High quality graphene in industrial volumes.

This changes everything.

talga

unearthing tomorrow

General Meeting Presentation

Talga Limited ASX:TLG
3rd Aug 2015

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 The Recipient acknowledges that circumstances may change and this presentation may become outdated as a result.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 Resources Ltd (“Talga”) ASX:TLG is a technology materials company with a unique, simple and cost effective process to liberate graphene directly from its large high quality graphite ore deposits.
- By removing cost and volume issues that have plagued uptake, Talga intends to enable widespread adoption of graphene in markets worth over $700Bn.
- Owns five 100% owned high grade graphite mineral projects (including the world’s highest grade# graphite resource) as well as non-core cobalt, copper and gold deposits.
- Owns processing IP to produce graphene direct from uncrushed, unmilled graphite ore which provides unique economic advantages compared to global peers.
- Growing team in Australia and Europe as development status advances rapidly (scoping study complete, trial mining underway and pilot plant being commissioned).

see http://www.techmetalsresearch.com/metrics-indices/tmr-advanced-graphite-projects-index/

Financial and Corporate Summary

Capitalisation Summary	
Shares on issue (TLG Ordinary)	**138.6M**
Listed Opts (TLGO exp 30/11/15 @35c)	**7.7M**
Unlisted Options[1]	**11.7M**
Market Cap *(undiluted @ $0.39)*	**A$54.1M**

Board

Managing Director - Mark Thompson

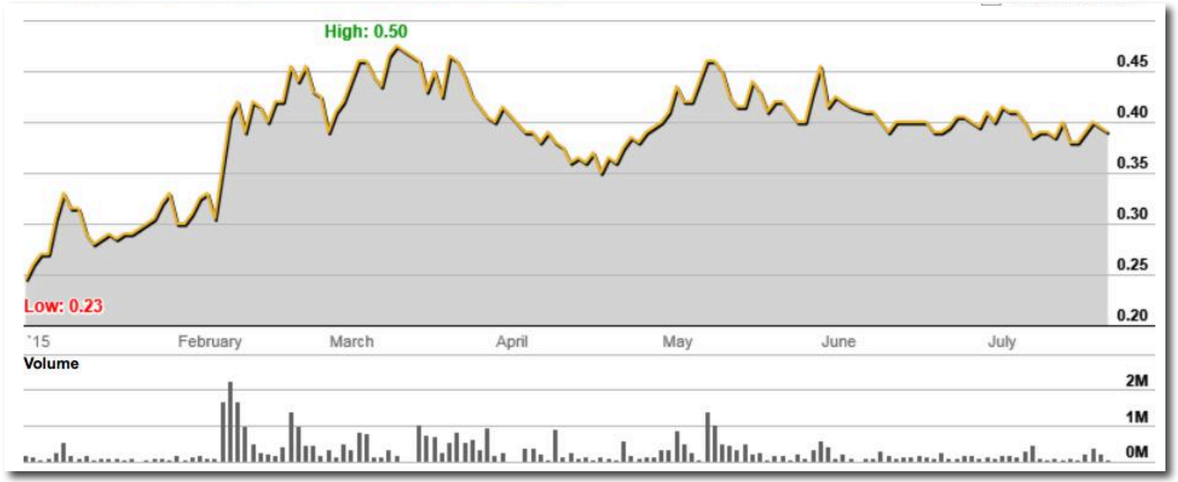
Chairman - Keith Coughlan

Non-Executive - Grant Mooney

Cash (end of March 2015) ~$6.9M, Nil Debt.

Top 5 Shareholders	
Lateral Minerals P/L *(Mark Thompson)*	10.3%
Gregorach P/L and related co.	7.0%
HSBC Custody Nom Australia P/L	6.0%
UBS Nom P/L	2.9%
Yandal Inv P/L	2.8%

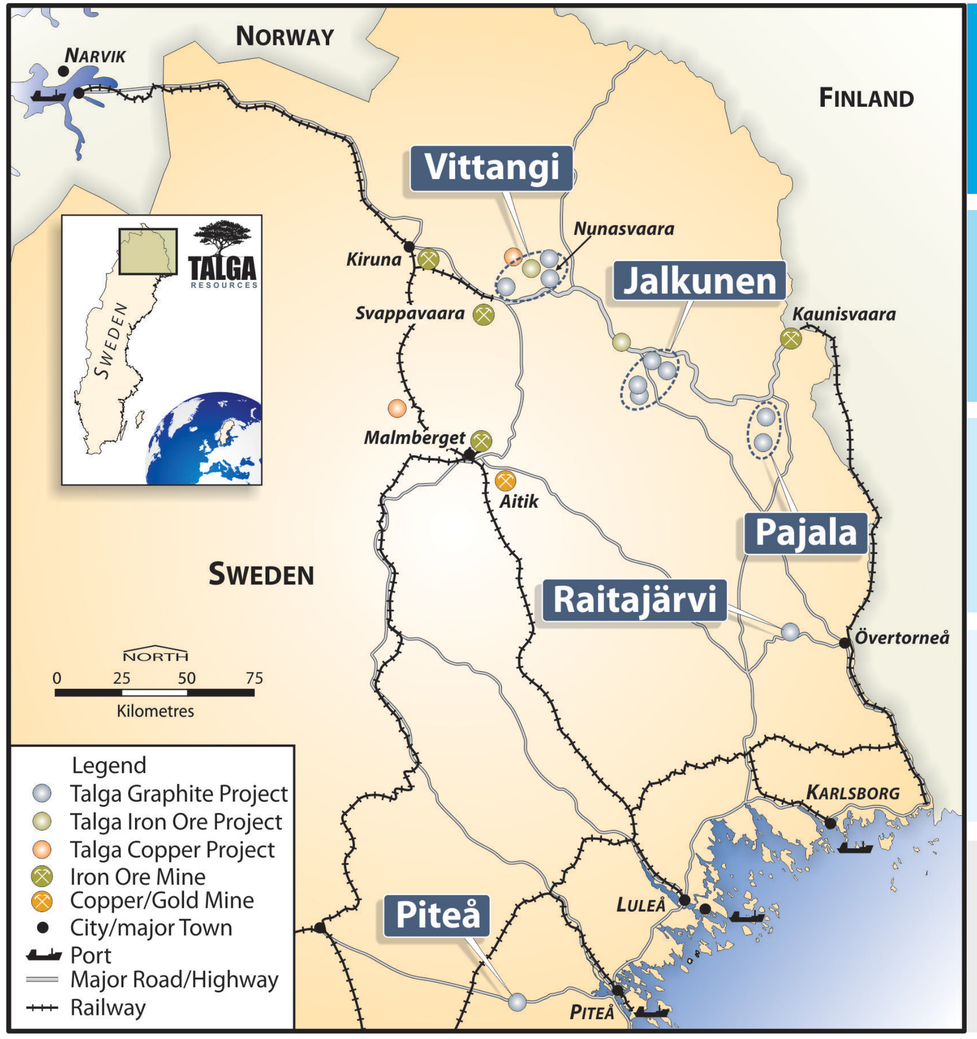
Share Price and Volume Year to Date ASX:TLG



