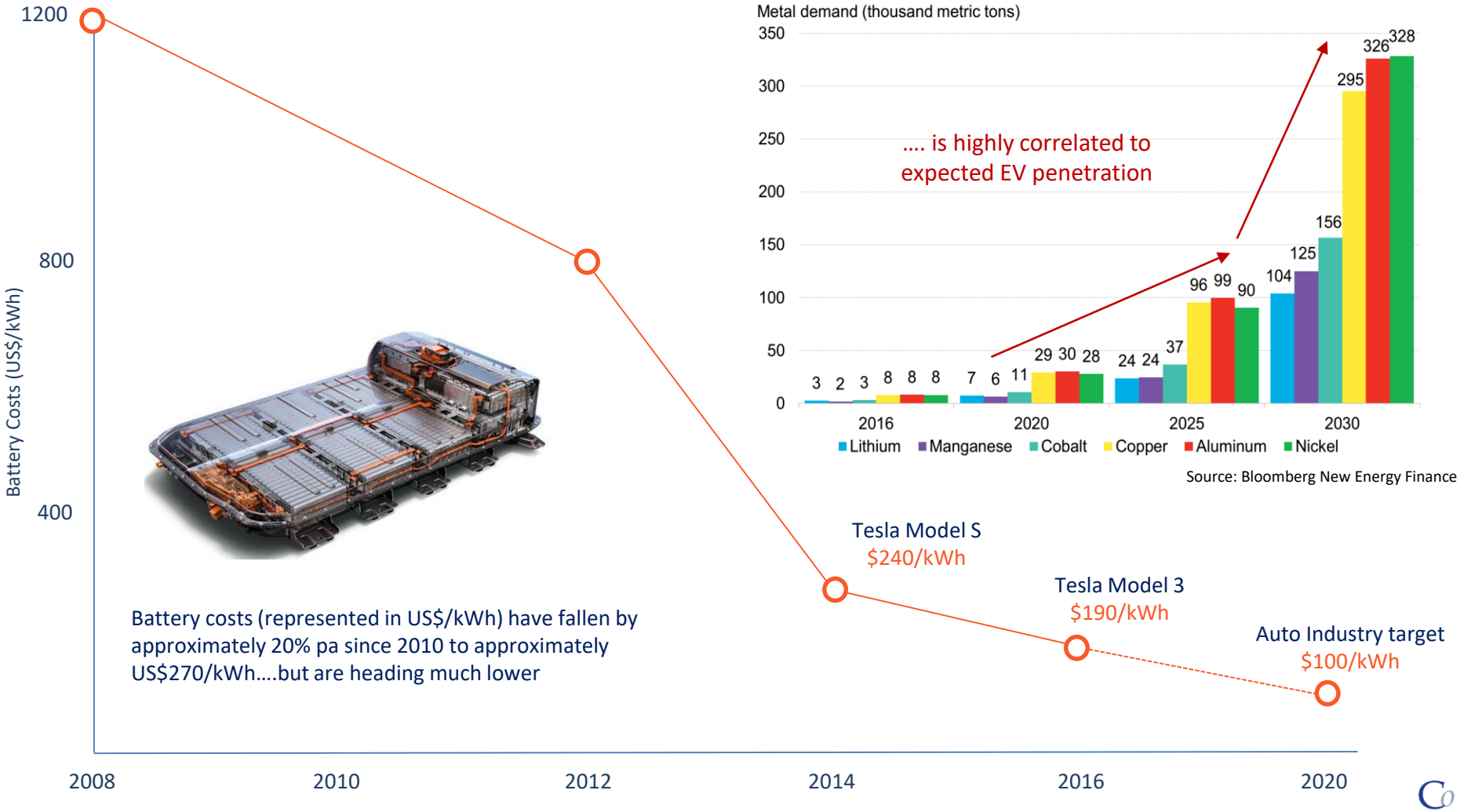
Mass market penetration is not expected until this inflection point is reached.



2040 54% of new car sales and 33% of the global car fleet will be electric.

Battery costs will underpin EV penetration

Batteries with lower cost structures and greater energy densities will drive EV penetration and demand for battery metals



Battery costs (represented in US$/kWh) have fallen by approximately 20% pa since 2010 to approximately US$270/kWh….but are heading much lower

Forecast demand for key battery materials…..

