

# AN EXPERIENCED MANAGEMENT TEAM

## Michael Mason — Chief Executive Officer

**BS (Metallurgy Engineering), MBA (Finance)**

- 50 years of experience in industry, including numerous positions as director or officer at several mining companies
- Process engineer, project design, development, funding and operating experience at mines for numerous companies, including Asarco, St. Joe Minerals and Phelps Dodge
- Development and implementation of strategic marketing plans for project development for numerous major projects, including Escondida and Olympic Dam

## Christopher Serin — Chief Financial Officer

**BS (Mining Engineering), MBA**

- Mr. Serin has more than 40 years of international financial and corporate management experience, mainly in natural resource projects globally
- Previous positions include Chief Financial Officer and Interim Chief Executive Officer of Euromax Resources Ltd, Chief Financial Officer of Royal Oak Mines and a director and officer of a number of junior mining exploration companies

## Frank Pasterino — Vice President Project Delivery

**BS (Marketing), MBA**

- Over 15 years of international experience within industry
- Has held numerous senior operating positions for Marietta Mine Services, MBMI Resources and Global Gold Mining

## David Drips — Chief Operating Officer and Project Manager

**BS (Mining Engineering)**

- Over 35 years' experience in industry as a miner, supervisor, engineer, project manager, general manager, vice president, president and owner
- Has held numerous senior positions in management and operations globally, including with Yukon-Nevada Gold Corp, Breakwater Resources, Endeavor Silver Corp, Kores/MM Bolero, Pan American Silver, Bema Gold Corporation and Hecla.
- Founded Intermountain Mine Services & Mineral Resources Engineering

## William Buckovic — Executive Vice President, Exploration

**BS (Geology), MA (Geology)**

- Founder of Geovic
- Over 40 years of international exploration and development experience
- Involved in the discovery of several major mineral deposits globally
- His long tenure with the Company has provided him with knowledge of all aspects of the Company's business and its history

## Richard Howe — Country Manager

**BA Hons (Modern Languages)**

- Distinguished career in international business, with more than 15 years of experience managing operations inside Cameroon
- Previous to Geovic he served as Chairman of Intelligentsia SA and over 30 years with British American Tobacco

# RESPECTED TECHNICAL DELIVERY PARTNERS



2018 PFS  
2018 BFS

Leading UK-based, independent firm of consulting engineers, specialising in the design, development and construction of new mining projects, and the refurbishment of existing ore processing plants and associated infrastructure



2011 BFS

Lycopodium is an Australian-headquartered engineering and project delivery group that provides a complete range of services for the evaluation, development, implementation and optimisation of projects across a broad range of industries



2008 – 11  
Res. Estimates  
2011 BFS

SRK provides a comprehensive range of consulting services to the resource industry globally, including geological modelling, resource estimation, mine design, tailings disposal, metallurgy, environmental management and technical-economic modelling



2009 – 11  
Metallurgical  
Testing

SGS is the world's leading inspection, verification, testing and certification companies, often recognised as the global benchmark for quality and integrity



2004 – 11  
Metallurgical  
Testing

Provides chemical analyses, bench-scale experiments, continuous pilot plant demonstration and field services. Hazen also designs flowsheets and reduces scale-up risks for commercial plants globally.



2004 – 09  
Mineral Studies

RPM is a leading provider of mining studies from strategic assessment through to implementation. The company is a conglomeration of Runge, Minarco and Pincock, Allen & Holt, with the latter completing the study



2011 TSF, ESIA and  
ESAP

Global consulting firm that provides specialised services to the mining, power, water resources, infrastructure and oil and gas industries, specialising in environmental consulting

