2 DECEMBER 2013 ASX: TLG



#### MINES AND MONEY LONDON 2013 PRESENTATION

#### Talga Resources Ltd ABN 32 138 405 419

1st Floor, 2 Richardson St, West Perth, WA 6005 T: +61 8 9481 6667 F: +61 8 9322 1935 www.talgaresources.com

#### **Corporate Information**

ASX Code TLG

Shares on issue 84.8m

Options (unlisted) 3.75m

#### Company Directors

Keith Coughlan

Non-Executive Chairman

Mark Thompson

Managing Director

Piers Lewis

Non-Executive Director

Talga Resources Limited (ASX:TLG) ("Talga" or "the Company") is pleased to provide a copy of the presentation to be delivered today by Managing Director Mr Mark Thompson at the Mines and Money London 2013 conference.

The presentation summarises Talga's graphite and iron ore projects in Sweden and gold projects in Australia and will be available afterwards on the Company's website <a href="https://www.talgaresources.com">www.talgaresources.com</a>

The presentation details are as follows:

Date: Monday, 2<sup>nd</sup> December 2013

**Time:** 3.40pm

**Venue:** Main Auditorium, Business Design Centre, Islington, London.

Further information on the Company's development and divestment projects will be available at Talga's **booth G20**.

For further information, contact:

#### **Mark Thompson**

Managing Director Talga Resources Ltd

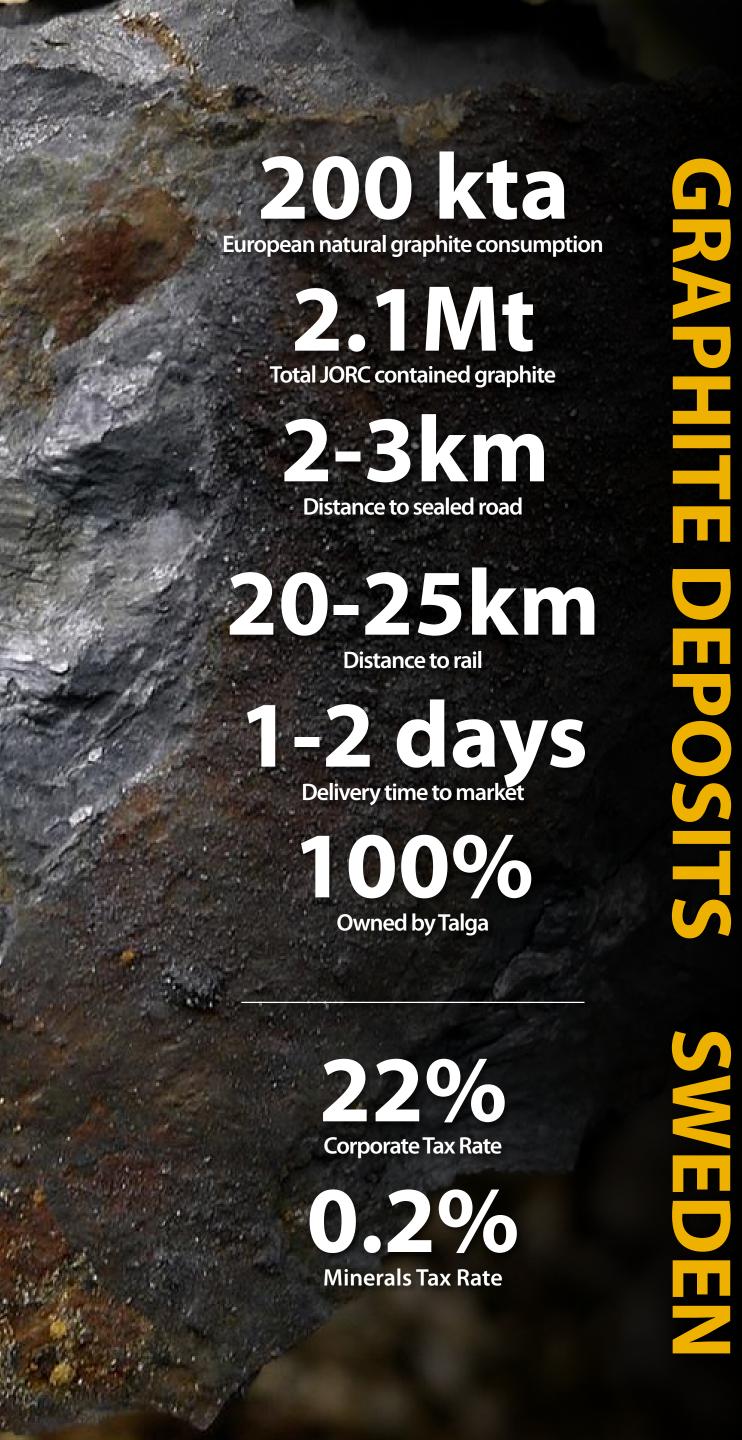
Tel +61 (08) 9481 6667 Email admin@talgaresources.com

#### **ABOUT TALGA**

Talga Resources Limited (**Talga**) (ASX: "TLG") is a diversified mineral explorer and developer with a portfolio of 100% owned graphite, iron, copper/gold projects in Sweden and gold projects in Western Australia.

The main focus is the development of graphite resources in northern Sweden utilising the advantages of exceptional grade deposits, low cost power, established quality infrastructure and short transport distance to high demand markets in Europe.





RESOURCES TALGA RESOURCES LTD Minesand

Money Londo Presentation

2 December 2013

ASX: TLG

\*Cover picture; graphite in outcrop, Nunasvaara deposit.



#### Forward Looking Statements and Disclaimer:

This presentation has been prepared by Talga Resources Limited (ACN 138 405 419) ("Issuer") for the sole purpose of providing an overview of its current prospects and proposed exploration and development strategy to recipients ("Recipient"). This presentation and its contents are provided to the Recipient in confidence and may not be reproduced or disclosed in whole or in part to any other person, without the written consent of the Issuer.

The presentation is based on information available to the Issuer as at the date of the presentation. The information contained in this presentation has not been verified by the Issuer nor has the Issuer conducted any due diligence in relation to that information. The presentation contains selected information and does not purport to be all inclusive or to contain all information that may be relevant to the Recipient. The Recipient acknowledges that circumstances may change and this presentation may become outdated as a result. The Issuer accepts no obligation to update or correct this presentation.

This document includes forward-looking statements. When used in this document, the words such as "could," "plan," "estimate," "expect," "intend," "may," "potential," "should," and similar expressions are forward-looking statements. Although the Issuer believes that the expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties, and no assurance can be given that actual results will be consistent with these forward-looking statements.

No representation or warranty, express or implied, is made as to the fairness, accuracy, completeness or correctness of the information, opinions and conclusions contained in this presentation. To the maximum extent permitted by law, none of the Issuer, its directors, employees or agents, advisers, nor any other person accepts any liability for any loss arising from the use of this presentation or its contents or otherwise arising in connection with it, including, without limitation, any liability arising from fault or negligence on the part of the Issuer or its directors, employees or agents. Nothing in this Presentation is a promise or representation as to the future. Statements or assumptions in this presentation as to future matters may prove to be incorrect and differences may be material. The Issuer does not make any representation or warranty as to the accuracy of such statements or assumptions.

The information in this presentation does not take into account the investment objectives, financial situation and particular needs of any Recipient. The Recipient should not make an investment decision on the basis of this presentation alone and the Recipient should conduct its own independent investigation and assessment of the content of this presentation. Nothing in this presentation constitute financial product, investment, legal, tax or other advice. Nothing in this presentation should be construed as a solicitation to buy or sell any security or to engage or refrain from engaging in any dealing in any security.

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

# **Executive Summary**

TALGA

- ▶ Talga Resources Ltd ("Talga") is a **mineral exploration** & **development** company listed on the Australian Stock Exchange ("ASX") since July 2010.
- The Company wholly owns multiple graphite, iron ore and copper/gold projects in Sweden gained through the acquisition of a Teck Resources subsidiary in 2012, as well as Australian gold assets owned since listing.
- ► Talga's Swedish assets include the world's highest grade JORC/NI43-101

  Graphite resource and a suite of skarn magnetite iron deposits with combined total JORC mineral resources 235.6Mt¹ located adjacent to existing infrastructure.
- ➤ The focus is to develop the graphite deposits due to their lower cost capital 'footprint', exceptional location and outlook for graphite demand.
- Upcoming material catalysts include results from economic studies on graphite projects and further finance expected from divestment of gold and iron projects.

<sup>&</sup>lt;sup>1</sup> See appendices for details of JORC (2004) resources.

