

# TOMORROW'S MATERIAL. TODAY.

Applied Graphene Materials plc  
Interim Report for the six months ended 31 January 2018





**At Applied Graphene Materials we work in partnership with our customers using our knowledge and expertise to provide bespoke graphene dispersions and formats to deliver enhancements and benefits for a wide range of applications where we can deliver maximum value.**



**Our mission** is to become a world leader in the supply of graphene formatted for specific customer applications



**We aim to create value for shareholders** through improving the performance of our customers' materials and products

## Operational highlights

- Significant commercial progress within the coatings sector with a number of key customers:
  - HMG Paints Limited successfully completed real world trials in conjunction with a key customer;
  - James Briggs Limited, in conjunction with Applied Graphene Materials (AGM), is continuing an accelerated product development programme with a view to early market exploitation of graphene; and
  - good progress with other key accounts governed by strict confidentiality.
- Increasing commercial momentum in the composites sector, including:
  - Magna Exteriors, a tier 1 automotive supplier, looking to incorporate AGM's graphene into products following the successful launch of the Fenyr supercar;
  - further sector penetration of graphene-enhanced products into new markets by SHD Composites Limited; and
  - collaboration programme with Airbus Space and Defence has been extended to incorporate additional applications. Adoption still anticipated in 2018.
- Customer launches Graphenics® range of oil based products to target customers.
- Structural Ink® programme is making significant progress with test printing and evaluation ongoing.
- Launch of **Genable®**, a range of products specifically designed for the coatings industry.
- Further patent applications filed for AGM dispersions.

## Financial overview

- **EBITDA\***  
Loss of £2.0 million (2017: loss of £2.0 million).
- **Loss before tax**  
Loss of £2.3 million (2017: loss of £2.1 million).
- **Cash at bank**  
£12.0 million (2017: £5.6 million).
- **Diluted EPS**  
Loss of 6.4 pence per share (2017: loss of 9.3 pence).
- Completion of placing and open offer raising £9.77m (before expenses) of funds for the business.
- Successfully secured two separate grants relating to the development of graphene based products.
- \* EBITDA comprises loss on ordinary activities before interest, tax, exceptional costs, depreciation and amortisation.

## Overview

- 1 Highlights
- 3 Business review
- 7 Financial review

## Financial information

- 10 Consolidated income statement and statement of comprehensive income
- 11 Consolidated statement of changes in shareholders' equity
- 12 Consolidated balance sheet
- 13 Consolidated cash flow statement
- 14 Notes to the interim report



Visit us online at  
[appliedgraphenematerials.com](http://appliedgraphenematerials.com)

# A LEADING INNOVATOR

## Why invest?

### Globally

- Increased graphene awareness
  - 2004 discovery
  - 2010 Nobel Prize awarded
- Increased investment
  - 5,000 patents filed in the US, Korea and China
  - €1.0bn in EU funding
- Developing market
  - 2013 Head tennis racquet launched
  - 2017 graphene prosthetics launched

### Applied Graphene Materials

- Development of in-house production capability
  - Commercial plant built
  - A-GNP35 introduced
- Development of technical expertise
  - Structural Ink® launched
  - Creation of databases
- Increasing customer engagement
  - +220 dispersed samples supplied in 2016/17
  - Production orders received

## Our strategy



Increase manufacturing capacity and produce high quality graphene



Maximise our margins through dispersions



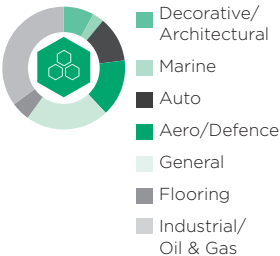
Establish customer relationships



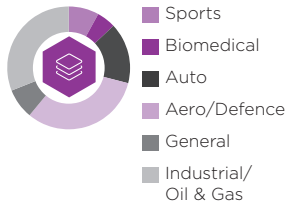
Generate revenues from the supply of graphene

