



FALCON

ENERGY MATERIALS PLC

TSX-V: **FLCN**

ENERGY MATERIALS FOR TOMORROW

INVESTOR PRESENTATION | Q1 2025



Forward- Looking Statement

This presentation contains forward-looking statements. Forward-looking statements involve known and unknown risks, uncertainties and assumptions and accordingly, actual results and future events could differ materially from those expressed or implied in such statements. You are hence cautioned not to place undue reliance on forward-looking statements. Forward-looking statements include words or expressions such as “provide”, “objective”, “become”, “committed”, “dedicated”, “ensures”, “growing”, “prospective”, “positive”, “through”, “contributes”, “low”, “easier”, “continue”, “excellent”, “very”, “valuable”, “expected”, “adequately”, “ongoing”, “expand”, “plan”, “expedite”, “to be”, “improve”, “complete”, “as much as”, “set to”, “rise”, “significant”, “is required”, “forecast”, and other similar words or expressions. Except for statements of historical fact relating to the Corporation, information contained or incorporated by reference herein constitutes forward-looking information, including, but not limited to, the future price of, and demand for, minerals including graphite, nickel and cobalt, as well as the Corporation’s strategy, plans or future financial or operating performance. Forward-looking information is based upon assumptions that were applied in drawing a conclusion or making a forecast or projection that are believed to be appropriate in the circumstances, including the following: the Corporation will be able to obtain additional financing on reasonable terms or at all; the Corporation will be able to recruit and retain the services of its key technical and management personnel; the Corporation’s management will not identify and pursue other business objectives in future; there will be no unexpected technological, economic, political or other disruptions that will affect supply or demand for minerals in manner that would have a material adverse effect on the Corporation; the Corporation will be able to obtain all required regulatory approvals without undue delay or subject to excessively burdensome conditions; the results of current exploration activities will be favorable; the price of minerals will remain sufficiently high and the costs of advancing the Corporation’s projects sufficiently low so as to permit it to successfully implement its business plans; and that the risks referenced above, collectively, will not have a material impact on the Corporation. While management considers these assumptions to be reasonable based on currently available information, they may prove to be incorrect.

Risk factors that could cause future results or events to differ materially from current expectations expressed or implied by the forward-looking statements include, but are not limited to, exploration results, revenue, fluctuations in the price of currencies or minerals or of local operating costs, mining industry risks, delays, political and social stability in Africa including our ability to maintain or renew permits and other risks as described in our documents filed from time to time with Canadian securities regulatory authorities. Information with regards to these and other risk factors can be found in Falcon’s MD&A for the year ended December 31st, 2023.

These forward-looking statements are dated as of January 26th, 2025 and we disclaim any obligation to update or revise these forward-looking statements, except as required by applicable law.

All amounts are in US dollars unless otherwise specified

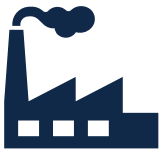
Filling the Gap in Mine-to-Market Active Anode Material (AAM) Production



Capitalizing on the growing AAM market, which uses predominately graphite and has a growing role in lithium-ion batteries, prompting a need for supply chain diversification beyond China's dominance.



Strong management team and unique strategy, leveraging significant expertise on the African Continent and validated by cornerstone investment by the La Mancha Fund.



Near-term AAM production from Moroccan Anode Plant, with a PEA completed and feasibility study underway, to produce 25ktpa AAM.



Vertical integration strategy from mine-to-market, aimed at derisking Anode Plant development, by working closely with a consortium of existing, industry participants.

Company Highlights



Falcon is well-capitalized and has completed domiciling to UAE.

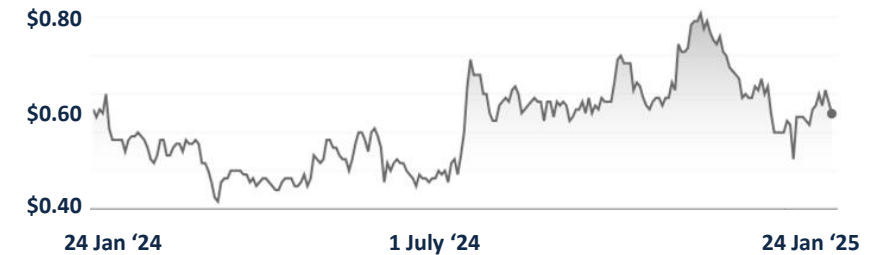
CAPITAL STRUCTURE ⁽¹⁾

Listing / Incorporation	TSX / UAE
Basic Shares Outstanding (M)	117.4
Options (M) ⁽²⁾	13.4
RSU and DSU's (M)	1.1
Fully Diluted Shares Outstanding (M)	132.1
Market Capitalisation (C\$)	\$79M
Cash (C\$)	\$5M
Liabilities (C\$)	\$500K

Note:

- As of December 31st, 2024
- Average strike price of C\$0.71

SHARE PRICE PERFORMANCE



MAJOR SHAREHOLDERS

La Mancha Fund	23.5%
Sama Resources	13.0%
Coris Bank	10.8%

RESEARCH COVERAGE

Eight Capital	NR
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Executive Team



BENOIT LA SALLE | FCPA, FCA, MBA
Director & Chairman of the Board

Founder, President & CEO of Semafo, Current President & CEO of AYA Gold & Silver Inc. and Executive Chairman of Sama Resources Inc.