### Talga Resources Corporate Overview



Board of Directors			
Keith Coughlan*	Non-executive Chairman	Perth	
Mark Thompson	Managing Director	Perth	
Piers Lewis	Non-executive Director	Perth	

<sup>\*</sup> Appointed 26 Sept 2013





Top Shareholders (+3%) at 20 September 2013		
Lateral Minerals Pty Ltd (Mark Thompson)	10.9%	
Yandal Investments Pty Ltd	4.2%	
Hereford Group Ltd	4.0%	
Two Tops Pty Ltd	3.5%	
Mr Kin Chun Wong	3.1%	

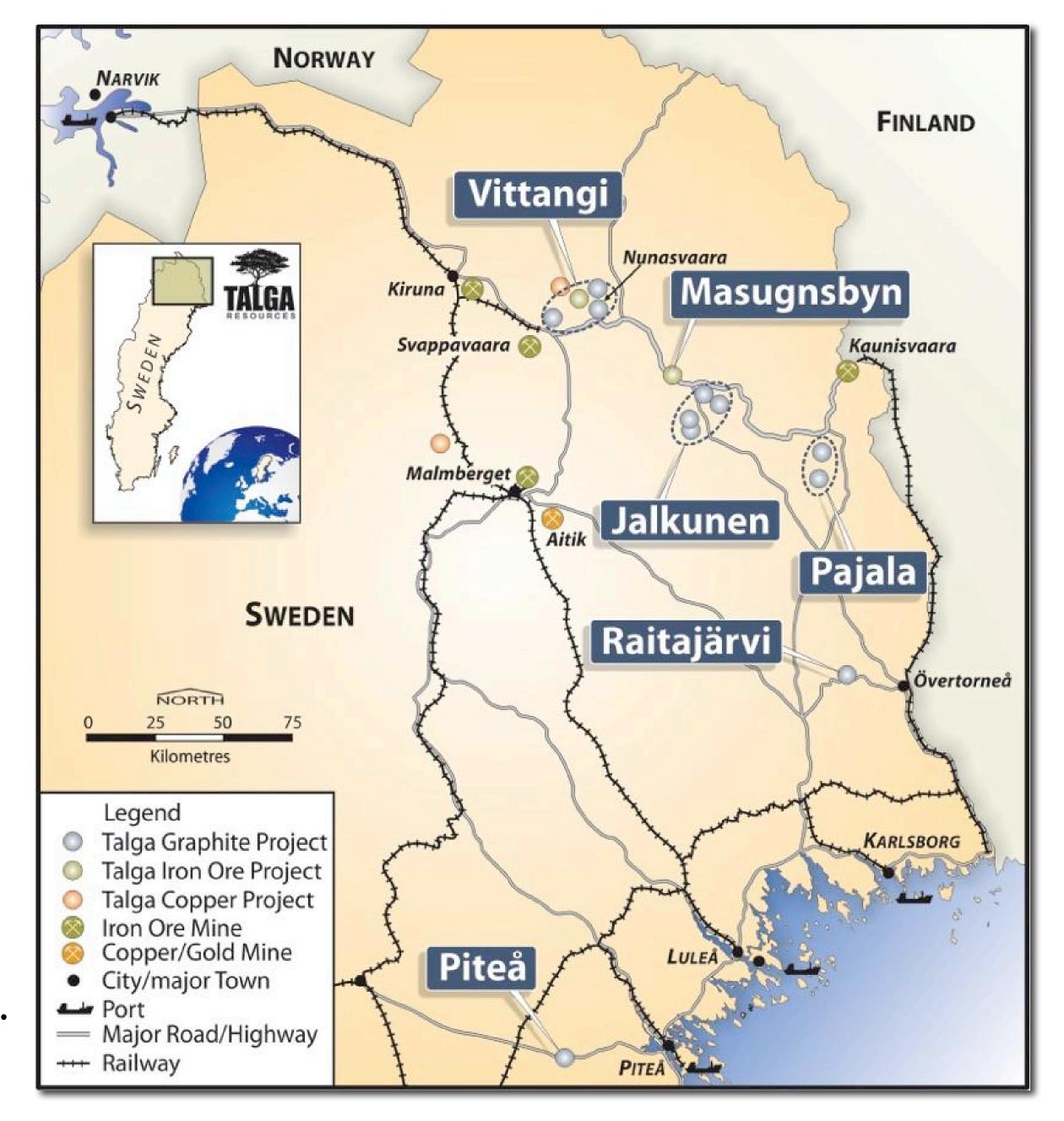
Top 20 own 50.0%

<sup>&</sup>lt;sup>1</sup>2.75m @ 40c director exp 30.11.2014, 0.5m @ 35c employee exp 21.7.2015, 0.5m @ 45c employee exp 3.10.2016

<sup>&</sup>lt;sup>2</sup> In October 2013 \$1.06 million in proceeds received from a fully underwritten entitlement offer

#### Talga's Swedish Graphite Projects

- ▶ 100% ownership of five graphite projects with multiple deposits offering a full range of market size specifications.
- Two advanced stage projects in the development pipeline. These are drilled to JORC Indicated status and preliminary economic studies are underway;
  - Nunasvaara is a microcrystalline flake deposit with the highest resource grade in the world. It is located within the Vittangi project.
  - Raitajärvi is a coarse flake deposit with 49% of flake classified large to jumbo size.
- Piteå is our third high priority project; At an earlier stage of drilling but exceptionally well located and contains predominantly XL-size (jumbo) flake graphite.



# Why Graphite?

- ▶ 80% of world's natural graphite supply (including 95% of some types) is dependent on China.
- Lower exports in recent years under higher export tariffs, taxes and labour costs.
- Increasing state control over supply to retain for domestic consumption have also impacted.
- Situation recognised by USA, UK and EU agences who have classified graphite a Top 10 "Strategic Mineral".
- Even in depressed 2013 prices exceed historic levels and growth outlook positive.

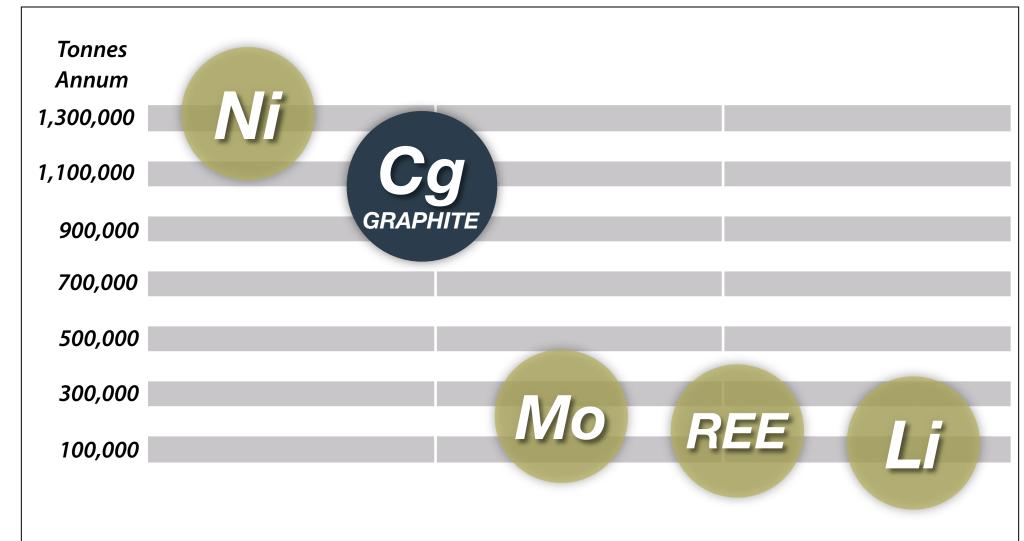
80%

Of the world's natural graphite supply is mined in China.

### Natural graphite market

- ▶ Natural graphite market (1.0Mt/yr) worth US\$1B/yr with main consumption in steel and refractories, batteries, automotive parts and lubricants.
- Graphite is most commonly sold as a concentrate by private contract and therefore prices are not transparent. Industry prices are surveyed and published by Industrial Minerals magazine.
- Graphite price is determined by particle (flake) size, carbon content (purity) and in some products; shape. Most natural graphite is sold to traders who upsell to refiners/purifiers, polishers and shapers before it is retailed to end user.