[1] Various expiry and strike prices with majority expiring 2016 at 50-60c

Talga's Graphite Pipeline

100% ownership of **five** graphite projects in **Sweden** containing multiple deposits offering the **full range** of market size specifications. Two **advanced stage** JORC resource[1] projects in the development pipeline.



Vittangi

JORC Resource[1] Total 7.6Mt @ 24.4% Cg, Economic study* shows Minelife ~20yr, Ann. Production ~46,000tpa graphite+ ~1,000tpa graphene. Capex A$29m, Pre-tax NPV[12] A$490m.

Raitajärvi

JORC Resource[1] Total 4.3Mt @ 7.1% Cg, 87% coarse flake size and 49% >200µm, Purity up to 99%Cg, Suit current spherical/battery grade graphite market.

Jalkunen

First pass drilling highlights include 45m @ 19.4% Cg, 51m @ 15.4% Cg and 26m @ 27.7% Cg. Flake size <75µm to >200µm. Maiden Resource Imminent.

Pajala

First pass drilling highlights include 8m @ 30.2% Cg, 5m @ 39.9% Cg. Full size range flake sizes <75µm to >400µm Jumbo. Graphene and flake market.

Piteå

First pass drilling shows extra large graphite flake size average 80% >300µm and 10-40% >600µm. Large untested EM extensions pegged.

*See Scoping Study released to ASX 9 October 2014.

Established mining district with quality infrastructure

To Narvik

Kiruna

Magnetite Mine & Mill

Vittangi

Nunasvaara

NORTH

25km

Legend
Talga Graphite Project
Talga Iron Ore Project
Talga Copper Project
Iron Ore Mine
Copper/Gold Mine
City/major Town
Major Road/Highway
Railway

Proposed Railway Extension

Jalkunen

SWEDEN

FINLAND

Svappavaara

Magnetite Mine & Mill

Magnetite Mine & Mill

Kaunisvaara

Magnetite Mine & Mill

Malmberget

Cu-Au Mine & Mill

To Luleå

Aitik

Pajala

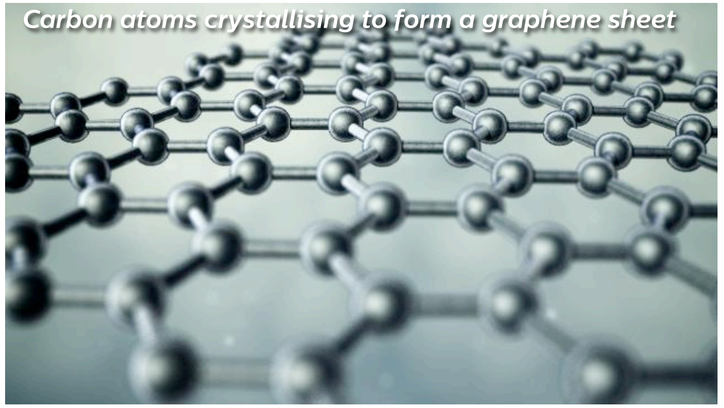
Advantages of Sweden for Mining

- **Established quality infrastructure** with open access rail, road and ports
- **Low cost power supply** – hydroelectricity/ nuclear grid
- Well established **mining province** with **skilled workforce** and **support industries**
- **Mineral Production tax 0.2%**
  Corporate tax rate 22%
- **Low Sovereign Risk**/consistently ranked **top 10 mining jurisdiction** by Fraser Institute.
- Direct transport links to resurgent **Eurozone markets**
- Hosts **world-class mineral deposits** but remains **under-explored**/foreign mineral ownership only allowed since **1992**

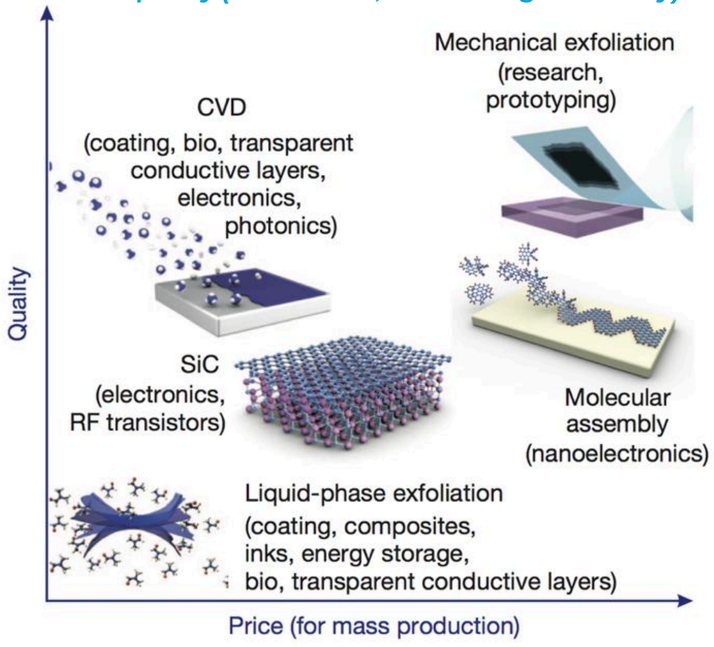
Pictured the Aitik Mine in North Sweden, owned by Boliden, mining 36 Mt annum Cu-Au ore by open pit method.

Graphite vs Graphene?