## Number of engagements in our core sectors

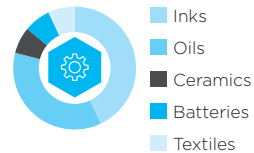
### Coatings



### Composites



### Functional materials



# EXCITING NEW APPLICATIONS

## Summary

- We remain focused on our core markets of coatings, composites and functional materials. We are seeing increasing velocity as our customers look to commercialise products containing graphene
- Within the coatings sector HMG completed real world trials with a key customer, who is now looking to launch a product
- Magna Exteriors, a tier 1 automotive supplier, incorporated AGM's graphene into one of its products and is now looking to incorporate AGM's graphene into additional products
- Puraglobe launches Graphenics® range of oil based products containing AGM graphene
- Although the ultimate decision on the timing of any product launch rests with our customers, with over 100 active engagements, many of which are demonstrating real progress, we remain confident that the vast majority of these will materialise into real growth

## Overview

In the first six months of this financial year, the business has made significant operational progress and is in an excellent position to further capitalise on the strong commercial pipeline it has built. With over 100 active customer engagements, we are now making notable progress on multiple collaborations. Following the first production orders in 2017, SHD Composites has continued to expand sales of its own products containing graphene into sports goods, medical components and most recently the automotive sector, with customers including Magna International, a leading global automotive supplier. Our relationship with Airbus Space and Defence has been extended to include a second material qualification and we expect both products to be used on satellites in outer space, with first flight applications scheduled for later this year.

The speed of market penetration and timing of product launch are ultimately dependent on our customers' qualification and adoption timeframes for products containing graphene. However, as we continue to see greater market traction we believe our collaborative approach will support sustainable growth for a high-margin business.

With the launch of Structural Ink® we have a material technology which we can sell directly to end specifiers. In March, this was showcased at the JEC World Exhibition in Paris, the premier composites show attended by over 42,000 visitors from 115 countries, where it was clear that graphene is now consistently featured in composites innovation. The demonstration equipment generated significant interest across a spectrum of industries, from F1 to aerospace and wind energy to sports goods. As we scale this up further over the next few months, we expect to be in a position to start selling composite materials printed with graphene to customer specifications from a pilot plant to customers during 2018.

AGM remains singularly focused on exploiting the application technology arising from its proprietary manufacturing processes and graphene formulation know-how. We have continued to invest in our raw material production facility and in our dispersion methods. To this end we have extended our patent portfolio based around specific applications of graphene in corrosion prevention. We have focused on formatting our products, such that they are more readily adoptable by our customers, and critically providing the data sheets to demonstrate their consistency and stability.





**Overview** continued

In February, we launched a standard range of graphene dispersions called **Genable®**. This is primarily targeted at the coatings industry, and designed to provide paint chemists with a standardised consistent product, underpinned with quantified performance data with which to formulate products containing graphene. This benefit is already being appreciated by the likes of HMG Paints Limited (HMG) and James Briggs Limited (JBL) and we believe will facilitate more rapid adoption of graphene technology in their products.

In November 2017, AGM successfully raised additional investment of £9.77 million (before expenses) which will enable the Company to progress towards financial independence as we commercialise our offering. This was an important step, and the support from both existing and new shareholders was recognition of the progress made to date and demonstrated confidence in our ability to deliver on our potential.

In February 2018, AGM also announced that I will be stepping down as CEO of the Company to retire. The search for my successor is already well advanced and I am confident that, with the strong operational platform and relationships in place and commercial momentum steadily building, AGM will continue to deliver on its strategy. I am pleased to say that the senior management team in place is highly experienced and supported by a very strong commercial and technical team, in which we also invested during the year.

**Commercial progress**

Within our core target market sectors of coatings, composites and functional materials, where we see significant opportunity and where we believe the characteristics of AGM's graphene will deliver the most desirable enhancements, we have continued to develop our commercial pipeline. It is here we also believe that our graphene will add the most value in a non-disruptive manner. We have identified that a graphene loading level of less than 1% by weight in a final product delivers the most compelling material improvements. At extremely low loading levels the customer benefits from minimal intrusion into the rest of the formulation and can afford to put graphene into a broader range of applications than had originally been considered. For us, this means that greater market opportunities are accessible and pricing levels are more robust.