MATTHIEU BOS | MSc
President and Chief Executive Officer

Former Executive VP, Africa for Ivanhoe Mines; Previously worked for BMO Capital Markets. Current Chairman of Sama Resources Quebec Inc. and Director of Elemental Altus Royalties Corp.



PATRICK MORYOUSSEF | P.Eng
Chief Operating Officer

Former VP, Mining Operations of Semafo; Senior Vice-President Technical Services and Operational Performances at Endeavour Mining. Previously worked for Noranda, Falconbridge, Placer Dome.



MARC-ANTOINE AUDET | P.Geo
Chief Geologist

Founder President & CEO of Sama Resources; Former Director of International Exploration at Xstrata Nickel; Director of Exploration at Falconbridge.



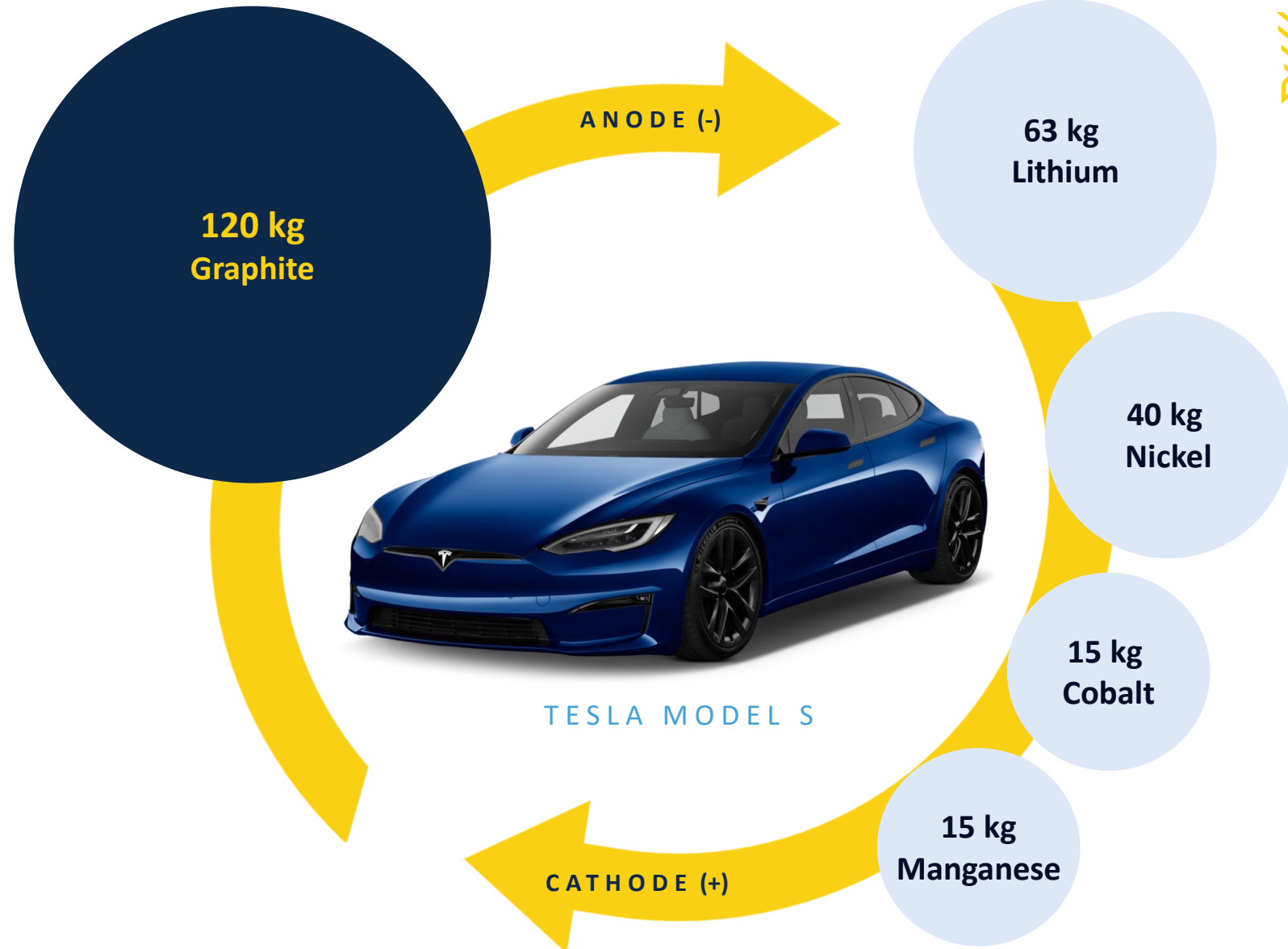
JEAN-DANIEL JOLY | CPA
Chief Financial Officer

Former VP, Finance Shared Services at BNP Paribas and head of FP&A for Avera Technologies Inc.

