## talga

# Talga Group Ltd ASX:TLG

Rho Motion Seminar Series Battery Technology Showcase

7 February 2023



## 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 Scoping Study will be realised. The 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 Scoping Study will be achieved. To achieve the range of outcomes indicated in the 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 Scoping Study.

The Company first reported the Niska Scoping Study production targets and forecast financial information referred to in this presentation in accordance with Listing Rules 5.16 and 5.17 in its announcement titled "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.

#### 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 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.

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#### Not a recommendation or financial advice

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#### Photographs and images

Photographs, maps, charts, diagrams and schematic drawings in this presentation are owned by and have been prepared or commissioned by the Company, unless otherwise stated. Maps and diagrams used are illustrative only and may not be drawn to scale. Unless stated otherwise, all data contained in charts, graphs and tables is based on information available at the date of this presentation.



# Talga Group

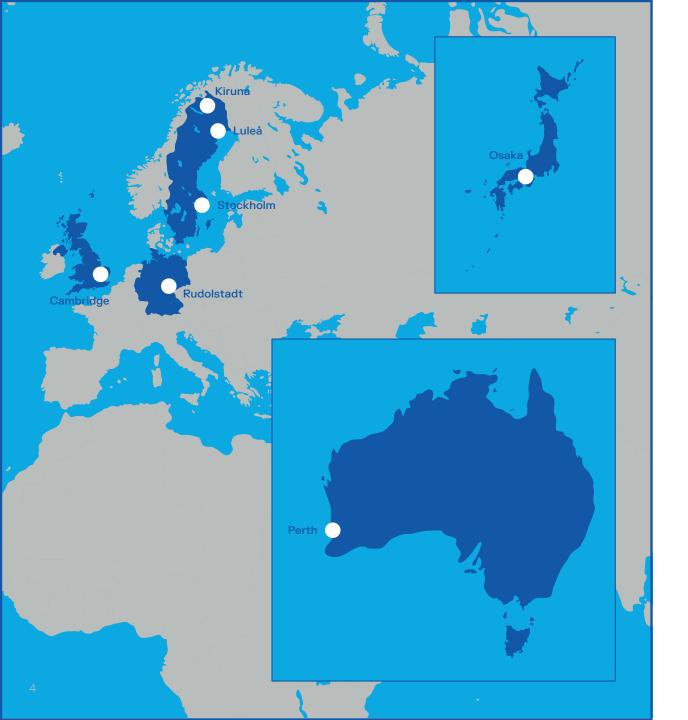
ASX-listed battery & advanced material supplier with 100% owned graphite resources in Sweden

Our strong in-house expertise spans battery materials and processing technology, product development and marketing as well as mineral exploration and mining

The company is differentiated by:

- Full mine-to-anode vertical integration
- Ownership of coating and battery materials production and process technology
- Unique high-grade graphite sources
- Green products and proximity to market





