



Talga Group (ASX:TLG)

# Investor Webinar August 2024

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# Talga Group Ltd (ASX:TLG) is a fully integrated battery materials and technology company

## Natural graphite

Developing producer of Li-ion battery anode products using graphite, silicon and recycled materials

# Talga Group Highlights

A strategic, developing Li-ion battery anode technology and product company

## Battery technology



Integrated graphite anode and recycling process tech, silicon and next gen anode

## Low emission product



Powered by renewable electricity. LCA show 92% less GHG emissions than current producers

## Strategic mineral



Largest graphite resource in Europe and 2nd highest grade in the world

## European production



Stable Tier-1 jurisdiction and ownership/control of entire supply chain

## Strong fundamentals



Low production costs, underpinned by low-cost power, infrastructure and high processing yields

## Global accreditations



EVA plant, pilot and R&D facilities secured ISO 45001, ISO 9001, ISO 14001 certifications

## Advanced studies



Scale & economics validated by DFS, FEED and Scoping Studies (high-grade, long-life asset)

## Robust finance



€560m CAPEX (ex-contingency). 60% debt gearing syndicate, cornerstoned by EIB €150m

## Strong global leadership



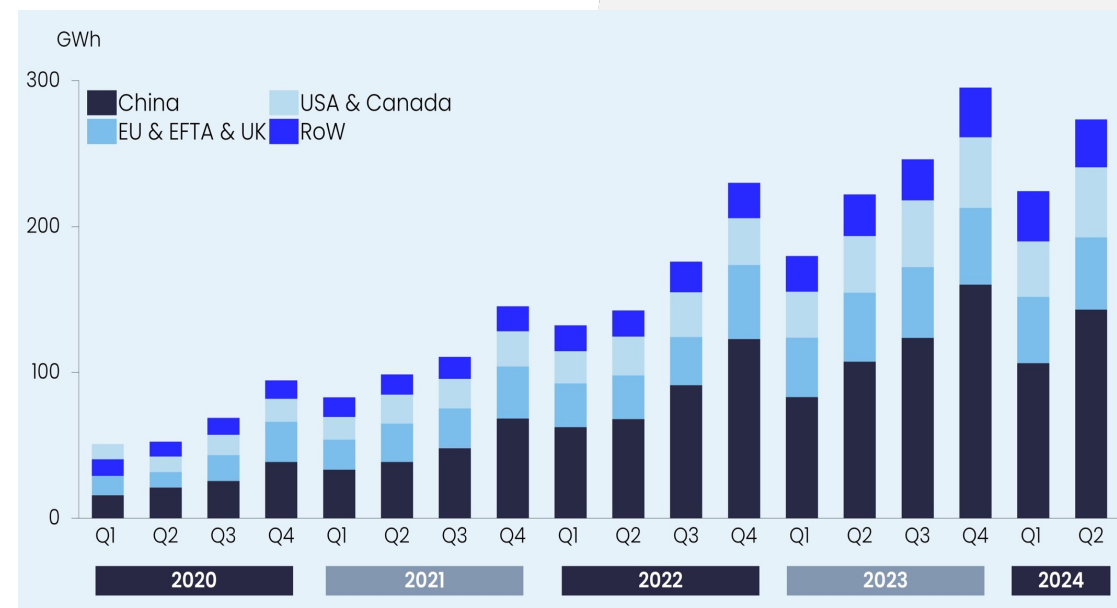
Decades of cumulative experience across wide range of business areas and industries