Source: Bloomberg New Energy Finance

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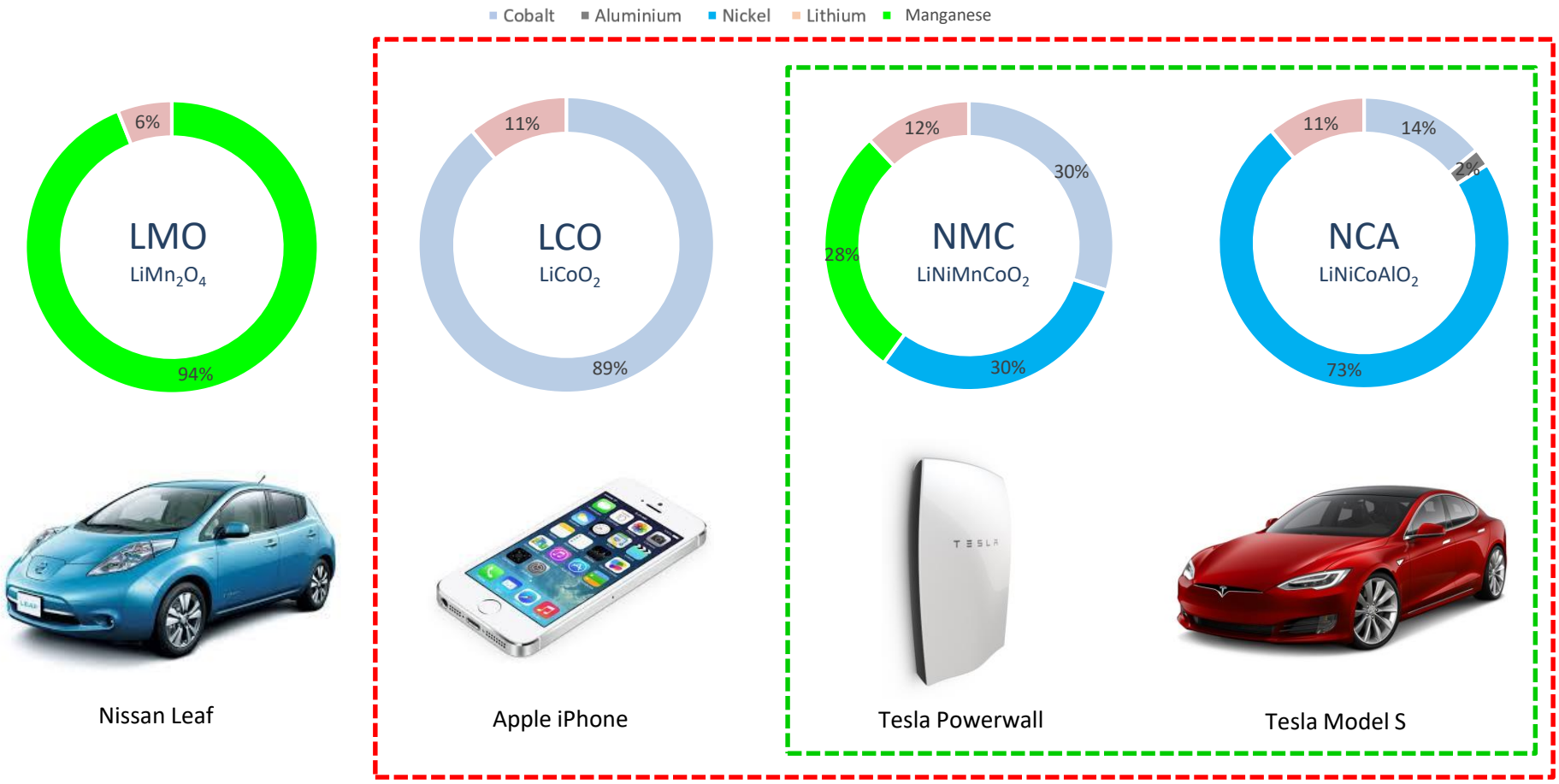
Battery chemistries are continually evolving

Nickel/Cobalt chemistries have superior energy density characteristics making them the preferred battery for use in Electric Vehicles (NMC/NCA) smartphones, laptops and cameras (LCO)



EV's are now requiring even greater energy densities which now sees ternary cathode chemistries such as NMC and NCA emerging in popularity. While cobalt content within these Li-B's is comparatively lower than LCO (as a % of cathode weight/kWh), these batteries are significantly larger.

