

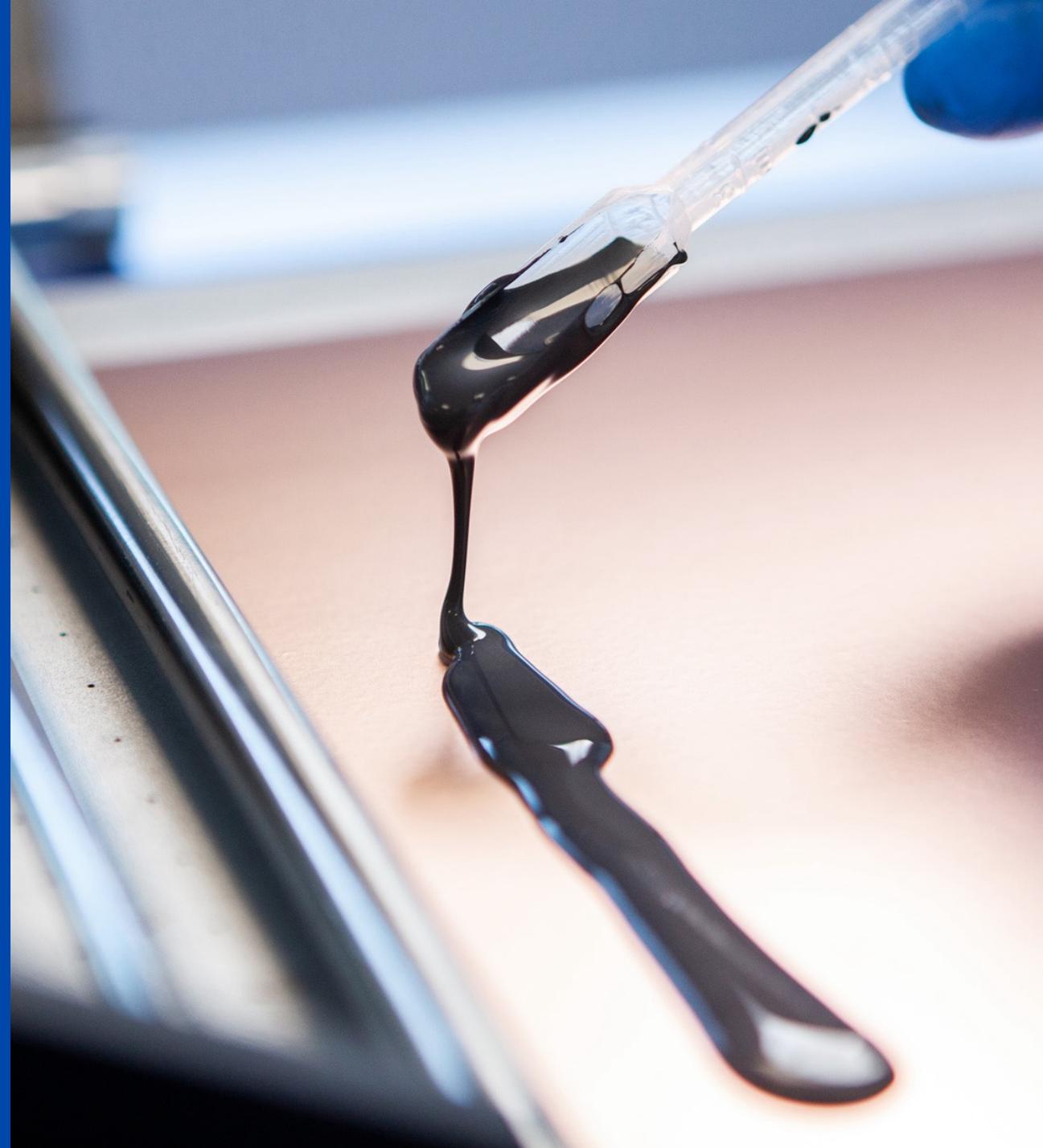
**talga**

# Talga Group Ltd

Swedish graphite anodes  
for greener batteries

ASX:TLG

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# Cautionary Statement and Disclaimer

Talga Group Ltd ACN 138 405 419 (the Company) is the issuer of this presentation.

## **Niska Scoping Study**

The Niska Scoping Study is a preliminary technical and economic study of the potential viability of developing the Nunasvaara North, Niska South and Niska North graphite deposits by constructing an integrated mining and refining operation to produce Talga's anode products for Li-ion batteries. It is based on low level technical and economic assessments that are not sufficient to support the estimation of ore reserves or to provide assurance of an economic development case. Further evaluation work and appropriate studies are required before the Company will be in a position to estimate any ore reserves or to provide any assurance of an economic development case or certainty that the conclusions of the Niska Scoping Study will be realised. The Niska Scoping Study is based on the material assumptions outlined in the announcement of 7 December 2020. These include assumptions about the availability of funding. While Talga considers all of the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Niska Scoping Study will be achieved. To achieve the range of outcomes indicated in the Niska Scoping Study, funding in the order of US\$1,000 million plus contingencies may be required. Investors should note that there is no certainty that the Company will be able to raise that amount of funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of the Company's existing shares. It is also possible that the Company could pursue other 'value realisation' strategies such as a sale, partial sale or joint venture of the project. If it does, this could materially reduce the Company's proportionate ownership of the deposits covered by the Niska Scoping Study. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Niska Scoping Study.

## **Forward-looking statements**

This presentation contains forward-looking statements. Those forward-looking statements reflect views held only as at the date of this presentation. Any such statement is subject to inherent risks and uncertainties. Actual events or results may differ materially from the events or results expressed or implied in any forward-looking statement, and such deviations are both normal and to be expected. Recipients must make their own assessment about the likelihood of a matter, about which a forward-looking statement is made, occurring. The Company makes no representation about the likelihood of a matter, about which a forward-looking statement is made, occurring. The Company and its directors, employees, agents, advisers and consultants: give no representation or warranty to a recipient of this presentation as to the accuracy or completeness of the statements contained in this presentation or in relation to any other matter; and to the fullest extent permitted by law, disclaim responsibility for and have no liability to a recipient of this presentation for any error or omission in or for any statement in this presentation, including any liability arising from negligence.

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# Talga Group

Graphite battery material supplier with 100% owned mineral resources in Sweden and processing-product technology

Strong in-house expertise spans coated graphite and silicon anode products, development and marketing

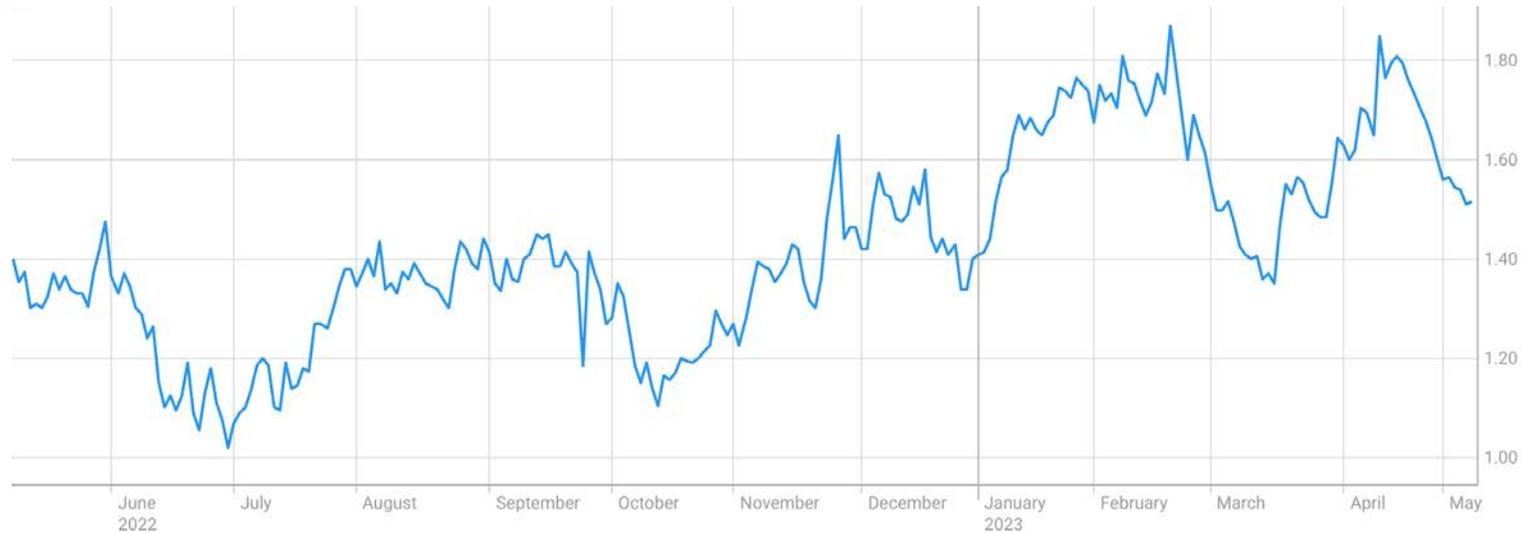
Talga is differentiated by:

- › **Full vertical integration from mine & process technology to fully coated anode products**
- › **Strategic high-grade resources in Sweden**
- › **Green products, stable jurisdiction and direct land access to customer battery Gigafactories**



# Corporate Overview

## ASX:TLG (12 months)



**Entered ASX 300 index 20 March, 2023**

## STOCKMARKET CODES/TICKERS

Primary listing Australia ASX (TLG)  
with OTC Germany (TGX) and US (TLGRF)

## CAPITAL STRUCTURE

Market Capitalisation:	\$546.3M
Listed Shares:	360.6M
Unlisted Options:	11.6M <sup>(1)</sup>
Cash as at 31 March 2023:	\$51.6M

## MAJOR SHAREHOLDERS

Kinetic Investment Partners	4.7%
Mark Thompson – M. Director	4.0%
Pentwater Capital Management	3.6%
UBS AG (Private Banking)	3.2%
Ellerston Capital	1.7%

**Total number of shareholders 12,059**

# Talga Operations

Perth, Australia

***Group head office***

Luleå & Kiruna, Sweden

***Anode production and graphite deposits***

Stockholm, Sweden

***European corporate office***

Cambridge, UK

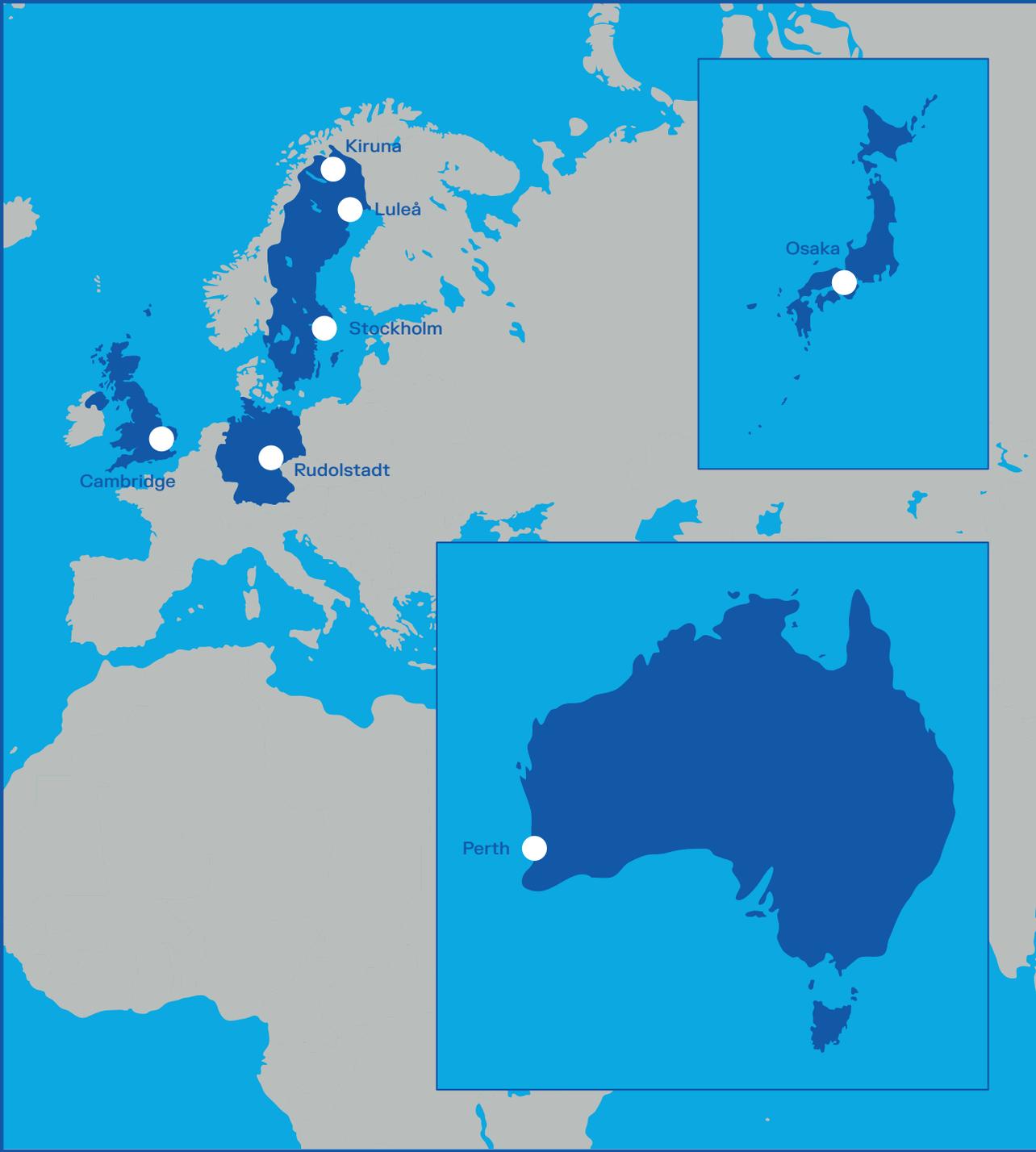
***Product and R&D technology centre***

Rudolstadt, Germany

***Production process pilot facility and  
EU customer network***

Osaka, Japan & Hong Kong

***Commercial offices and product  
development***

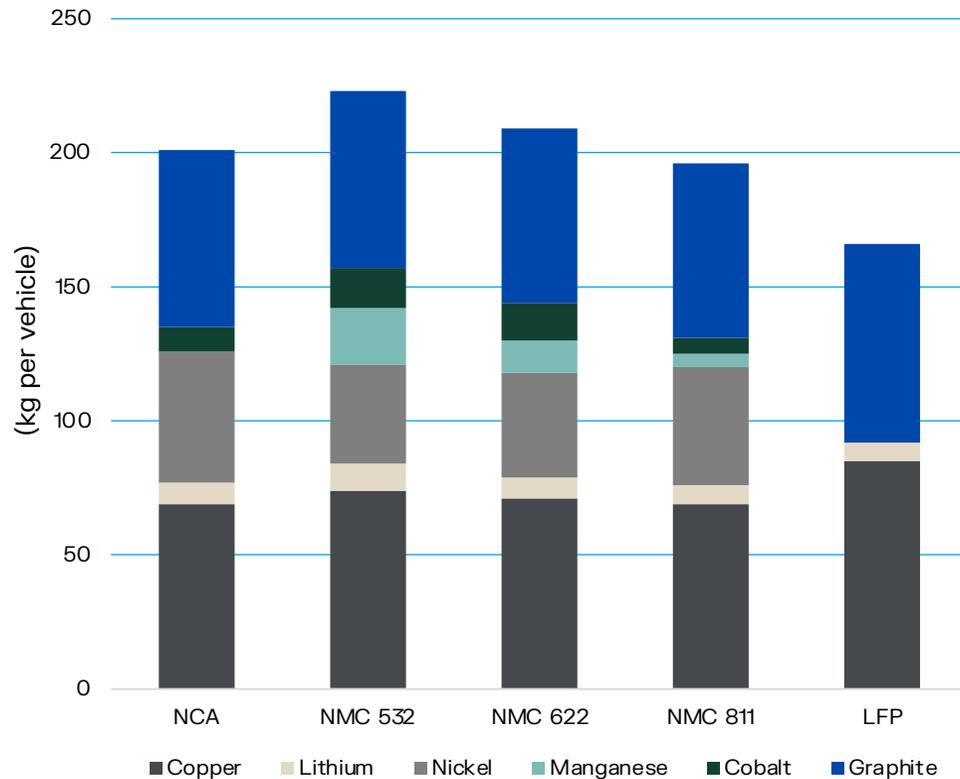


An aerial photograph of a two-lane asphalt road that curves through a dense forest. A small red car is driving on the road. The text "Our Mission" is centered at the top of the image.