Our focus remains on converting opportunities within the existing pipeline, yet at the same time establishing new joint development agreements and collaborations within our core markets. Whilst the vast majority of our customer engagements remain subject to commercial confidentiality, we

are able to share progress being made by some of the early potential adopters. As we, and our customers, progressively better understand the mechanisms of property translation from the nano- to the macro-level, so too can we both better identify the true potential of graphene. The properties that graphene possesses will support both the substitution of existing additives already being used at much higher loading levels (such as carbon black at 5-30% by weight) and the delivery of additional functionality without negatively affecting other properties, such is the benefit of a highly structured additive with a massive specific surface area.

**Coatings**

Application areas are wide ranging within the coatings sector and include marine, aerospace, automotive, industrial and structure protection. In 2013, the value of the anti-corrosion coatings market was around £8.1 billion worldwide, with primers representing approximately £1.4 billion. We have demonstrated that the inclusion of graphene into existing formulations significantly improves barrier properties, particularly within primer layers and also in hostile environments. Inevitably, once demonstrated, our customers want to replicate this performance in their own products to ensure consistency and reliability in their own specific circumstances, before launching products whose performance they will warrant. Within our pipeline of existing engagements there are numerous customers who are undergoing this type of validation, which in some cases can mean up to 10,000 hours of protection testing.

HMG is one of our customers that has completed this verification work to its satisfaction, and this has resulted in it applying the finished product to real applications. The product has been validated in field tests by one of its key customers and it is now looking to launch the product in the near future. Encouraged by this success, HMG has gone on to engage with other existing customers and is in the process of looking to include graphene in its product range.

AGM and JBL are continuing an accelerated product development programme with a view to early market exploitation of graphene. Under the JDA, JBL will incorporate graphene material into existing paint formulations to deliver higher-performing primers with improved corrosion protection.

AGM has identified that not only is its graphene able to decelerate the corrosion of steel substrates, but also that it is well suited to aluminium and reinforced plastics where moisture ingress causes deterioration of the fibres. This characteristic is

beginning to open up other areas of the coatings market with customers where we already have some engagement.

The usefulness of graphene in coatings is not limited to the primer layer or hostile environments. Due to the mechanical properties of the material some of our customers are discovering that they can reduce film thicknesses and still deliver the same performance. There are multiple benefits to this approach, both in terms of logistics and material costs. We have also seen that the electrical conductivity of coatings can be improved by a small addition of graphene which can deliver benefits in anti-static applications, such as floor coatings and in the e-coat process, used widely in the automotive industry.

## Composites

The composites market is worth in excess of €70 billion per annum, of which over 50% relates to component materials. AGM's management team has in-depth knowledge and strong relationships across the sector where we are vigorously pursuing a multichannel approach. The main driver for inclusion of graphene has been to improve the toughening of the resin matrix, and this can be introduced at various stages. Bulk resin manufacturers are investigating how their materials can benefit from the addition of graphene, as are the intermediate material conversion companies such as prepreggers, resin infusion formulators and pultruders.

SHD Composites Limited has already launched standard prepreg materials and has been supplying these to end users, ranging from a manufacturer of orthotics to sports goods suppliers, and very recently to Magna Exteriors for use on the Fenyr supercar, which was launched at the Geneva Motor Show in March. Encouraged by the performance of the material, Magna, a \$36 billion revenue, tier 1 automotive supplier, in conjunction with AGM, is now looking to take the graphene technology further. The aim of the collaboration team is to build on the baseline mechanical enhancements and ultimately move towards designing many of graphene's multifunctional capabilities on joint development programmes.

A report on a demonstrator aircraft wing section containing AGM graphene by the University of the West of Scotland, which worked in partnership with Spirit Aerostructures and a sector-leading bulk resin and carbon fibre company, has demonstrated significant uplifts in key design parameters of fracture toughness and interlaminar shear strength. The panels were infused using aerospace approved processes and properties measured according to ISO standard testing. The benefits demonstrated will allow designers to rely on higher material

performances and thereby use less materials in construction, which in turn will lead to weight savings and construction cost savings. The augmentation of material properties will benefit all application areas and a Sit-Ski project was run as a technology demonstrator by the UK's High Value Manufacturing Catapult, with components being manufactured by the Advanced Manufacturing Research Centre (AMRC), the Manufacturing Technology Centre (MTC) and the National Composites Centre (NCC). The project applied the latest in UK R&D composite know-how, including the incorporation of AGM graphene, to make the Sit-Ski faster and lighter and, most crucially, to maximise performance.