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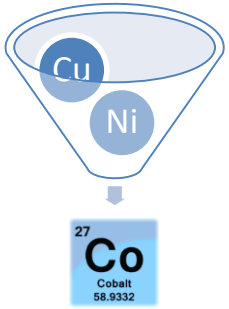
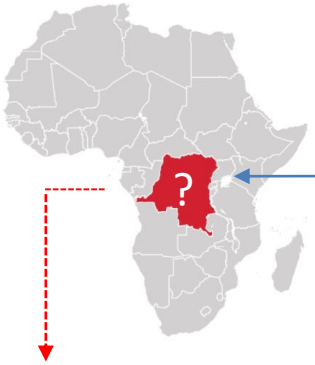
Cobalt - the supply equation

~95% of global cobalt production results as a by-product of copper and nickel mining meaning future supply is susceptible to the outlook for these metals





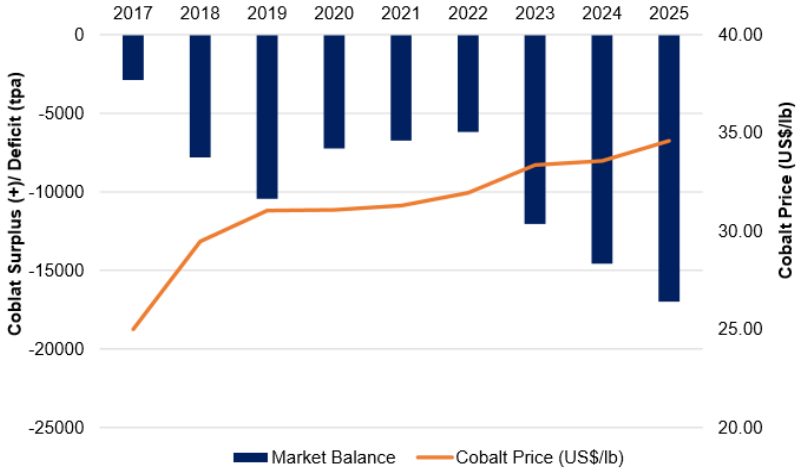
~56% of global production comes from the Democratic Republic of Congo (DRC) of which nearly half if thought to be via artisanal mining

~40% of refined cobalt production comes from China, with ~60% of China's unrefined cobalt sourced from the DRC

With the DRC and China dominating the global cobalt trade there is concentrated supply risk for the remainder of the market

Questions remain over the DRC's political stability with ongoing violence and the constant threat of civil war. The country's widespread use of child labour is also bringing increased scrutiny on the sector's informal mining practices which serve as a threat to continued supply.

Deficits forecast for the foreseeable future…



Source: Canaccord Genuity

Significant supply constraints combined with robust demand growth are expected to lead to ongoing deficits through at least 2025

