

QUARTERLY ACTIVITIES REVIEW FOR THE PERIOD ENDING 31 MARCH 2018

Talga Resources Ltd

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Corporate Information

ASX Codes **TLG, TLGOA**

Shares on issue **203.2m**

Options (listed) **44.7m**

Options (unlisted) **32.8m**

Company Directors

Terry Stinson

Non-Executive Chairman

Mark Thompson

Managing Director

Grant Mooney

Non-Executive Director

Stephen Lowe

Non-Executive Director

Ola Mørkved Rinnan

Non-Executive Director

OVERVIEW

Australian advanced material technology company, Talga Resources Ltd (**ASX:TLG**) (“**Talga**” or “**the Company**”) is pleased to report its activities for the quarter ending 31 March 2018. Talga is building a business based on commercialisation of its Swedish raw graphite and graphene materials for sale to worldwide markets, with the strategy of developing ‘fit for purpose’ products within four prime global industry sectors - namely; Coatings, Composites, Construction and Batteries.

SUMMARY

Talga Managing Director Mark Thompson commented: *“The March quarter has represented one of the Company’s most progressive periods, highlighted by the MoU with Bosch and deals with other industrial partners. The calibre of such leading companies further validates Talga’s combination of global leading graphite assets and vertically integrated graphene technologies.*

This follows Talga’s value investing in R&D capability, graphene functionalisation and dispersion technology, and establishing direct commercial pathways to ensure long term success. The Company is now uniquely positioned to capitalise on the unprecedented global demand for lighter, stronger, multi-functional and environmentally positive materials.

The quarter also marked an increased level of industrial enquiries for battery materials derived from our unique Swedish graphite. This market pull led to meetings with end-users including major automotive OEM’s, and a clear message of their rapidly growing battery supply demands, both in current and new generation battery technologies. The price of some base anode graphite specifications rose strongly during the quarter.

Tests of larger scale ‘pouch’ type Li-ion battery cells using Talga micrographite from our low cost mine-to-product technology are underway. Note that these are not base materials but final electrode coatings, akin to a commercial anode supplier, and we look forward to advancing market discussions utilising the new pouch cell results.

Talga has more than sufficient technical and mineral resources to capture significant share of both the fast growing battery graphite market and emerging and disruptive industrial graphene markets. We look forward to updating the market on a range of product, corporate and commercial advances in the period ahead.”



Highlights of the March quarter included:

COMMERCIAL DEVELOPMENT

- Executed MoU with **Bosch**
- Binding commercial supply and development agreement with UK-based **Haydale** on supply of graphene and graphite materials for conductive ink products, with agreed pricing
- Binding agreements executed with Innovate UK 'Faraday Battery Challenge' program partners including **Jaguar Land Rover, Johnson Matthey, Croda, Faradion, PV3, Cambridge University and Warwick Manufacturing Group**