#### Volume Comparison of Natural Graphite Market

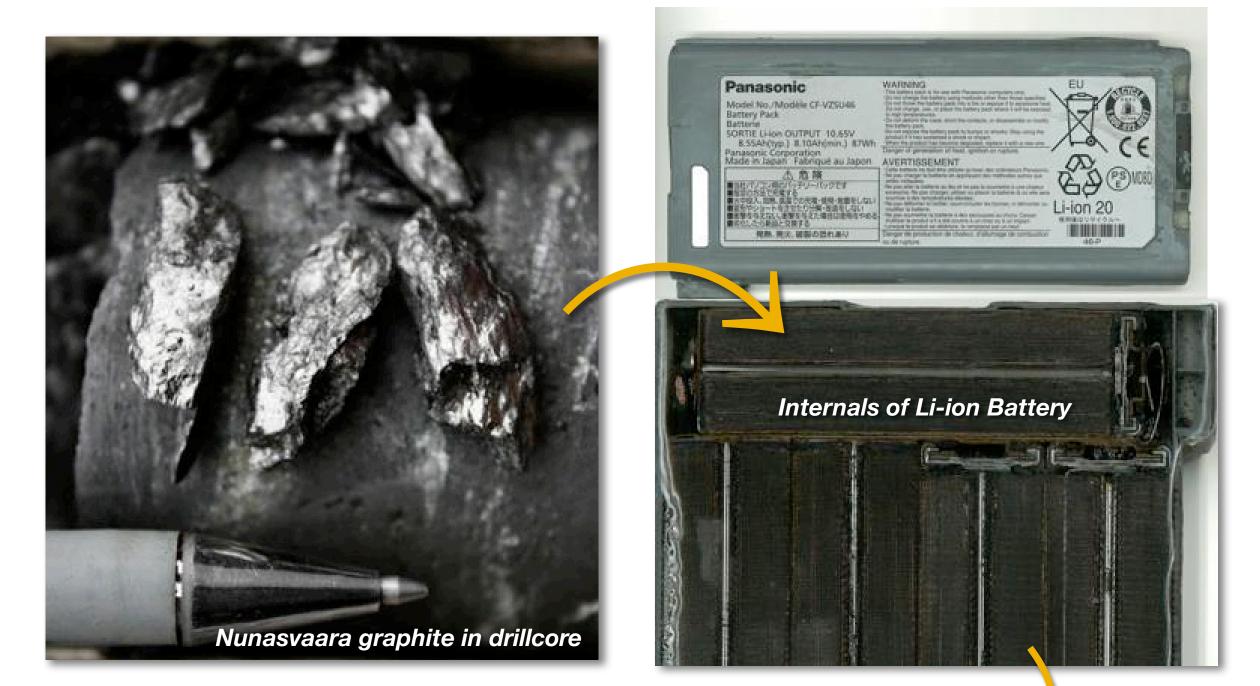


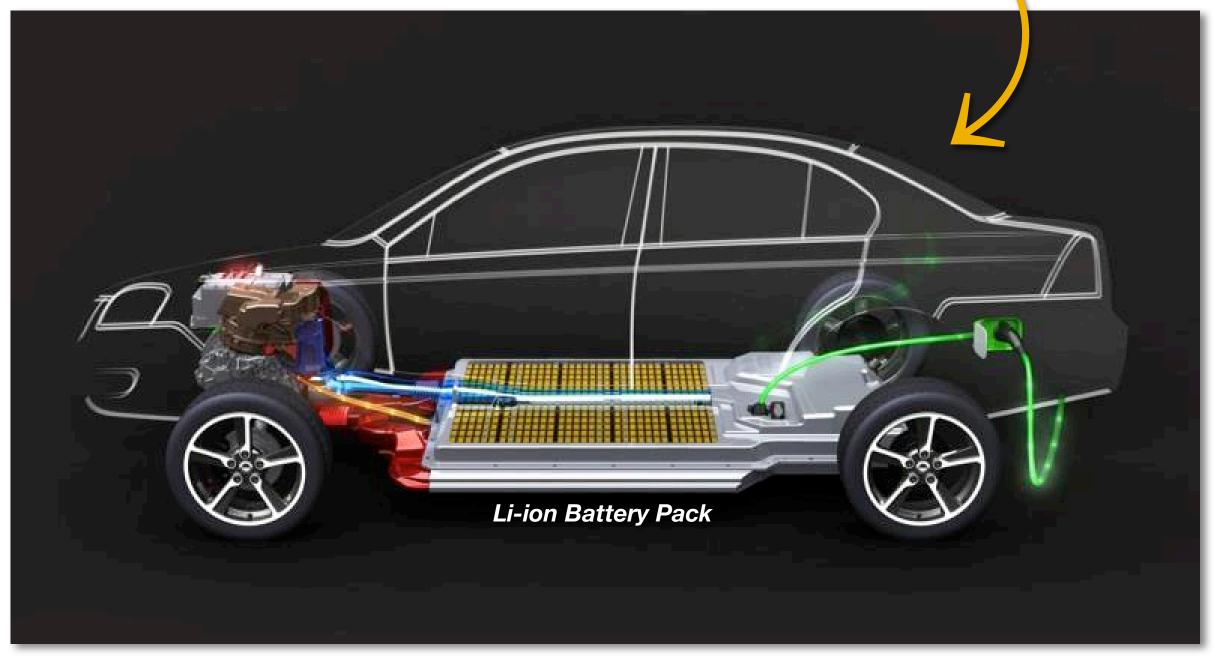


#### **New Demand Driver**

# More graphite than lithium in a Li-ion Battery.

- Graphite is a significant component of many types of battery, particularly Li-ion.
- ► Commonly there is 10x more graphite than lithium in a Li-ion battery anode.
- ▶ Rapid growth; global graphite-rich anode materials market US\$500M (2012), up from US\$375M (2011)\*.
- Electric vehicles can use up to 100kg graphite per vehicle in batteries alone.
- Increases in mobility of energy, green power storage and graphene mean graphite is a commodity in tune with big themes; energy and technology materials.





### EU zone imports

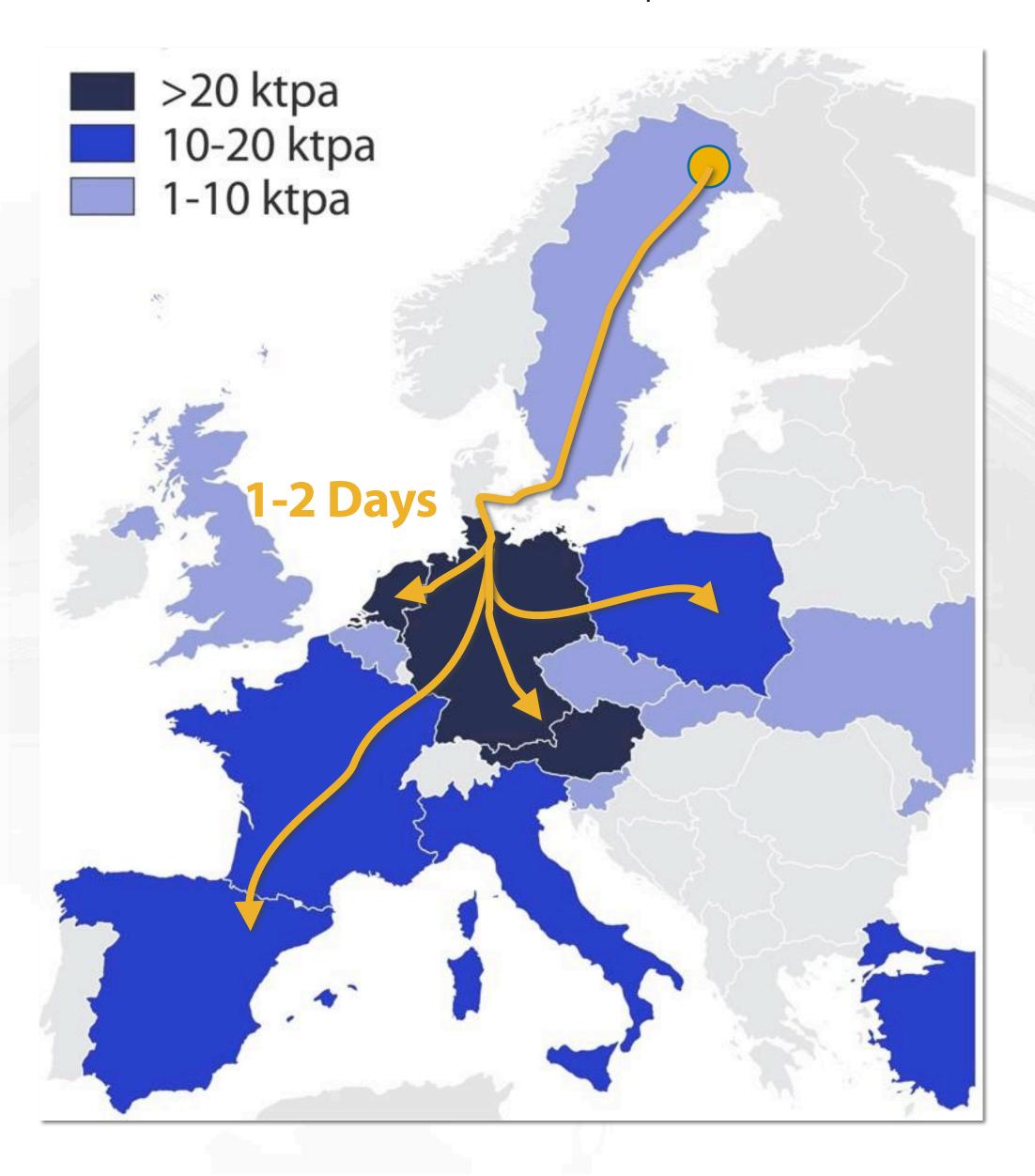
950

Of its natural graphite.

- ▶ EU consumes 20% of world's natural graphite production, and imports 95% of its needs (vast majority from China).
- ▶ EU has classified graphite as a "critical raw material".
- Graphite consumers looking for reliable and quality supply outside of China.
- Sweden is currently a major supplier of iron ore, copper, gold and other minerals to the EU markets and is a historic graphite producer.
- Graphite deposits in Sweden can enjoy a distinct order/ delivery time advantage compared to China and other jurisdictions.

#### **Europe Natural Graphite Imports**

(,000t/annum) Industrial Minerals 2012 Report Data Subset 1+2





# Direct Road and Rail Advantages

▶ Talga's projects located proximal to high quality sealed roads and open access heavy haulage railway.

Option to road/rail direct to major customers as Sweden links to mainland Europe markets.