# Battery demand growth continues

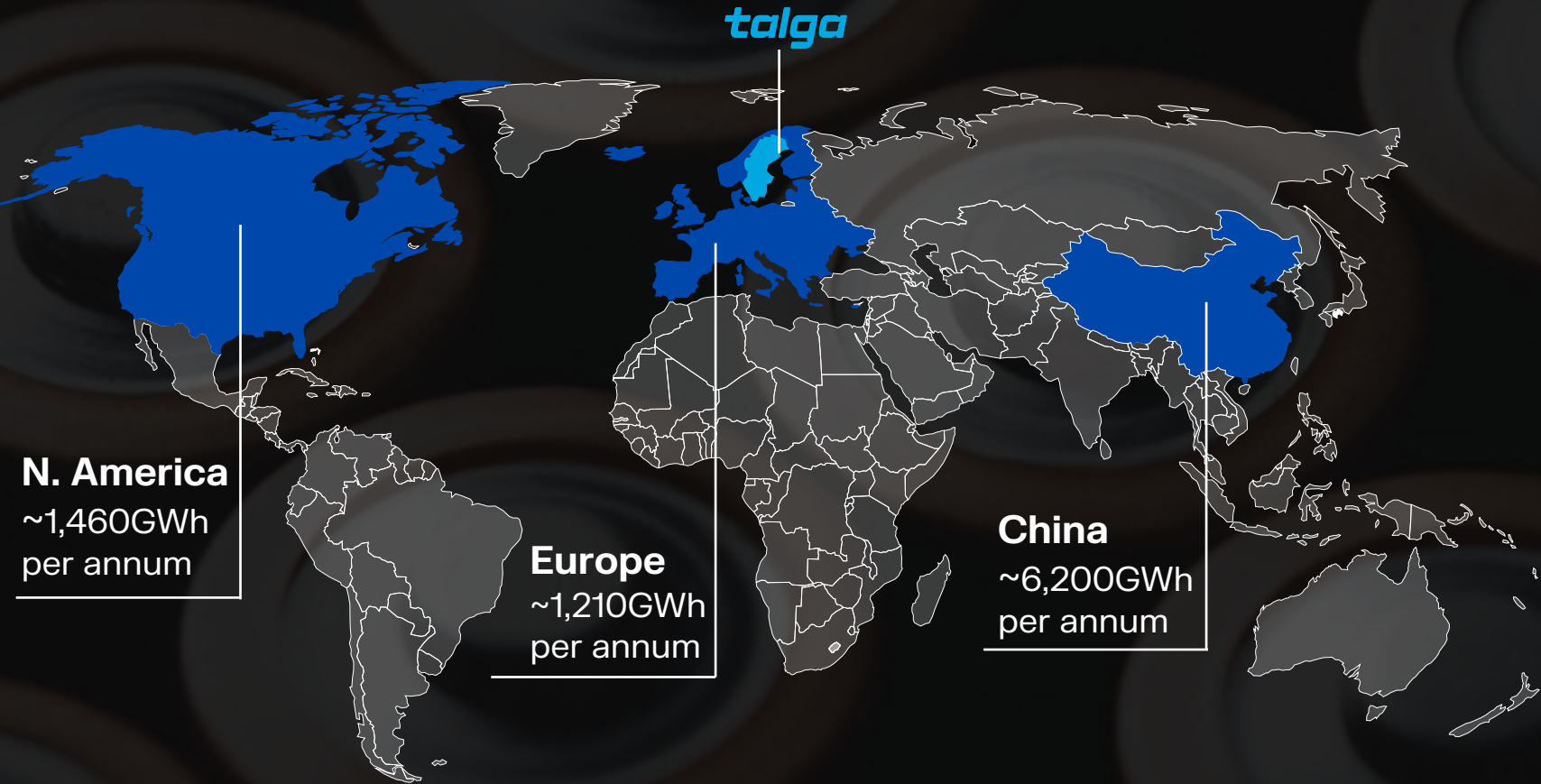
 **YOY sales up 23%**

EV and ESS sales grow as regulatory forces and lower production costs support energy transition

Rho Motion Quarterly Li-ion Battery Demand by Region - all end use markets (EV, ESS, 3C)



# Battery anode key markets in 2030



10.6Mtpa demand for graphite anode will drive Li-ion battery production capacity growth

# Geopolitical drivers influencing market

Current Anode Production Reliant on **China**



Spherical Graphite



Graphite Anode



CRMA in force, facilitating accelerated permits and funding access for Strategic Projects. Tariffs on Chinese EVs up to 48%



China export permits now required, anode suppliers approaching production capacity



IRA localisation rules enacted with graphite exemptions end 2027. FEOC (China) anode now subject to 25% tariff