The Role of Graphite



Graphite is one of the most overlooked parts of a battery.



SOURCE: [Nexus PMG](#) & [Resource Erectors](#)

Industry Leaders fully recognize the importance of China



China is undeniably at the forefront of the EV revolution.



Executing to a Chinese standard is now going to be the most important priority.

- Jim Farley, CEO Ford



Cutting ties with China would be “unthinkable”

- Ola Källenius, Head of Mercedes Benz



China is “many years” ahead with EV development

- Carlos Tavares, Former CEO Stellantis



We need to prove that we can match Asian suppliers in execution....

- Peter Carlson, former CEO Northvolt



China is center of global auto future

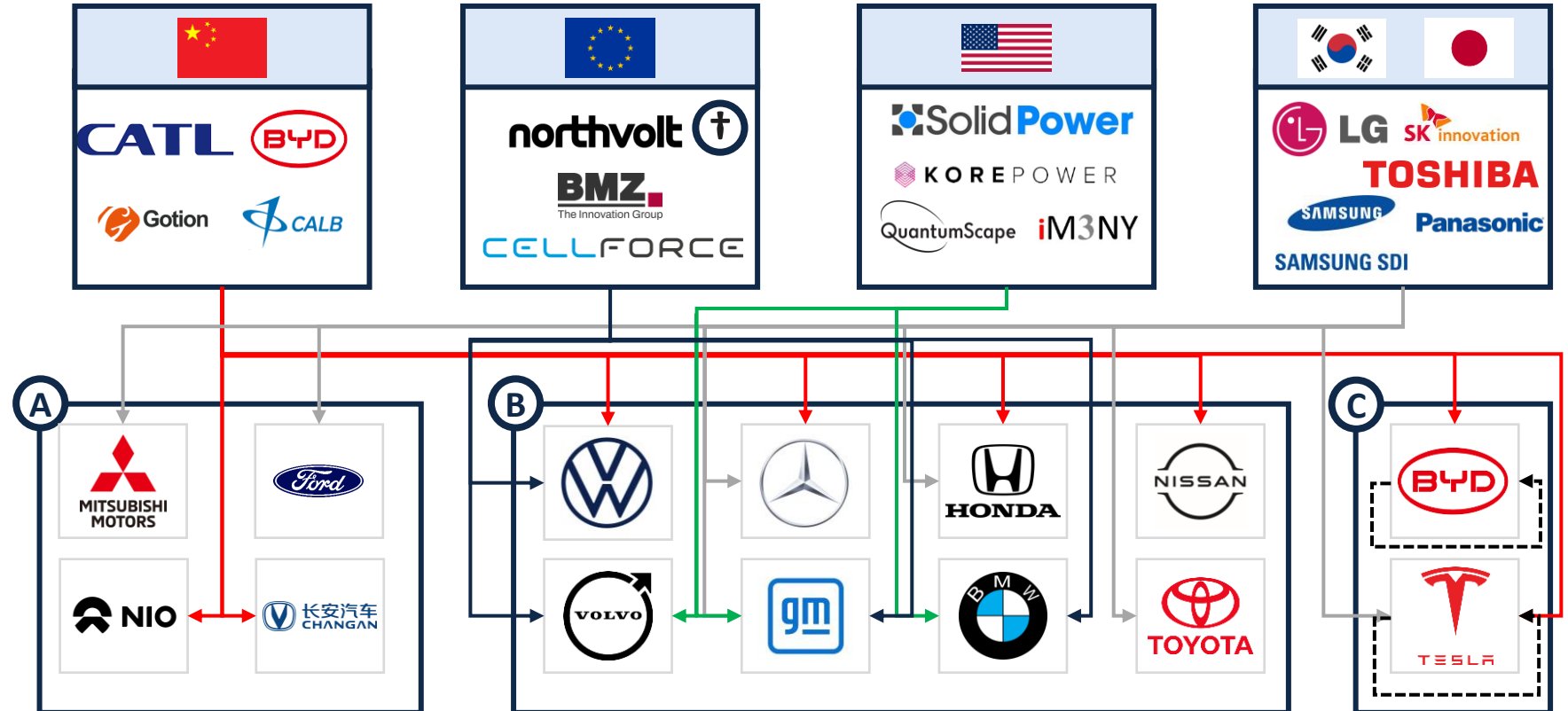
- Oliver Blume, CEO of Volkswagen Group

SOURCE: 2024 Quotes

OEM Sourcing Strategy: De-risking is better than De-coupling



De-risking through partnerships is the solution to complex supply chain realignment.