PRODUCT & PROCESSING DEVELOPMENT

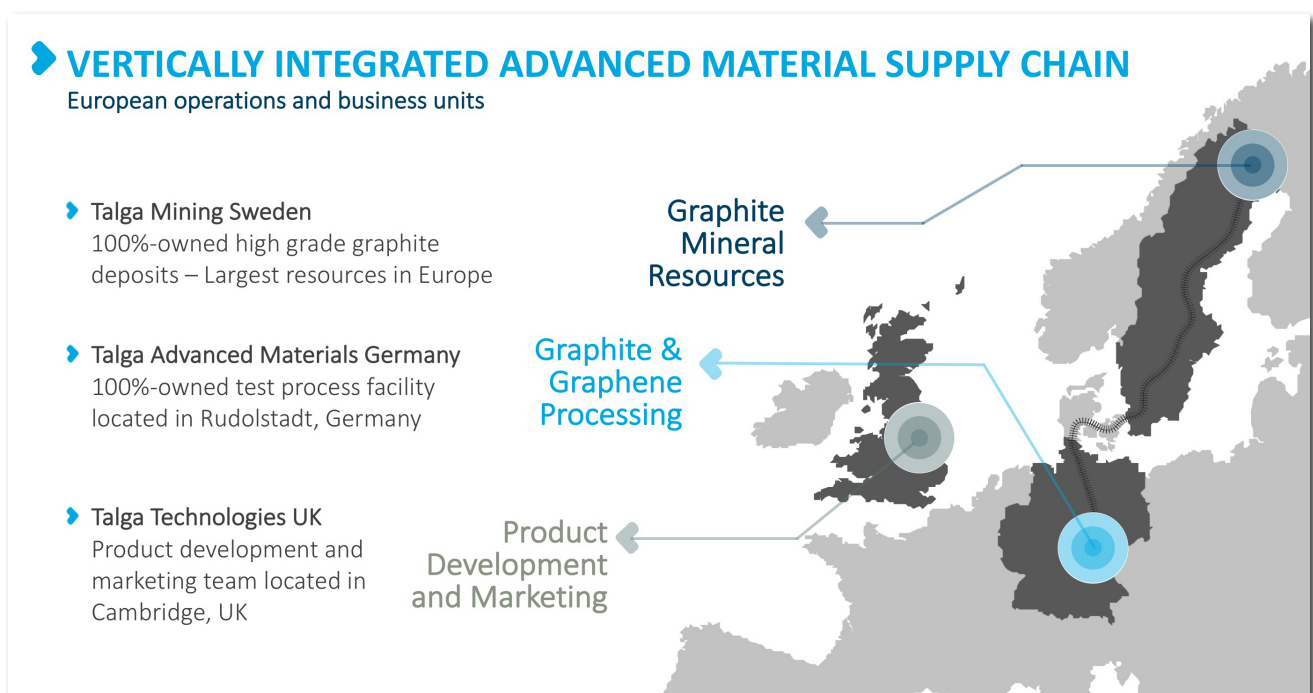
- Appointed leading UK-based graphene technology and program manager, Dr Anna Motta, to head up Talga's global product research and development
- Appointed ex-Toyota battery scientist Dr Claudio Capiglia as "Director of Battery Technologies"
- Commenced graphene in epoxy testwork at the leading R&D institute TWI, covering a multitude of graphene product developments
- Finalised installation of Phase 3 test process plant at Talga's own Rudolstadt test plant in Germany, with commissioning underway and progressing into the next quarter

MINERAL PROJECT DEVELOPMENT & EXPLORATION

- Further advancement on Swedish cobalt-copper-gold projects
- Extended option for sale of Australian gold project

CORPORATE & INVESTOR RELATIONS

- Expanded operational and management team with staff appointments and consultancy agreement for Chairman to take larger role
- Presentations at Goldman Sachs Battery Day - Sydney, IDtechX - Berlin and presence at customer conferences JEC World Composites - Paris and LOPEC Printed Electronics - Munich
- Proceeds from exercised options in quarter totalling \$412,365
- End of quarter cash balance of **\$12.15 million**



COMMERCIAL DEVELOPMENT

MOU with Bosch – German-based multinational engineering and electronics company

This quarter saw Talga announce the execution of a non-binding Memorandum of Understanding (“**MoU**”) with Robert Bosch GmbH (“**Bosch**”) (ASX:TLG 5 Feb 2018). Due to commercial confidentiality, the Company is not able to reveal further details of the MoU, but is pleased that a company as prestigious as Bosch recognises Talga’s strengths in graphene manufacture and dispersion technology, with a view of partnering with Talga to achieve its goals.

Bosch is a privately-owned engineering and industrial technology conglomerate that is recognised as the world’s largest supplier of automotive components. Bosch has 450 subsidiaries and regional companies in more than 60 countries, with sales and service partners in roughly 150 countries and sales revenue of ~€73.1 billion in 2016. During the same period, Bosch spent approximately €7 billion on research and development.

Agreement for industrial application transparent conductive ink products in Asia

During the period, Talga entered a binding commercial supply and development agreement (“**the Agreement**”) with UK-listed company, Haydale Limited, for the production, marketing and sale of graphene-based transparent conductive ink products for industrial applications in Asia (ASX:TLG 17 Jan 2018).

The Agreement followed successful trials of Talga materials in producing Haydale’s ‘PATit’ anti-counterfeiting graphene-based printing ink, where invisible codes can be read using a touch screen device such as a mobile phone. Talga’s material outperformed the electrical conductivity of synthetic graphite inks by 15% or more.

