

# THE GREEN FUTURE OF BATTERY ANODES

Martin Phillips CEO – Talga AB Future Mine and Mineral 2021



#### **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 tasses or to provide any assurance of an economic development tasses are required before the Company will be in a position to estimate any ore reserves or to provide any assurance of an economic development tasses are required. 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 thee 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 are not sufficient to support to a support to the support to th

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.

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#### Authorisation

This presentation is authorised for release by the Board of Directors.

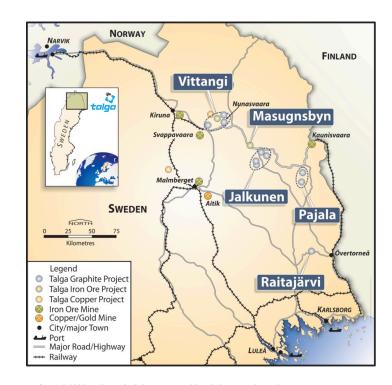
# A NEW MINERAL ERA FOR NORTHERN SWEDEN

- 1. Integrating mining with downstream industry
  - 2. Swedish battery anodes
  - 3. Partnerships for change

#### **Graphite in Northern Sweden**

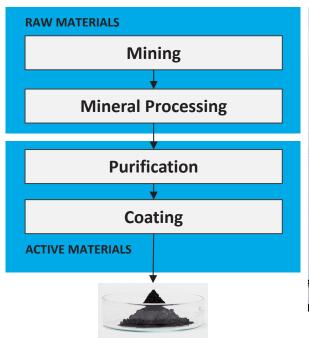
#### Set to play a significant role in battery anode production for the booming EV market

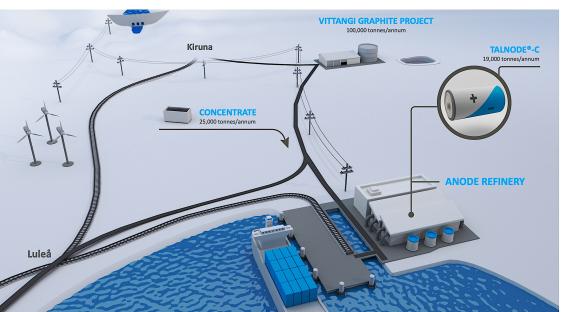
- Vittangi Project 19.5Mt at 24.0% graphite World's highest grade graphite resource
- Total 55.3Mt at 17.5% graphite
- Growth exploration targets of 26 46Mt at 20 - 30% graphite defined within Vittangi and set to be drill-tested
- Economic ore reserve of 1.9Mt at 23.5% graphite (Vittangi) and scoping study outlining a further 5.1Mt of mineable mineralisation at 28.7% graphite (Niska)



### Integrating mining & downstream industry

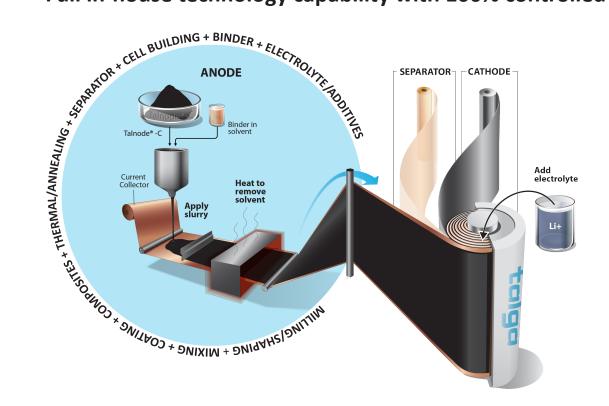
Vertically integrated anode production exported to manufacturers through Luleå





### Swedish battery anodes: A game changer

Full in-house technology capability with 100% controlled mine-to-product supply



High quality, green active anode materials made from Northern Sweden natural graphite

+ Strong processing and in-house product technology to bridge battery anode moat and enter supply chain

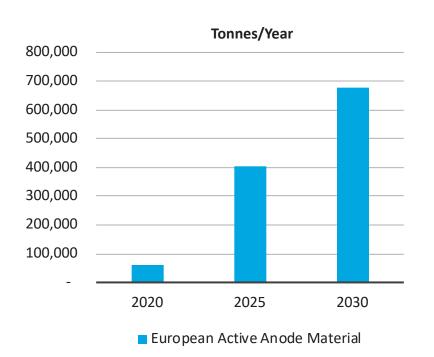
### **Europe: Fastest growing battery market**



SOURCE: R. ZENN, JANUARY 2021

### **European Li-ion battery megafactories**

#### 554GWhr of megafactory battery capacity in Europe by 2030



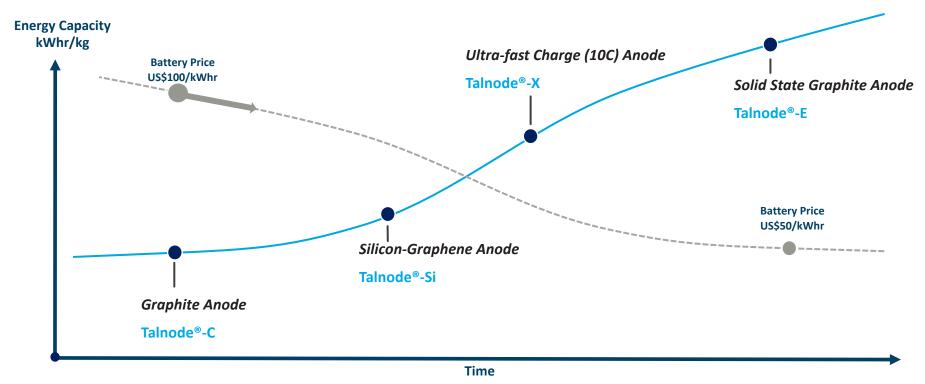
EV demand and legislative pressure on internal combustion engines