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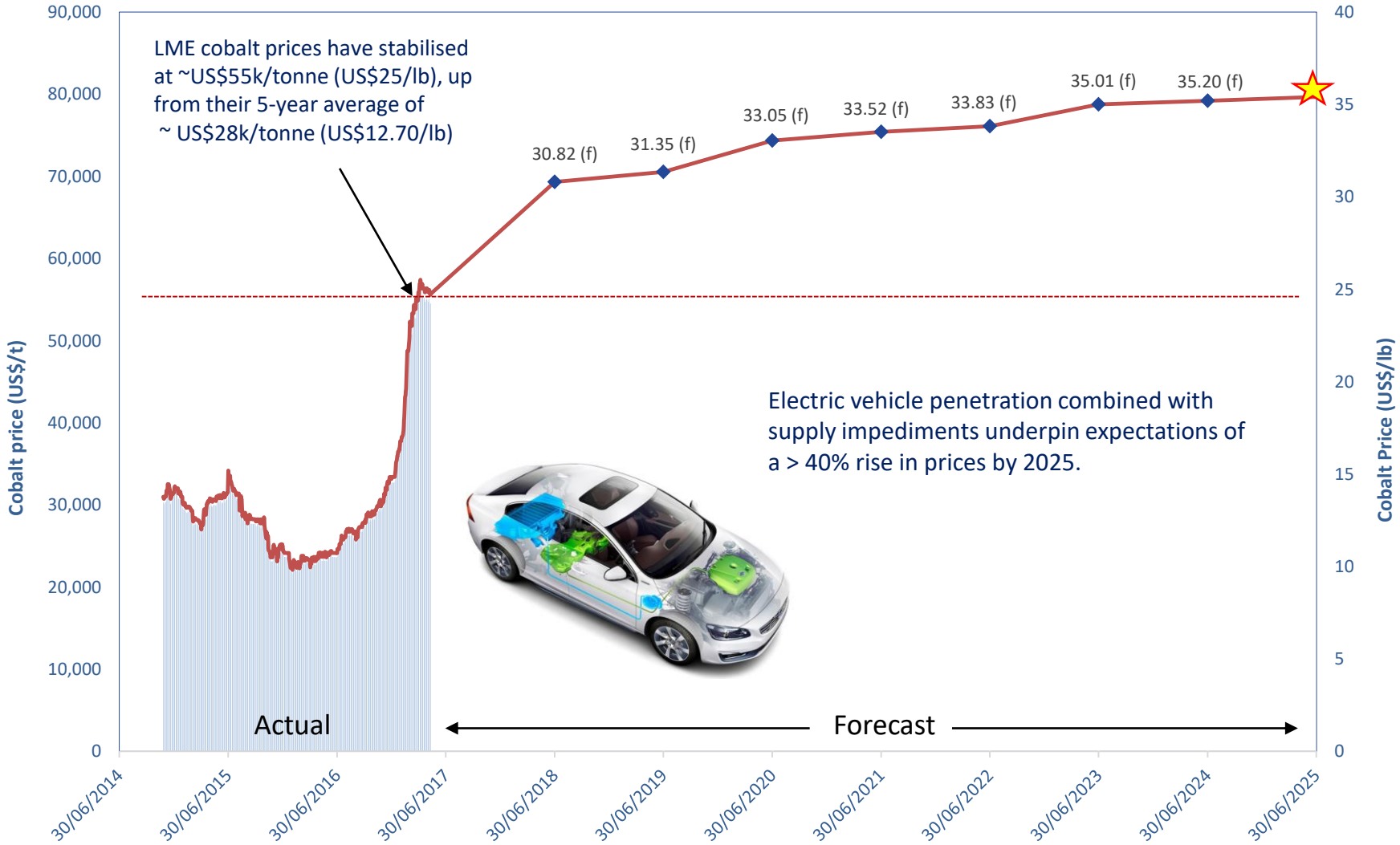
Cobalt price projection through 2025

Robust demand fundamentals and a constrained supply-side outlook underpin Cobalt's recent price rise and positive outlook



Source : Bloomberg and Canaccord Genuity

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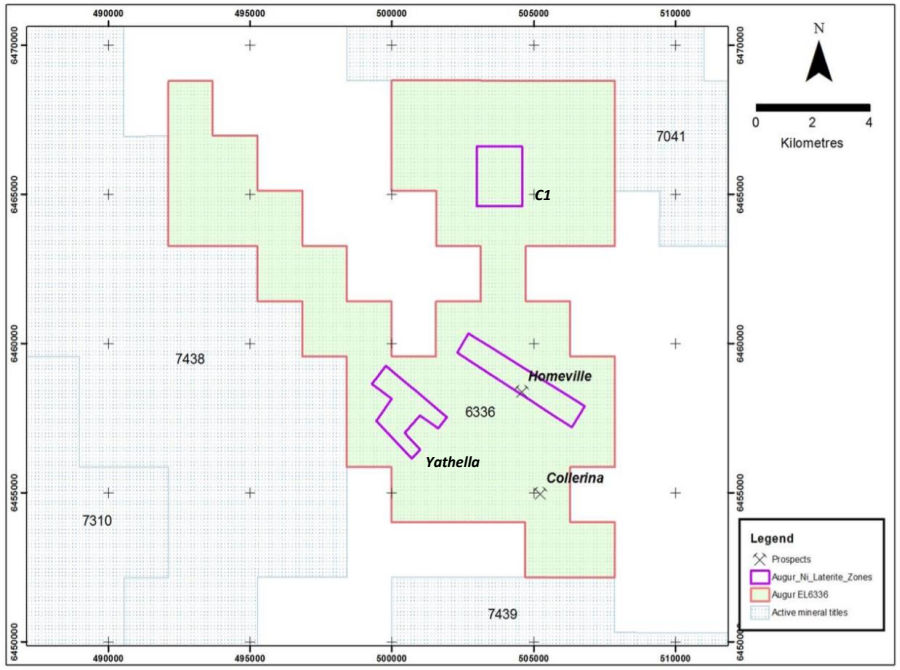
Collerina Project - NSW Australia