PATit inks are aimed at governments and manufacturers seeking to protect brands and curb income loss to counterfeit goods in markets ranging from tobacco, pharmaceuticals and medicine to food and beverage (Fig 1).

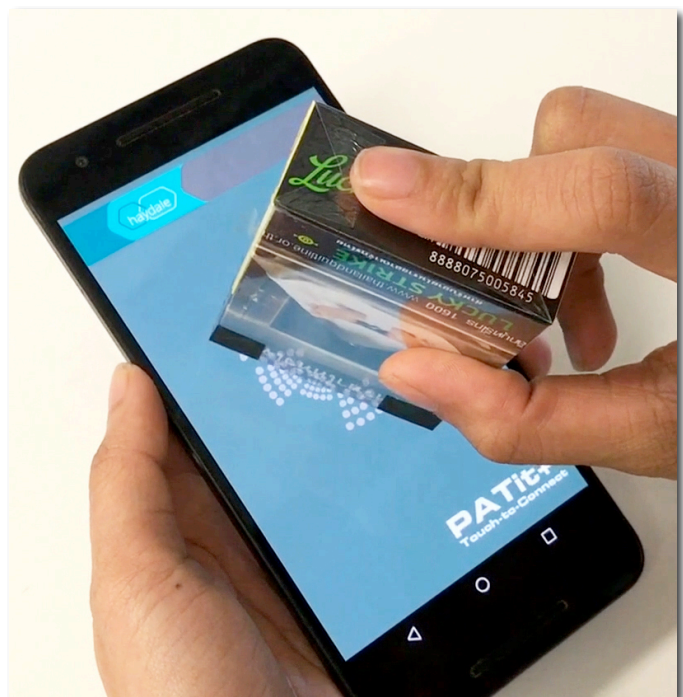
According to IDTechEx, the current market value for conductive inks is estimated to be more than US\$2.3 billion across a wide range of printed applications including photovoltaics, circuit boards, biomedical sensors, RFID tags, touch screens, automotive, food and beverage packaging and many more.

Current conductive inks are made with carbon black, copper and silver, with the key players including DuPont, Henkel, Agfa, Heraeus, Johnson Matthey, Novacentrix, Sun Chemical and others.

Graphene has the potential to substitute into this supply chain as it can be transparent in addition to conductive, plus graphene is non-metallic and can be cheaper in effect than some materials (lower loading for the same conductivity).

The commercial agreement allows Talga and Haydale to leverage one another’s technologies, facilities and customer relationships, with a focus on emerging graphene opportunities in Asia, and includes agreed pricing. The initial materials have been delivered to Haydale’s Thailand operations and a further order has been received under the agreement.

Figure 1. Demonstration of Haydale’s PATit conductive ink and technology. Invisible codes printed on packaging can be read via touch screen devices, making a secure, low cost and easy to use system against counterfeiting.



Binding agreements with Faraday Battery Partners

During the quarter, Talga's UK subsidiary, Talga Technologies Limited, located in Cambridge, executed formal collaboration agreements with its industrial and R&D consortium partners on three granted UK Government Faraday Challenge ("**Faraday**") battery programs (ASX:TLG 26 Mar 2018).

Talga's Faraday program partners include automotive company, Jaguar Land Rover, battery material suppliers, Johnson Matthey and Croda, cell technology companies, Faradion and PV3, along with leading UK institutions, Cambridge University and Warwick Manufacturing Group.

UK funding for the programs will financially assist Talga is developing its graphite and graphene battery technologies in the three following projects:

1. Sodium-ion batteries for automotive power applications (Sodium)

Under the program, Talga will develop and supply the battery anode to enable safe, light and low-cost sodium-ion technology to replace current 12-volt lead-acid batteries with less environmental impacts of manufacture and recycling.

2. Safe High Voltage EV battery materials (Safevolt)

Aims to achieve a significant increase in the driving range of EVs by improving the energy density, weight, cost and safety of Li-ion battery cells. This Talga-led program will develop graphene-silicon hybrid and graphene-metal alloy anode materials to match high voltage cathode materials and novel electrolytes.