# Vittangi Anode Project Sweden

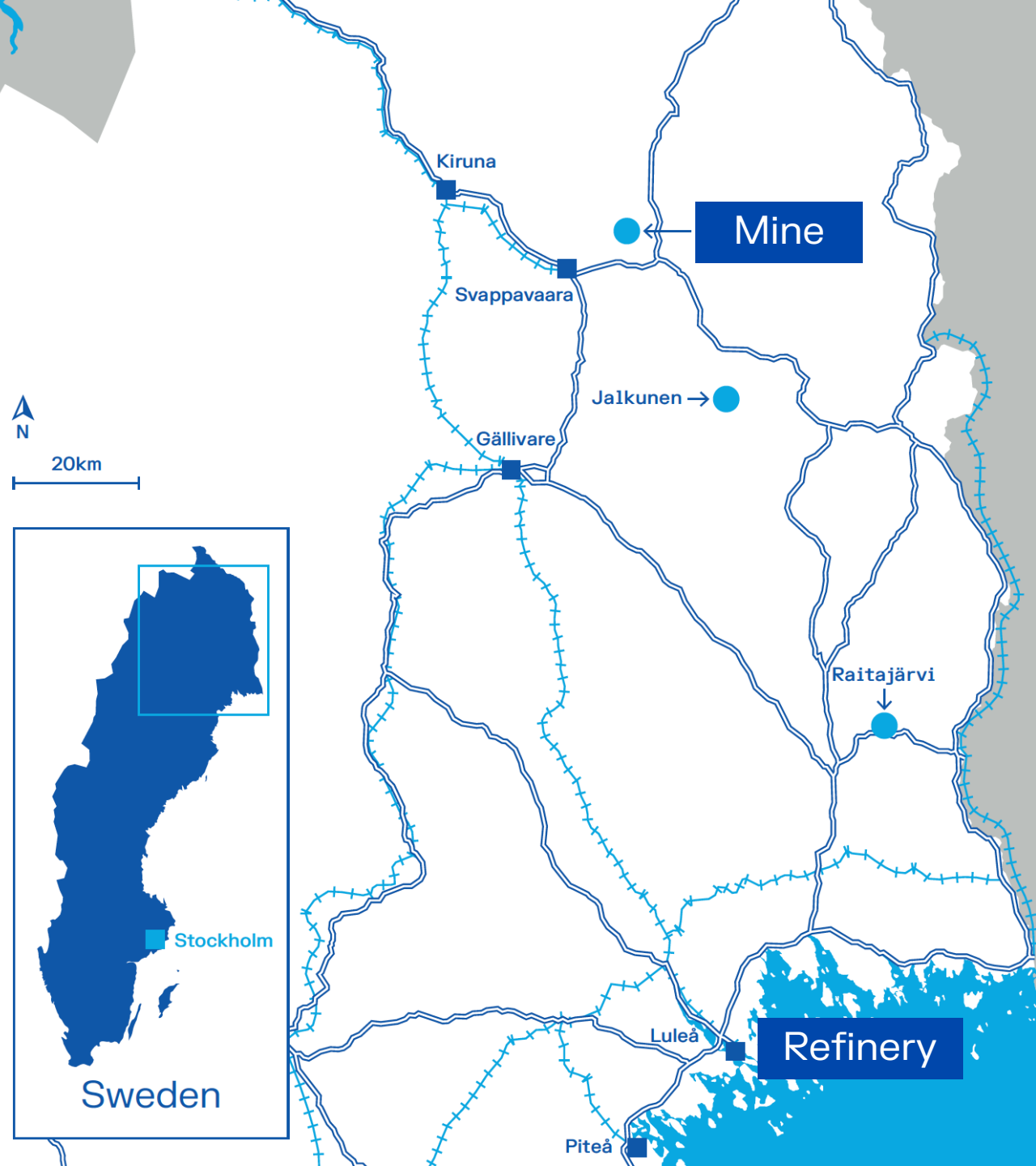
**!** Integrated 19,500tpa anode production (Stage 1). Studies underway for potential anode production expansion

2024 mining study shows options up to ~425,000tpa anode concentrate

Europe's largest and highest grade graphite deposit

Premium logistics: direct road/rail to Europe (1-2 days delivery)