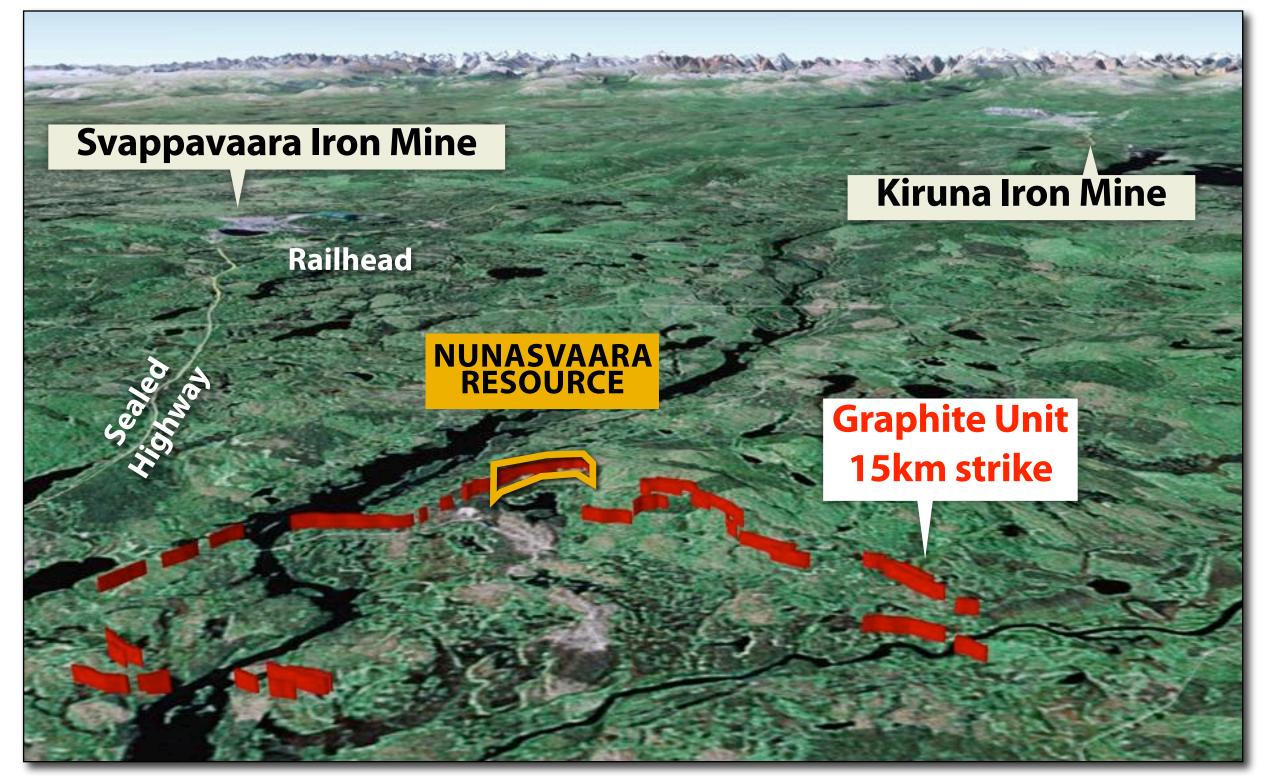
▶ Potential \$100-200/tonne cost advantage on EU delivery compared to shipments from China or other jurisdictions.



Road through Talga project

#### Vittangi Project - Nunasvaara Graphite Deposit

- World's highest grade JORC/NI43-101 resource. Total JORC resource 7.6Mt @ 24.4% Cg (see table for details), suits open pit development.
- Graphite unit commences at surface and extends over 15km strike. Talga rock chips average 26.2% Cg with grades up to 46.7% Cg. 92% of graphite unit yet to be drill tested. Resource mineralisation from surface to 165m depth and remains open.
- ➤ Development advantages of exceptional grade, open-pit bulk mining option, low-cost grid power and nearby road/rail/port options (2-3km to road, 25km to rail).
- PEAS underway to scope 400ktpa milling rate to produce 50-70ktpa concentrate for sale. Pit optimisation and mine scheduling work completed. Product specification studies, metallurgy and final economic inputs are pending. Results expected Q1 2014.

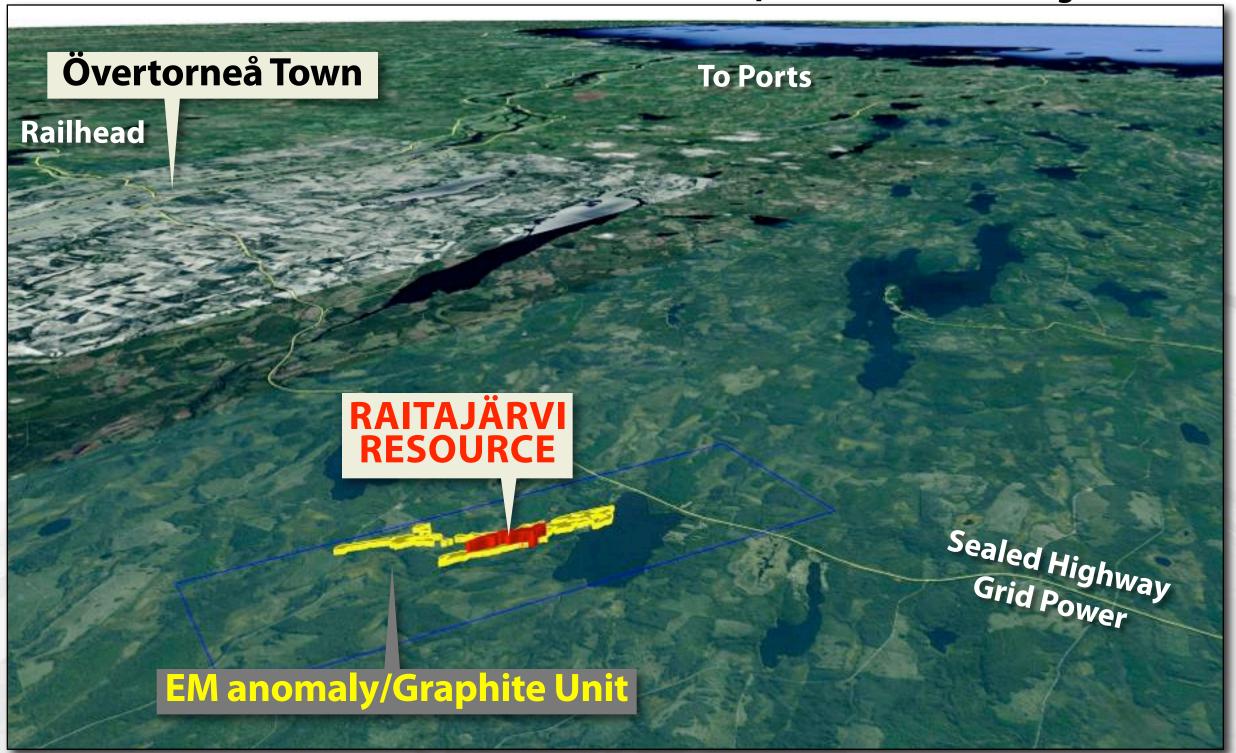


Nunasvaara Mineral Resource (10% Cg lower cut-off grade) Nov 2012

JORC	Tonnes	Grade	Contained
Classification	(Mt)	(%Cg)	Graphite (tonnes)
Indicated	5.6	24.6	1,377,600
Inferred	2.0	24.0	480,000
Total	7.6	24.4	1,857,600

#### Raitajärvi Graphite Project

- Advantageously located 2km from the Överkalix -Övertorneå Highway and grid power, 25km to town and railway, 130km to port.
- Current total JORC resource of 4.3Mt @ 7.1% Cg.
- A high proportion of resource is coarse flake and at JORC Indicated status. Less than 25% of EM anomaly drill tested.
- ▶ 87% of graphite flake size >100 micron (" $\mu$ m") and 49% >200 $\mu$ m.
- ▶ Historic metallurgical tests produced excellent results with graphite concentrate grading 90-94% C from simple (unoptimised) flotation and 99% C in basic enrichment test.
- Potential 10+ year mine life at 400ktpa milling rate to produce 25ktpa coarse flake graphite concentrate. Scoping study planned to commence.