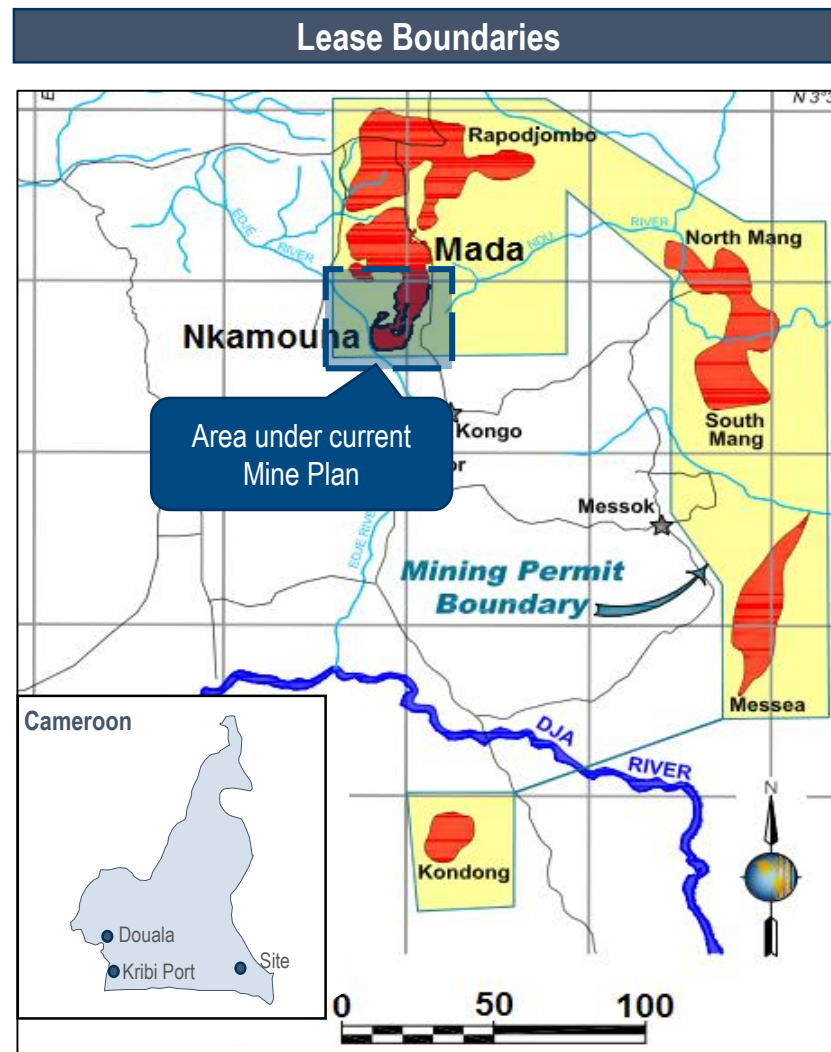
# NKAMOUNA PROJECT OVERVIEW

## Overview

- Geovic is currently optimising its 2011 BFS, which is expected to reduce both capital and operational costs
- Located in SE Cameroon, 640km by road east of the port city of Douala and 400km by road east of the capital of Yaoundé
- The primary deposits are two of four laterite plateaus extending 80km north-south and 45km east-west
- Orebody depth of 5m to 30m (low strip ratio of 3.22:1)
- Reserves of 68.1 Mt @ 0.26% Co, 0.66% Ni & 1.48% Mn
- Total contained metal of 855kt Co, 2,420kt Ni and 5,112kt Mn
- **Strong long-term supply, beyond current Reserves, with MI&I Resources of 323 Mt**

Reserves - Nkamouna and Mada	Mt	% Co	% Ni	% Mn
Proven and Probable	68.1	0.26%	0.66%	1.48%
Resources - Nkamouna and Mada (incl. Reserves)				
Measured	59.8	0.24%	0.68%	1.37%
Indicated	60.8	0.22%	0.62%	1.32%
<b>M&amp;I</b>	<b>120.6</b>	<b>0.23%</b>	<b>0.65%</b>	<b>1.35%</b>
Inferred	202.6	0.20%	0.59%	1.22%
<b>MI&amp;I</b>	<b>323.1</b>	<b>0.21%</b>	<b>0.61%</b>	<b>1.27%</b>