(A) Single-Region / Vendor Sourcing
(B) Multi-Region / Vendor Sourcing
(C) Vertical Integration
(†) Chapter 11

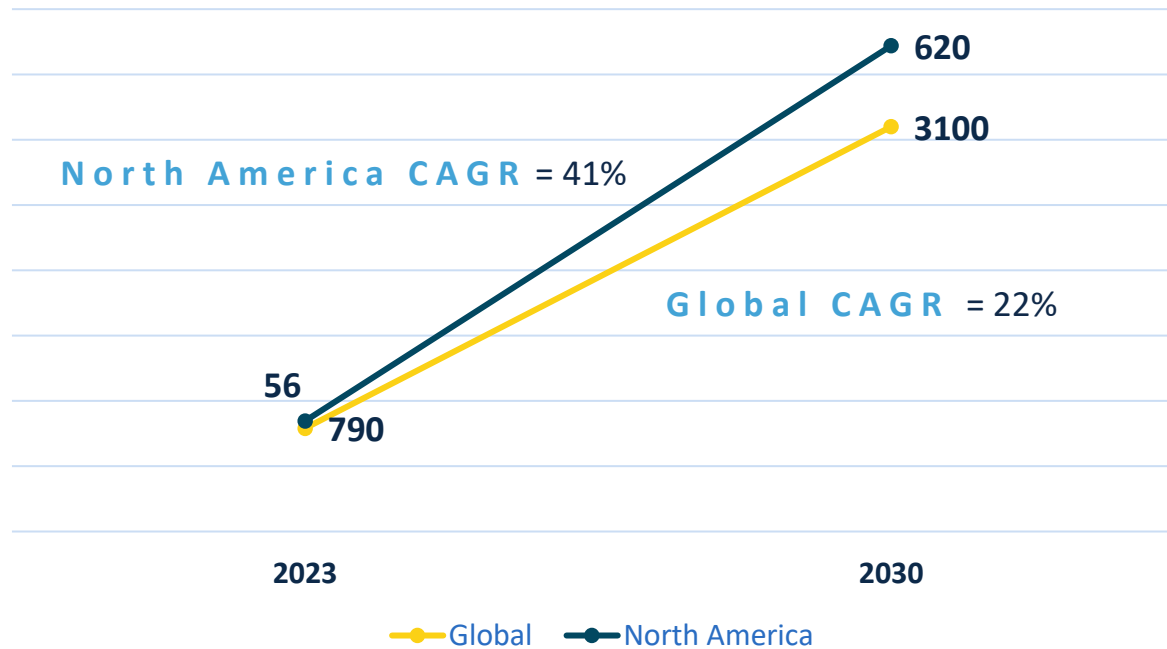
SOURCE: RedChalk Group

China Dominates primary graphite mine supply and refinery capacity



S&P GLOBAL MOBILITY

Global Demand for AAM materials (ktpa)



China dominates downstream EV battery supply chain, a trend which is unlikely to change.

China
PRODUCED
77%
Global Graphite
in 2023

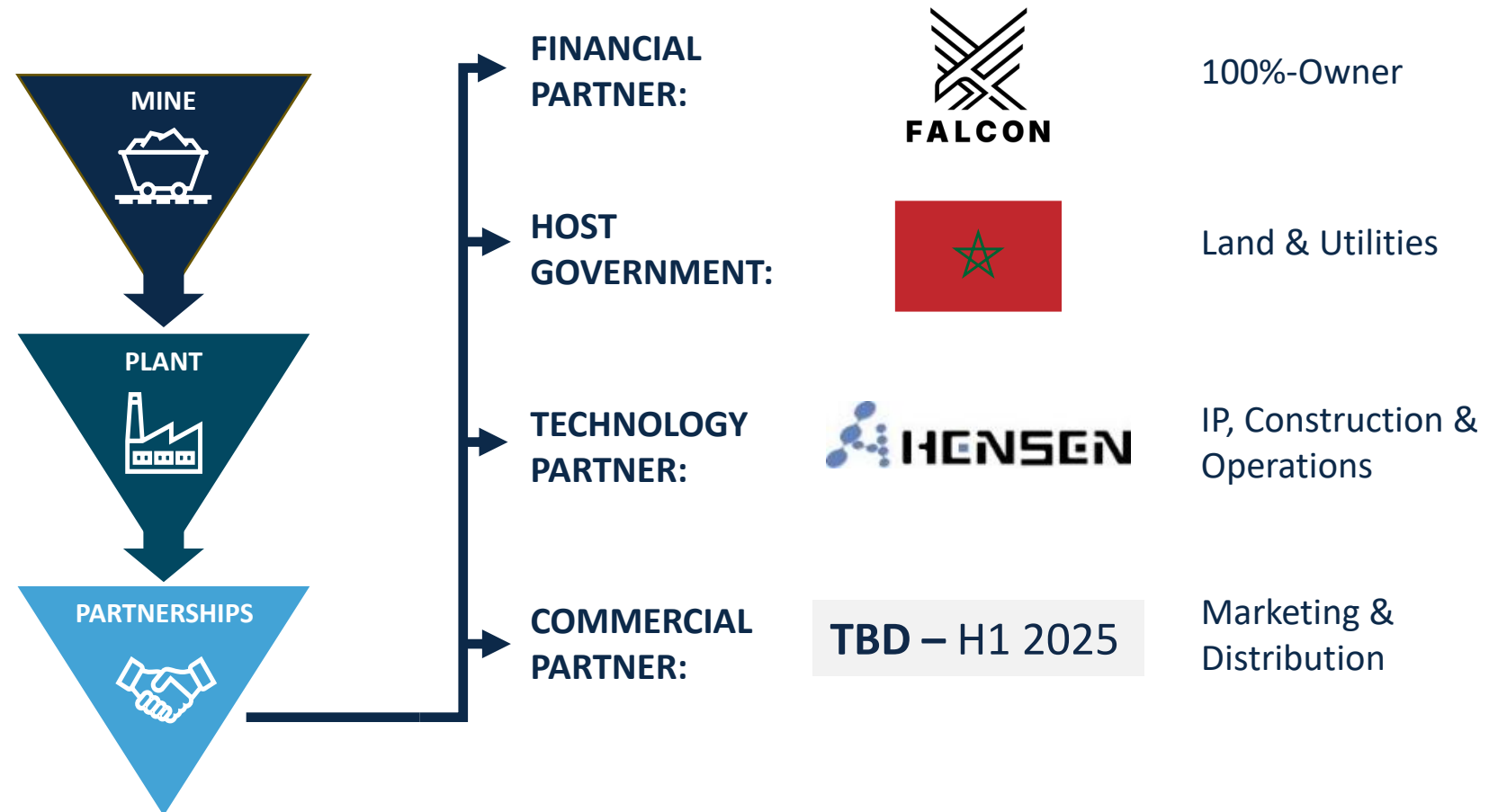
China
REFINED
+90%
Global Graphite
in 2023