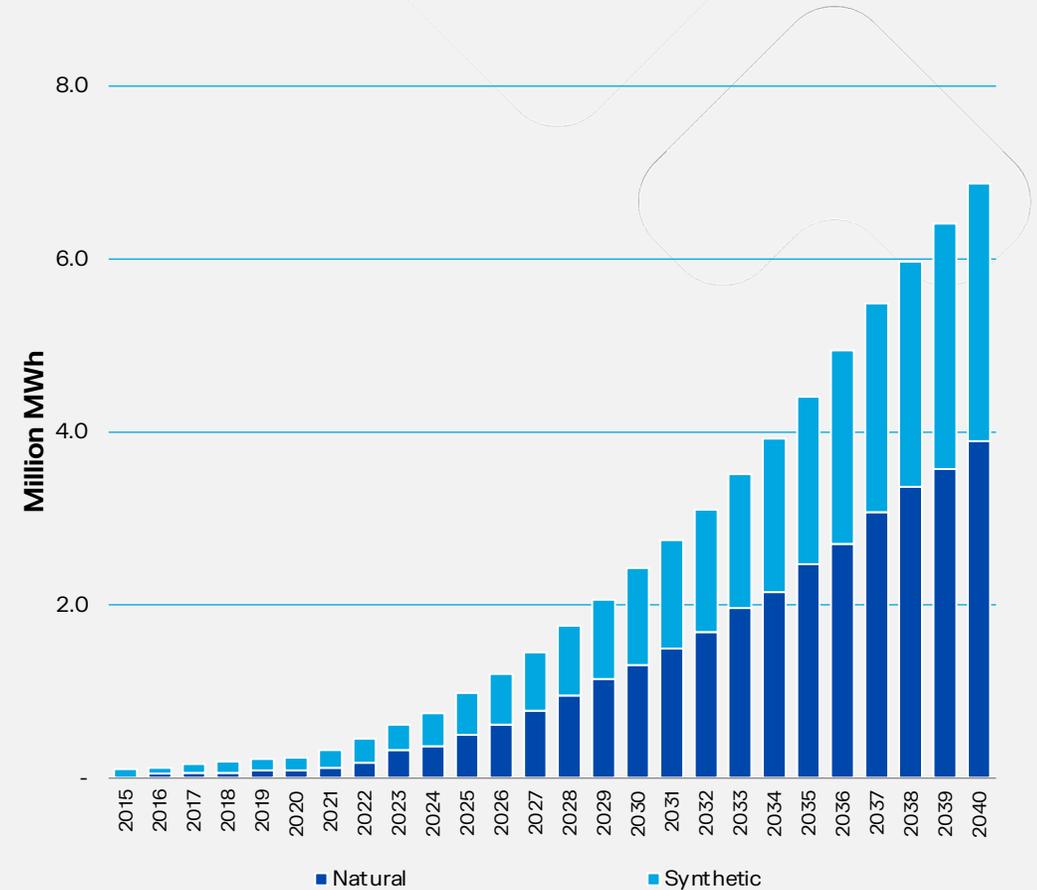
Our Mission

**to enable the world's most  
sustainable batteries and consumer products  
through innovative graphitic materials**

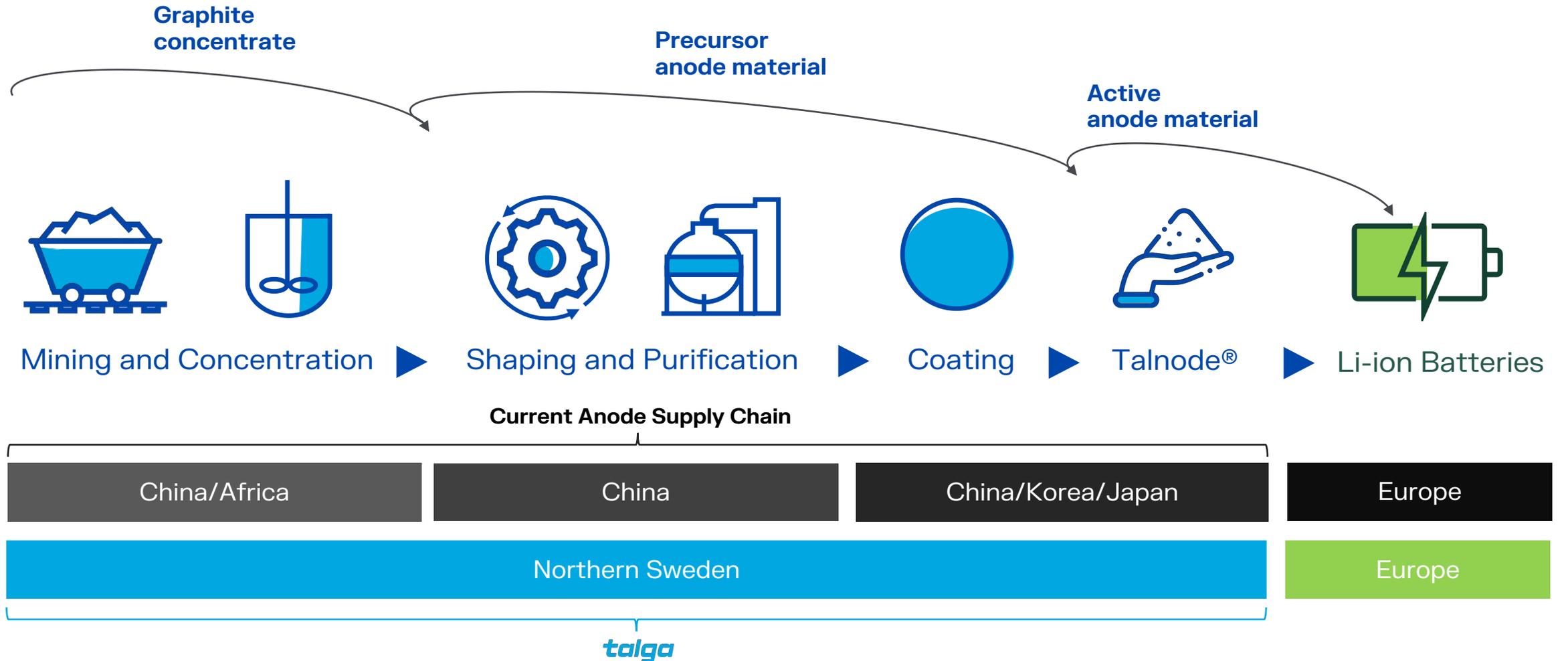
# Graphite is anode of major Li-ion batteries