Source: Lycopodium 2011 BFS

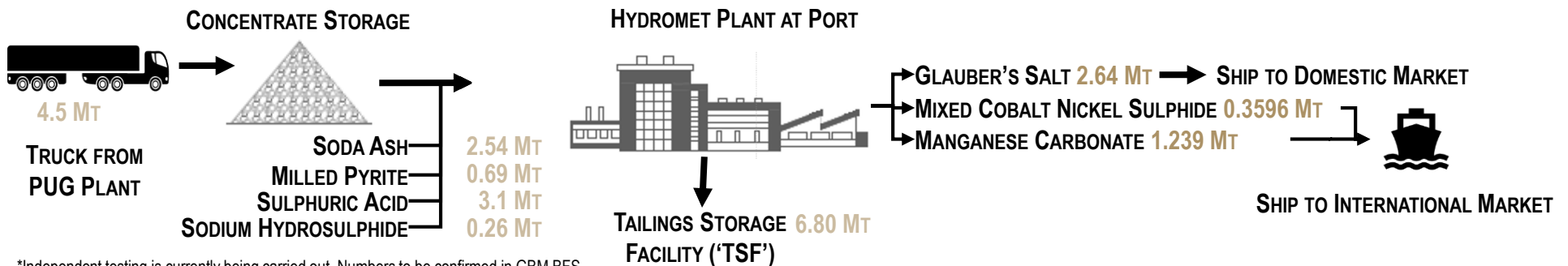
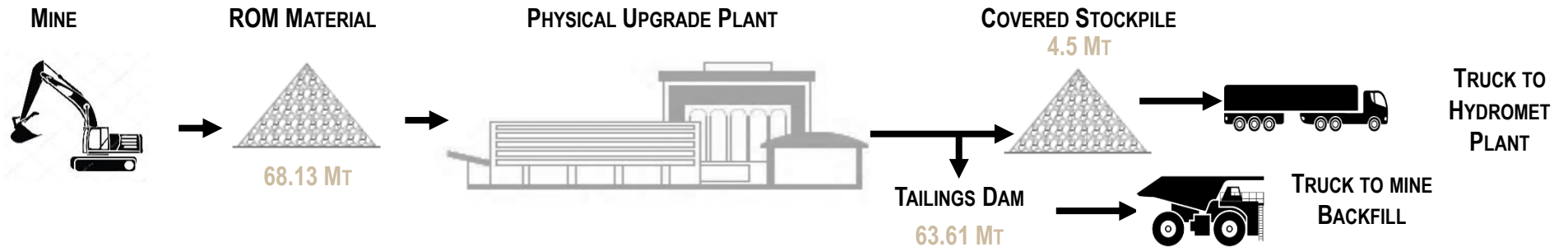


Source: Geovic

# PROJECT OVERVIEW

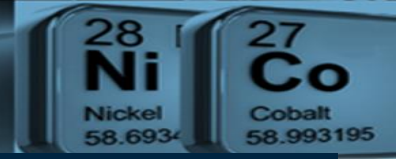
- The whole processing cycle will use simple, low-cost, proven technology with “off the shelf” equipment

Physical Upgrade Plant	Trucking to Hydromet Plant	Hydromet Plant
<ul style="list-style-type: none"> <li>At the mine, 3.41 Mt of ore is processed to produce a high-grade concentrate of 3% Co, 3.9% Ni, &amp; 16.3% Mn*</li> <li>This simple physical upgrading system removes 93%* of the mined material to tailings</li> </ul>	<ul style="list-style-type: none"> <li>Up to 713km to port</li> <li>Maintenance to be completed near the port, with satellite service centre to be located on the mine site</li> <li>Four potential routes to the port, with one to be chosen in the BFS stage</li> </ul>	<ul style="list-style-type: none"> <li>The concentrate is passed through leach circuits with overall recovery of 71.2% Co, 23.6% Ni &amp; 58.8% Mn*</li> <li>18,000tpa of mixed sulphide product at 35.2% Co, 29.6% Ni, with balance being Sulphur, and 59,003t of high-purity manganese carbonate (MnCO<sub>3</sub>)*</li> </ul>



\*Independent testing is currently being carried out. Numbers to be confirmed in GBM BFS