SOURCE: [S&P Global](#)

Vertical Integration Strategy focused on building unique consortium



Falcon aims to create a mine-to-market solution leveraging partnerships with an emphasis on refining over mining graphite to maximize margins.



Kingdom of Morocco is developing in a regional EV powerhouse



- **Strategic location** on global trade routes
 - Port of Tanger is largest port in the Mediterranean
- **Free-trade agreements** with Europe, USA and UAE
- **Attractive Government incentives:**
 - Direct subsidy - percentage of capex
 - Tax-free zones - 5-year tax exemption, 0% VAT
 - Special economic zones - no export duties
 - Fast-track permitting process
- **63% renewable energy** by 2030
- **Significant investments** in EV supply chain
- **Car production: 1 million** in 2024



Cluster of Leading
EV Manufacturers
and Suppliers:

Partners



Partners



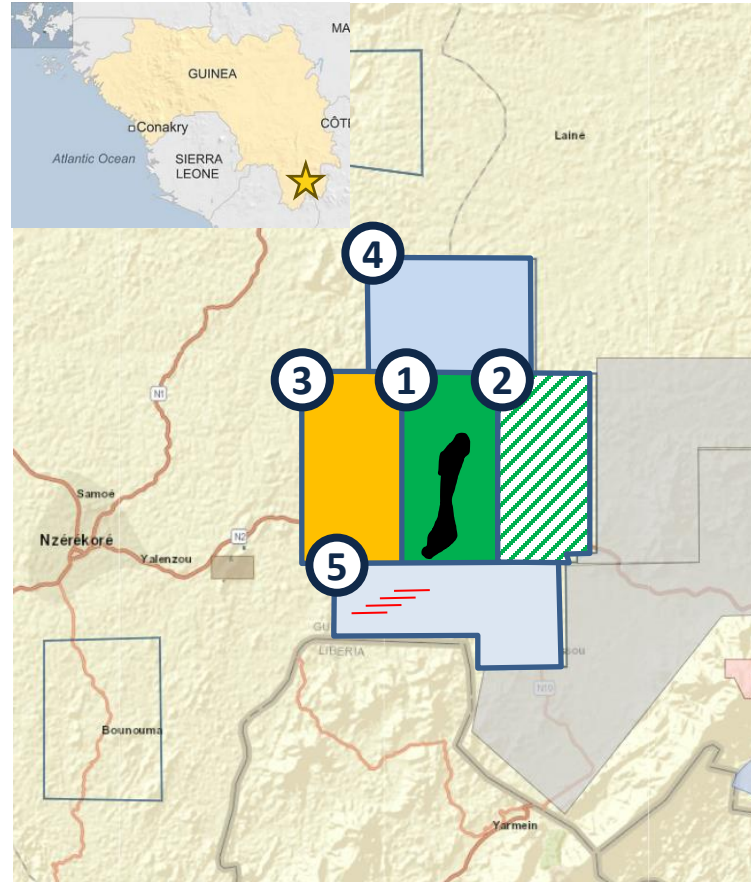


**PHASE I:
LOLA GRAPHITE PROJECT**

Lola Graphite Project Mining License



Surrounded by existing infrastructure and significant exploration potential to the north and south.