3. Supply Chain Accelerator for Li-ion electrode materials in the UK (Scale Up)

Under this Talga-led program, the Company will develop economic and cost-effective manufacturing processes for high energy density cathode (NMC) and anode materials (graphitic carbon) respectively in the UK.

PRODUCT AND PROCESSING DEVELOPMENT

Appointment of UK-based Research and Development Manager

During the quarter, Talga appointed Dr Anna Motta as the Company's "Research and Development Manager" and welcomed her to its growing senior management team.

Dr Motta, a leading graphene program and technology manager, has previously held science and management roles in carbon nanomaterial programs at Helsinki University of Technology and the University of Cambridge (ASX:TLG 1 Feb 2018).

More recently, she held the position of Project Manager and Technology Transfer Officer for the Cambridge Graphene Centre ("**CGC**") with oversight of academic and industry collaborations across a large portfolio of UK-EU graphene projects and funding programs.

The appointment was coordinated with the assistance of the CGC and Dr Andrea Ferrari, as part of an ongoing close cooperation between Talga and CGC in taking graphene from the laboratory to the marketplace.

Figure 2. Light-weighting is a growing trend in vehicles that are to rely more on battery power storage than fossil fuels. Stronger and lighter carbon fibre reinforced plastic (epoxy resin) can be enabled by graphene dispersions in the resin.



Graphene product developments – including aerospace

Following positive test results of Talga's graphene and dispersion technology for epoxy resins in anti-corrosion coatings (ASX:TLG 24 Nov 2017), a program commenced at TWI near Cambridge towards conductive epoxy resins for the aerospace industry.

The program includes testing to determine if Talga's dispersion technology can enable epoxy resin in carbon fibre composites (Fig 2) to become stronger, and electrically conductive enough to replace copper mesh for lightning strike protection and de-icing in aircraft and wind turbines. The cooperative test results have potential to generate patents and other intellectual property for Talga.

Graphene product development and testing programs continued across all targeted market sectors, from coatings to concrete, with results of some of these programs being expected in Q2. Funds from samples and product developments delivered during the period are expected to be received next quarter.

Commissioning commenced of Phase 3 graphite-graphene test plant at Rudolstadt

Talga's process test facility in Rudolstadt, Germany is designed to achieve a range of objectives which include:

- Pilot process design and engineering validation of new exfoliation process technology for full-scale implementation in Sweden in future;
- Integrating technology providers with automation into the process scale-up;
- Scale-up to support customer development program requirements;
- Implementing process and product quality control for producing a range of different material samples for customers; and
- Maintaining a source of graphene and grades for product development work at Talga Technologies in Cambridge.

During the period, Talga's Phase 3 scale-up at Rudolstadt continued on schedule and on budget, with installation of next generation process cells, pumping and piping systems, automation and controls onto the main platform as well as upgrades to building services and the quality control laboratory.

Figure 3. Phase 3 graphene plant being commissioned in Talga's test process facility Rudolstadt, Germany. For commercial reasons much of the plant will not be pictured.



The new exfoliation cells are a substantial evolution of the original process cell design offering increased speed, yield and using less energy. Dry commissioning is underway (Fig 3), with wet commissioning expected to be completed in Q2.

Operating staff currently remain on day shift only - 5 day week rotation. Allowance has been made in design of the modules to enable expansion to meet demand rates as graphene commercialisation progresses.

The main focus is programs to tailor graphene quality and functionalisation (*fit for purpose*) for target products and markets, to then optimise flow-sheet efficiencies towards feasibility studies and design of future industrial production units.

Payments for major installation items of the Phase 3 plant totalled approximately \$500,000 for the quarter, impacting on the quarterly expenditure as forecast and within budget.

MINERAL PROJECT DEVELOPMENT AND EXPLORATION

Sweden Mineral Projects

Talga continued to advance its cobalt projects in north Sweden with low impact sampling, research and technical work. As the Company's global graphene developments have taken priority, all cobalt work was reduced and various 2017 drill core and rock samples have not yet been assayed, with results expected in Q2. Several non-core tenements forming the Pajala graphite project were relinquished following a review and ongoing tenure rationalisation.