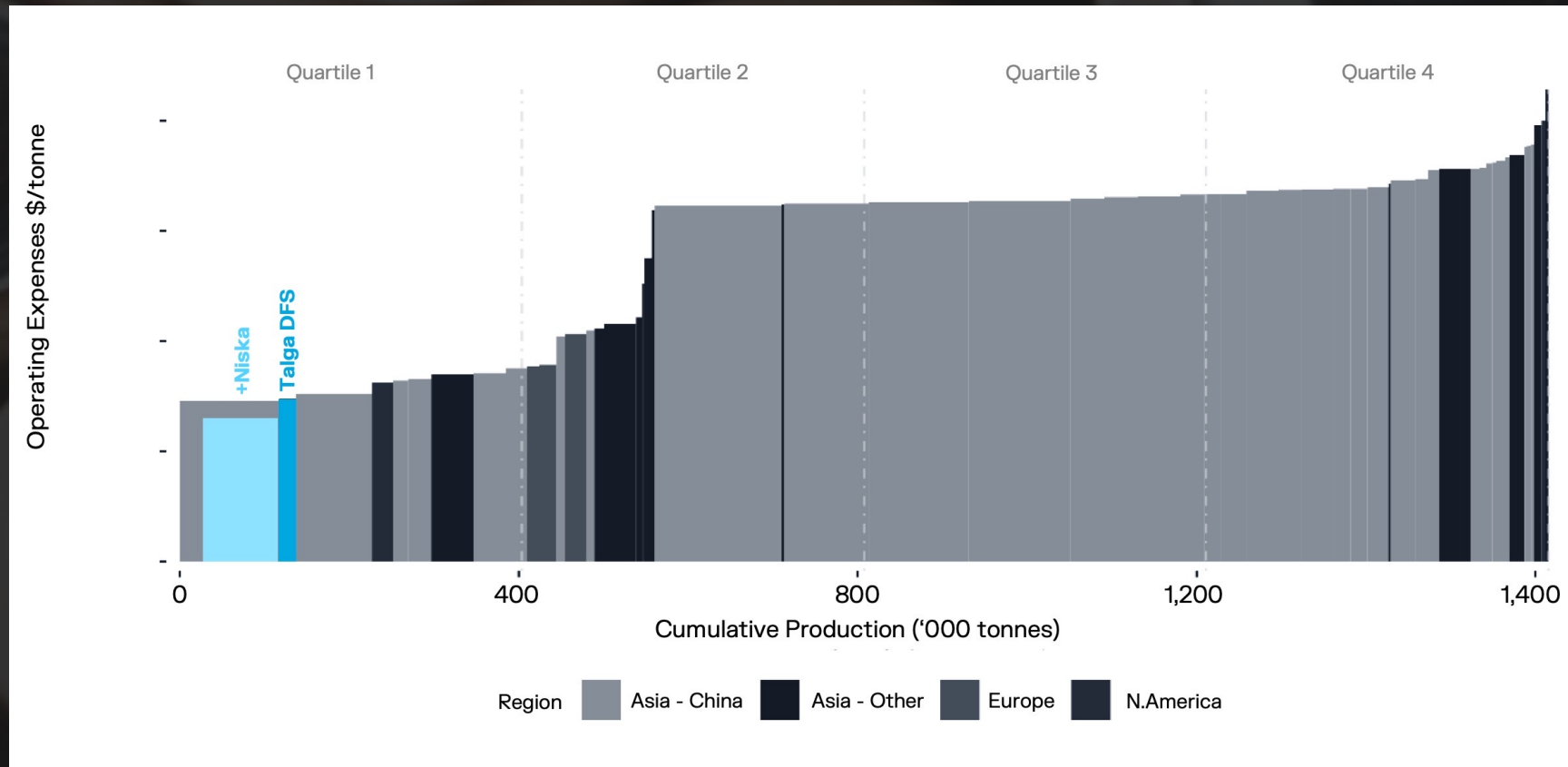
Hydro/nuclear power grid





# Globally Competitive Cost

Combining ultra-high grade 100% anode size flake deposit with new low-loss processing technology, low energy costs and complete vertical integration



Cost Curve depicting cash operating cost position (excluding profit and surcharges such as taxes and duties) on an ex-works basis for each facility/location. With exception of Talga, all facilities are believed to be operational.

# Anode Project **permitting status**

Integrated project at advanced development stage awaiting mine permitting resolution



## Vittangi Graphite Mine

- **May 2020:** Environment permit submitted
- **Apr 2023:** **Approved**
- **Apr 2023:** Appeals lodged
- **Aug 2023:** **Appeals rejected**
- **Sep 2023:** Appeals to rejection lodged
- **Current:** Awaiting final decision. Approval and in force, or Appeals to be heard in lower court



## Luleå Anode Refinery

- **Jun 2022:** Environment permit submitted
- **Mar 2023:** Building permits approved
- **Jun 2023:** Environment permit approved
- **Current:** **Refinery fully permitted**

# 2024 FEED Study delivers **strong results**

FEED and value engineering activities have refined and optimised the Anode Project

- › Major reduction of Refinery building footprint from 2021 DFS
- › 23% reduction in energy consumption
- › Positive capital revision amidst inflationary macro environment
- › €560m Capex (excl. contingency) (AACE Class 3 estimate level with a  $\pm 10\%$  accuracy)
- › Streamlining of anode and purification equipment and process
- › Commercial production planned 18-24 months after FID
- › Identification of Refinery capacity expansion potential in short term

# Anode Project Financing

Progressing financing strategy including targeted 60:40 debt gearing

- › Debt consortium of leading investment banks and international credit agencies cornerstoned by European Investment Bank approval for €150 million
- › Grant funding and state aid options. Application for €70m in grant funding under consideration at EU level
- › Potential strategic equity partners at HeadCo and Project level in discussions