- Graphite (the mineral) consists of multiple sheets of carbon atoms in a hexagonal lattice, which when one or few atoms in thickness, are called graphene.
- There are **~3 million** layers of graphene in **1mm** natural graphite.
- Natural graphite therefore is **already made of graphene**, but methods **separating natural graphite to a few atoms** thick can also be **expensive** and **hard to scale up**.
- **Synthetic** methods have **high energy/high costs** and **low scalability**. **Natural** source methods have **scale** but techniques tend to **smaller sizes** or **lower quality** than required by most applications.
- Talga recognises there is an **advantage** using **natural graphite** as the precursor as **nature** has made the **substantial energy**/**pressure**/**chemical inputs**, but the liberation process must be simple and low cost to enable commercial scales.



Different production methods for graphene; price vs quality (not to scale, or including scalability)



Graphene in Li-ion batteries

Due to **superior conductivity** and **surface area** Graphene could be one of the best materials to make new and superior **batteries**. Even as an additive to **current** lithium ion battery materials it is shown to improve capacity by up to 160% in spherical graphite electrode materials.

Contents lists available at SciVerse ScienceDirect

Journal of Power Sources

journal homepage: www.elsevier.com/locate/jpowsour

Review

Graphene in lithium ion battery cathode materials: A review

Gints Kucinskis*, Gunars Bajars, Janis Kleperis

Institute of Solid State Physics, University of Latvia, 8 Kengaraga Street, LV-1063 Riga, Latvia

HIGHLIGHTS

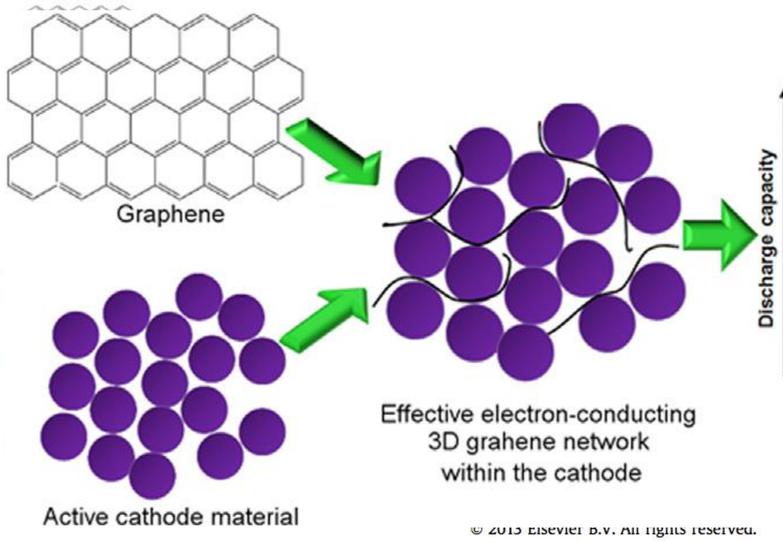
- The use of graphene in lithium ion battery cathode materials has been reviewed.
- Graphene improves electron conductivity of lithium ion battery cathode materials.
- Graphene nanosheets form an electron conducting network within the cathode.
- Graphene composite cathodes have superior rate capability and cyclability.

ARTICLE INFO

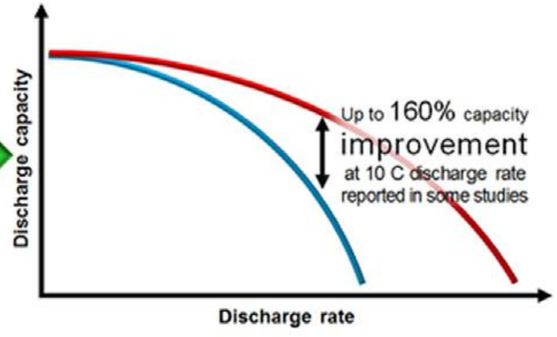
Article history:
Received 31 December 2012
Received in revised form
25 March 2013
Accepted 27 March 2013
Available online 26 April 2013

Keywords:
Lithium ion battery
Cathode materials
Graphene
Rate capability

GRAPHICAL ABSTRACT



"Given the ***superiority of graphene over the conventional carbon electron conducting additives, one would expect its widespread use in commercially available high power lithium ion batteries***. However, it must also be noted that the rather **complicated synthesis** and therefore the **high price**...could limit its use."



Improved electrochemical properties

Talga bulk scale graphene can be the first global scale commercial solution.

Source; Journal of Power Sources 240 (2013) 66-79

Graphene Applications

Conductive Inks / RFID Tags $3B

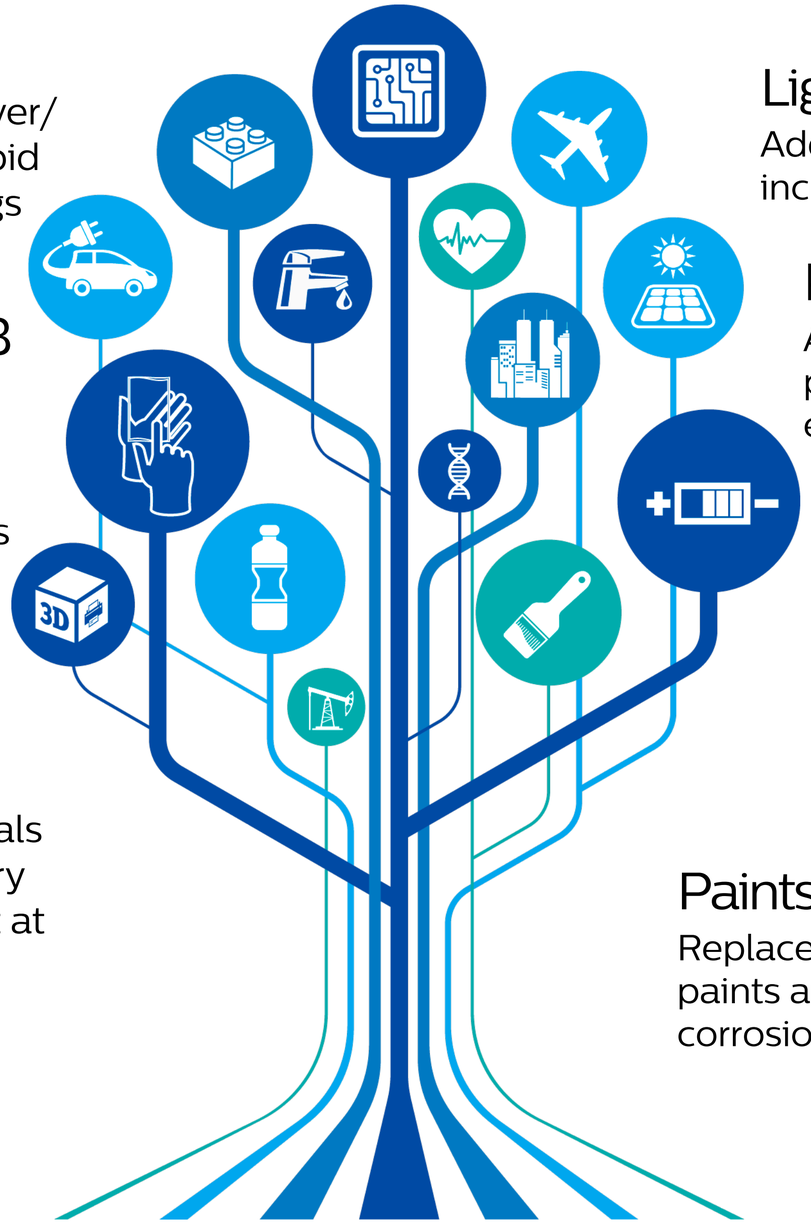
Replace currently used carbon black and silver/ copper composites in conductive inks for rapid growth “Internet of Things” devices/RFID tags