Permits

①	Mining Permit (#22709)	FALCON
②	Exploration Permit (#23178)	FALCON
③	“Zone Stratégique”	
④	“Zone Stratégique”	
⑤	Exploration Permit (#22573)	Private
	Existing Resource Base	
	Grab samples, pitting and trenching	

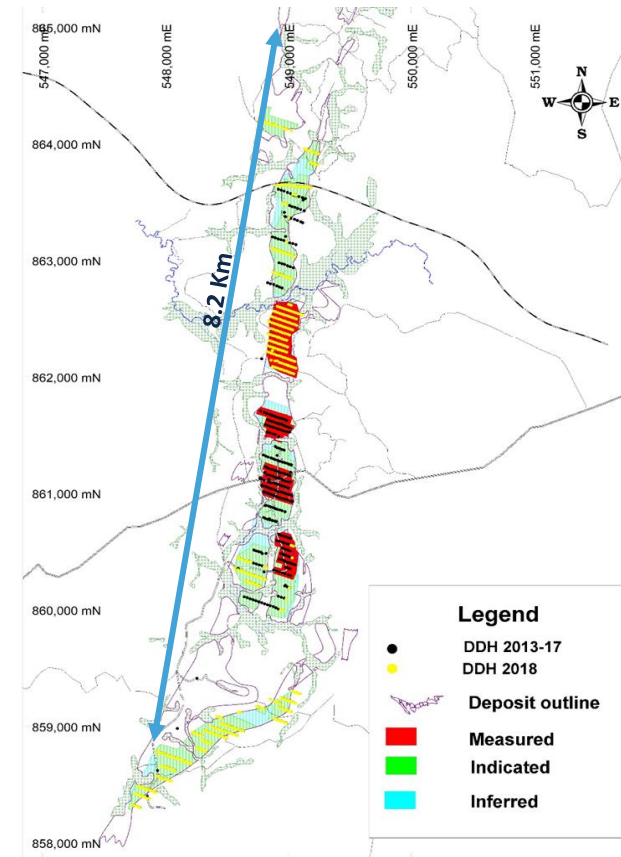


Defined Resources and exploration potential

- **Feasibility Study** by DRA (NI 43-101-compliant) completed in March 2023
- **Environmental and mining permit received** from Government of Guinea
- **15-year mining permit awarded** in Nov. 2019 for 94 Km²

RESOURCE STATEMENT - Cut-Off Cg 1.0% oxides, 1.4% FR

Category	Tonnage (Mt)	Grade (% Cg)	Contained Cg (kt)
Oxide	7.78	4.04	314.6
Fresh Rock	0.47	4.01	19.0
Measured Resources	8.26	4.04	333.6
Oxide	25.40	3.83	972.6
Fresh Rock	20.29	4.14	839.3
Indicated Resources	45.70	3.97	1,812.0
Total M&I Resources	53.96	3.98	2,145.6
Oxide	10.97	3.52	386.4
Fresh Rock	1.33	4.23	56.1
Inferred Resources	12.30	3.60	442.5



**OPEN ALONG
STRIKE & AT
DEPTH**

1. Pit shell was developed using a 34-degree pit slope in oxide and 42-degree pit slope in fresh rock, concentrate sales price of US\$1,389/t concentrate, mining costs of US\$2.75/t oxide, US\$3.25/t fresh rock, processing costs of US\$10.25/t oxide and US\$15.18/t fresh rock processed, G&A cost of US\$1.52/t processed and transportation costs of US\$50/t concentrate, 84.2% process recovery and 95.4% concentrate grade and an assumed 100,000 tpa concentrate production.
2. Mineral resources are not mineral reserves and have no demonstrated economic viability. The estimate of mineral resources may be materially affected by mining, processing, metallurgical, infrastructure, economic, marketing, legal, environmental, social and governmental factors
3. Effective Date of Resource Estimate is February 27, 2023.
4. Please refer to the technical report filed on SEDAR for full details.



PHASE I PEA Results for graphite concentrate production

INSTALLED CAPACITY: 94ktpa

CAPEX	Direct	\$136M
	Indirect	\$25M
	Contingency	\$17M
	Owner's Cost	\$6M
	Total	\$185M
OPEX ⁽²⁾	Direct	\$616 / t
	Transport	\$64 / t
	Total	\$680 / t
RESULTS ⁽³⁾	Avg. Selling Price	\$1,237 / t
	NPV_{8%}	\$176M
	IRR	20%
	Pay-Back	3.9 years

HIGHLIGHTS

- Construction period of 14 months
- Commissioning 3 months and 3 months ramp-up
- Simple, open pit mining of 2.5Mtpa of oxides and fresh rock
- Low LoM average strip ratio of 0.88
- Processing flow sheet based on conventional flotation circuit
- Export route by road through Liberia
- Concentrate divided into 4 standard-size fractions

Low-strip ratio, open pit mine with conventional flotation circuit to produce high-purity graphite concentrate

Investors are cautioned to solely make an investment decision based on the full Integrated Development Plan preliminary economic assessment (as detailed in the January 2025 NI 43-101 PEA) and not base their investment decisions on either the Phase I (Mine) or Phase II (Anode Plant) economic assessment.