## Global Operations

Perth, Australia

Group head office

Luleå & Kiruna, Sweden

Anode production & integrated graphite mine

Cambridge, UK

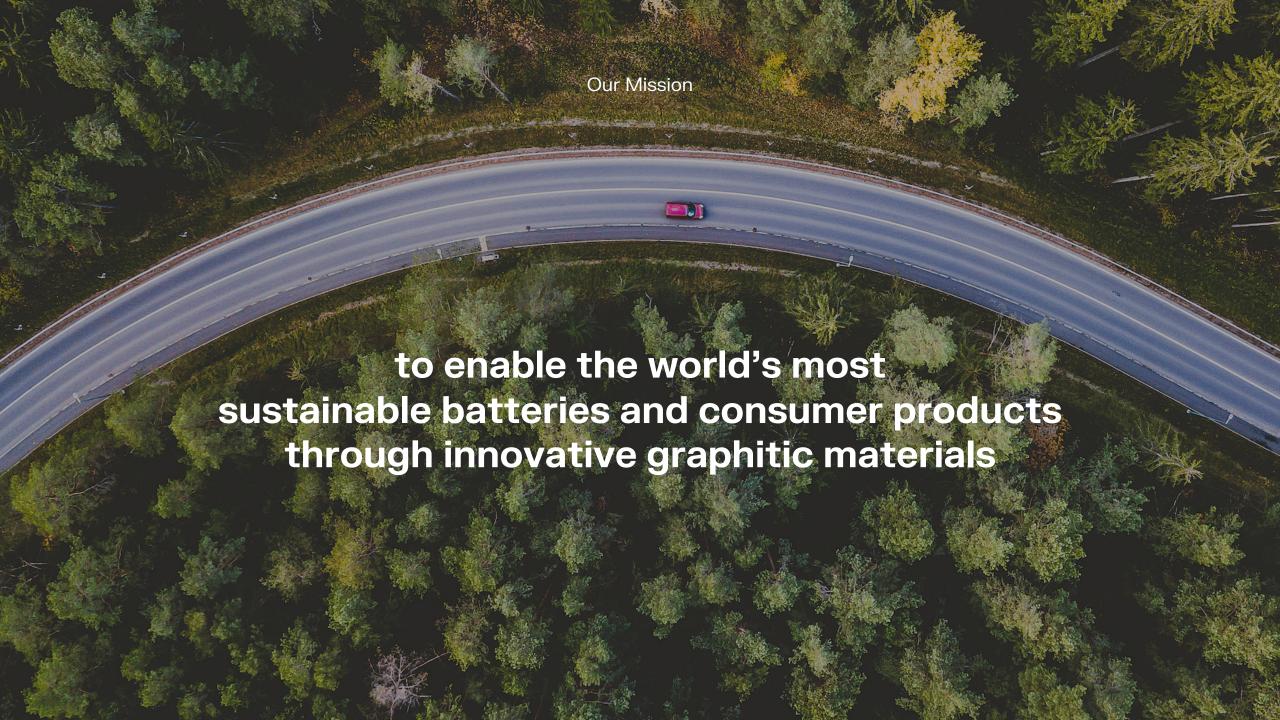
Battery anode product & technology centre

Rudolstadt, Germany

Metallurgical process pilot facility & EU customer network

Osaka, Japan & Hong Kong

Commercial office and product development



## European location near to vast battery demand

Planned battery capacity >1.1TWh by 2030 requires >1.3Mt graphite anode per annum

**VOLKSWAGEN** 











































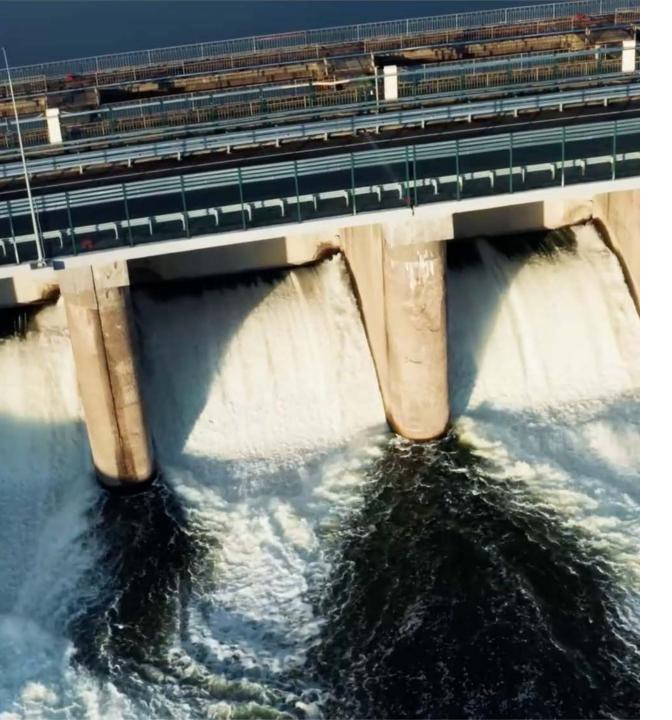












# Enabling Greener Batteries

Talnode®-C has a vastly lower emissions profile than incumbent graphite anodes. Sustainable anode production based on:

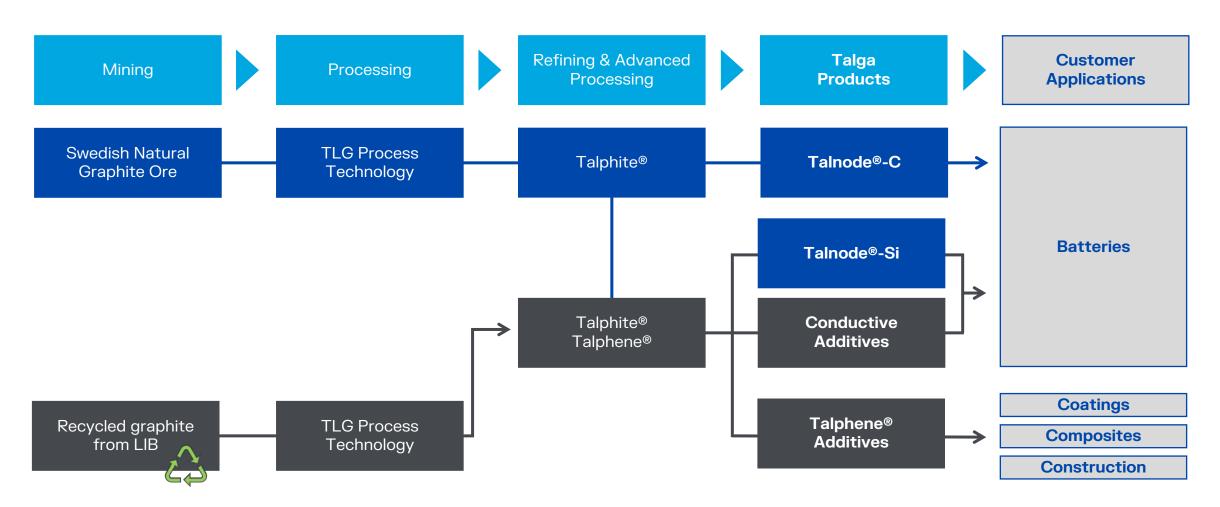
- **→ 100%** renewable electricity
- → Direct road/rail access to EU customers
- ✓ Responsible mining of high-grade (low volume ores) natural graphite with superior anode yield/resource tonne

Hitachi Life Cycle Assessment shows production of 1kg Talnode®-C emits 1.47kg CO<sub>2</sub>-eq (~20x lower than incumbents)



## Talga Technology and Products Map

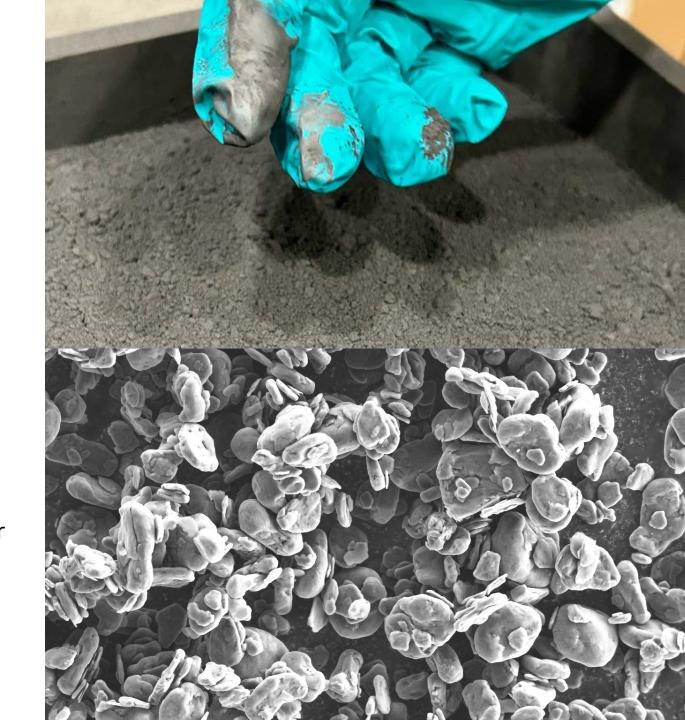
Diverse range of battery and advanced materials produced from graphite sources