Flexible Electronics / Screens $16B

Graphene’s conductivity, transparency and strength enable flexible / bendy display screens and is looking to replace Indium Tin Oxide (ITO) across major display screen types

3D Printing Materials $3B

Additive to plastics/3D printable materials to make conductive structures for battery use or increase strength for quality print at home products eg, Lego



Lightweight Composites $20B

Added to current carbon fibre composites for increased strength/decreased weight and emissions

Polymers and Building Materials $567B

Additive to increase strength and decrease permeability of plastics to increase shelf life of foods eg, PET bottles, packaged goods

Energy Storage $62B

Added to/replace spherical graphite in current Li-ion and other batteries to increase performance & range in vehicles, capacity in green energy/off-grid storage

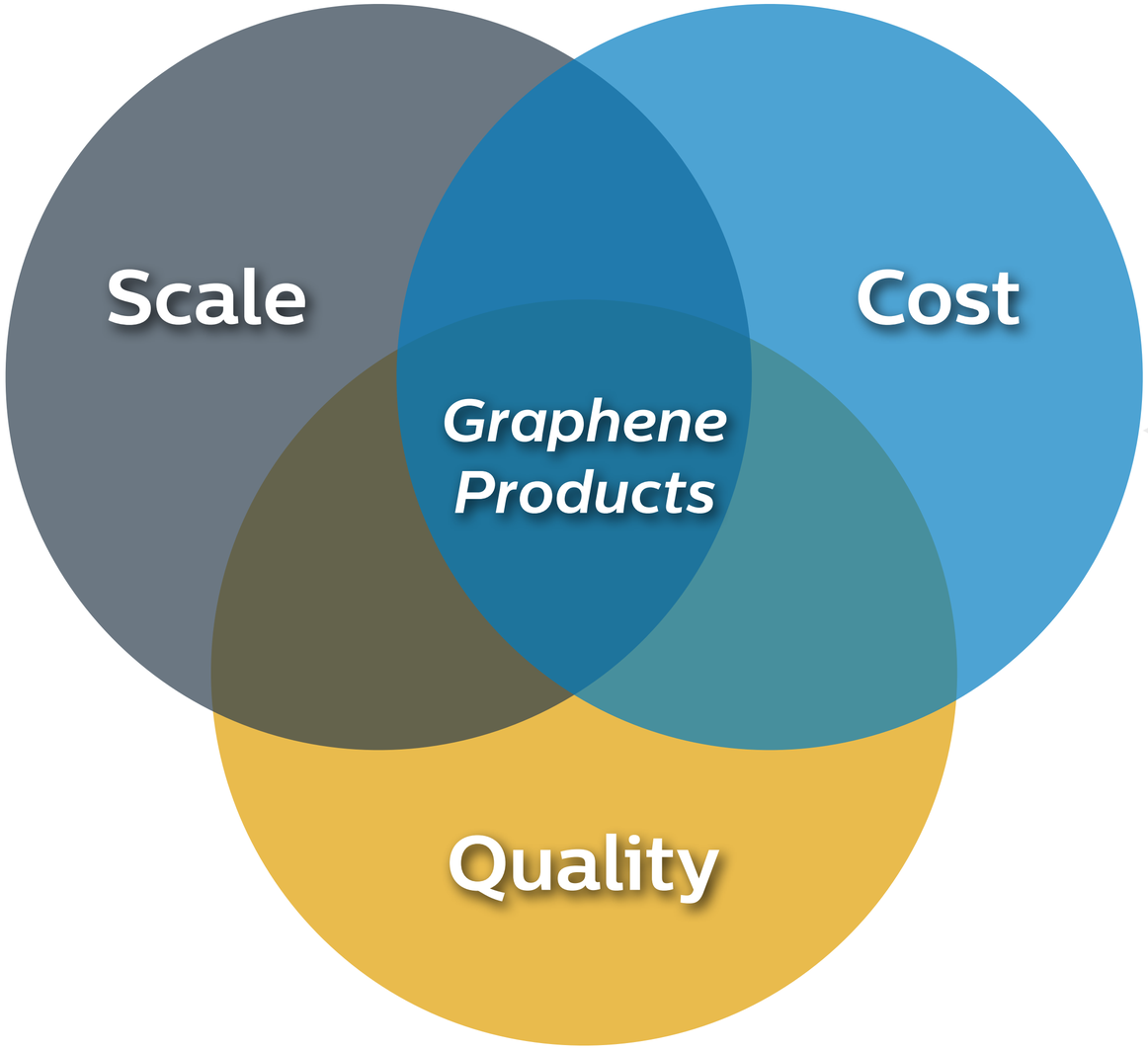
Paints / Coatings / Galvanics $53B

Replace zinc and chrome in corrosion resistant paints and galvanized steel for increased corrosion resistance, flexibility and longevity

$ Total Global Market Value US$/annum. Note: For sources see References in Appendix

Commercialisation is held back by supply factors

Many applications have arisen from 10 years of graphene research but commercialisation is a question dominated by supply side factors