1. All monetary amounts in USD; 2. Life-of-mine average; 3. After-tax

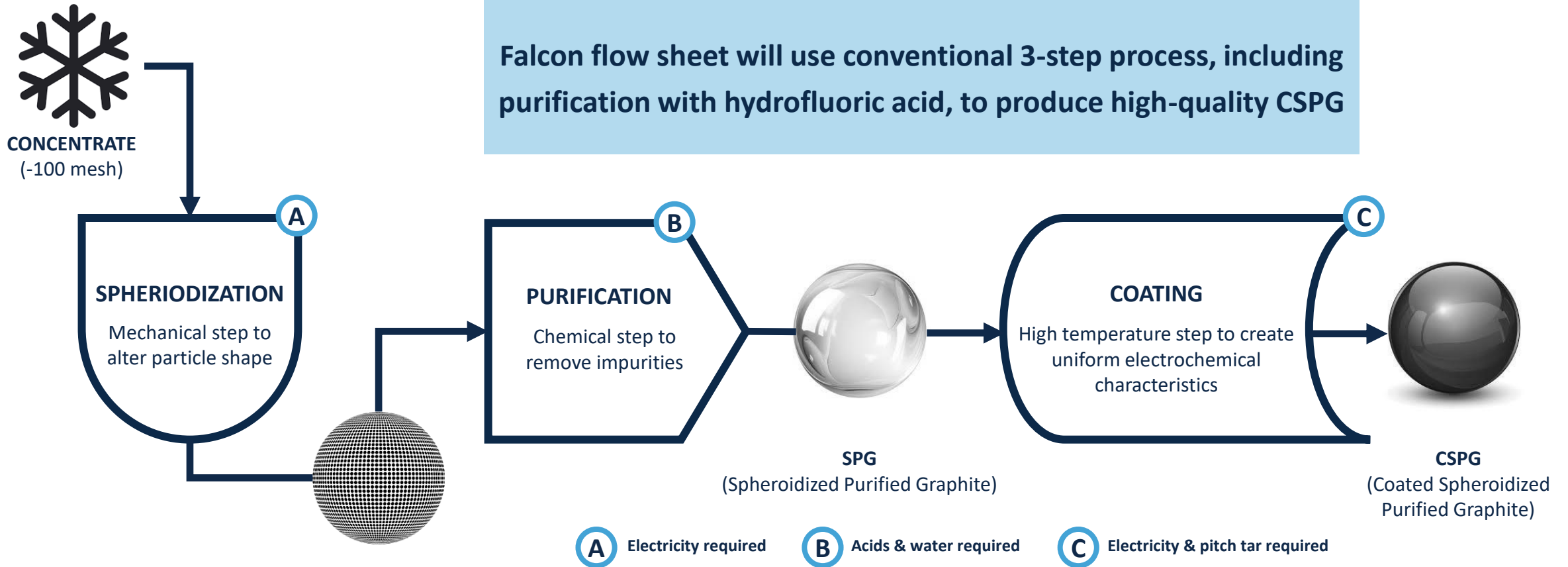


**PHASE II:
MOROCCO ANODE PLANT**



Three-step process to upgrade graphite concentrate to CSPG

Falcon flow sheet will use conventional 3-step process, including purification with hydrofluoric acid, to produce high-quality CSPG





Anode Plant Footprint

ANODE PLANT DESIGN

Anode plant footprint designed for immediate expansion to 50ktpa.



KEY AREAS

- ① Spheroidization Plant
- ② Purification Plant
- ③ Coating Plant
- ④ Finishing Plant
- ⑤ Acid Storage
- ⑥ Water Treatment Plant

BASED ON EXISTING
HENSEN PLANT

Illustration of Coating Plant



25KTPA COATING PLANT



Anode plant design based on existing design by Hensen.

PHASE II PEA Results CSPG production



Leveraging existing expertise significantly improves project economics and derisks execution

INSTALLED CAPACITY: 25ktpa

CAPEX	SG Plant	\$20M
	Purification Plant	\$14M
	Coating Plant	\$18M
	Other	\$5M
	Contingency	\$16M
	Total⁽¹⁾	\$73M
OPEX ⁽²⁾	Concentrate Costs	\$1,286 / t
	Operating Costs	\$1,907 / t
	Total	\$3,193 / t
RESULTS ⁽³⁾	CSPG Selling Price	\$9,000 / t
	NPV_{8%}	\$1,149M
	IRR	82%
	Pay-Back	1.0 years

HIGHLIGHTS

- Construction period of 18 months
- Based on existing design of Hensen Weihai CSPG plant
- Processing flow sheet based on conventional Chinese, CSPG production methods
- Initial 5ktpa coating line, expanded to 25ktpa⁽¹⁾ after final product has been qualified by customers

KEY REQUIREMENTS

Surface	8 hectares
Water	1,200 m ³ / day
Electricity	30MW
Hydrofluoric Acid (HF 20%)	9,500 tpa
Hydrochloric Acid (HCl 35%)	17,550 tpa
Nitric Acid (HNO ₃ 25%)	4,000 tpa

Investors are cautioned to solely make an investment decision based on the full Integrated Development Plan preliminary economic assessment (as detailed in the January 2025 NI 43-101 PEA) and not base their investment decisions on either the Phase I (Mine) or Phase II (Anode Plant) economic assessment.