- The Collerina Project area (EL 6336) covers ~150km^2
- The Project area is comprised of 3 main prospect areas: Homeville, Yathella and C1. (Yathella and C1 largely untested).
- Homeville has been the focus of past exploration where **shallow high-grade Al + Co + Ni mineralisation over significant thickness and length** have been intersected.
- Drilling has also defined discrete zones of **very high grade Co up to 0.70% Co over 4m including 1.02% over 2m and 0.56% Co over 4m.**
- The Homeville deposit has a current resource of:
  - **16.3 million tonnes** at **3.1% aluminium**, **0.93% nickel** and **0.05% cobalt** for **505,300 tonnes of aluminium**, **151,000 tonnes of nickel** and **8,100 tonnes of cobalt** (cut-off 0.7% nickel).....which increases significantly to
  - **27.2 million tonnes** at **3.2% aluminium**, **0.80% nickel** and **0.05% cobalt** for **870,400 tonnes** of **aluminium**, **217,600 tonnes** of **nickel** and **13,600 tonnes** of **cobalt** at cut-off 0.5% nickel.
- Mineralisation lies between surface and ~60m. **Deposit remains open at depth and along strike.**



CLL is the registered holder and beneficial owner of the EL 6336 Tenement

- Initial metallurgical testwork utilising Counter-Current Atmospheric Leaching (CCAL) has yielded **excellent recoveries with low levels of acid consumption.**
- Testwork is underway to produce **High Purity Alumina (HPA)**
  - Revenues may be far in excess of combined nickel and cobalt revenues.
  - **Potentially significant by-product credits from Ni and Co sales could see CLL as an ultra-low cost HPA producer.**

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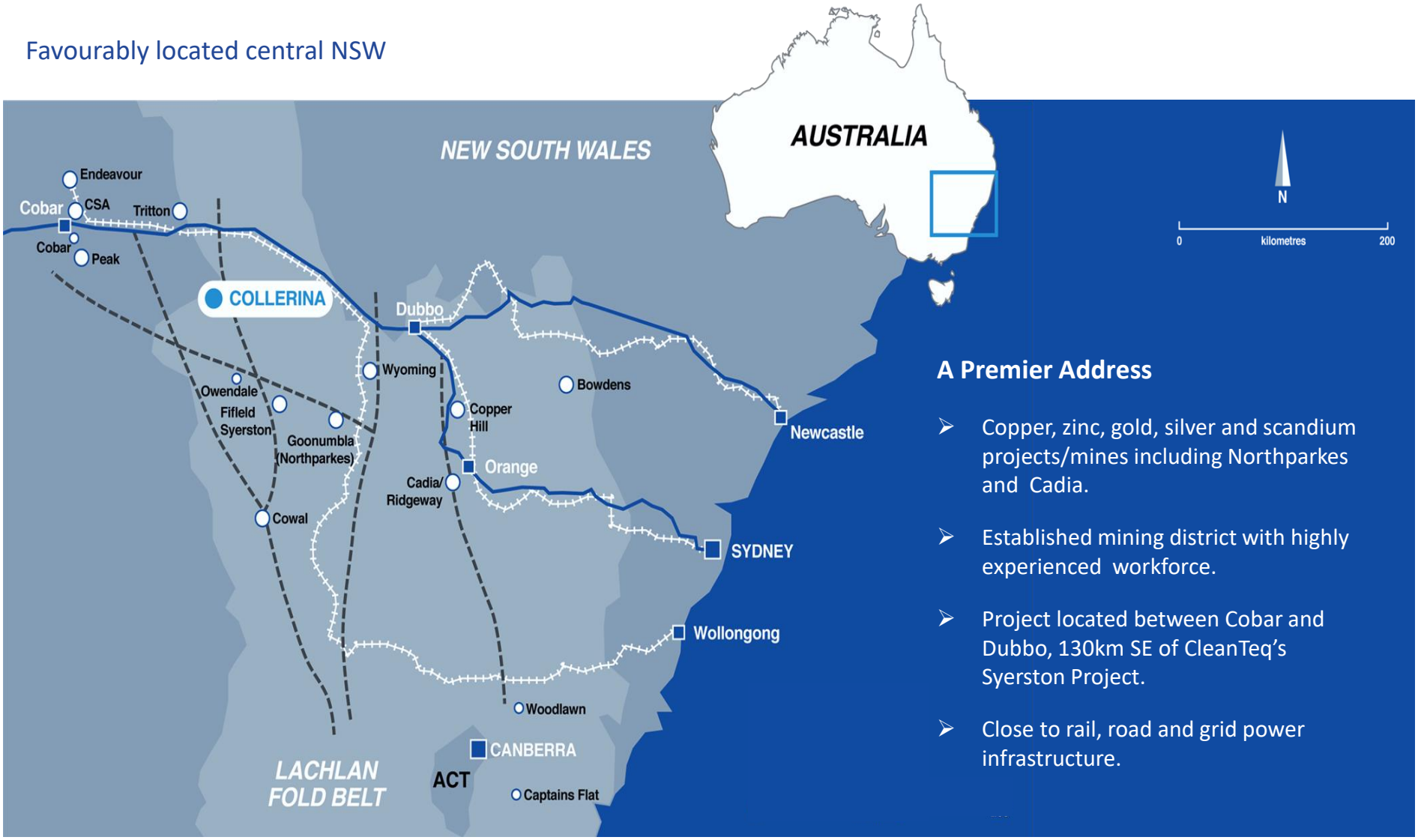
Located in Australia's tech metals basin