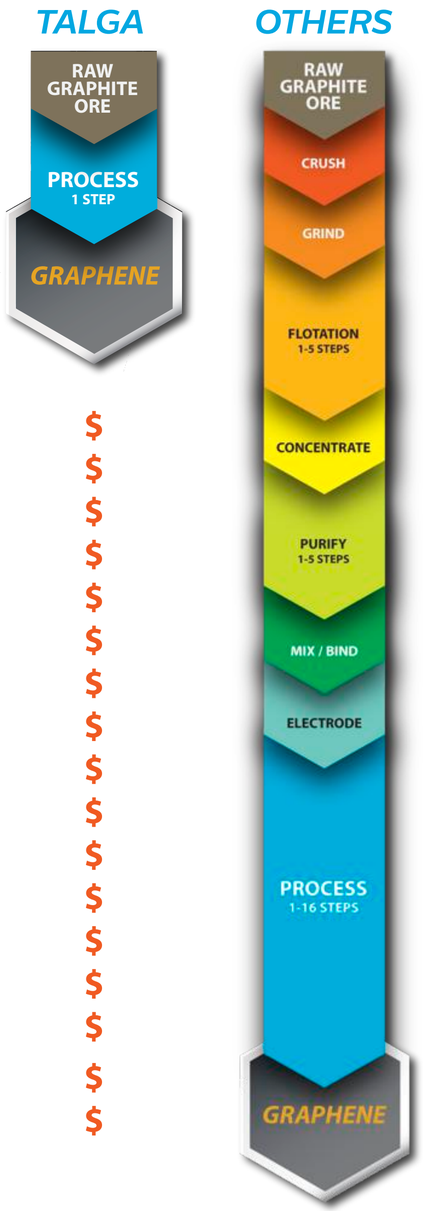
Main factors delaying uptake of graphene:

- Lack of **scale**: most production methods are not scalable to the **large quantities** required to guarantee **long term** supply.
- High **costs**: costs are falling but are still vastly **expensive** compared to most material inputs.
- Low quality: most bulk methods have inherent limitations that **limit** applications/markets.
- **Scale and Cost are main constraints** as they have physical limitations while Quality can be manipulated to a degree by many methods.

Graphite to Graphene: do you know the cost?

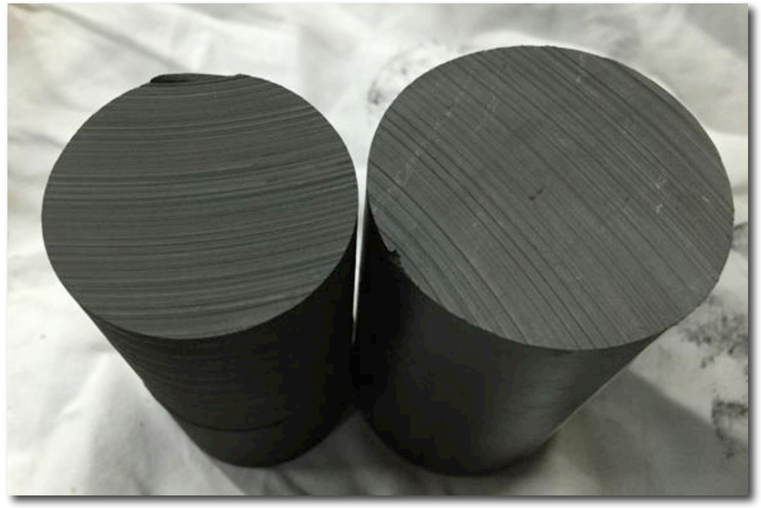
- Usually graphite ores require drill/blast mining, crushing, milling, flotation and purification stages to produce a graphite concentrate **prior** to the start of making graphene.
- This induces an environmental footprint from the energy, dust, chemicals and waste at each stage.
- The graphite is blended from different sources and may contain impurities that differ depending on source.
- At the point of commencing a graphene process, there has already been considerable commercial and environmental cost that increases costs or limits volume and quality.
- Large (brand name) companies demand cleaner supply chains and lower risk jurisdictions. Applications require consistency/homogenous sources.

Solution-Talga natural ore advantage



- Talga extracts graphene directly from natural microcrystalline graphite ore* using low impact physio-chemical techniques. The benefits include:
  - No requirement for drill/blast, crushing, grinding and milling stages.
  - Entirely scalable to large industrial volumes
  - Lower environmental footprint and emissions
  - Unique unmilled graphite is also recovered for sale.
- Note the photo below - Talga's unprocessed natural ore* (right) has similar characteristics to highly purified synthetic graphite (left), enabling a simpler, lower cost process to graphene.

Processed
Synthetic graphite
99.9% Cg

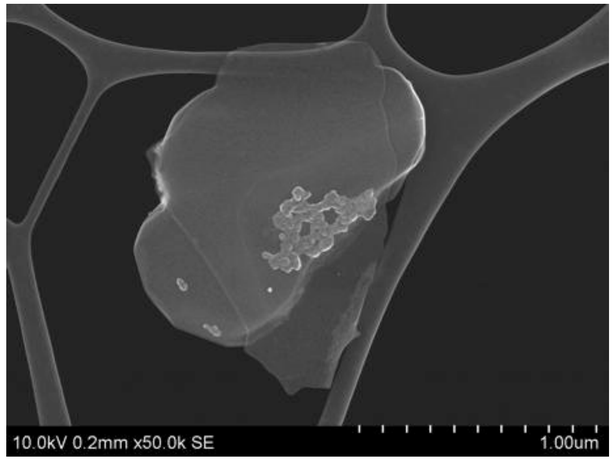


Unprocessed
Raw Vittangi ore
24.4% Cg

*See Scoping Study released to ASX 9 October 2014 and Cautionary Statement in Appendices.