Option extended to purchase Australian gold project

During the quarter Talga extended to June 2018 the option and sale agreement for Torque Metals Pty Ltd to purchase Talga's remaining Australian gold asset, the Bullfinch gold project (ASX:TLG 31 Oct 2017). Non-refundable option and extension fees totalling \$130,000 have been received to date.

Tenement Interests

As required by ASX listing rule 5.3.3, refer to Appendix 1 for details of Talga's interests in mining tenements held by the Company. No new joint ventures or farm-in/farm-out activity occurred during the quarter.

Figure 4. Benchmark Minerals graphite prices Jan-Mar 2018 for spherical uncoated <10 micron 99.95% C graphite concentrate FOB China. This is base material requiring coating and other treatment to form Li-ion battery anode material the equivalent of what Talga is making and testing at WMG.

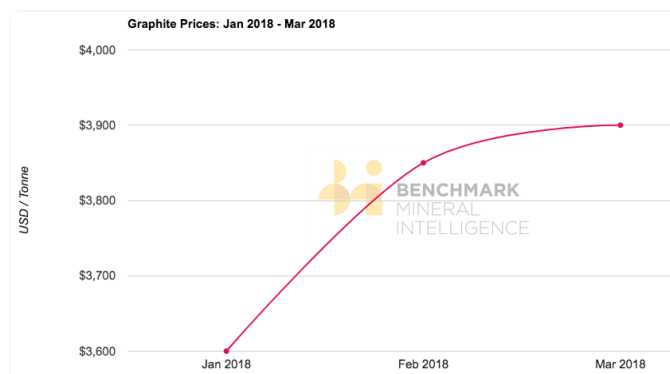


Figure 5. Talga's Chairman Mr Terry Stinson (left) and Managing Director Mr Mark Thompson (right) with Haydale's CEO MR Ray Gibbs at JEC World Composites conference in March 2018.



CORPORATE AND INVESTOR RELATIONS

Expanded technical and operational role for Talga Chairman

Subsequent to the reporting period and in response to the Company's rapidly growing international customer list, Talga announced the execution of a consultancy agreement with its Chairman, Mr Terry Stinson, which sees him take on a much expanded and active role focusing on the commercial and R&D business of the Company's operations (ASX:TLG 9 Apr 2018).

Mr Stinson, a well-respected technology executive, will leverage his experience with international automotive, marine and aerospace companies such as Siemens, Mercury Marine, BMW, Mercedes, VW, Boeing and many others, to progress Talga's strategic, IP and commercial activities. He will also provide further leadership within the Company's European operations.

Staff and management appointments

Post the end of the quarter, and in response to the rapid growth of Talga in its commercial engagements, together with the scale-up of the Company's operational divisions in Europe, the Company announced a number of staff and management appointments.

New appointments include that of Dr Claudio Capiglia as Talga's "Director of Battery Technologies" Talga Technologies Limited UK. Dr Capiglia is a former Senior Scientist for Toyota's Solid-state battery technologies for Hybrid Electric Vehicles (HEVs) and brings more than 20 years' experience in the Li-ion battery industry.

Other additions to the UK division included the appointment of Dr Karanveer S. Aneja as "Senior Scientist - Materials" specialising in graphene coatings products. Dr Aneja joins Talga from the Indian Institute of Technology - Mumbai where he completed his PhD in graphene based coatings and was a 'Prime Minister's Fellowship' scholar in science and technology.

In Talga's Perth office, Ms Nikki Löf has been appointed the Company's "Marketing & Investor Relations Coordinator".

Recruitment for positions in sales, marketing and customer relations to be based in the UK have been progressing along with additional operational and technical staff across the Company's operations. To support Talga's recently awarded Faraday projects, additional scientists, lab technicians and other support staff are also currently being recruited.

Outreach

Talga was invited to present at Goldman Sachs Battery Day - Sydney on the subject of graphite and graphene in current and newer generation batteries.

The Company also exhibited its graphene technology, where Talga's COO Mr Martin Phillips presented at IDTechEx - Berlin.

Figure 6. Conductive inks such as graphene can make flexible printed solar 'panels' and batteries, enabling the powering of mobile devices and other functions in 'wearables'.