Raitajärvi Mineral Resource (5% Cg lower cut-off) Aug 2013

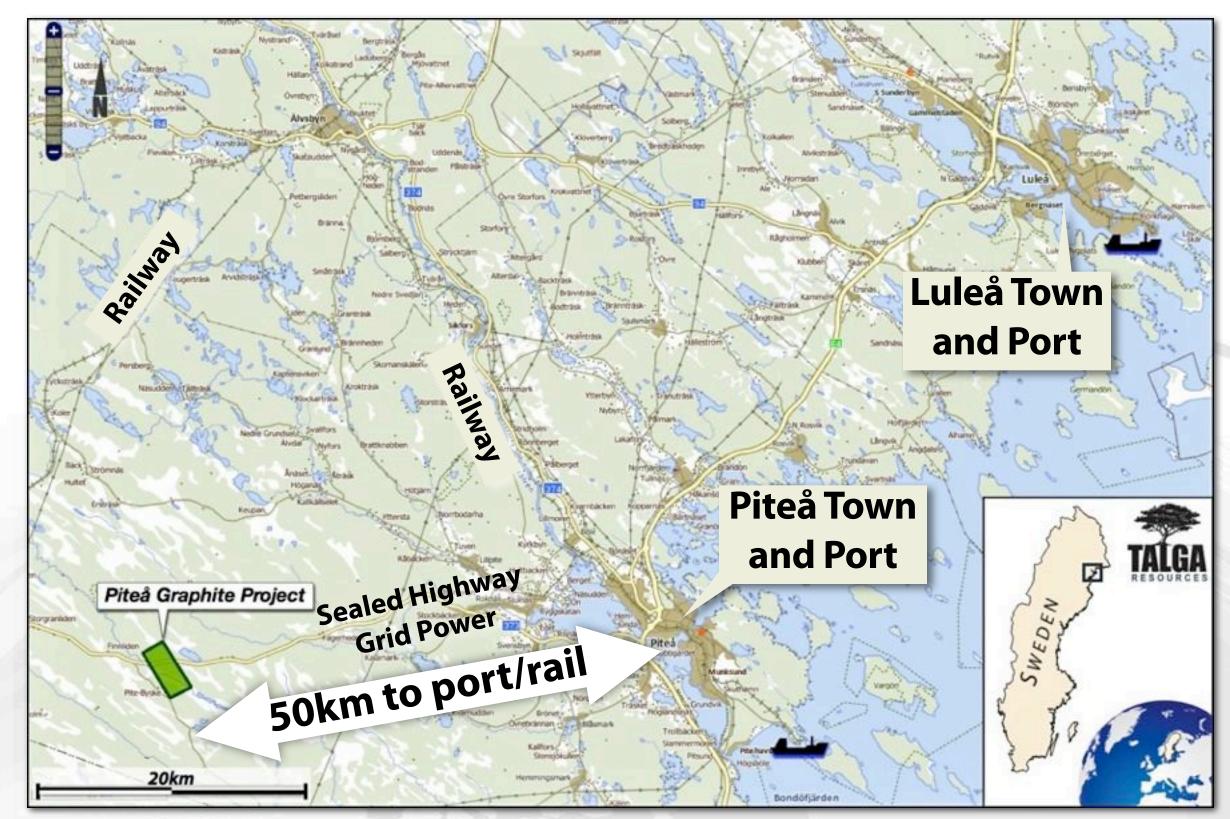
JORC	Tonnes	Grade	Contained
Classification	(Mt)	(%Cg)	Graphite (t)
Indicated	3.4	7.3	246,400
Inferred	0.9	6.4	60,900
Total	4.3	7.1	307,300

Raitajärvi graphite flake size (historic drill sample microscopy, n=87)

Deposit	< 100µm	100-200μm	200-400μm	>400µm
Raitajärvi	13%	38%	38%	11%

# Piteå Jumbo Flake Project

- Located on sealed road 50km from port of Piteå and adjacent to grid power.
- ▶ 3 historic drillholes targeting base metals intercepted coarse flake graphite within a 4 x 1km EM anomaly.
- 80% of flake graphite at Piteå exceeds 300 μm size (80% +50 mesh, aka "jumbo").
- ➤ Such large flake graphite is premium product for spherical graphite production and commands higher prices (>\$2500/t).
- Blue sky growth project
- ▶ Location and size advantages worth exploring.
- ▶ Plan to expand target zone and drill test in 2014





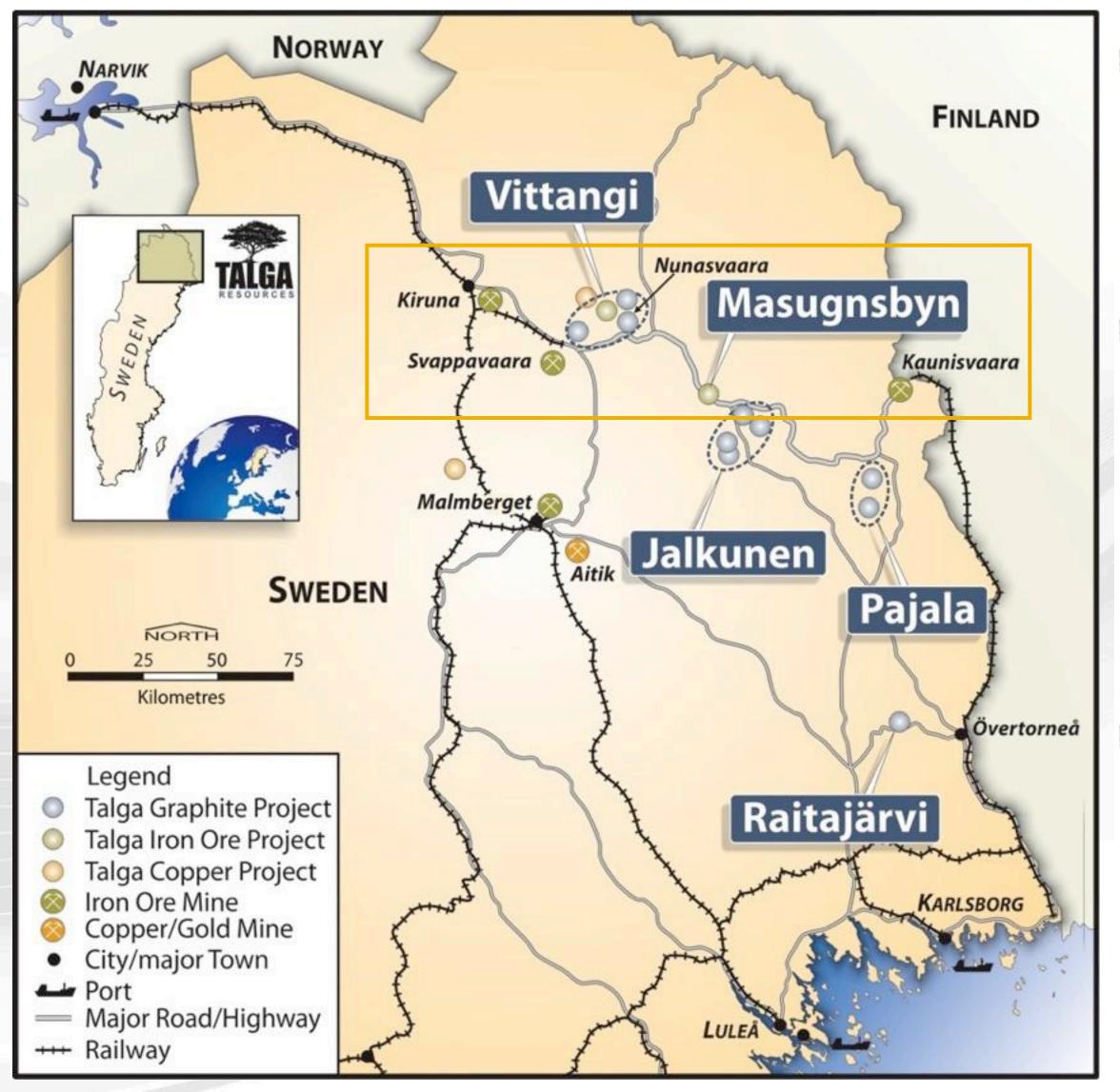
# Talga's Graphite Development Advantages

- Highest grade open pit graphite resource in world.
- Located on road and rail routes to major markets.
- Advanced stage/PEAS underway; further major drilling not required.
- Low cost capex and bottom of cost curve expected.
- Massive growth profile; dominant land position on drilled EU graphite deposits.
- Highly ranked low-risk mining and corporate jurisdiction, Sweden.

# Catalysts/Events

- Preliminary economic assessment imminent.
- Significant new shareholders entering stock.
- Strategic partnerships and non-core asset divestments to improve funding.