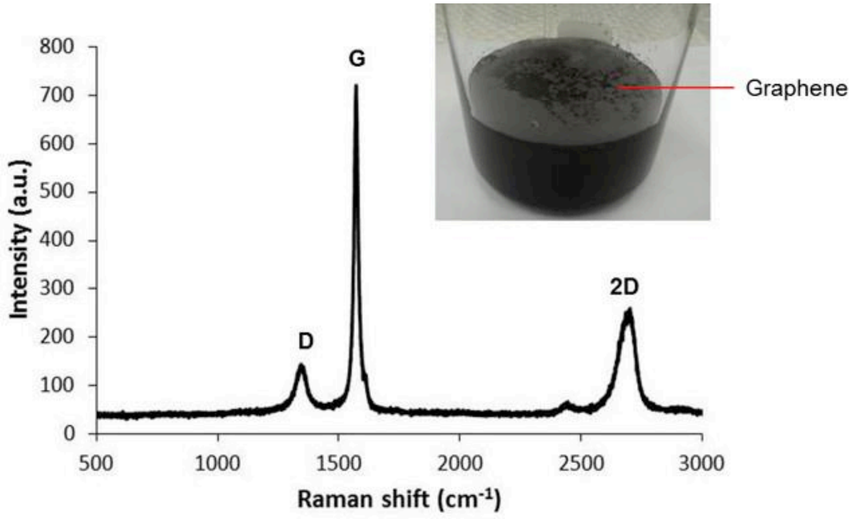
Graphene direct from natural ore

- Three universities across two countries plus CSIRO work confirms Talga produces **high quality** 1-5 layer graphene (FLG) directly from raw natural rock (unprocessed ore*).
- By not using 'Hummers' or Shear-based methods Talga graphene retains low defects (Id/Ig ~< 0.2) and large particle size.
- Can be modified and optimised for different layer/quality specs to suit full range of current and future applications.
- Graphite flakes are uniquely microsized without milling and show expanded morphology of interest for battery materials.

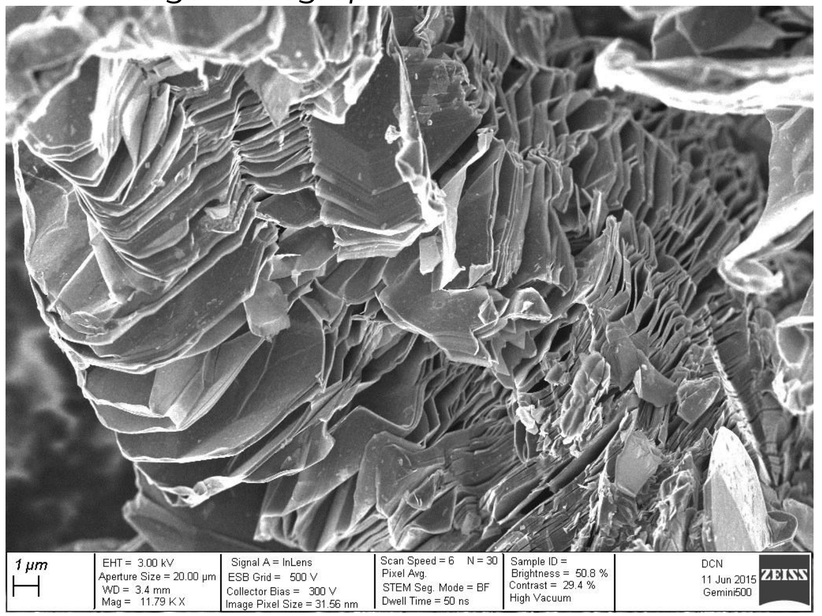


Talga graphene

Talga maiden test graphene raman result



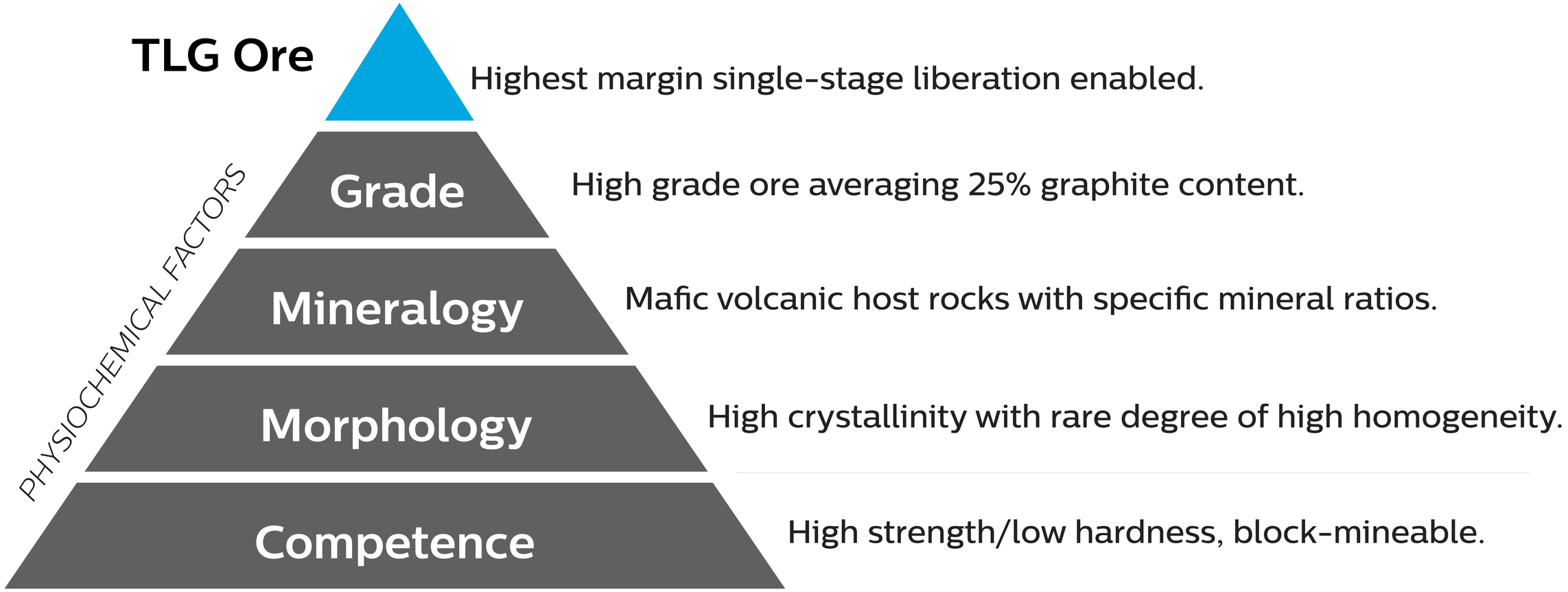
Talga micrographite



*See Scoping Study released to ASX 9 October 2014 and Cautionary Statement in Appendices. Other sources see TLG ASX releases 19 Feb 2015 and 23 Jun 2015.