Favourably located central NSW



A Premier Address

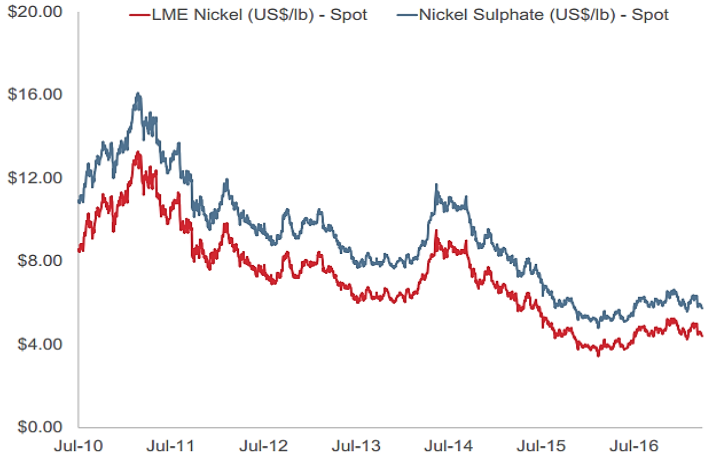
- Copper, zinc, gold, silver and scandium projects/mines including Northparkes and Cadia.
- Established mining district with highly experienced workforce.
- Project located between Cobar and Dubbo, 130km SE of CleanTeq's Syerston Project.
- Close to rail, road and grid power infrastructure.

Collerina Project - metallurgical testwork

Metallurgical testwork to date has been highly encouraging

- Previously undertaken testwork on Homeville laterite ore utilising Counter-Current Atmospheric Leaching (CCAL) returned overall **nickel recoveries of 90%** and **cobalt recoveries of 96%** with very **low overall acid consumption of 710 kg/tonne ore.**
  - Testwork suggested the CCAL process offers higher nickel and cobalt extractions (14% and 11% higher respectively) than single stage leaching with an 11% reduction in acid requirement.
- Initially the aim was to produce a mixed cobalt-nickel sulphide precipitate.
- Why?
  - Supply in a salts or "sulphate" form will often command a price premium over the value of contained metal.
- While this is still the case CLL are investigating proprietary technologies to move further down the value chain by producing:
  - a High Purity Alumina Product (HPA) and
  - battery precursors for NMC and NCA chemistries that can command a significant premium over the value of contained metal content.

Cobalt sulphate



Source: Macquarie Research

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The CCAL / HPA process

The CCAL process utilises 2 stages of leaching before solvent extraction and refining into High Purity Alumina

CCAL - Stage 1

Ore is leached in a lower concentrate free acid solution producing a pregnant leach solution with relatively low residual acidity. The leach residue solids from the first stage are then washed and forwarded to the second stage of leaching.