1. Excluding \$33M for coating plant expansion to 25ktpa in Year 4; 2. Life-of-mine average; 3. post-tax

Milestones & Catalysts - 2025 will be a pivotal year for Falcon



ANODE PLANT

TRANSACTIONS &
FINANCING

MINE

- **Target production of 25ktpa** of AAM from Q1 2027
- **Anode Plant FS:** Development & engineering of the flow sheet underway
- **Pilot Plant:** Development of pilot plant in Morocco
- **Securing plant location in Morocco:** in advanced discussions
- **Securing key chemicals:** advanced discussions with only captive source of acid in Morocco
- **Financing & strategic discussions underway** for mine and anode plant
- **Commercial Partners:** discussions underway
- **EPC proposals for mine development received,** aim to reduce development capital
- **Discussions underway to finance** construction capex

FS

Mid 2025

Market Update

Q1 2025

Market Update

Q1 2025

Market Update

Q2 2025

The background features several ancient scrolls. One scroll in the center has blue markings on its surface. A large, white, geometric pattern of overlapping triangles is overlaid on the right side of the image. A semi-transparent white box is positioned on the left side, containing the text 'APPENDICES'.

APPENDICES

La Mancha Investment



A strong endorsement from sophisticated mining investor.

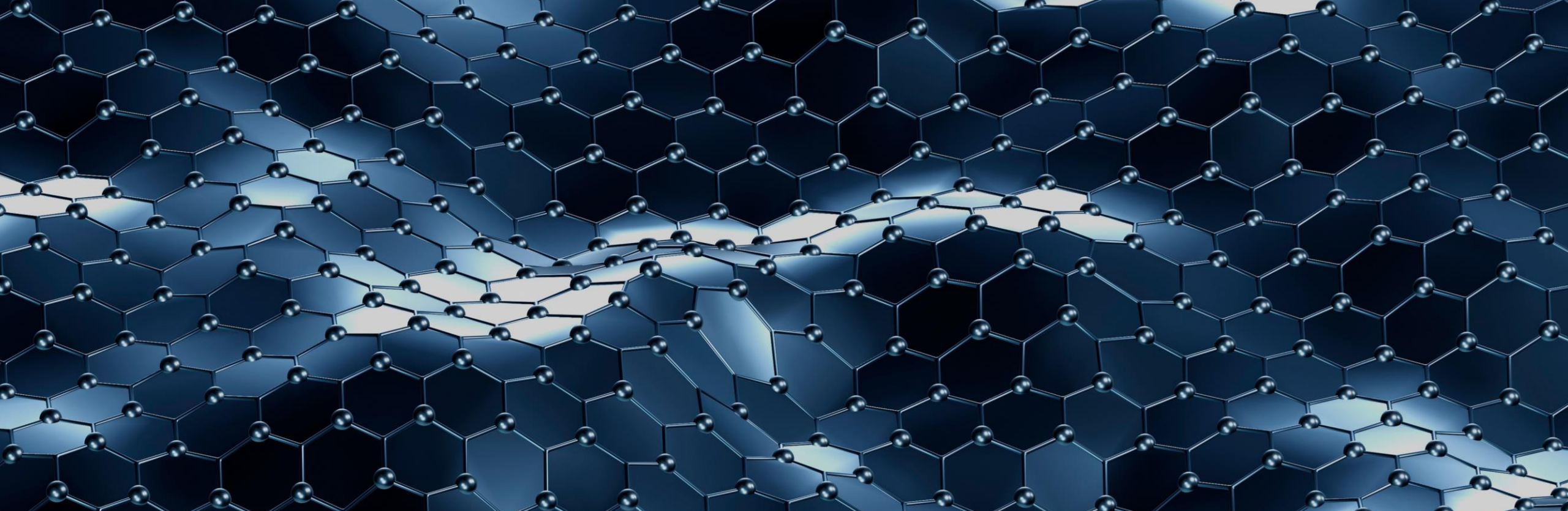
“La Mancha is pleased to support Falcon with this initial investment and, depending on the outcomes of the development programme, there is the potential for up to C\$50 million in subsequent financings to fund Falcon through to production.”



TRANSACTION OVERVIEW

- Initial investment of **C\$12.5M for 19.9% interest**
- Right to nominate **two Directors** to the Falcon Board
- **Anti-dilution** rights
- **Subsequent acquisition** from Sama Resources





FALCON

Level 7, Al Maryah Tower
Al Maryah Island, Abu Dhabi
United Arab Emirates

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