Structural Ink® is a patented technique which AGM has developed for selectively depositing graphene onto composite materials via traditional printing techniques. This was showcased at the JEC World show in March and created real interest from end users, specifiers and material/equipment suppliers. We are installing at least one demonstration cell at the AMRC in Sheffield in the next few months with a view to having production capacity ready later this year. This will enable us to add graphene to our customers' existing composite materials and be capable of selling turn-key equipment packages to customers where demand is greater. In contrast to being reliant on our customers dictating the timing of adoption in their products, Structural Ink® allows us to sell product directly to specifiers. We are already working under JDAs with a number of businesses including Prodrive Composites, which supplies to the high-end automotive, motorsport, aerospace and leisure goods sectors, and by placing a demonstration cell at AMRC we will have the ideal shop window and ready access to AMRC's impressive membership partners.

Airbus Space and Defence has extended its qualification efforts of a bespoke material for use on its satellites to include a second product that can be used in a broader range of production techniques. Both materials are expected to be used in outer space, with first flight applications scheduled in the second half of this year.

On the back of this work we have launched a new graphene-enhanced thermal paste material – **Genable® 4400**. The new product will be supplied as a two-part epoxy system and is designed for use in thermally conductive applications, either directly as a paste gap-filling system or as a potential base additive to other formulated systems. **Genable® 4400** will provide thermal conductivity and good levels of lap shear strength. We anticipate applications within formulations for bonding, potting, sealing and encapsulation for space, electronics and automotive components.

**Commercial progress** continued  
**Functional materials**

AGM's collaboration with Puraglobe on the exploitation of graphene-enhanced sustainable base oils has now reached the point of commercialisation. Following an extensive development programme and performance testing, Puraglobe has recently launched its Graphenics® range to target customers and is currently engaged in several product development projects, the exact applications of which remain confidential.

Graphenics® is targeted at innovative lubricant technology businesses for applications as broad as gear oil, metal working and driveline fluids. The products are designed to offer finished lubricant manufacturers significant benefits by providing greater protection against friction and wear, which ultimately will extend the lifecycle of parts and reduce the downtime of equipment. This synergistic effect leads to savings in manufacturing and production costs and reduces the demand for replacement parts.

**Technology and manufacturing**

As a technology business it is vital that we continually look to develop our understanding and where applicable look to protect any proprietary knowledge. In September 2017 we were notified that our European patent application in relation to our manufacturing process had been approved. Since then we have continued to develop our understanding in a number of key areas and as a direct result of this work additional patent applications have been filed, specifically in relation to the application processes. Utilising these processes, AGM has the ability to produce nanoplatelets to suit the specific application through our range of manufacturing techniques and formulation know-how. This in turn has a significant impact on the graphene's properties as it enables us to tailor the product in order to optimise the key properties for the application in question.

We continue to refine and where appropriate improve our production processes and continually look to make further progress on production yields. This has enabled us to design a programme that will allow us to expand capacity through the addition of modular units which gives us the potential to better match production capacity to the anticipated levels of demand. This approach is highly flexible and more capital efficient than the expansion process we had originally envisaged. We have established robust control systems and have proven our ability to scale up the processes without detriment to product quality.

**Outlook**

Our primary focus remains the targeting of additional and ever larger production orders as momentum increases towards commercialisation. Putting formatted graphene into our customers' hands which can be readily adopted into their production processes with minimal disruption and deliver performance enhancement benefits is a key element in this approach. The manufacturing excellence and technical know-how we have developed, coupled with the support philosophy which runs throughout the Company, provides us with the cornerstones on which commercial success will be built. We are confident that the business will continue to move forward at an ever-increasing velocity to exploit the significant commercial opportunities offered by our target sectors. Our intent remains to become a global graphene market leader and the Board believes that Applied Graphene Materials remains well placed to meet its ambitions.