## Key Finance Partner



## Key Project Partners

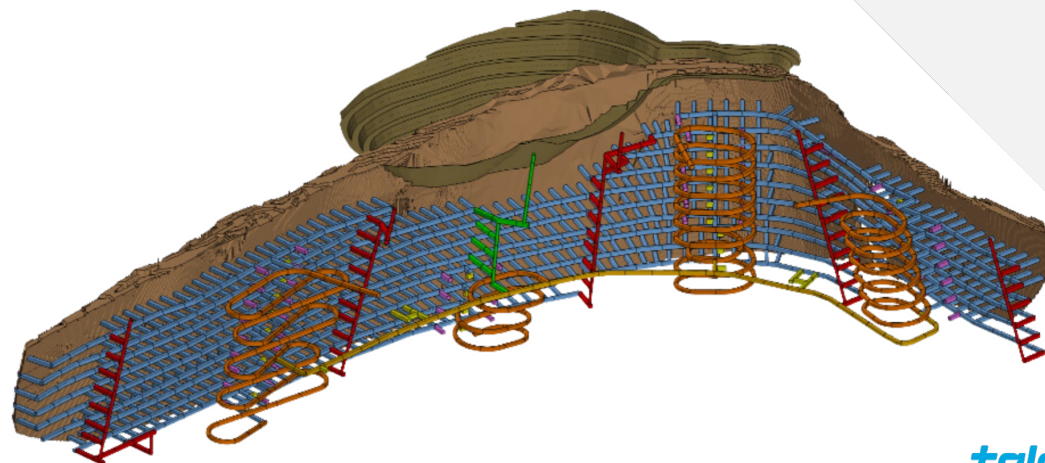


# Expansion

## Interim Scoping Study

2024 mining study shows ore production options up to ~425,000tpa anode concentrate to underwrite potential global-scale anode expansion

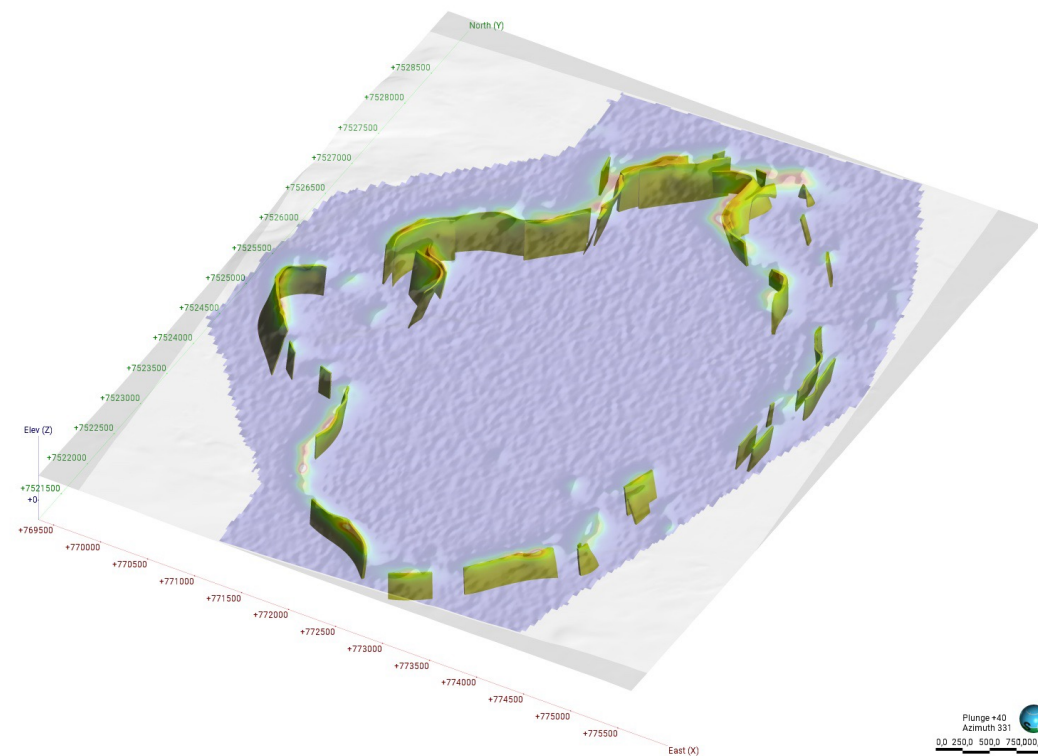
- ▶ Expanding mine to 0.6Mtpa, 1.0Mtpa and 2.0Mtpa ore milling technically viable
- ▶ Up to ~425,000tpa anode concentrate production (at 2.0Mtpa rate)
- ▶ Based on existing JORC resource of 35.0Mt graphite at 23.8%Cg
- ▶ Transition to underground enables scale-up while minimising surface footprint and impacts
- ▶ Leverages local underground mining fleets, ancillary industries and skilled workforce



# Vittangi JORC Exploration Target\*

## **Cg** Target underpins growth

Underscores larger potential for Vittangi to meet global Li-ion battery anode demand