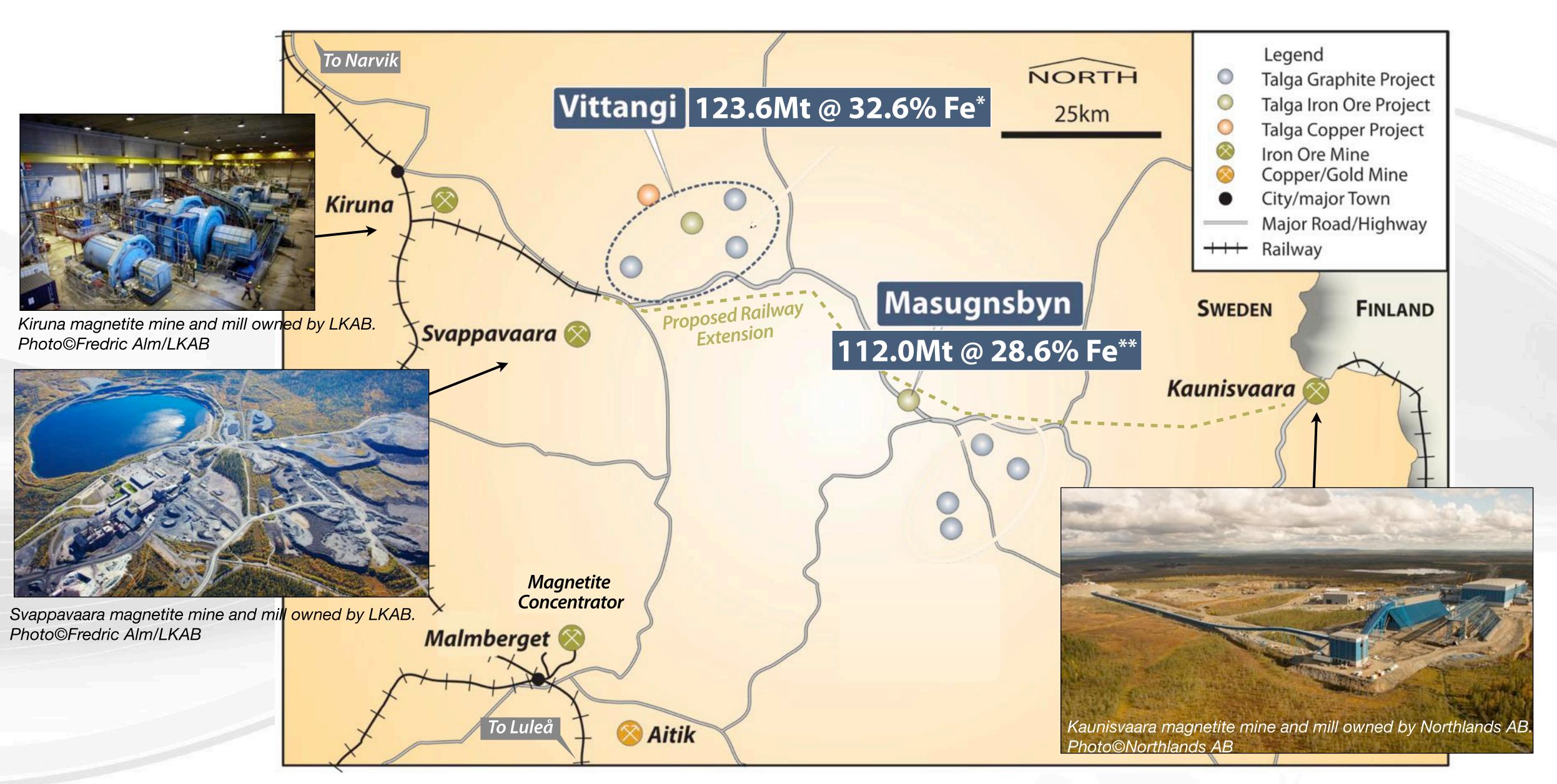
# Talga's Swedish Iron Projects



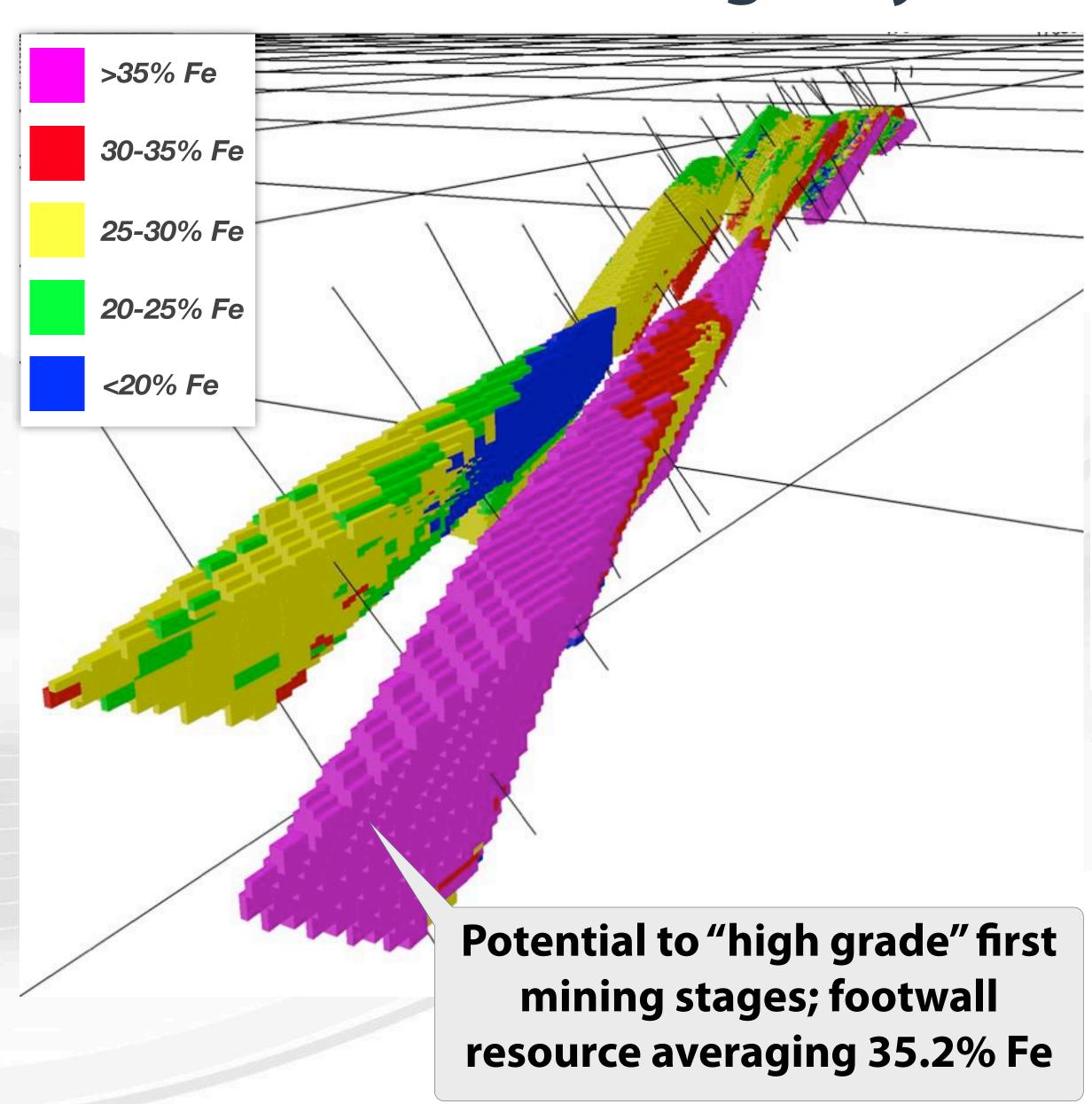
- ▶ Talga's skarn iron deposits are well located adjacent to high quality transport & power supplies, and are situated between producing magnetite iron mines.
- ▶ Currently the most advanced project is Masugnsbyn with a JORC resource 112Mt @ 28.6% iron as magnetite\* ("Fe"). Additional JORC resources total 124Mt @ 32.6% Fe at Vittangi, with further growth targets defined.
- ▶ Talga is targeting modest but high grade magnetite concentrate production, and believes the total JORC resource inventory of 236Mt @ 30.7% Fe is strategically located to become a supplier to the Middle East and Asia.

<sup>\*</sup>Fe or Fe<sub>mag</sub>, both refer to the calculated iron grade which is total iron less forms of iron other than magnetite (sulphides, silicates etc).

#### Magnetite mining district with established milling and transport infrastructure



#### Masugnsbyn Project - Work to Date



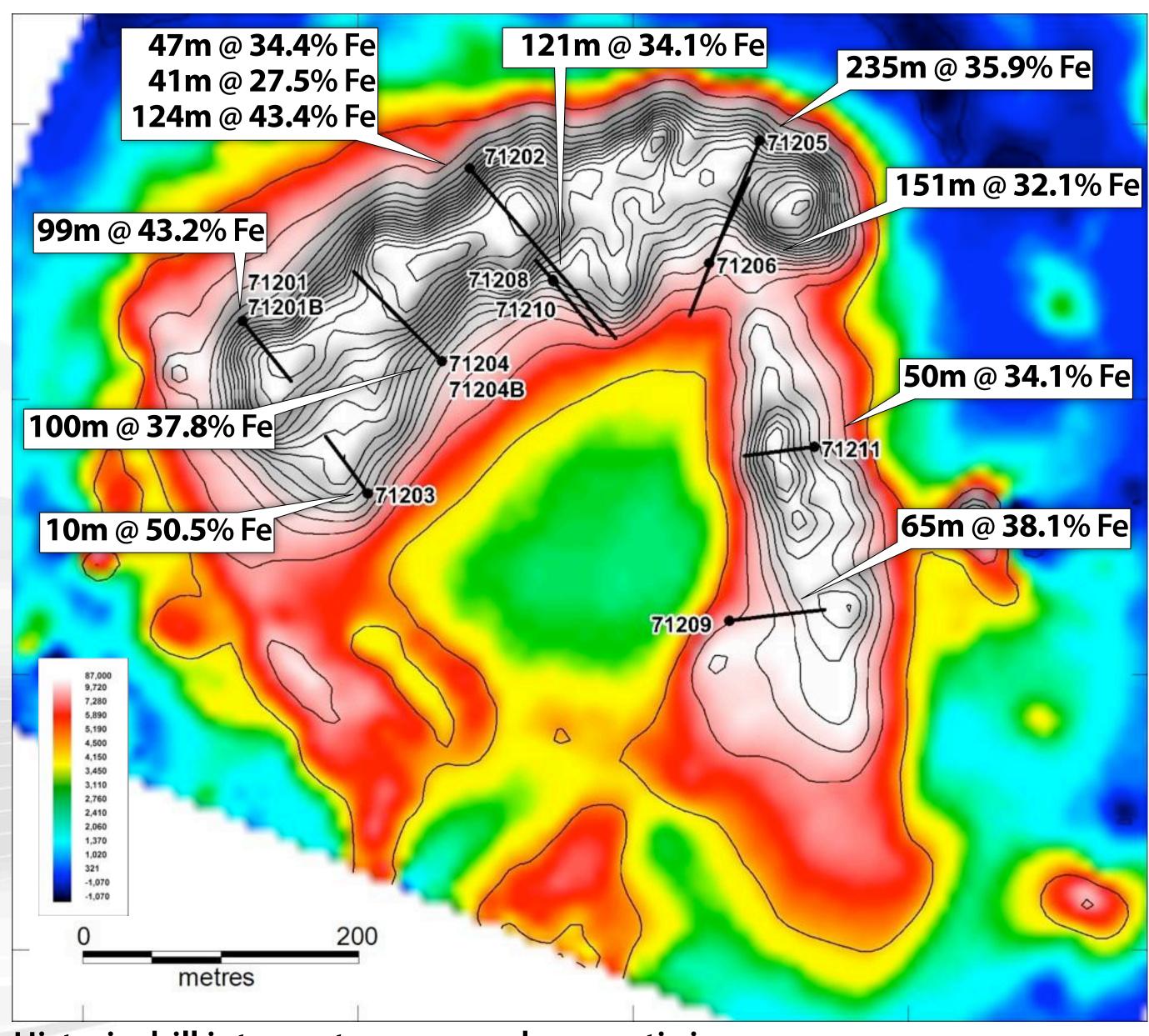
- 68 historic diamond core holes by SGU in 1965-1970 focussed on the largest single deposit, Junosuando, over approximately 3km strike.
- Talga completed a further nine diamond core holes in Oct 2012 to upgrade the deposit to JORC Code Indicated and Inferred status.
- Remains open at depth and along strike. **Zoned** mineralisation suggests early production can be scheduled to mine higher grade footwall zone.