**Jon Mabbitt**  
**Chief Executive Officer**  
10 April 2018



# MANAGING GROWTH

## Summary

- Revenue of £0.1 million (2017: £0.1 million) derived from production orders and samples
- EBITDA of £2.0 million (2017: £2.0 million), reflecting ongoing investment in working with commercial partners
- Cash at bank of £12.0 million (2017: £5.6 million), the increase reflecting the additional funds received following the completion of placing and open offer
- Diluted EPS loss of 6.4 pence per share (2017: loss of 9.3 pence per share)

## Revenue

Revenue for the period was £54,000 (2017: £53,000) arising from the supply of production orders of graphene and evaluation quantities of graphene to commercial partners.

## Other income

Other income, which comprises grant income, was £30,000 (2017: £115,000). Grants received related to funding for the development of new graphene applications, with a small amount for the creation of new jobs or the purchase of assets.

## Loss on ordinary activities before tax

A loss on ordinary activities before tax of £2,291,000 (2017: loss of £2,053,000) was recognised. The current year loss includes exceptional costs of £205,000 mainly connected to fees paid in relation to the issue of new shares.

## Loss on ordinary activities before interest, tax, exceptional costs, depreciation and amortisation (EBITDA)

EBITDA for the Group reduced from a loss of £1,957,000 in 2017 to a loss of £1,952,000 for the period ended 31 January 2018. The losses incurred in the period relate to the day to day costs of the business and include the ongoing costs associated with the technical input provided to our commercial partners as they look to evaluate and incorporate graphene into their product lines.

## Exceptional costs

Exceptional costs recognised in the period were £205,000 (2017: £nil). The current year costs principally relate to fees paid in relation to the issue of new shares in that period.

## Net finance income

Net finance income for the period was £20,000 (2017: £22,000).

## Loss on ordinary activities before tax, exceptional costs and amortisation (PBTA)

PBTA for the period increased from a loss of £2,053,000 in 2017 to a loss of £2,086,000 for the period ended 31 January 2018.



**Tax**

The Group has not recognised any tax assets in respect of trading losses arising in the current financial year or accumulated losses in previous financial years. The tax credit recognised in respect of the previous financial year arises from the receipt of R&D tax credits. In due course, the Group expects to receive R&D tax credits in respect of other financial years.

**Earnings per share**

Diluted earnings per share was a loss of 6.4 pence per share (2017: loss of 9.3 pence per share). Adjusted diluted earnings per share (before exceptional costs) was a loss of 5.8 pence per share (2017: loss of 9.3 pence per share).

**Dividend**

No dividend has been proposed for the period ended 31 January 2018 (2017: £nil).

**Cash flow**

Net cash used in operations was £1,998,000 (2017: £2,040,000). During the period, net working capital utilised reduced by £21,000 (2017: increase of £161,000).

Capital expenditure of £132,000 (2017: £272,000) has been incurred in the period mainly relating to the development of the production process and related production assets. Net proceeds arising from the issue of shares totalled £9,369,000 (2017: £145,000).

**Balance sheet**

Net assets have increased to £13,284,000 (2017: £6,682,000), principally reflecting the cash generated from the issue of shares offset by the trading loss for the period.

Cash at bank at 31 January 2018 was £11,961,000 (2017: £5,554,000). Monies are on deposit with a small number of financial institutions for time periods ranging between instant access and up to one year in maturity.

**Accounting policies**

The Group's consolidated financial information has been prepared in accordance with International Financial Reporting Standards as adopted in the EU. The Group's significant accounting policies, which are consistent with those set out in the audited financial statements for the year ended 31 July 2017, have been applied consistently throughout the period.