### 2024 Exploration target Vittangi Graphite Project

Tonnage range (low-high)	240Mt	350Mt
Grade range (low-high)	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

# Aero Lithium Project

Located 120km south of Talga's Vittangi Graphite Project near Gällivare mining centre

Li

**Greenfields discovery with ~50km strike pegmatites identified to date in 270km<sup>2</sup> area. 100% Talga owned**

%

**Surface rock grades up to 1.9% Li<sub>2</sub>O. Pegmatite outcrops up to 400m width**



**Premium logistics. Adjacent to sustainable low-cost grid power, road and rail**

# SQM lithium partnership



## Earn-in agreement signed with global lithium leader

- › World-leading lithium producer Sociedad Química y Minera de Chile S.A (“SQM”) earning up to **70%** in Aero by sole funding **US\$19.0m** exploration expenditure
- › Talga receives management fees, a resource-based success fee upon FID and retains 100% graphite rights
- › Talga and SQM may work together on other projects in region
- › Fieldwork on Aero commencing this month



# Intellectual Property

## 100% Talga Tech



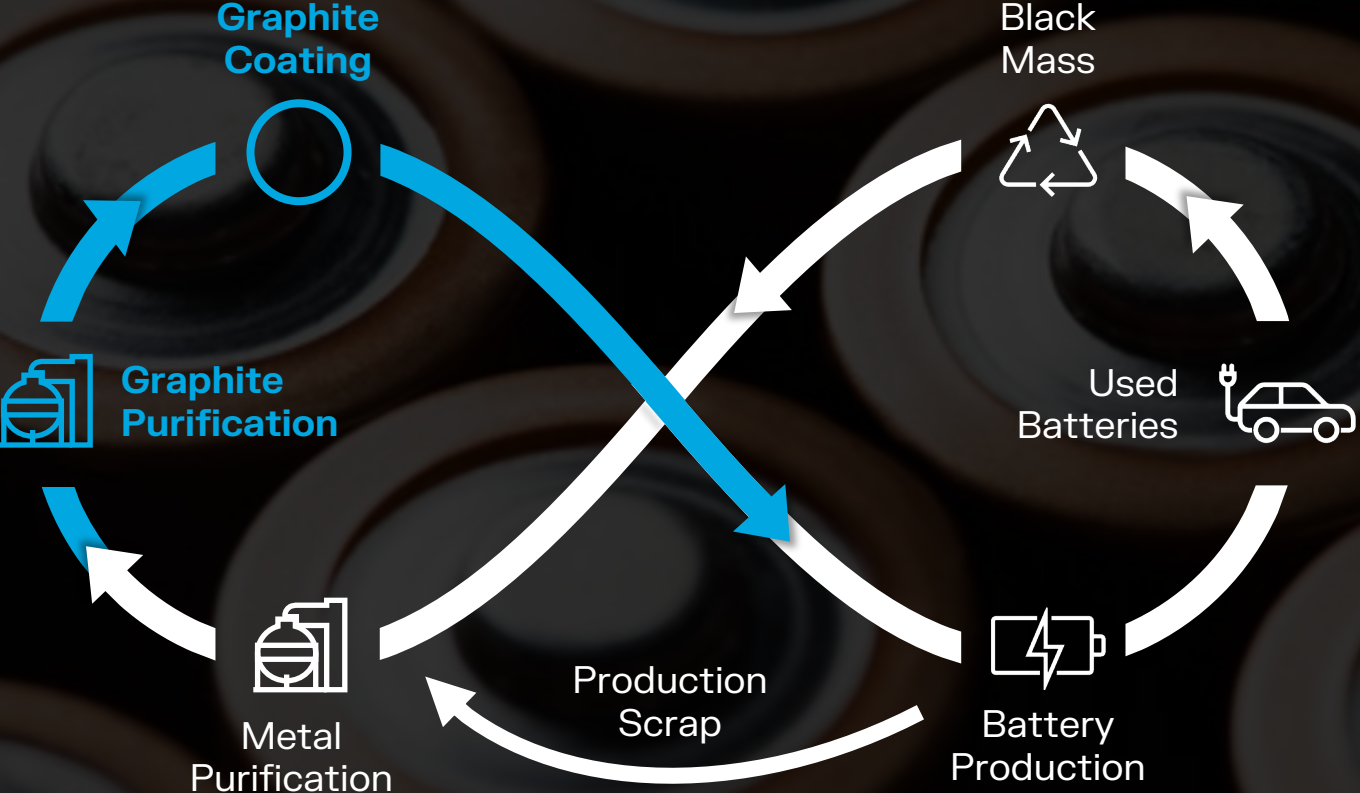
**In-house  
technology and know-how**

**Significant portfolio of 65 applications  
across 16 patent families**

IP strategy for commercialisation of Talga's  
battery material and graphene products