Furthermore Talga had a presence at customer development events including the world's largest composites show JEC World Composites in Paris (Fig 5) and the LOPEC Printed Electronics workshops and exhibition in Munich (Fig 6). Significant customer and investor interest was generated at these events.

Proceeds from Shares and Options

During the reporting period, Talga sold 90,000 shares in TSX Venture Exchange-listed Novo Resources Corp (TSX-V: NVO) ("**Novo**") through on-market transactions for cash consideration of \$501,208 (net of brokerage fees). The sale followed a material gain in the market value of the shares since receiving them as part of the sale of Talga's Pilbara gold projects in 2016. Talga retains 90,115 shares in Novo.

The quarter saw Talga receiving notices to exercise listed and unlisted options with proceeds totalling \$412,365.

Cash Balance

Talga closed the March quarter with \$12.15 million cash-in-bank and at the close of the ASX on Friday 27 April 2018, was capitalised at approximately \$148 million on an undiluted basis.

For further information, visit www.talgaresources.com or contact:

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About Talga

Talga Resources Ltd ("Talga") (ASX: TLG) is an advanced material technology company enabling stronger, lighter and more functional graphene and graphite enhanced products for the multi-billion dollar global coatings, battery, construction and carbon composites markets. Talga has significant advantages owing to 100% owned unique high grade conductive graphite deposits in Sweden, a test processing facility in Germany and in-house product development and technology. Joint development agreements are underway with a range of international corporations.

No New Information

To the extent that announcement contains references to prior technical information, exploration results and mineral resources; these have been cross referenced to previous market announcements made by the Company. These had been disclosed to JORC 2012 standard. Unless explicitly stated, no new information is contained. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements that assumptions and technical parameters underpinning the relevant market announcement continue to apply and have not materially changed.

APPENDIX 1

Tenement Holdings

Project/Location	Tenements	Interest at end of quarter	Acquired during quarter	Disposed during quarter
Ahmavuoma Project Norrbotten County, Sweden	Ahmavuoma nr 3	100%		
	Ahmavuoma nr 4	100%		
	Ahmavuoma nr 5	100%		
Aitik East Project Norrbotten County, Sweden	Suorravaara 2	100%		
	Suorravaara 3	100%		
	Suorravaara 4	100%		
Jalkunen Project Norrbotten County, Sweden	Jalkunen nr 1	100%		
	Jalkunen nr 2	100%		
	Jalkunen nr 3	100%		
	Kursuvaara	100%		
	Nybrännan nr 1	0%		100%
	Nybrännan nr 2	100%		
	Tiankijoki nr 1	0%		100%
Kiskama Project Norrbotten County, Sweden	Kiskama nr 1	100%		
Lautakoski Project Norrbotten County, Sweden	Jukkasvaara nr 2	100%		
	Lautakoski nr 1	100%		
	Lautakoski nr 2	100%		
	Lautakoski nr 3	100%		
	Lautakoski nr 4	100%		
	Piipiönjoki nr 1	100%		
	Suinavaara nr 1	100%		
	Suinavaara nr 2	100%		
	Suinavaara nr 3	100%		
Suinavaara nr 4	100%			
Masugnsbyn Project Norrbotten County, Sweden	Masugnsbyn nr 101	100%		
Pajala Project Norrbotten County, Sweden	Lehtosölkä nr 3	0%		100%
	Liviövaara nr 2	0%		100%
Piteå Project Norrbotten County, Sweden	Grålidén nr 2	100%		
	Önusträsket nr 2	100%		
Raitajärvi Project Norrbotten County, Sweden	Raitajärvi nr 5	100%		
Vittangi Project Norrbotten County, Sweden	Maltosrova nr 2	100%		
	Maltosrova nr 3	100%		
	Mörttjärn nr 1	100%		
	Nunasvaara nr 2	100%		
	Vathanvaara nr 101	100%		
	Vittangi nr 2	100%		
	Vittangi nr 3	100%		
	Vittangi nr 4	100%		
Bullfinch Project Western Australia	E77/2139	100%		
	E77/2221	100%		
	E77/2222	100%		
	E77/2251	100%		
	E77/2350	100%		
	P77/4106	100%		