#### **JORC Resource May 2013**

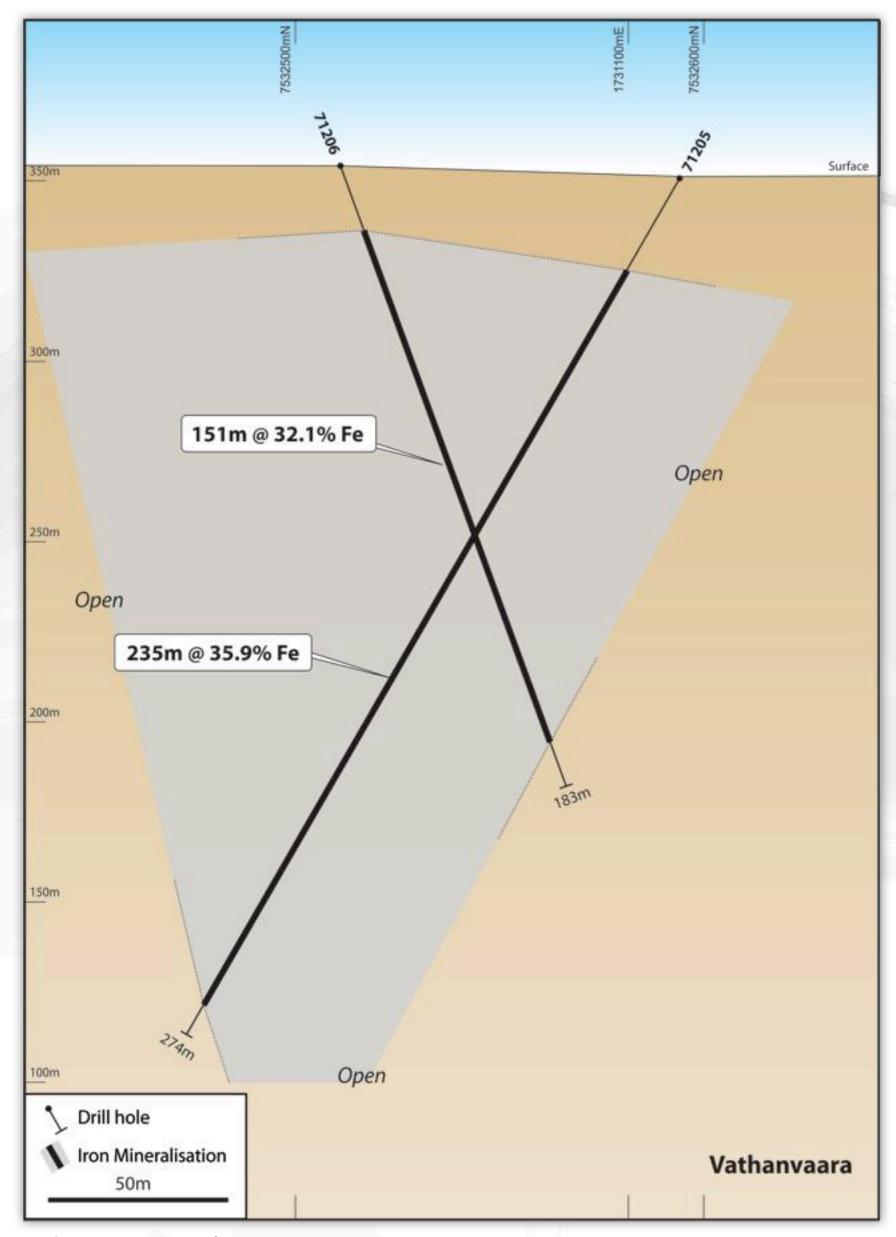
Masugnsbyn Global Resource (See Appendix for details)

Resource Classification	Tonnes (Mt)	%Fe
Indicated	87.0	28.3
Inferred	25.0	29.5
Total	112.0	28.6

### Iron Projects - Vittangi, Vathanvaara deposit



Historic drill intercepts on ground magnetic image.



Cross-section 71205-06

Svappavaara magnetite mine and mill owned by LKAB, approximately 30km by road from the Vittangi project and 60km from Masugnsbyn project. After an earlier phase of open pit mining the mill remained operational for Kiruna ore. The open pit is currently being dewatered to be put back into production. Photo©Fredric Alm/LKAB.

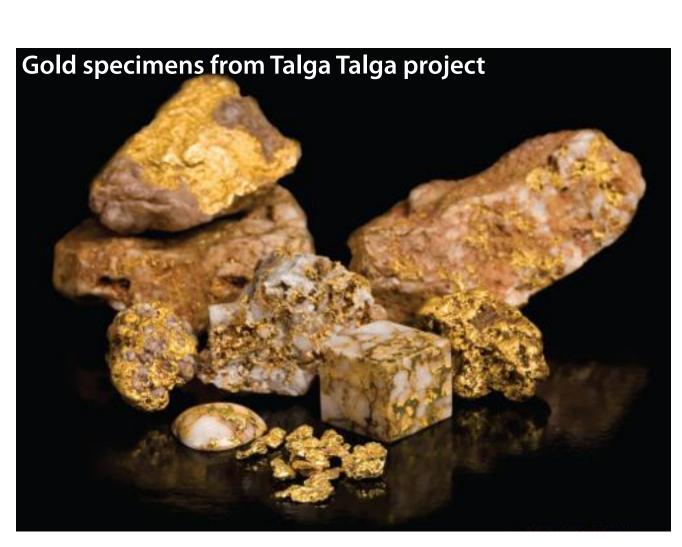
# Summary of Iron Development Potential

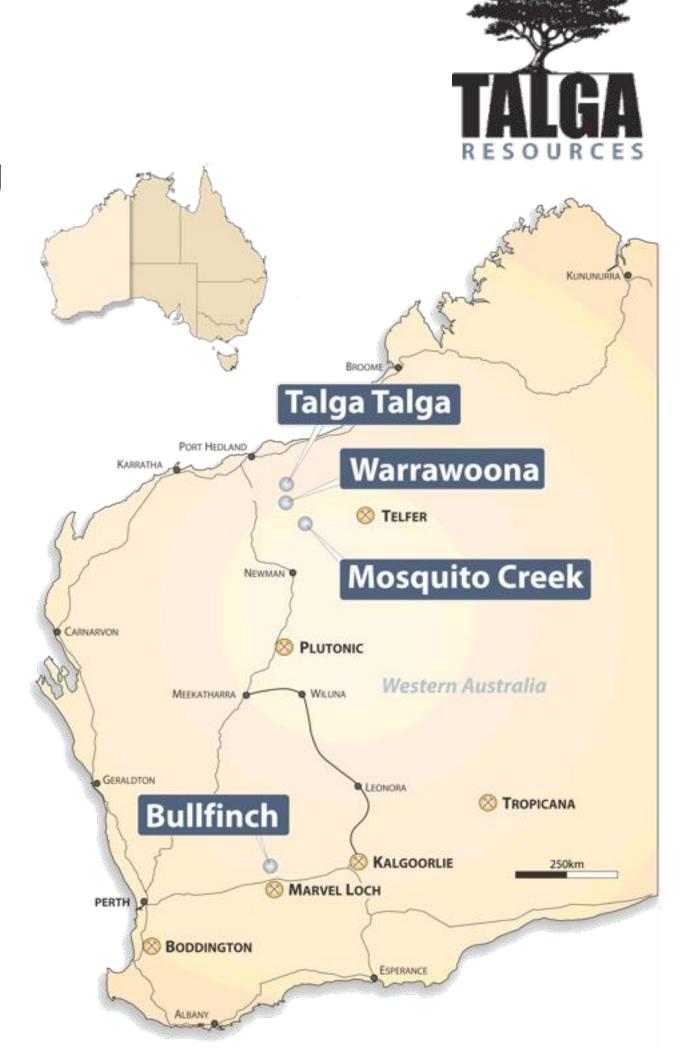
- Relatively simple and proven processing of the magnetite ore is expected to deliver a high quality concentrate at coarse grain sizes.
- Proximal to road and open access rail infrastructure.
- Rail lines connect to open access ports which currently load up Panamax to Cape-sized vessels.
- Located close to European and Middle East iron ore markets.
  - Deposits situated between two magnetite concentrators belonging to LKAB and Northlands; toll treatment potential.