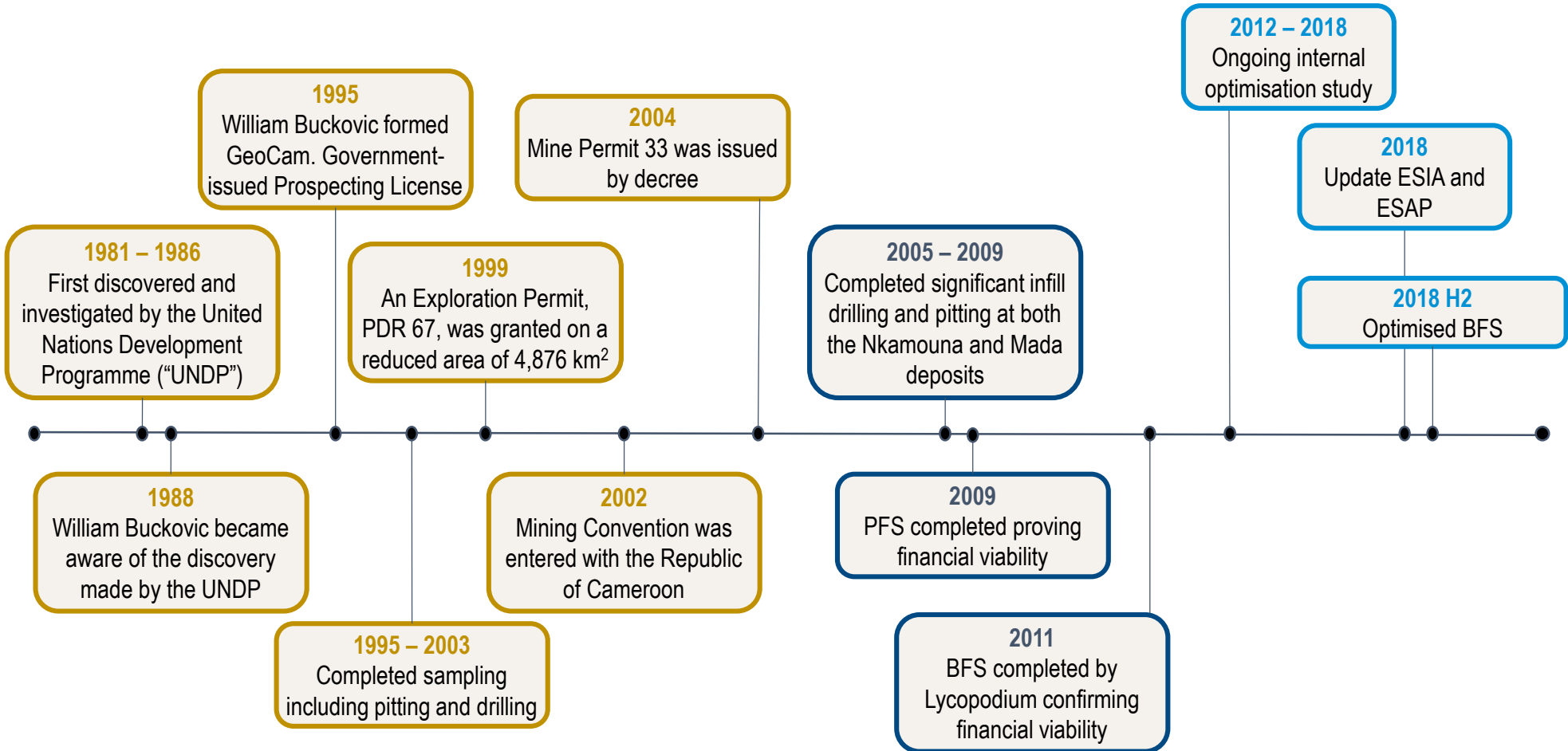
# DEVELOPMENT TIMELINE



## EXPLORATION

## FEASIBILITY

## NEAR TERM



- Geovic, with Knight Piesold and Rainbow Environment Consulting, has completed the ESIA and the ESAP to follow as the project progresses
- Concurrent reclamation of each mining zone will be carried out to minimise the mining footprint at any given time and start the reclamation of flora and fauna as fast as possible
- The study will be modified due to the Hydromet plant move to the port and the introduction of the TSF near the port
- The modification will be equator principle compliant
- Limited issues are foreseen given the Hydromet plant will be in an already established industrial zone, and the feed to the TSF will be neutralised before it is transported

## Environmental and Social Action Plan

**Geovic Cameroon PLC  
Nkamouna Project  
Environmental and Social Assessment  
Executive Summary**

Prepared for:  
 Geovic Cameroon PLC  
Rue 1,793  
BP 11555 Yaoundé, Cameroon  
Telephone: +237 22 21 4518  
Facsimile: +237 22 21 1802  
www.geovic.com

Prepared by:  
 Knight Piesold and Co.  
1580 Lincoln Street, Suite 1100  
Denver, Colorado 80203-1512  
Telephone: (303) 629-8788  
Facsimile: (303) 629-8789  
E-mail: [denver@knightpiesold.com](mailto:denver@knightpiesold.com)

Prepared by:  
 RAINBOW Environment Consult  
B.P. 30137  
Yaoundé - Tsinga, Cameroon  
Telephone : +237 22 21 51 58

KP Project No. DV302.0000  
April 30, 2011

**Geovic Cameroon PLC  
Nkamouna Project  
Environmental and Social Assessment  
Volume 1 - Environmental and Social Impact Assessment**

Prepared for:  
 Geovic Cameroon PLC  
Rue 1,793  
BP 11555 Yaoundé, Cameroon  
Telephone: +237 22 21 4518  
Facsimile: +237 22 21 1802  
www.geovic.com

Prepared by:  
 Knight Piesold and Co.  
1580 Lincoln Street, Suite 1000  
Denver, Colorado 80203-1512 USA  
Telephone: (303) 629-8788  
Facsimile: (303) 629-8789  
E-mail: [denver@knightpiesold.com](mailto:denver@knightpiesold.com)

Prepared by:  
 RAINBOW Environment Consult  
B.P. 30137  
Yaoundé - Tsinga, Cameroon  
Telephone : +237 22 21 51 58 / 99 25 93 83