**Principal risks and uncertainties**

Risk management forms an integral part of the business planning and review cycle. The Directors believe the following risks to be the most significant for potential investors. However, the risks listed do not necessarily comprise all of those associated with an investment in the Group and are not set out in any specific order or priority. Additional risks and uncertainties not currently known to the Directors, or which the Directors currently deem not to be significant, may also have an adverse effect on the Group and the information set out below does not purport to be an exhaustive summary of the risks affecting the Group. The Group's performance could be affected by changes in market or economic conditions and in legal, regulatory or tax requirements.

Broadly, risks are categorised into seven types: strategic and planning; financial and IT; operational and quality; technical; SHE and regulatory; commercial and reputation; and people. Significant risks facing the Group include:

- Acceptance of the Group's products – early stage of operations and acceptance of graphene. The Group is at an early stage of development and the success of the Group will depend on the acceptance and attribution of value to graphene produced by the business. Timescales to the successful development of applications for graphene are significantly determined by the product development cycle of customers. There can be no guarantee that either acceptance of graphene or attribution of value will be forthcoming.
- Intellectual property – the Group's business is based on a combination of patent applications and know-how. The Group's success will depend in part on its ability to maintain adequate protection of its intellectual property and know-how. There is no certainty that patent applications will be granted, that such applications and know-how will be a source of competitive advantage to the Group, or that others have not developed similar or better applications or know-how. Significant costs may be incurred in asserting intellectual property rights and there is no certainty that intellectual property could not become known in a manner (for example, cyber-attack) which may provide the Group with no recourse.

- Adequacy of financial resources – the available funding required to support the business through to profitability and cash generation may be insufficient. The Group may be unable to access additional debt or equity capital, or to raise funds on acceptable terms. In the event that the resources available to the Group are inadequate then this could have a materially adverse impact on the implementation of the Group's strategy, its business, financial condition and operations.
- Financial, operational and management information systems – the efficient operation and management of the Group depends on the proper operation and performance of financial, operational and management information systems. Any failure in such systems via a cyber-attack may result in a loss of control and adversely impact the Group's ability to operate effectively.
- Safety, health and environment – the Group's operations are subject to numerous safety, health and environmental (SHE) and regulatory requirements, both in the UK and overseas, which are likely to become more complicated, stringent and onerous as the Group grows or as time passes. Failure to comply in any way with SHE or regulatory requirements could result in the Group being unable to manufacture or supply graphene, incurring significant costs and liabilities, or being subject to claims and lawsuits which could adversely affect its operations and financial condition. Graphene is also a relatively new material with a limited number of studies having been undertaken into its effects on biological systems. If evidence emerges that graphene has a deleterious effect, then this may adversely impact the Group's business and financial position.
- Key personnel – the Group has in place an experienced and motivated senior management team and is beginning to build strength in depth. If the Group is unable to attract and retain suitably skilled and qualified people, then the Group's performance and prospects may be adversely impacted. The loss of one or more key personnel could have an adverse impact on the Group's operations, reputation, relationships and future prospects.

**“With the launch of Genable®, progress made on Structural Ink® and increased commercialisation on multiple fronts the Board remains confident that the strategy adopted has provided us with the cornerstones on which to build a global graphene market leader.”**

#### **Cautionary statement**

The Business and Financial reviews have been prepared for the shareholders of the Company, as a body, and no other persons. Their purpose is to assist shareholders of the Company in assessing the strategies adopted by the Group and the potential for those strategies to succeed, and for no other purpose. The Business and Financial reviews contain forward-looking statements that are subject to risk factors associated with, amongst other things, the economic and business circumstances occurring from time to time in the sectors and markets in which the Group operates. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a wide range of variables which could cause actual results to differ materially from those currently anticipated. No assurances can be given that the forward-looking statements in the Business and Financial reviews will be realised. The forward-looking statements reflect the knowledge and information available at the date of preparation.