Why Is The Talga Approach Unique

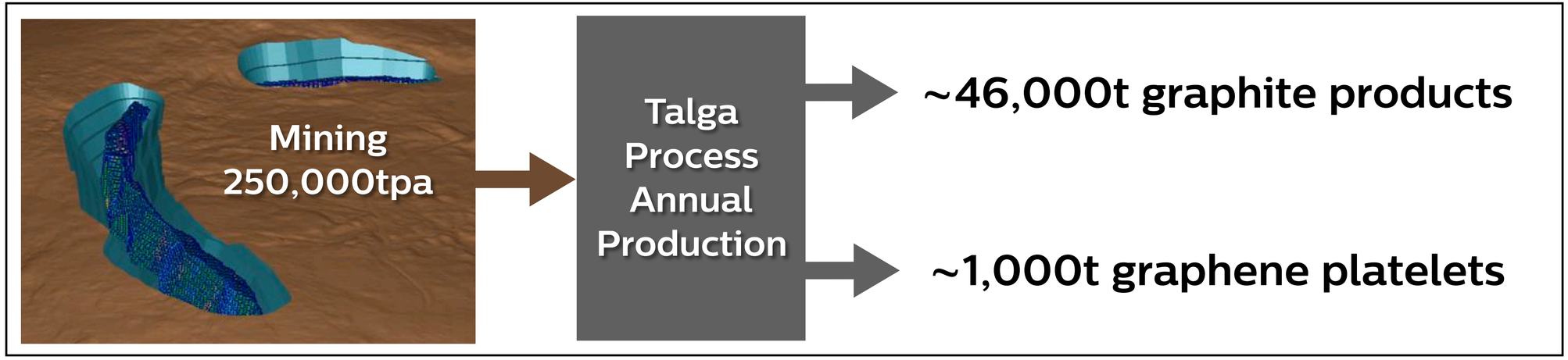
- Graphite is made from layers of graphene so in theory anyone can produce graphene in a laboratory - but at what volume and cost? Talga ore* is differentiator.
- Talga's production process unlikely to work on other deposits due to multiple physio-chemical factors required for raw ore to liberate graphene without physical comminution.



*Details see Scoping Study released to ASX 9 October 2014 and Cautionary Statement in Appendices

Production/Business Model

- Talga uses innovative mining and manufacturing techniques aiming to disrupt the graphite and graphene supply chain in cost and performance, while minimising environmental footprint.
- Current aim to sell bulk graphene and graphite to large end users developing applications for nanoplatelets and micrographite (additives to coatings, inks, battery electrodes).
- Economic study* shows Vittangi project:
  - **Capital cost** AUD$29m
  - **Minelife** ~20yr
  - **Pre-tax NPV[12]** AUD$490m using US$55/kg graphene price on lowest production model



*Details see Scoping Study released to ASX 9 October 2014.

Full Scale Plant Principles (Video)

*See Scoping Study released to ASX 9 October 2014.

Development Status

- Lab and Benchtop scale trials complete.
- Trial mining underway.
- Pilot plant commissioning imminent.
- Upscaling to produce commercial scale samples for product development and potential sales.
- Focus now on commercial relationships to place upcoming graphene and graphite production.
- 2016 trial mining to be expanded; permitting complete.
- Future full scale processing planned to take place in Sweden; permitting commenced.

Vittangi trial mining graphite blocks. Details see TLG ASX release 20 July 2015.

Trial Mine (Video)

Vittangi trial mining graphite blocks. Details see TLG ASX release 20 July 2015.

Pilot Plant Site – Rudolstadt, Germany.

Source see TLG ASX release 18 May 2015, 20 July 2015 and State Development Corporation of Thuringia Presentation 2014

Talga Europe Operations

Local Industry/End users

- Product testing/development
- Use research as interface

Research, Development and Analytics

- JV Uni of Dresden/Max Planck
- Friedrich-Schiller-University Jena

Sweden Operations

Talga Mining P/L filial Sweden

- Trial mining and exploration
- Road/rail ore blocks direct to German operations