KP Project No. DV302.00009.13  
April 30, 2011




**Geovic Cameroon PLC  
Nkamouna Project  
Environmental and Social Assessment  
Volume 2 - Environmental and Social Action Plan**

Prepared for:  
 Geovic Cameroon PLC  
Rue 1,793  
BP 11555 Yaoundé, Cameroon  
Telephone: +237 22 21 4518  
Facsimile: +237 22 21 1802  
www.geovic.com

Prepared by:  
 Knight Piesold and Co.  
1580 Lincoln Street, Suite 1000  
Denver, Colorado 80203-1512 USA  
Telephone: (303) 629-8788  
Facsimile: (303) 629-8789  
E-mail: [denver@knightpiesold.com](mailto:denver@knightpiesold.com)

Prepared by:  
 RAINBOW Environment Consult  
B.P. 30137  
Yaoundé - Tsinga, Cameroon  
Telephone : +237 22 21 51 58 / 99 25 93 83

KP Project No. DV302.00009.13  
April 30, 2011



# WHY GEOVIC

## 1. Improving the potential of one the largest undeveloped global cobalt deposits

- Expected mine life of more than 23 years, and significant potential for converting resources to reserves and exploration growth
- AISC of cobalt allows for a significant margin — minimising risk of any potential spot price reductions
- Lycopodium 2011 BFS NPV<sub>8%</sub> of US\$669m with break-even cost US\$16.50/lb calculated at the then spot price of US\$26.20/lb Co
- Optimised BFS expected to reduce capital costs and opex costs — improving project economics further

## 2. Advanced-stage project utilising developed infrastructure

- BFS completed in 2011, which is being optimised for the updated two-site plan and improved flow sheet
- Utilising newly operational port and established public roads
- Basic strip mining with product upgrades at mine site reducing transport load and costs
- Strong government support — self-funded interest to date — in discussions to re-align licence to 2016 mining code

## 3. Promising demand and supply dynamics expected with the rise of power storage demand

- Limited ability to substitute cobalt in batteries
- Paris Agreement targets for electric vehicles imply a 400% increase in cobalt production by 2030 — *cobalt is forecast to be in increasing deficit each year through 2020*
- 98% of cobalt is produced as a by-product from copper and nickel

Co

Cobalt

58.933



# COBALT: COMPELLING MARKET DEMAND

## Demand Drivers

- By 2050, in order to abide by the Paris Agreement, estimated cobalt demand will be 11x current demand<sup>1</sup>
- The battery sector has become the most important growth driver for cobalt, accounting for ~50% of demand in 2017<sup>2</sup>
- Falling costs, improving range, auto manufacturers and government commitments support accelerated adoption of EVs
- Limited ability to substitute cobalt in batteries and Paris Agreement targets for EVs imply a 400% increase in cobalt production by 2030<sup>3</sup>

## Supply Constraints

- The DRC supplies 53%<sup>1</sup> of global production, with the majority of cobalt coming from non-ISCI-compliant sources
- China produces 48% of the world's refined cobalt<sup>4</sup>
- Over 95% of cobalt is produced as a by-product from copper and nickel mines<sup>5</sup>
- Cobalt is forecast to be in deficit through to 2020<sup>5</sup>

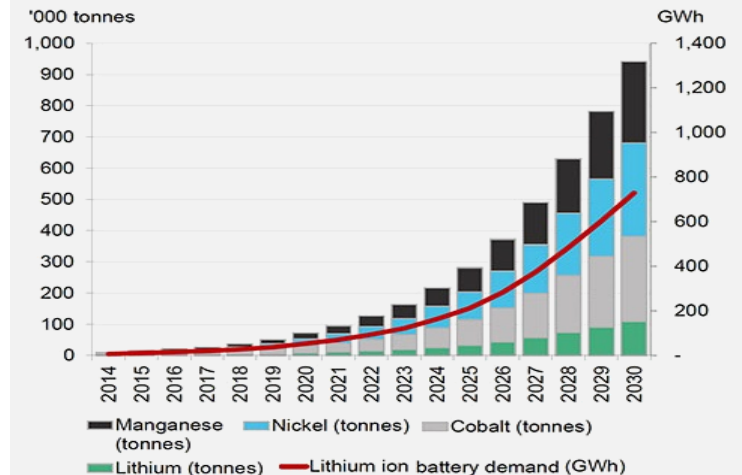
**Security of supply is becoming increasingly a concern**

## Historic Cobalt Price



Source: Bloomberg

## Increase In Demand



Source: Investing.com, 15 December 2017, Bloomberg New Energy Finance