~700,000 tonnes of coated active anode material required by 2030

~ 60,000 tonnes of active anode materials currently imported into Europe, mainly as semi assembled accumulators

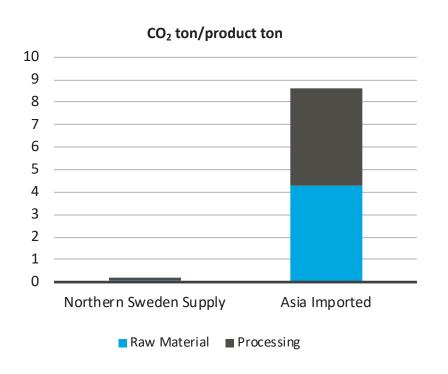
#### Innovative active anode materials

New generation of anode materials to deliver higher energy capacities



#### **Green anode material**

Future selection of anode materials will generally be a balance between price, quality and LCA



Synthetic anode material is typically more expensive to produce with higher emissions

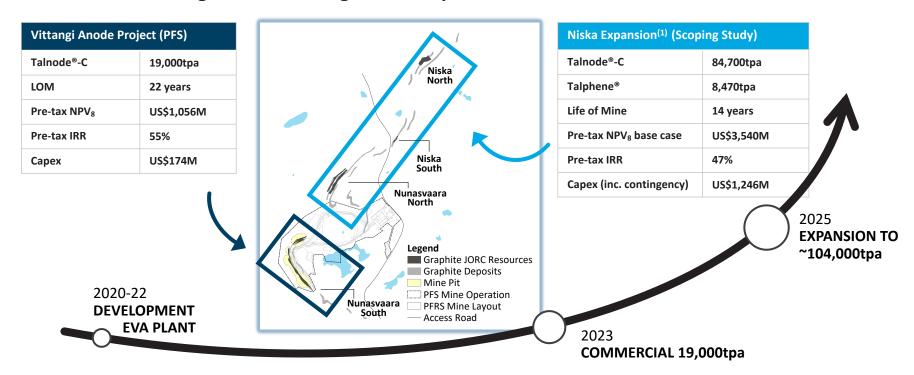
In Asia, >80% of Li-ion battery production uses synthetically produced anode material that is:

- made with petroleum coke or coking coal
- processing (2,700-3,000°C)

Northern Sweden production of active anode materials can significantly improve the CO2 emissions of the European battery supply chain

### Path to >100,000tpa Anode Production

Niska adds to Vittangi to become largest anode producer outside China



### Partnerships for a greener future

Working together to capture opportunities and facilitate a green industrial shift













































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Talga Australia: Suite 3, 2 Richardson Street, West Perth Australia



# **Appendix**

# **JORC Graphite Reserve & Resources**

Ore Reserve <sup>3, 6</sup>	Tonnes	Graphite (% Cg)
Nunasvaara (JORC 2012)	1,935,000	23.5
Proven	0	0
Probable	1,935,000	23.5

Mineral Resources 1, 2, 4, 5, 7, 8, 9	Tonnes	Graphite (% Cg)
Vittangi Nunasvaara (JORC 2012)	14,900,000	23.4
Indicated	10,400,000	25.6
Inferred	4,500,000	18.3
Vittangi Niska (JORC 2012)	4,600,000	25.8
Indicated	4,600,000	25.8
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
<b>Total Mineral Resources</b>	55,300,000	17.5

NOTE:

- <sup>1</sup> MINERAL RESOURCES ARE INCLUSIVE OF ORE RESERVES.
- <sup>2</sup> MINERAL RESOURCES ARE REPORTED AT VARIOUS CUT OFF GRADES: NUNASVAARA AND NISKA 10%Cg, JALKUNEN 5%Cg AND RAITAJÄRVI 5%Cg.
- <sup>3</sup> ORE RESERVE IS REPORTED AT A CUT OFF GRADE OF 12%Cg.
- <sup>4</sup> ERRORS MAY EXIST DUE TO ROUNDING.

#### **Competent Person Statements**

The Niska Mineral Resource estimate was first reported in the Company's announcement dated 15 October 2019 titled 'Talga boosts Swedish graphite project with maiden Niska 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 Mineral Resource estimate was first reported in the Company's announcement dated 17 September 2020 titled 'Talga Boosts European Natural Graphite Resources'. 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 23 May 2019 titled 'Outstanding PFS results support Vittangi graphite development'. 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 announcement titled 'Outstanding PFS results support Vittangi graphite development' dated 23 May 2019. 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.