# Forecast Graphite Anode Demand



# Talga: a stronger, cleaner anode supply chain



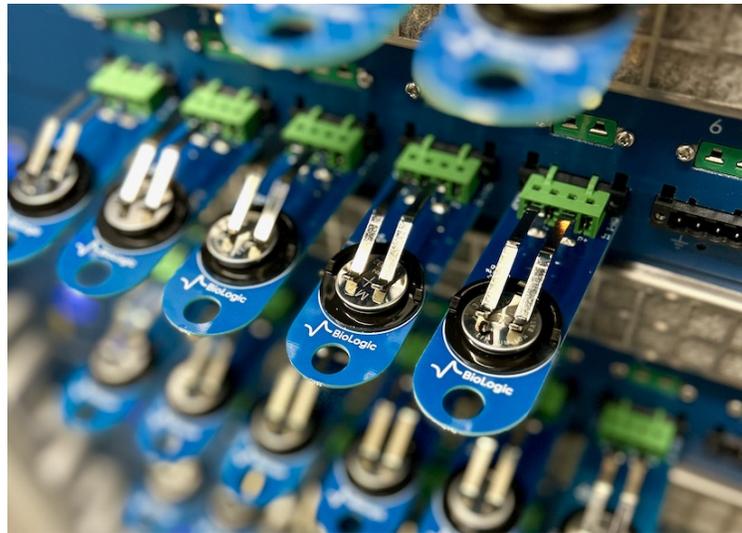
# First coated graphite anode plant in Europe

## Electric Vehicle Anode (EVA) Plant, Sweden

- ✓ Producing large-scale coated natural graphite anode, Talnode®-C, for auto OEM battery customer qualifications (A-C sample)
- ✓ Proprietary ore-to-coated shaped purified graphite (CSPG) technology
- ✓ In-house Battery and Powder Laboratory
- ✓ ISO 14001:2015 certified for Environmental and Social Management System
- ✓ Operational and quality control capability readied for commercial plant in 2024



# Talga Electric Vehicle Anode Plant

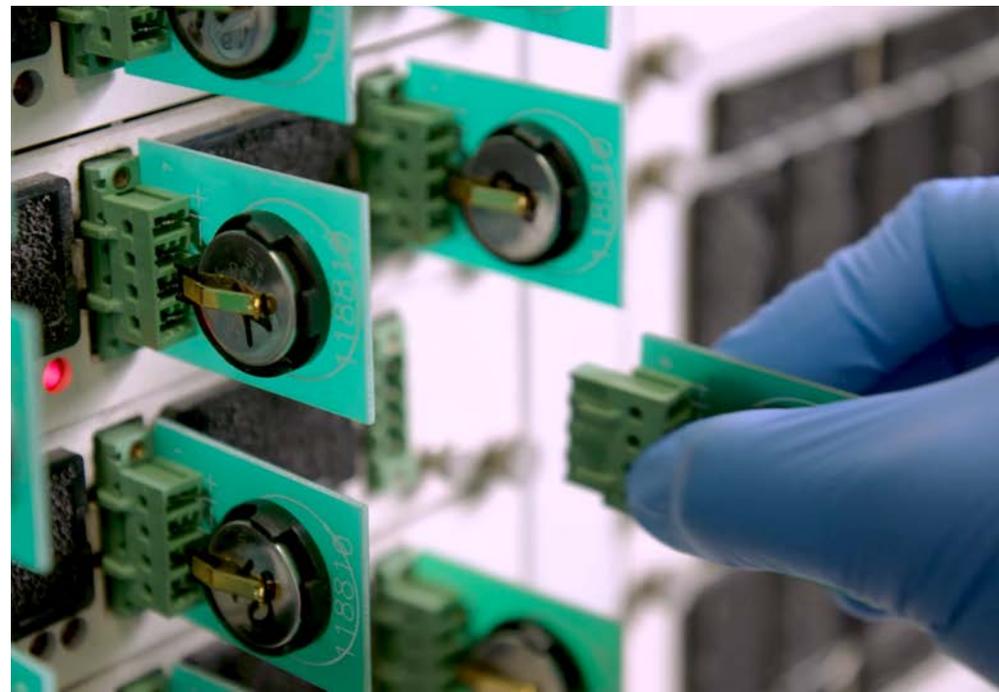


# Battery Centre of Excellence

## In-house battery material innovations centre

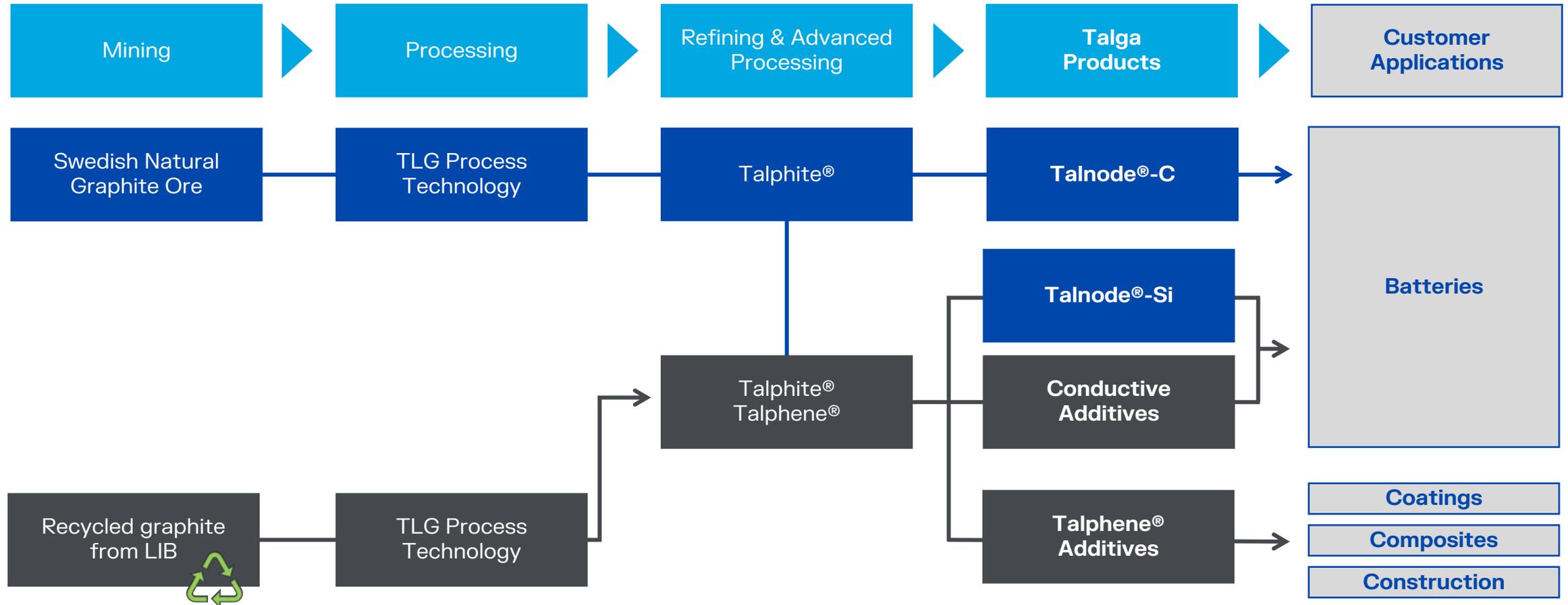
- ✓ Development of next generation Talga battery materials including solid state anodes and performance-boosting conductive additives for cathodes
- ✓ Diversification of Talga's product portfolio into emerging energy storage materials and future scope technologies
- ✓ Located in Cambridge, UK: Europe's largest technology cluster with a diverse and cutting-edge innovation culture