# Coated Graphite Active Anode: Talnode®-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



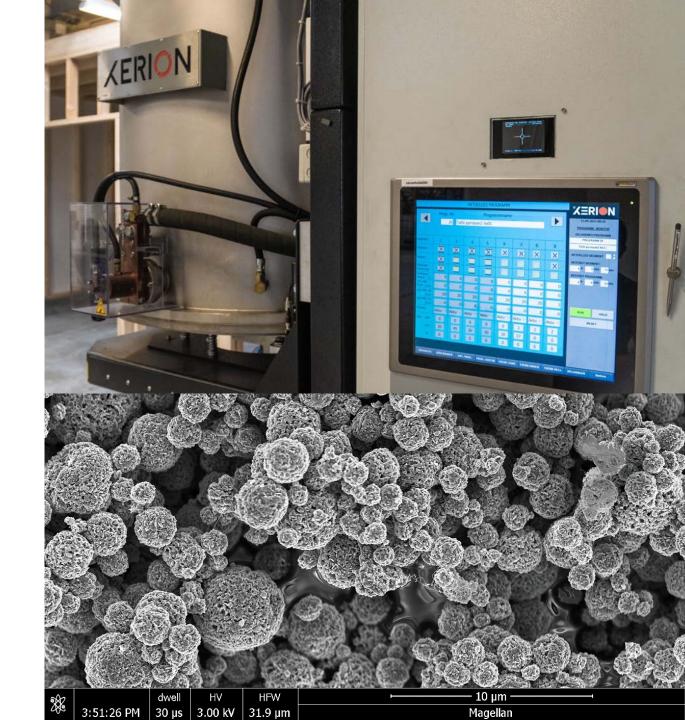
# Silicon anode: Talnode®-Si

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

- Increased energy density that can be adjusted to meet customer roadmaps
- Drop-in solution compatible with current anode manufacturing methods
- Low swelling
- Mass producible/industrial scalability

German pilot plant expanding Q1 2023

Feasibility underway to fast-track commercial options alongside negotiations with global customers



# Conductive additive for cathodes

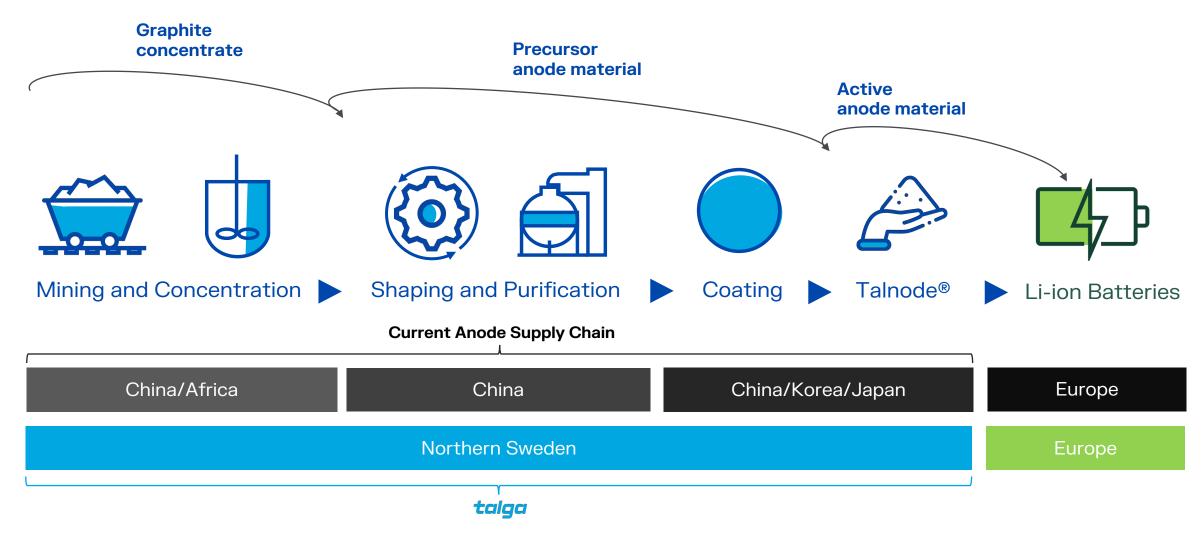
Proprietary processing methods to produce new class of ultra-fine graphite and graphene additives for cathode market:

- Replacement of existing commercial conductive additives (carbon black or CNTs) to allow increased active materials
- Converting anode manufacturing 'byproducts' to premium products, thereby improving resource efficiency
- Enhanced electrode conductivity leading to improved rate performance

Currently in performance evaluation with automotive OEMs with commercial options study underway



## Swedish anode for the European green transition





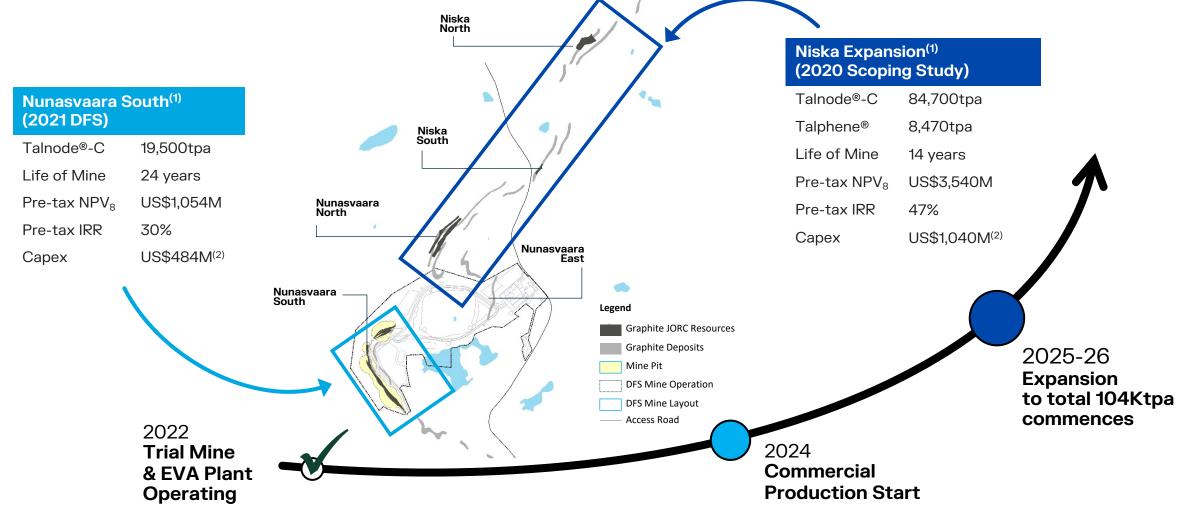
## Fully integrated mine-to-anode project in Europe





## Path to >100,000tpa anode production

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



# First coated graphite anode plant in Europe

### Electric Vehicle Anode Plant (EVA), Sweden

- Producing large-scale coated anode samples for auto customer qualifications
- ✔ Proprietary ore to coated shaped purified graphite (CSPG) process tech proven at scale
- ✓ In-house Battery and Powder Laboratory, and process technology development
- ✓ Operational and quality control capabilities readied for commercial start nearby in 2024