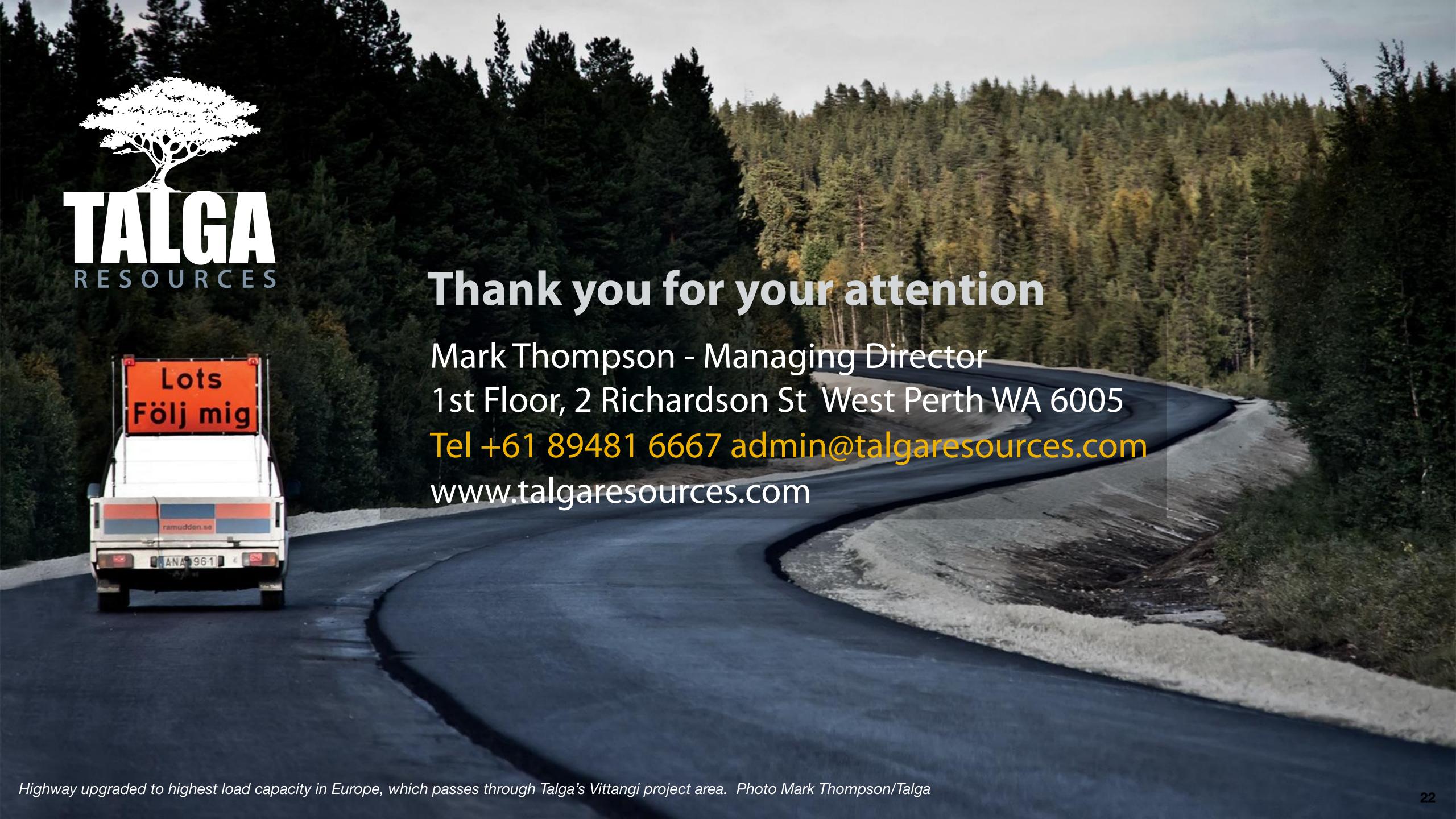
### **Australian Gold Projects**

- The company wholly owns multiple gold projects in Australia which consist of early to advanced exploration-stage projects with very high grades of gold in surface sampling and drilling.
- Highlights to date include drilling intercepts of **7m** @ **14.4g/t Au** and **3m** @ **24.8g/t Au** at Talga Talga, and the discovery of **gold-tellurium-bismuth** zones in the Ghooli dome at Bullfinch, where surface samples return up to **107.5g/t Te**, **34.6g/t Au** and **0.2% Bi**.
- The next steps on the projects are further drilling towards defining resources and bulk sampling to advance the near-surface gold towards short term production.
- ▶ The projects are 100% owned, and several projects are within trucking distance to operating gold mills.
- ▶ Talga is seeking to divest the WA gold projects in order to focus on its Swedish assets.









# Appendices

#### -

# Talga Asset Structure and JORC (2004) Resources



GRAPHITE

100% — Swedish Branches — 100%

IRON

**Nunasvaara** Graphite Mineral Resource @ 10% Cg lower cut-off Nov 2012

Classification	Tonnes	Graphite
	(Mt)	(%Cg)
Indicated	5.6	24.6
Inferred	2.0	24.0
Total	7.6	24.4

Raitajärvi Graphite Mineral Resource @ 5% Cg lower cut-off Aug 2013

Classification	Tonnes	Graphite
Classification	(Mt)	(%Cg)
Indicated	3.4	7.3
Inferred	0.9	6.4
Total	4.3	7.1

*Iron Mineral Resources @ 20% Fe lower cut-off July 2013* 

Deposit	Tonnes	Grade	JORC Category
БСРОЗІС	(Mt)	%Fe	Jone Category
Vathanvaara	51.2	36.0	Inferred Resource
Kuusi Nunasvaara	46.1	28.7	Inferred Resource
Mänty Vathanvaara	16.3	31.0	Inferred Resource
Sorvivuoma	5.5	38.3	Inferred Resource
Jänkkä	4.5	33.0	Inferred Resource
Masugnsbyn	87.0	28.3	<b>Indicated Resource</b>
Masugnsbyn	25.0	29.5	Inferred Resource
Total	235.6	30.7	

#### Graphite market size classification.

Trade Name	microns	US Mesh Size
Amorphous/Ultrafine	<10	na
Amorphous/Fine	10-75	-200
Small	75-150	200-100
Medium	150-180	100-80
Large	180-300	80-50
XL/Jumbo	>300	50+

Source: Industrial Minerals Natural Graphite Report 2012 cross referencing various sources. Many terms are proprietary or mixed use; there are few if any industry standards in naming principles.

# Common natural graphite concentrate product sizes, grades and prices

Size (microns)	Size US Mesh	Purity % C	Quote US \$/tonne
300+	50+	94-97	>1800
180-300	80-50	94-97	1350
100-300	6U-3U	90	1200
		94-97	1200
150-180	100-80	90	1025
		85-87	900
75 150	200 100	94-97	1050
75-150	200-100	90	850
-75	-200	80-85	525

Source: Industrial Minerals Magazine Aug 2013.

Most prices FCL, CIF European Port.

Note prices averaged from low-high range and selected as common commercial products where natural graphite sold as concentrate. Many specialty grades with much higher prices are traded but do not represent the bulk of market demand.

### References & Qualified Persons



#### **Competent Person's Statement**

The information in this report that relates to Exploration Results is based on information compiled and reviewed by Mr Darren Griggs and Mr Mark Thompson, who are members of the Australian Institute of Geoscientists. Mr Griggs and Mr Thompson are employees of the Company and have sufficient experience which is relevant to the activity which is being undertaken to qualify as a "Competent Person" as defined in the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" ("JORC Code"). Mr Griggs and Mr Thompson consent to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to Resource Estimation is based on information compiled and reviewed by Mr Simon Coxhell of CoxsRocks Pty Ltd. Mr Coxhell is a consultant to the Company and a member of the Australian Institute of Mining and Metallurgy. Mr Coxhell has sufficient experience relevant to the styles of mineralisation and types of deposits which are covered in this document and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" ("JORC Code"). Mr Coxhell consents to the inclusion in this report of the matters based on this information in the form and context in which it appears. The estimates of mineral resources in this announcement are in accordance with the JORC Code (2004).