CCAL - Stage 2

A concentrated sulphuric acid is used to liberate the more tenacious material. The leach solution from the second stage, with a much higher residual acid concentration, is recycled to the first stage leach as the acid source.

HPA Processing

A low acidity Pregnant Leach Solution (PLS) from the CCAL process is subject to propriety solvent extraction and refining steps with the aim of producing a 4N (99.99% purity) HPA.

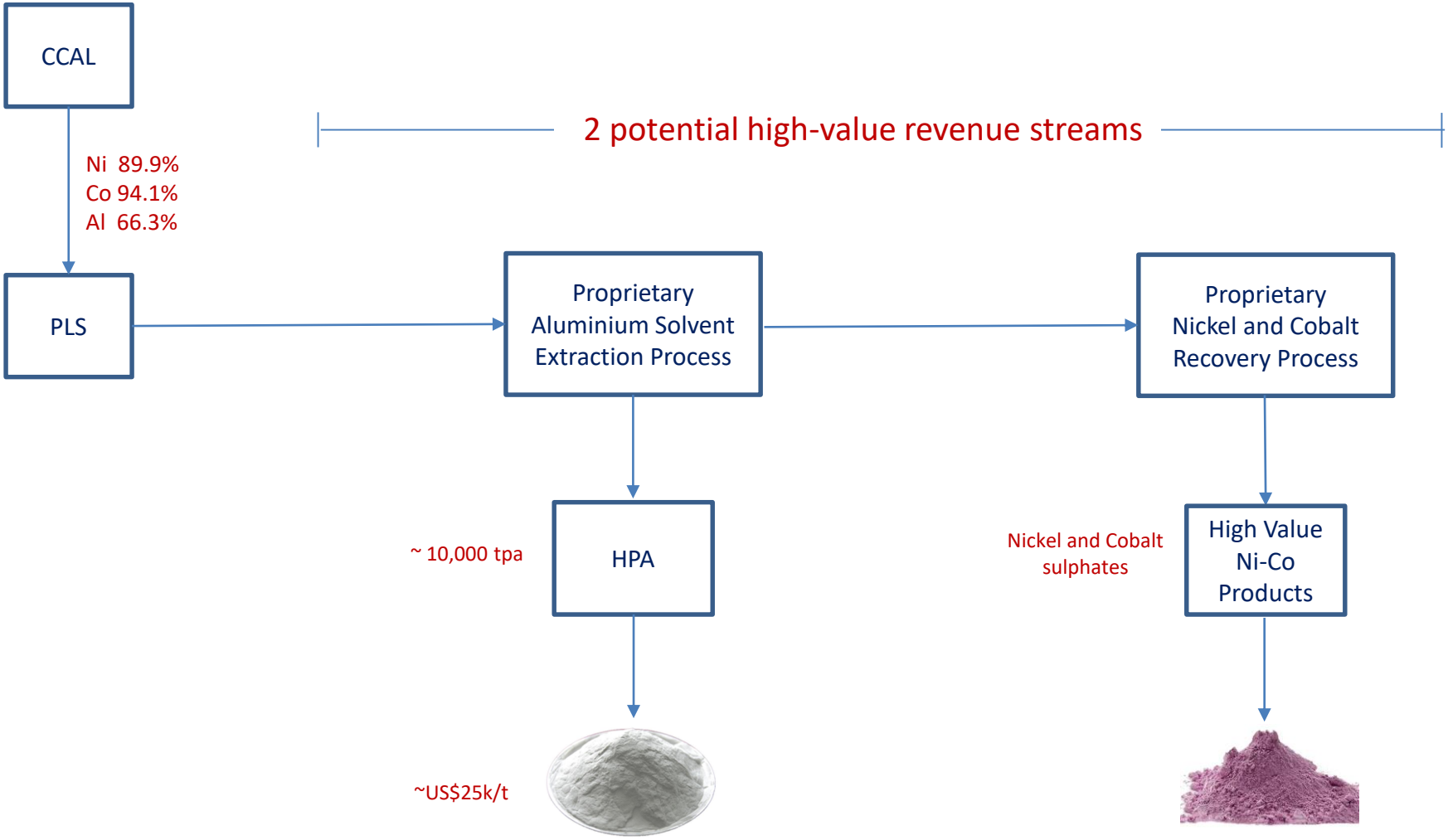
Nickel and Cobalt recovery

Proprietary processes are being investigated to produce high purity/high value Ni-Co products from residual solution.