# Talga Technology and Products Map

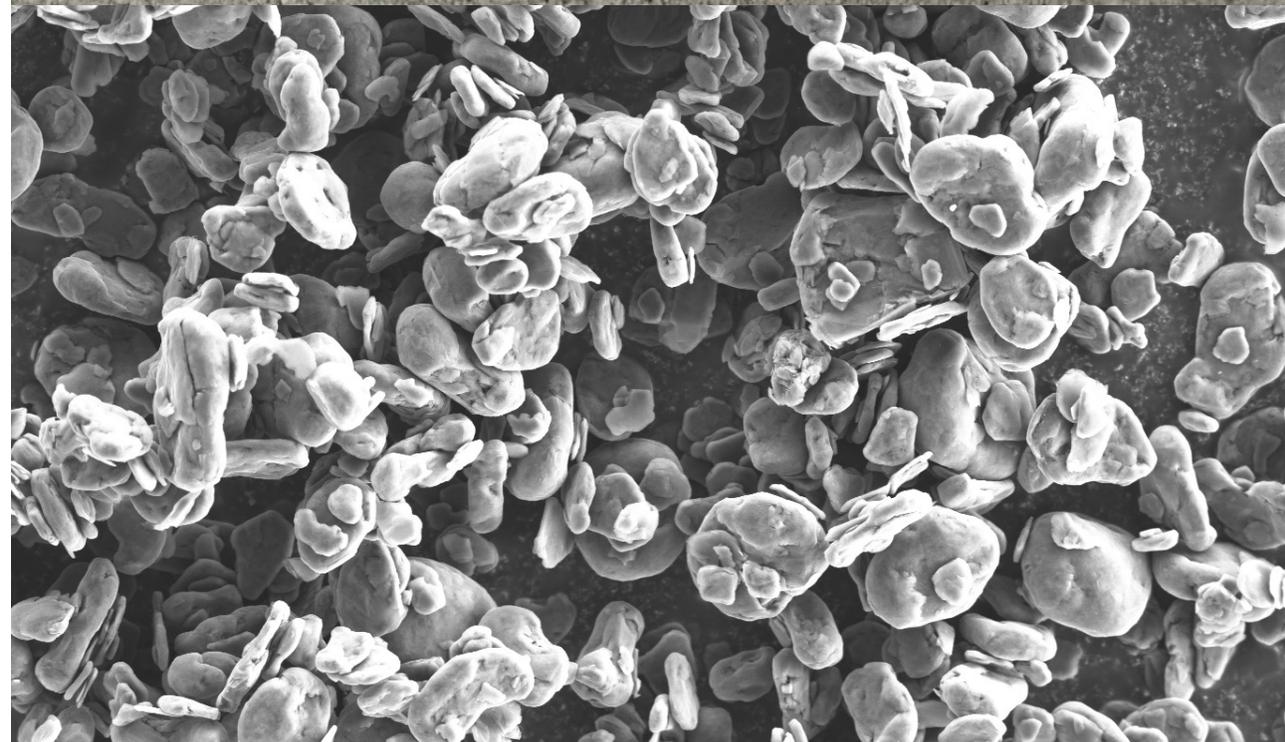
Diverse range of battery and advanced materials produced from graphite sources



# Coated graphite active anode: Talnode<sup>®</sup>-C

**Suitable as stand-alone battery anode or blend due to its high energy density**

- ✓ Innovative coated graphite active anode with ultra-low CO<sub>2</sub> emission profile
- ✓ Excellent charging performance at high load and low temperature
- ✓ High rate and excellent capacity retention (>90%) during fast charging
- ✓ Effective for applications that require a higher rate (>10C) such as for PHEVs and HEV
- ✓ In advanced qualification processes with numerous battery and auto OEM customers





# Enabling greener batteries

Talnode®-C has a vastly lower emissions profile than current anode imports based on:

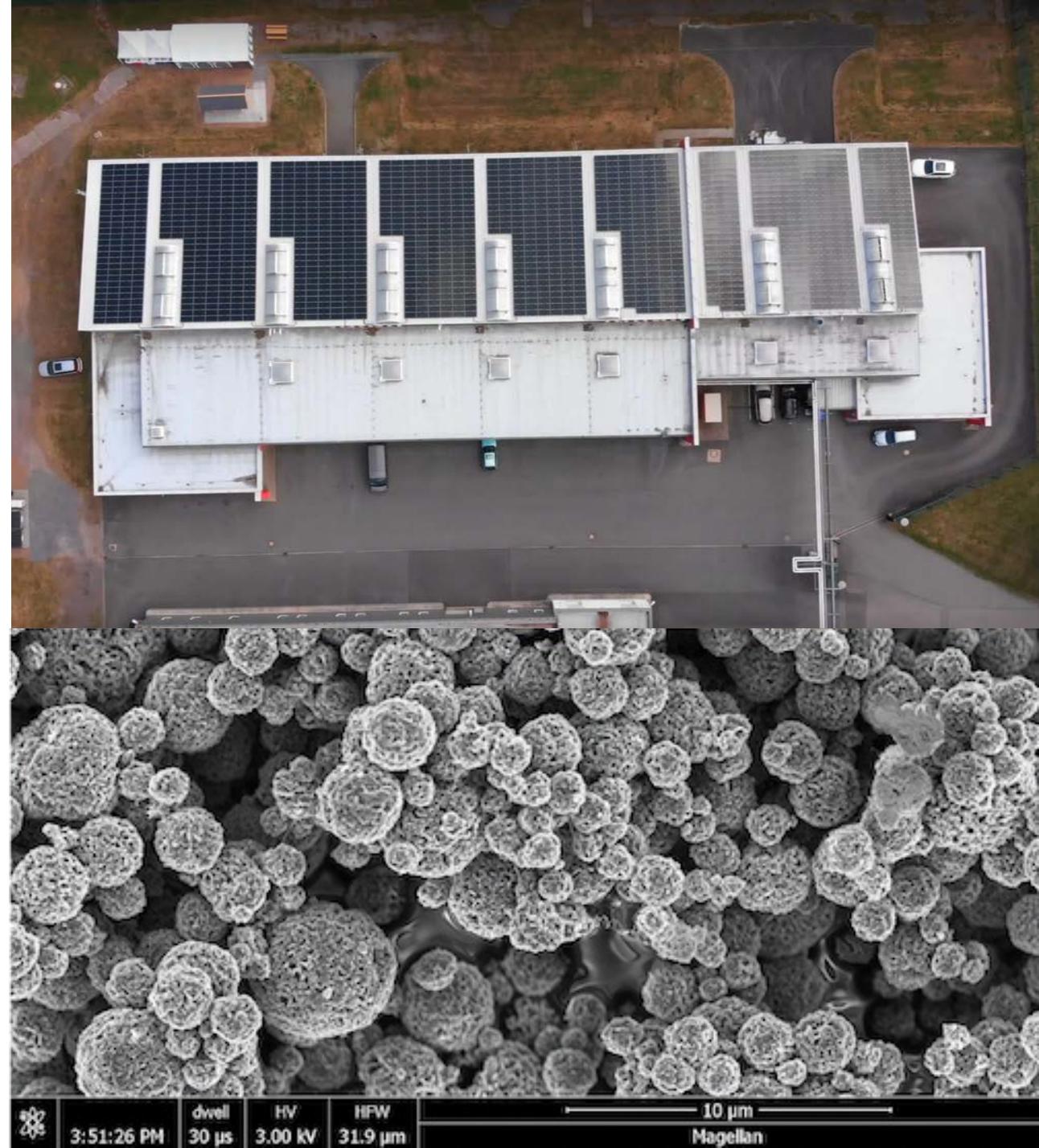
- ✓ **100% renewable electricity**
- ✓ **Responsible mining of high-grade (low volume) natural graphite**
- ✓ **Short road/rail access to customers**

Hitachi-ABB (Scope1-3) Life Cycle Assessment shows production of 1kg Talnnode®-C emits 1.47kg CO<sub>2</sub>-eq (~20x lower than incumbent EV battery imports )

# Silicon anode product: Talnode<sup>®</sup>-Si

## Talga's Silicon-Graphene composite product with up to 50 wt% silicon

- ▶ Increased energy density, low swelling and industrial scalability
- ▶ Drop-in solution compatible with current anode manufacturing methods
- ▶ German pilot plant expansion successfully commissioned in Q1 2023
- ▶ Feasibility studies underway to fast-track commercial options as result of positive negotiations with global customers
- ▶ Commercial site location selection underway



An aerial photograph of the Vittangi Project site. The top half shows several large, circular and rectangular mining pits, some filled with water and others with earth. A small processing plant is visible in the middle ground. The bottom half shows a large, modern industrial facility with multiple long, rectangular buildings and a complex network of pipes and structures, surrounded by dense green forest.