## Electric Vehicle Anode Plant (EVA), Luleå, Sweden





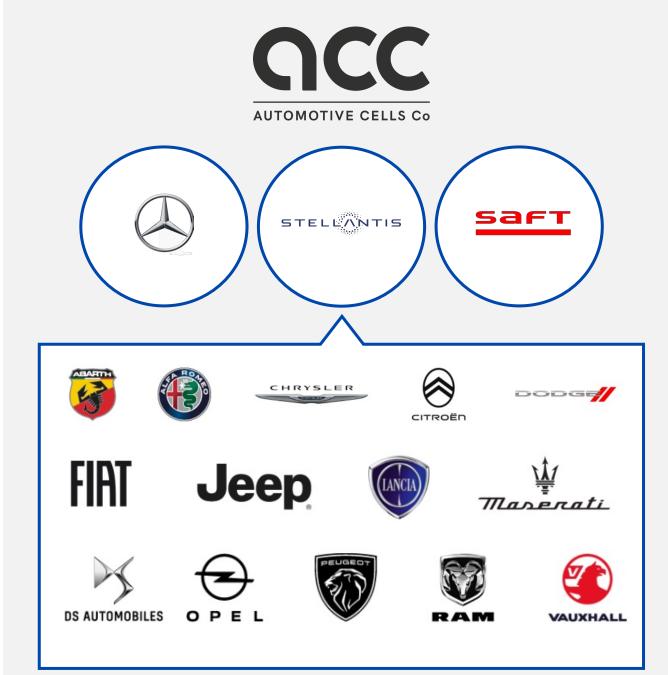




# Customer offtake strategy in place

Talga is securing agreements with battery and auto OEM customers for anode supply from the Vittangi Anode Project in Sweden

- ▶ 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 over 2023 – 2025
- Verkor (supplier to Renault)
  - ▶ LOI sets out non-binding terms to supply Talnode®-C over a 4- to 8-year period
  - Binding term sheet targeting Q1 2023



## Partnerships for a greener future

Customers and development partners under public partnerships and more under non-disclosures















































## Experienced Board and Management Team

### Strong technological and operational leadership with on the ground European presence



### **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.





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 lluka Resources. Melissa joined lluka 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.

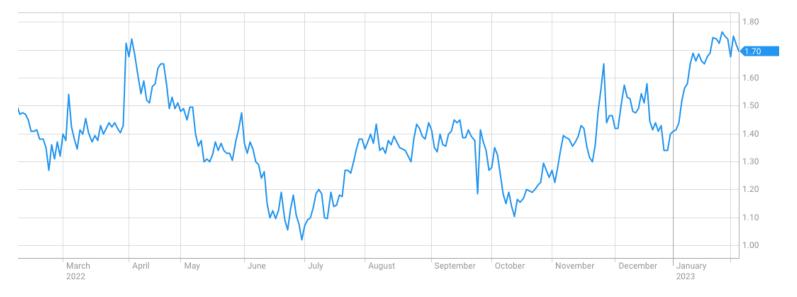


**Dean Scarparolo**Company Secretary

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.

## Corporate Overview

### **ASX:TLG (12 months)**



### STOCKMARKET CODES/TICKERS

Primary listing in Australia on the ASX (**TLG**) with OTC trading in Germany (**TGX**) and US (**TLGRF**)

### **CAPITAL STRUCTURE**

Market Capitalisation: \$575M

Listed Shares: 334.3M

Unlisted Options: 12.1M (1)

Cash as at 31 December 2022: \$23.3M

### **MAJOR SHAREHOLDERS**

Kinetic Investment Partners 4.8%

Mark Thompson – M. Director 4.3%

Pentwater Capital Management 3.6%

UBS AG (Private Banking) 2.9%

Yandal Investment Pty Ltd 1.6%

Total number of shareholders 11,596





www.talgagroup.com







**ASX:TLG** 

## JORC Graphite Reserve and Resources

Ore Reserve	Tonnes	Graphite (% Cg)
Nunasvaara (JORC 2012)	2,260,140	24.1
Probable	2,260,140	24.1

Mineral Resources	Tonnes	Graphite (% Cg)
Vittangi (JORC 2012)	30,100,000	24.1
Indicated	22,600,000	24.9
Inferred	7,500,000	21.8
Jalkunen (JORC 2012)	31,500,000	14.9
Inferred	31,500,000	14.9
Raitajärvi (JORC 2004)	4,300,000	7.1
Indicated	3,400,000	7.3
Inferred	900,000	6.4
Total Mineral Resources	65,900,000	18.6

Note:

- 1. Mineral resources are inclusive of ore reserves.
- 2. Mineral Resources are reported at various cut off grades: Vittangi 10% 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 27 May 2022 titled 'Talga's battery anode growth ambitions boosted with 54% graphite resource increase'. 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 'Robus 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 announcement 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 the exploration results and exploration target is based on information compiled by Albert Thamm and was first released on ASX on 20 July 2021. 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 this presentation of the matters based on his information in the form and context in which it appears. Mr Thamm does not hold securities (directly or indirectly) in the Company.