- › Portfolio includes:
  - › Anode particle shaping & coating
  - › Graphite purification process
  - › Anode & graphene from recycling
  - › Silicon anode production process
  - › Graphene production process

# Development: Talnode<sup>®</sup>-C Recycled Series



**Talga's innovative purification process and anode production technologies applied to battery black mass supply**

Strong drivers from auto OEMs and battery manufacturers facing recycling regulations

Battery testing in progress, early development showing strong potential

# Development: Talnode<sup>®</sup>-Si

**Si** 50% silicon anode product  
with 5x energy density  
(range)

- ▶ Low-cost industrially scalable process using commercially available silicon with Talga graphite and graphene
- ▶ Internal project feasibility studies well advanced and pilot plant samples in market with positive feedback
- ▶ Marketing underway for agreements to support first potential commercial development site
- ▶ Leverages Talga's process expertise and material technology with synergies to graphite anode customers



### Sweden

Talga AB & Talga Battery Metals AB  
Södra Kungsgatan 5B  
972 35 Luleå, Sweden  
t: +46 (0) 10-303 71 00  
e: [kontakt@talga.se](mailto:kontakt@talga.se)

Stockholm Office  
Skeppsbron 26  
111 30 Stockholm, Sweden  
e: [kontakt@talga.se](mailto:kontakt@talga.se)

### Australia

Talga Group Ltd  
Suite 3.03, Level 3  
46 Colin Street  
West Perth, Western Australia 6005  
t: +61 8 9481 6667  
e: [info@talgagroup.com](mailto:info@talgagroup.com)

### United Kingdom

Talga Technologies Limited  
Conqueror House  
Chivers Way  
Histon, Cambridge, CB24 9ZR, England  
t: +44 1223 420416  
e: [info.uk@talgagroup.com](mailto:info.uk@talgagroup.com)

### Germany

Talga Advanced Materials GmbH  
Prof.-Hermann-Klare-Str. 25  
07407 Rudolstadt, Germany  
t: +49 3672 4766930  
e: [info.de@talgagroup.com](mailto:info.de@talgagroup.com)

# Appendices

# Group Executive Management Team



**Martin Phillips**

**Chief Executive Officer**

25+ years of global metals and mining experience. Former Commercial Manager of global mineral producer Iluka Resources. Prior senior engineering and management roles across battery recycling programs and smelting innovations at MIM's Mt Isa and UK operations.



**Melissa Roberts**

**Chief Financial Officer**

20+ years of experience in the global resources industry across corporate and commercial roles. Prior senior Commercial, Investor Relations, Business Development and Information Technology roles within global mineral producer Iluka Resources.



**Per-Inge Kruse**

**Director BD & Strategic Alliances**

20+ years of experience in sales, BD and strategic alliances across the automotive and marine industries. Former Executive Director of automotive design and development group FEV's Swedish subsidiary and Head of BD at transport and energy engineering consultancy Ricardo.



**Anna Motta**

**Chief Technology Officer**

20+ years of expertise in carbon nanomaterials and extensive experience in managing R&D programs. Formerly the manager of several research programs at Cambridge Graphene Centre with focus on industry partnerships and technology transfer.



**Peter French**

**Environment & Community Manager**

25+ years of experience around environmental work in the mining and industrial sector. Previously worked as an independent consultant to a range of mining operations and has spent most of the past 15 years managing mine and industrial permitting processes.



**Eva Pijnenburg**

**Director People & Culture, Health & Safety**

20+ years experience across a range of HR management and recruitment consultancy positions. A strong background in labor law and negotiations, as well as HR department and process development to support people and company culture.

# Talga Group Board of Directors



**Terry Stinson**



**Mark Thompson**



**Grant Mooney**



**Steve Lowe**



**Ola Rinnan**

<b>Chair</b>	<b>Managing Director</b>	<b>Non-Executive Director</b>	<b>Non-Executive Director</b>	<b>Non-Executive Director</b>
Over 35 years' Executive and Non-Executive Director experience for global innovation companies. Formerly the CEO and MD of Orbital Corporation, VP for Global Fuel Systems at Siemens AG and CEO of Synerject. Currently the Chair of Carnegie Clean Energy Limited and Non-Executive Director of Aurora Labs.	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.	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.	Strong business management and taxation background with more than 20 years' experience consulting to corporate and high wealth clients. A member of the Australian Institute of Company Directors.	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.