# Vittangi Project

## Stage 1 integrated mine/concentrator and anode production plant

- ✓ 100,000tpa graphite mine and concentrator at Vittangi with 24-year life based on fraction of 36.9Mt @ 23.1%Cg resource base
  - ✓ Mine environmental permit approved
- ✓ Luleå anode refinery to produce 19,500tpa Talnode®-C (purification, shaping and coating)
  - ✓ Anode refinery environmental permit hearing concluded 5 May 2023
  - ✓ Building permits for refinery granted
- ✓ Niska mining exploitation applications (additional 85,000tpa anode production) submitted mid-2021



Nunasvaara Road

Industrial Area

Crusher

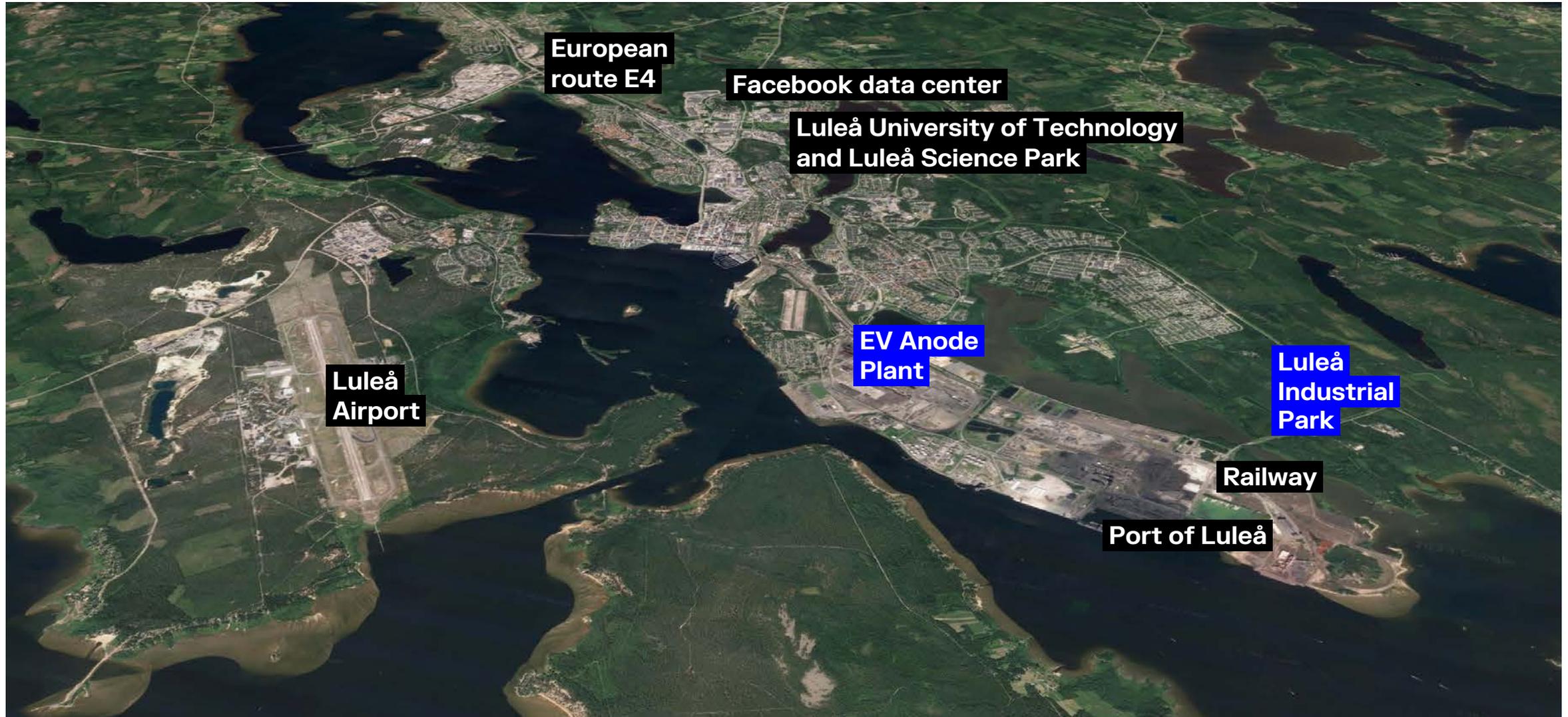
Haul Roads

Integrated Waste Facility

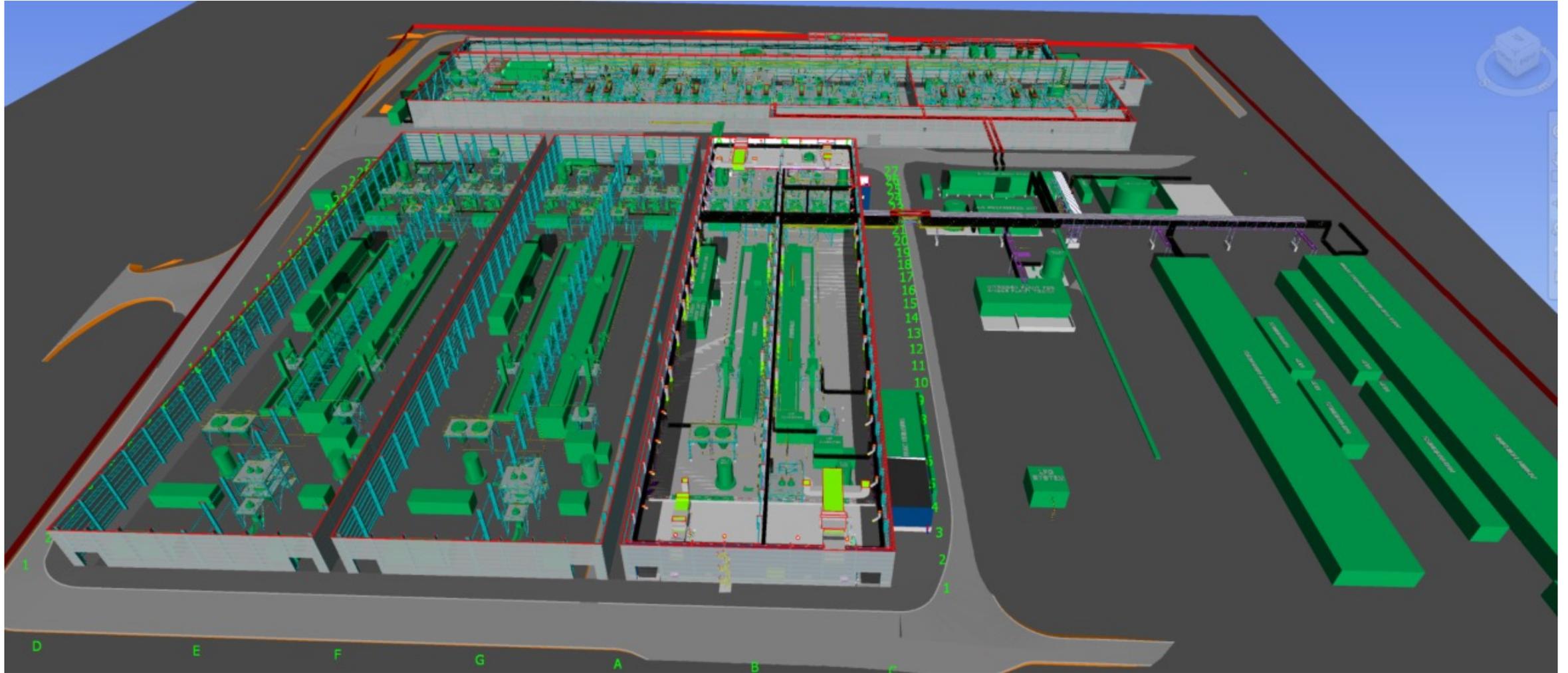
Top Soil / Stock Piles

Mine Pits

# Luleå Industrial Park Greenfield, Sweden



# Targeting 2024 commencement of production



# Proximal to growing customer demand

Announced battery capacity demands >1.3Mt graphite anode per annum by 2030

VOLKSWAGEN

northvolt®

Panasonic

V O L V O

 *talga*

MORROU

 **FREYR**  
Renewable energy storage

STELLANTIS

ITALVOLT®

CATL

īnoBat

 **VERIKOR**

 **SAMSUNG**

**QCC**  
AUTOMOTIVE CELLS Co

 **Envision**  
AESC

microvast

 **VARTA®**

 **SK innovation**

BRITISHVOLT

 **FARASIS**

**TESLA**

**MES**  
MAGNA ENERGY STORAGE

**FAAM**

 **Leclanché**  
Energy Storage Solutions

 **LG Chem**

**SVOLT**  
蜂巢能源

**amte**



# Anode offtakes

**Talnode®-C supply agreements to support Vittangi project financing include;**

**ACC** (co-owned by Mercedes-Benz, Stellantis, and Saft) non-binding offtake term sheet for:

- ▶ Supply of 60,000 tonnes of Talnode®-C over initial 5-year term starting 2026
- ▶ Expected to include supply of ramp up volumes

**Verkor** (supplier to Renault)

- ▶ LOI sets out non-binding terms to supply Talnode®-C over a 4- to 8-year period
- ▶ Progressing execution of binding term sheet

**ACC**  
AUTOMOTIVE CELLS Co



**VERKOR**

# Project Funding

- ▶ European Investment Bank appraising up to EU\$300m for Vittangi Anode Project, pending final due diligence, credit approvals and agreements
- ▶ Discussions progressing with multilateral financial institutions, development banks and export credit agencies with due diligence processes near completion
- ▶ Financing strategy targets a mix of equity and project debt in short term, and potential EU green deal funding longer term



# Path to >100,000tpa anode production

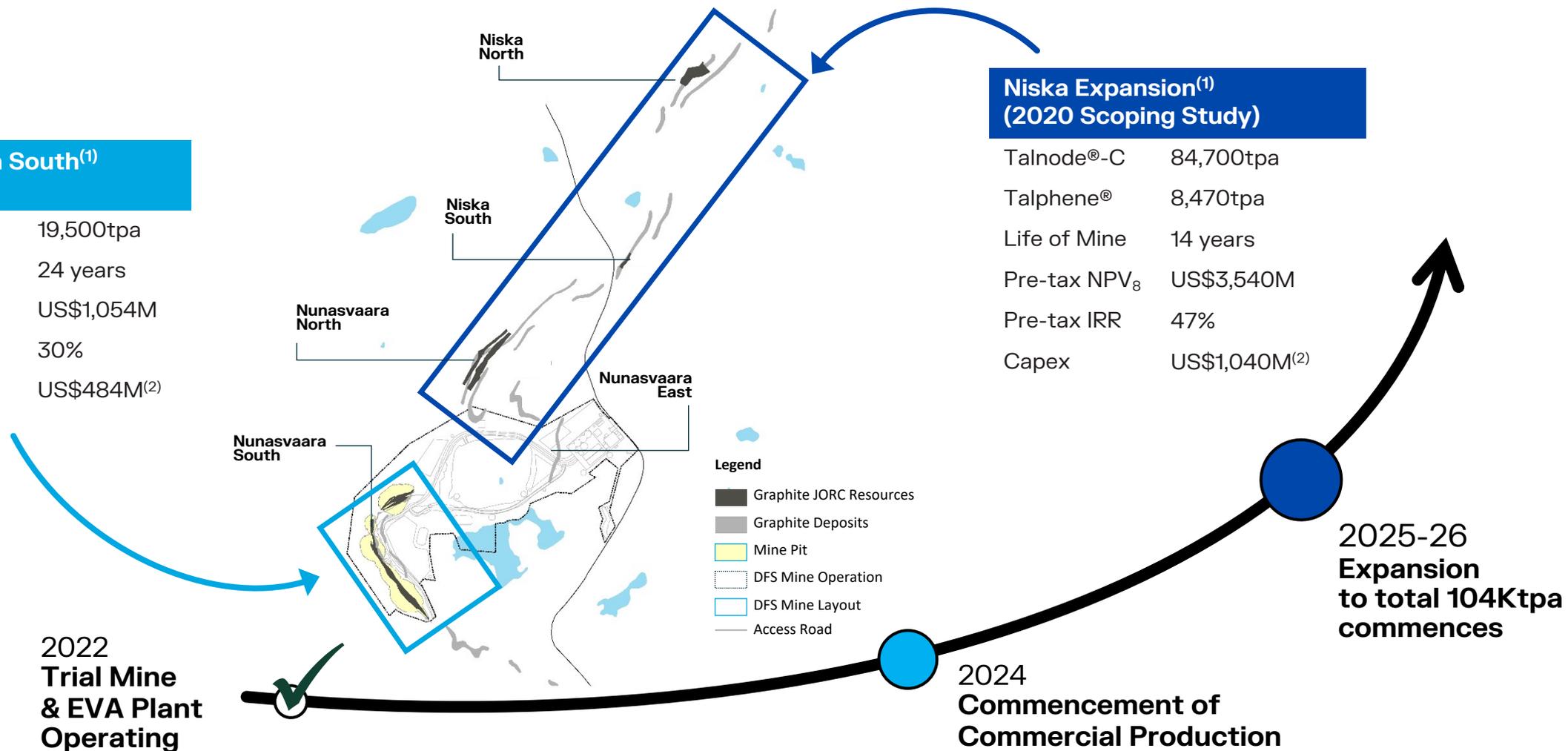
Niska adds to Vittangi to make one of the largest anode producers outside China