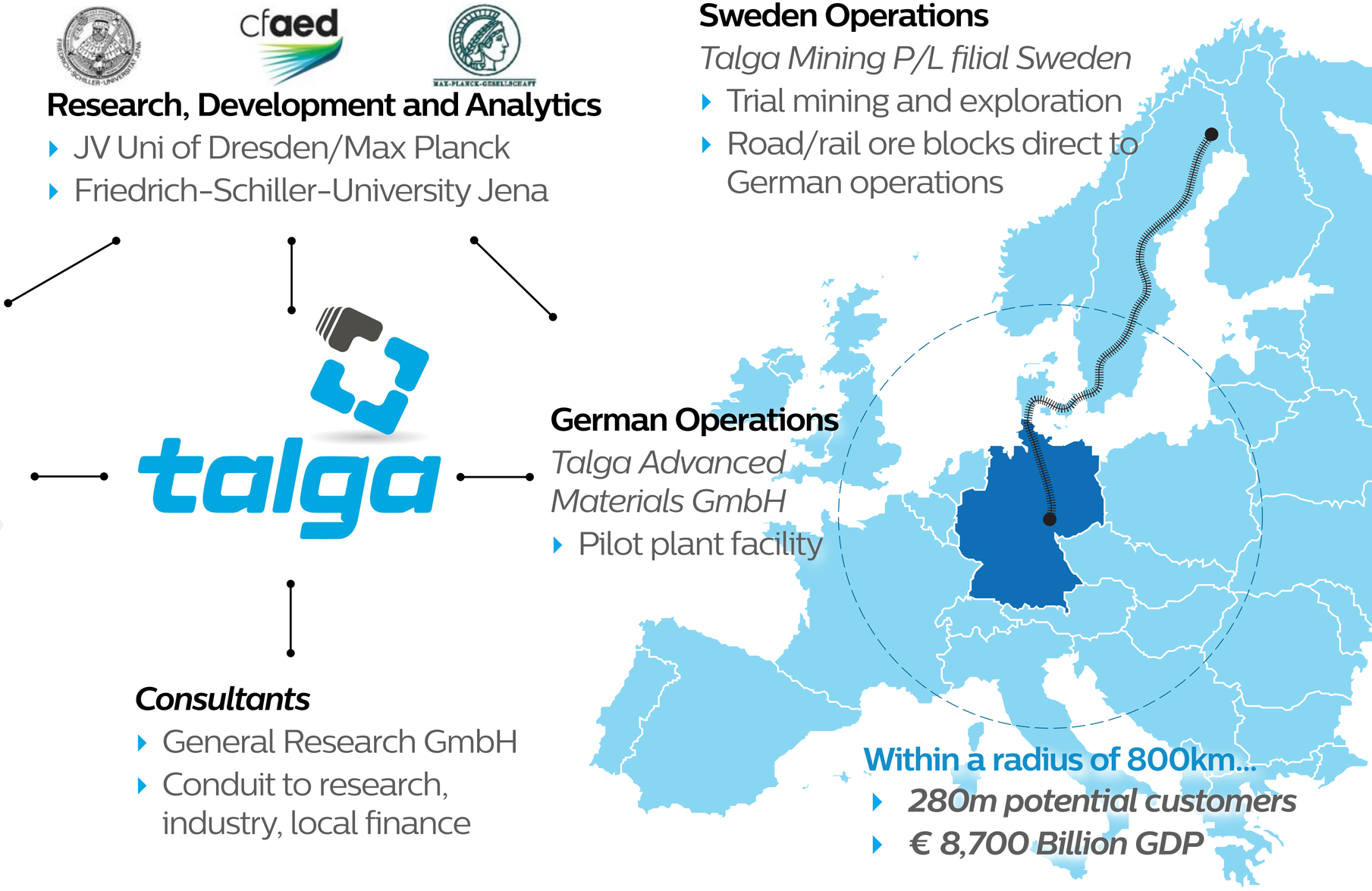
German Operations

Talga Advanced Materials GmbH

- Pilot plant facility

Consultants

- General Research GmbH
- Conduit to research, industry, local finance



Source for Data and Companies operating facilities near proposed pilot plant location: State Development Corporation of Thuringia Presentation 2014

Milestones on path to full-scale Production

Jan-Jun 2015

- Environmental permitting for trial mining - ***complete***
- Gold asset divestment
- Exploration - test Jalkunen Exploration Target[2] for JORC resource - ***drilled***
- Select site for Pilot Plant - ***complete***
- Ongoing euro-based research and end-user collaboration results
- Ongoing metallurgical development

Jul-Dec 2015

- Phase 1 pilot plant operating in Germany
- Distribution of larger commercial samples
- Ongoing product development with end users
- IOCG/exploration assets divestment
- Jalkunen maiden resource - ***imminent***
- Ongoing permitting for full scale production in Sweden

Jan-Jun 2016

- Phase 2 pilot plant operating
- Phase 3 pilot plant design and engineering
- 2016 trial mine expansion - ***permitted***
- Ongoing commercial developments with end users.
- Ongoing permitting for full scale production in Sweden

[2] See Appendices Note 2

Investment Highlights

- World's highest grade# graphite resource – 100% owned.
- Truly unique ore that facilitates simple high margin industrial scale production of graphene and graphite.
- High quality mining and logistics jurisdiction.
- Immense growth profile of multiple deposits and product applications. Less than 2% of the graphite formation explored to date.
- Developing advanced materials company integrating both mining and high growth technology markets.
- Small full scale capex requirement, trial mining and processing underway.

Demonstration - Talga's graphite deposits are naturally conductive enough for a small battery to power lightglobes through the unprocessed ore

see http://www.techmetalsresearch.com/metrics-indices/tmr-advanced-graphite-projects-index/

Appendices- Graphite Resources[1] and Targets[2]

Nunasvaara *Mineral Resource (10% Cg low cut-off Nov 2012)*

Classification	Tonnes	Graphite (%Cg)
Indicated	5,600,000	24.6
Inferred	2,000,000	24.0
Total	*7,600,000*	*24.4*

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

Classification	Tonnes (Mt)	Graphite (%Cg)
Indicated	3,400,000	7.3
Inferred	900,000	6.4
Total	*4,300,000*	*7.1*

JORC Exploration Targets [2]

Project	Exploration Target	Tonnes (0-100m Vertical Depth)		Graphite (% Cg)	
		Min.	Max.	Min.	Max.
Vittangi	Nunasvaara	62,400,000	93,600,000	20	30
	Kotajärvi	16,640,000	30,160,000	20	25
	Maltosrova	20,800,000	52,000,000	20	25
Jalkunen	Jalkunen	13,000,000	26,000,000	20	25
	Tiankijokki	2,600,000	5,200,000	15	25
	Nybrännan	5,200,000	10,400,000	20	30
	Suinavaara	2,600,000	5,720,000	15	25
	Lautakoski	26,000,000	52,000,000	15	25
	Subtotal	149,240,000	275,080,000	19	27
	Rounded Total	*150,000,000*	*275,000,000*	*18*	*25*

1 Note: This information was prepared and first disclosed under the JORC code 2004. It has not been updated since to comply with the JORC code 2012 on the basis that the information has not materially changed since it was last reported. The Company is not aware of any new information or data that materially affects the information included in the previous announcement and that all of the previous assumptions and technical parameters underpinning the estimates in the previous announcement have not materially changed.

2 Note: The Exploration Target is based on a number of assumptions and limitations with the potential grade and quantity being conceptual in nature. There has been insufficient exploration to estimate a Mineral Resource Estimate in accordance with the JORC Code and it is uncertain if future exploration will result in the estimation of a Mineral Resource.

Appendices - References

References

a) Lucintel - global polymer industry 2012_2017 trends forecast June 2012 b) Fullerex Graphene Report 2014 c) McKinsey Global Report 2013 “Disruptive technologies: Advances that will transform life, business, and the global economy” d) www.Directa-plus.com/applications/ e) www.paintsquare.com/news/images/Paint-Market-chart-500px-new.gif f) any data not specifically referenced is based on personal communications with industry participants where appropriate and/or unpublished technical research. #) see http://www.techmetalsresearch.com/metrics-indices/tmr-advanced-graphite-projects-index/

Cautionary Statement

The scoping study referred to in this report is based on low level technical and economic assessments, and is insufficient to support estimation and economic assessments, and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or to provide certainty that the conclusion of the scoping study will be realised. The Company confirms that all material assumptions and technical parameters underpinning the scoping study results and projections in this release continue to apply and have not materially changed. The use of the word "ore" in the context of this report does not support the definition of 'Ore Reserves' as defined by the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. The word 'ore' is used in this report to give an indication of quality and quantity of mineralised material that would be fed to the processing plant and is not to assumed that 'ore' will provide assurance of an economic development case at this stage, or to provide certainty that the conclusion of the scoping study will be realised.

Competent Person’s Statement

The information in this report that relates to Exploration Results is based on information compiled and reviewed by Mr Mark Thompson, who is a member of the Australian Institute of Geoscientists. Mr Thompson, an employee of the Company, has sufficient experience which is relevant to the activity which is being 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 Thompson consents 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 2012 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.