# Talga AB Board of Directors



**Eva Nordmark**

**Chair**

Former Swedish Minister of Employment and Gender Equality, member of the Swedish Parliament and President of the Swedish Confederation of Professional Employees.



**Anders Granberg**

**Director**

A prominent industry figure in northern Sweden with extensive history as business developer, company and project manager.



**Ola Rinnan**

**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.



**Melissa Roberts**

**Director**

Over 20 years' experience in the global resources industry across corporate and commercial roles, most recently with global mineral producer Iluka Resources.



**Martin Phillips**

**Director**

Experienced commercial and project manager with over 25 years of global metals and mining sector experience.



**Mark Thompson**

**Director**

Over 30 years' global experience in the mineral industry including resource project development, technology and management. Founded Talga in 2009.



# 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>35,020,000</b>	<b>23.8</b>
Indicated	26,691,000	24.3
Inferred	8,329,000	22.1
<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>70,820,000</b>	<b>18.8</b>

Note:

1. Mineral resources are inclusive of ore reserves.
2. Mineral Resources are reported at various cut off grades: Vittangi 12.5% 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

2024 Exploration Target Vittangi Graphite Project		
Vittangi (JORC 2012)	Low	High
Tonnage Range	240Mt	350Mt
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 compiled new and updated data from diamond core drilling, SkyTEM and ground TEM geophysical surveys, recent geological and structural mapping, deposit-scale interpretation, topographic surveys and Leapfrog modelling. Modelling of this data in conjunction with updated mine design studies on the existing and declared Vittangi Mineral Resources have enabled a revised Exploration Target of 240-350 million tonnes (“Mt”) at 20-30% graphitic carbon (“Cg”). This is a significant increase from the previous 170-200Mt at 20-30%Cg (ASX:TLG 17 September 2020). Related regional tenure is under Talga control.

The majority of this estimate is proximal at depth and along strike of Talga’s existing Vittangi JORC (2012) Graphite Mineral Resources of 35.0Mt @ 23.8%Cg (ASX:TLG 6 October 2023). Talga has proposed staged exploration activities designed to test the validity of the 2024 Vittangi Exploration Target, with an aim to move from an Exploration Target to a Mineral Resource Estimate. These include diamond core drilling targeting conversion of shallow and deeper Exploration Targets to Mineral Resources around the greater Nunasvaara Dome; shallower and deeper drilling of Nunasvaara South targeting conversion of Mineral Resources into Ore Reserves; further surface sampling and mapping of the conductor outcrops; ongoing stakeholder engagements, ecological and water studies; and detailed stratigraphic interpretation and definition of parallel units and lenses currently excluded from the Exploration Target for potential inclusion in further updates. Exploration activities are expected to take several exploration seasons to complete with initial exploration of depth and extensional targets planned to commence in Q3 2024 pending expenditure allocation.

Reviews of JORC Exploration Targets will be undertaken where significant changes are indicated by continued exploration.

See Talga’s ASX announcement dated 16 May 2024 for further information.

## Competent Person Statements

The Vittangi Mineral Resource estimate was first reported in the Company's announcement dated 6 October 2023 titled 'Talga boosts Swedish battery graphite'. 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 target and forecast financial information referred to in this presentation in accordance with Listing Rules 5.16 and 5.17 in its announcement titled 'Robust Vittangi Anode Project DFS' dated 1 July 2021. The Company confirms that other than the capex updated in the FEED Study first reported in the Company's announcement titled 'Completion of Vittangi Anode Project FEED Study delivers strong results' dated 15 April 2024 all material assumptions underpinning that production target and forecast financial information derived from that production target continue to apply and have not materially changed.

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

The Company first reported the production target referred to in this presentation in accordance with Listing Rule 5.16 in its announcement titled 'Vittangi Anode Project Expansion: Interim Scoping Study' dated 11 June 2024. The Company confirms that all material assumptions underpinning that production target 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 that are referred to in the relevant slides of the presentation and that are available to view on the Company's website at [www.talgagroup.com](http://www.talgagroup.com). 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.

The information in this presentation that relates to the Vittangi exploration target is based on information compiled by Albert Thamm. Mr Thamm is a consultant to the Company and a Competent Person who is a Member of the Australian Institute of Mining and Metallurgy (Membership No.203217). Mr Thamm has sufficient experience, which is relevant to the style of mineralisation and types of deposits under consideration and to the activity which has been undertaken 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 (JORC Code). Mr Thamm consents to the inclusion in the presentation of the matters based on his information in the form and context in which it appears.

The Information in this presentation that relates to prior exploration results for the Aero Project is extracted from ASX announcements that are referred to in the relevant slides of the presentation and that are available to view on the Company's website at [www.talgagroup.com](http://www.talgagroup.com). 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.