## Nunasvaara South<sup>(1)</sup> (2021 DFS)

Talnode®-C	19,500tpa
Life of Mine	24 years
Pre-tax NPV <sub>8</sub>	US\$1,054M
Pre-tax IRR	30%
Capex	US\$484M <sup>(2)</sup>

## Niska Expansion<sup>(1)</sup> (2020 Scoping Study)

Talnode®-C	84,700tpa
Talphen®	8,470tpa
Life of Mine	14 years
Pre-tax NPV <sub>8</sub>	US\$3,540M
Pre-tax IRR	47%
Capex	US\$1,040M <sup>(2)</sup>



2022  
Trial Mine  
& EVA Plant  
Operating

2024  
Commencement of  
Commercial Production

2025-26  
Expansion  
to total 104Ktpa  
commences

# Environment and Community

## Talga is committed to operating sustainably

- ✓ Team of environmental scientists ensures best practice, monitoring and rehabilitation
- ✓ Full time Community Liaison Coordinator engages locally in Vittangi and Luleå
- ✓ Ongoing dialogue with stakeholders including local communities, authorities and Reindeer Herding Cooperatives
- ✓ Permitting team progressing Nunasvaara South mine hearing and permits across entire business



# EU Momentum

## EU Green Deal and interaction with USA Inflation Reduction Act driving new actions to establish local battery supply chains

- ✓ Critical Raw Materials Act published 16 March 2023. Natural graphite listed as strategic raw material
- ✓ 2023 Net-Zero Industry Act proposal includes sovereign wealth funds for green projects
- ✓ Active interaction with EU & Swedish legislators and industry bodies to raise strategic benefits of Talga's projects



# Targeted catalysts and milestones

- ✓ Mine environmental permit appeals assessment scheduled for 14 June 2023
- ✓ Decision on Anode Refinery environmental permit planned for 21 June 2023
- ✓ Finalise offtakes and project financing, to commence refinery construction 2H 2023
- ✓ Qualification of silicon anode material from expanded pilot line and agreements to support expansion to commercial rates
- ✓ Development of Talnode<sup>®</sup>-C expansion plans beyond 100,000tpa anode production to fit customer roadmaps



# *talga*

[www.talgagroup.com](http://www.talgagroup.com)



ASX:TLG

# Experienced Board and Management Team

Strong technological and operational leadership with on the ground European presence

## Board of Directors



**Terry Stinson**

Non-Executive Chairman

Over 35 years' Executive and Non-Executive Director experience, working for global innovation companies. Formerly the CEO and Managing Director of Orbital Corporation, VP for Global Fuel Systems at Siemens AG and CEO of Synerject. Currently the Non-Executive Chairman of Carnegie Clean Energy Limited and Non-Executive Director of Aurora Labs.