Settling test on CCAL discharge slurry (separation of residue solids from pregnant solution).

Metallurgical testwork – process flowsheet

CLL's proposed process flowsheet utilises a series of proprietary processes capable of delivering multiple high-end specialty product streams



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Indicative timetable

	2-Oct	9-Oct	16-Oct	23-Oct	30-Oct	6-Nov	13-Nov	20-Nov	27-Nov	4-Dec	11-Dec	18-Dec	25-Dec	1-Jan	8-Jan	15-Jan	22-Jan
CCAL TESTWORK																	
Generation of Pregnant Leach Solution (PLS)	☑																
HPA TESTWORK																	
Aluminium Solvent Extraction			☑														
HPA batch sample																	
Mini-Rig Program*								**Expected to be concluded by the second half of February 2018**									
NI/CO RECOVERY TESTWORK																	
Nickel/Cobalt Extraction testing																	
PRE-FEASIBILITY STUDY																	
Testwork incorporated into Pre-feasibilty Study	**Results of the above testwork will be incorporated into a formal Pre-feasibility study which will likley commence before the end of 1Q 2018.**																

*The Mini Rig program will incorporate four (4) main phases:

1. Larger scale CCAL work to generate substantive quantities of PLS;
2. Solution conditioning to render the PLS suitable for solvent extraction testing; (Phase 1 and 2 are expected to take a minimum of 8 weeks)
3. Solvent Extraction testing using the mini-rig over ~5 days to extract Al; (Expected to take 4 weeks. Includes 1 week of process engineering)
4. Further processing of Al product from the mini-rig to generate the HPA sample (~ 1 kg). (Expected to take up to 6 weeks with first samples after ~2 weeks)

Collerina Cobalt - a value proposition

CLL presents as a compelling investment opportunity in today's resources market offering investors exposure to:

- A growing aluminium-nickel-cobalt asset favourably located in one of Australia's most prolific mining jurisdictions.
- 3 metals (aluminium, nickel and cobalt) with strong demand fundamentals that are at the forefront of the world's technology revolution.
  - CLL's intended high purity alumina and nickel/cobalt products are the feedstock for the devices, applications and vehicles of the future.
- Proprietary processing technologies capable of delivering strong economics.
- A significant valuation uplift upon delivering of the Company's objectives.
  - Potential revenues and cashflows dwarf CLL's current market capitalisation.
- A highly experienced Board and management team with a track record in exploration success and project development.

www.collerinacobalt.com.au

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Appendices

- Homeville – JORC Resource Summary
- Statement of Compliance

Homeville - JORC resource summary

JORC Category	Cut-off Grade Ni%	Tonnes Millions	Ni %	Co %	Fe %	Al%
Indicated	0.5	6.4	0.87	0.06	21	3.7
	0.7	4.4	0.99	0.06	20	3.4
	1.0	1.8	1.21	0.05	19	3.0
Inferred	0.5	20.7	0.78	0.05	18	3.0
	0.7	11.9	0.91	0.05	18	3.0
	1.0	3.1	1.16	0.05	17	2.7
TOTAL	0.5	27.2	0.80	0.05	19	3.2
	0.7	16.3	0.93	0.05	19	3.1
	1.0	4.9	1.18	0.05	18	2.8

Statement of Compliance

Compliance Statement

Information regarding the Mineral Resource at the Collerina project was prepared and first disclosed under the 2004 Edition of the 'Australasian Code for Reporting of 'Exploration Results, Mineral Resources and Ore Reserves'. See ASX announcement 23 June 2011. It has not been updated since to comply with the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' on the basis that the Company is not aware of any new information or data that materially affects the information and, in the case of the resource estimate, all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed.

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Collerina Cobalt staff and contractors and approved by Mr Michael Corey, PGeo., who is a Member of the Association of Professional Geoscientists of Ontario (APGO) in Canada. Michael Corey is a full-time employee of Collerina and 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'. Michael Corey has consented to the inclusion in this report of the matters based on his information in the form and context in which they appear.