**Mark Thompson**

Managing Director & Founder

Over 30 years' global experience in the mineral industry including resource project development, technology and management. Founded Talga in 2009 and listed the company on the Australia Securities Exchange in mid 2010. A member of the Australian Institute of Geoscientists and the Society of Economic Geologists.



**Grant Mooney**

Non-Executive Director

Strong corporate advisory background with extensive experience in equity capital markets, corporate governance and M&A transactions. A member of the Institute of Chartered Accountants in Australia. Currently a Non-Executive Director of several ASX listed companies.



**Steve Lowe**

Non-Executive Director

Strong business management and taxation background with more than 20 years' experience consulting to corporate and high wealth clients. A Fellow of the Taxation Institute of Australia and a member of the Australian Institute of Company Directors.



**Ola Rinnan**

Non-Executive Director

Extensive commercialisation and leadership experience across the energy, banking and finance sectors. Has held numerous board positions for European listed companies and financial institutions including Non-Executive Directorships in Smedvig group companies and DFCU Bank.

## Key Management Personnel and Technical Leadership



**Per-Erik Lindvall**

Talga AB Chairman

A well-known business leader in northern Sweden with a long standing background in the Swedish mining industry including as former Vice President of LKAB. Per-Erik also holds several board assignments and has for many years been a driving force in creating a new, sustainable industrial cluster in northern Sweden.



**Melissa Roberts**

Chief Financial Officer

Over 20 years' experience in the global resources industry across corporate and commercial roles, most recently with global mineral producer Iluka Resources. Melissa joined Iluka in 2009 and held a range of senior roles within the business in Commercial, Investor Relations, Business Development and Information Technology.



**Martin Phillips**

Chief Operating Officer & European CEO

Experienced commercial and project manager with over 25 years of global metals and mining sector experience. Previous positions include engineering and management roles in battery recycling programs and smelting innovations at MIM's Mt Isa and UK operations. Mr Phillips was former Commercial Manager of Iluka Resources Ltd.



**Dean Scarparolo**

Company Secretary

A wealth of experience in developing and managing finance departments of ASX listed resource companies. A member of CPA Australia with over 25 years in roles spanning exploration, development and operations across Australia, Africa and Europe.

# JORC Graphite Reserve and Resources

Ore Reserve <sup>3,5</sup>	Tonnes	Graphite (% Cg)
<b>Nunasvaara (JORC 2012)</b>	<b>2,260,140</b>	<b>24.1</b>
Probable	2,260,140	24.1
Mineral Resources <sup>1, 2, 4, 6, 7, 8</sup>	Tonnes	Graphite (% Cg)
<b>Vittangi (JORC 2012)</b>	<b>36,853,000</b>	<b>23.1</b>
Indicated	27,814,000	23.8
Inferred	9,039,000	21.2
<b>Jalkunen (JORC 2012)</b>	<b>31,500,000</b>	<b>14.9</b>
Inferred	31,500,000	14.9
<b>Raitajärvi (JORC 2004)</b>	<b>4,300,000</b>	<b>7.1</b>
Indicated	3,400,000	7.3
Inferred	900,000	6.4
<b>Total Mineral Resources</b>	<b>72,700,000</b>	<b>18.6</b>

- Note:
1. Mineral resources are inclusive of ore reserves.
  2. Mineral Resources are reported at various cut off grades: Vittangi 11% Cg, Jalkunen 5% Cg and Raitajärvi 5% Cg.
  3. Ore Reserve is reported at a cut off grade of 12% Cg.
  4. Errors may exist due to rounding.

# JORC Exploration Target

2021 Exploration Target Vittangi Graphite Project		
Vittangi (JORC 2012)	Low	High
Tonnage Range	170Mt	200Mt
Grade Range	20% Cg	30% Cg

*Note that the potential quantity and grade of the Exploration Target is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.*

Talga completed new ground electromagnetic geophysical ("EM") surveys of graphite targets at Vittangi following the 2020 upgrade of the Vittangi graphite resource. The EM survey results have been reviewed in combination with prior Talga geochemical samples collected from the surface within the conductors, which averaged 26.2% graphite ("Cg") (ASX:TLG 15 Nov 2012). Modelling of this data in conjunction with positive outcomes of the Niska underground mining scoping study have enabled a revised JORC-compliant Exploration Target estimate totalling 170-200Mt at 20-30% Cg at Vittangi (ASX:TLG 20 Jul 2021). This is a significant increase from the previous 26-46Mt at 20-30% Cg (ASX:TLG 17 Sep 2020). The majority of this estimate is proximal along strike and down dip from Talga's existing Vittangi JORC (2012) graphite resources of 30.1Mt @ 24.1% Cg. Additional targets are located along the mapped graphite units around the greater Nunasvaara Dome area.

New rounds of diamond core drilling commenced at Vittangi in mid-2021. The staged 69 hole diamond drilling program totalling ~8,000m tested parts of the JORC Exploration Target as down-dip extensions of the current JORC Resources as well as shallow subcrop targets between Nunasvaara North and Niska South. Reviews of JORC Exploration Targets will be undertaken where significant changes are indicated by continued exploration.

See Talga's ASX announcement dated 20 July 2021 for further information.

# Competent Person Statements

The Vittangi Mineral Resource estimate was first reported in the Company's announcement dated 3 April 2023 titled 'Successful exploration grows Talga's Swedish natural graphite resource'. The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcement and that all material assumptions and technical parameters underpinning the Resource estimate in the previous market announcement continue to apply and have not materially changed.

The Nunasvaara Ore Reserve statement was first reported in the Company's announcement dated 1 July 2021 titled 'Robust Vittangi Anode Project DFS'. The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcement and that all material assumptions and technical parameters underpinning the Reserve estimate in the previous market announcement continue to apply and have not materially changed.

The Jalkunen Mineral Resource estimate was first reported in the Company's announcement dated 27 August 2015 titled 'Talga Trebles Total Graphite Resource to Global Scale'. The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcement and that all material assumptions and technical parameters underpinning the Resource estimate in the previous market announcement continue to apply and have not materially changed.

The Raitajärvi Mineral Resource estimate was first reported in the Company's announcement dated 26 August 2013 titled '500% Increase to 307,300 Tonnes Contained Graphite in New Resource Upgrade for Talga's Swedish Project'. The Company confirms that it is not aware of any new information or data that materially affects the information included in the previous market announcement and that all material assumptions and technical parameters underpinning the Resource estimate in the previous market announcement continue to apply and have not materially changed.

The Company first reported the production targets and forecast financial information referred to in this presentation in accordance with Listing Rules 5.16 and 5.17 in its announcements titled 'Robust Vittangi Anode Project DFS' dated 1 July 2021 and 'Positive Niska Scoping Study Outlines Pathway to Globally Significant Battery Anode Production' dated 7 December 2020. The Company confirms that all material assumptions underpinning those production targets and forecast financial information derived from those production targets continue to apply and have not materially changed.

The Information in this presentation that relates to prior exploration results for the Vittangi Graphite Project is extracted from ASX announcements available to view on the Company's website at [www.talgagroup.com](http://www.talgagroup.com), with information on the exploration target first released to ASX on 20 July 2021. The Company confirms that it is not aware of any new information or data that materially affects the exploration results included in the relevant original market announcements. The Company confirms that the form and context in which the Competent Person and Qualified Person's findings are presented have not been materially modified from the relevant original market announcements.