**Gareth Jones**  
**Chief Financial Officer**  
 10 April 2018

## CONSOLIDATED INCOME STATEMENT AND STATEMENT OF COMPREHENSIVE INCOME

for the six months ended 31 January 2018

	Note	Unaudited 6 months to 31 January 2018 £'000	Unaudited 6 months to 31 January 2017 £'000	Audited year ended 31 July 2017 £'000
Revenue	5	54	53	97
Other income		30	115	168
		84	168	265
Cost of sales		(120)	(189)	(385)
<b>Gross loss</b>		<b>(36)</b>	(21)	(120)
Operating expenses		(2,275)	(2,054)	(4,190)
<b>EBITDA</b>		<b>(1,952)</b>	(1,957)	(4,059)
Exceptional costs		(205)	—	—
Depreciation of tangible fixed assets		(154)	(118)	(251)
<b>Operating loss</b>		<b>(2,311)</b>	(2,075)	(4,310)
Net finance income		20	22	33
<b>PBTA</b>		<b>(2,086)</b>	(2,053)	(4,277)
Exceptional costs		(205)	—	—
<b>Loss on ordinary activities before tax</b>	5	<b>(2,291)</b>	(2,053)	(4,277)
Tax on loss on ordinary activities	3	—	—	1,234
<b>Loss for the period attributable to equity shareholders</b>		<b>(2,291)</b>	(2,053)	(3,043)
Other comprehensive income		—	—	—
<b>Total comprehensive loss</b>		<b>(2,291)</b>	(2,053)	(3,043)
<b>Earnings per share (pence per share)</b>				
Basic	6	(6.4)	(9.3)	(13.8)
Diluted	6	(6.4)	(9.3)	(13.8)

EBITDA comprises loss on ordinary activities before interest, tax, exceptional costs, depreciation and amortisation.

PBTA comprises loss on ordinary activities before tax, exceptional costs and amortisation.

**CONSOLIDATED STATEMENT OF CHANGES  
IN SHAREHOLDERS' EQUITY**

Financial information

for the six months ended 31 January 2018

	Share capital £'000	Share premium £'000	Merger reserve £'000	Retained earnings £'000	Unaudited total £'000
<b>As at 31 July 2016</b>	437	18,243	1,231	(11,399)	8,512
Comprehensive loss	—	—	—	(2,053)	(2,053)
IFRS 2 share based payments	—	—	—	78	78
Issue of shares (net)	5	140	—	—	145
<b>As at 31 January 2017</b>	442	18,383	1,231	(13,374)	6,682
Comprehensive loss	—	—	—	(990)	(990)
IFRS 2 share based payments	—	—	—	114	114
Issue of shares (net)	4	258	—	—	262
<b>As at 31 July 2017</b>	446	18,641	1,231	(14,250)	6,068
Comprehensive loss	—	—	—	(2,291)	(2,291)
IFRS 2 share based payments	—	—	—	138	138
Issue of shares (net)	543	8,826	—	—	9,369
<b>As at 31 January 2018</b>	<b>989</b>	<b>27,467</b>	<b>1,231</b>	<b>(16,403)</b>	<b>13,284</b>

## CONSOLIDATED BALANCE SHEET

as at 31 January 2018

	Note	Unaudited 31 January 2018 £'000	Unaudited 31 January 2017 £'000	Audited 31 July 2017 £'000
<b>Assets</b>				
<b>Non-current assets</b>				
Intangible assets		139	97	138
Property, plant and equipment		1,913	1,575	1,936
		<b>2,052</b>	1,672	2,074
<b>Current assets</b>				
Inventories		38	38	45
Trade and other receivables		168	234	151
Cash		11,961	5,554	4,708
		<b>12,167</b>	5,826	4,904
<b>Liabilities</b>				
<b>Current liabilities</b>				
Trade and other payables		(935)	(816)	(910)
		<b>(935)</b>	(816)	(910)
<b>Non-current liabilities</b>				
Provisions for other liabilities and charges		—	—	—
		<b>—</b>	—	—
<b>Net assets</b>		<b>13,284</b>	6,682	6,068
<b>Shareholders' equity</b>				
Called up share capital	8	989	442	446
Share premium account		27,467	18,383	18,641
Merger reserve		1,231	1,231	1,231
Retained earnings		(16,403)	(13,374)	(14,250)
<b>Equity shareholders' funds</b>		<b>13,284</b>	6,682	6,068



for the six months ended 31 January 2018

	Note	Unaudited 6 months to 31 January 2018 £'000	Unaudited 6 months to 31 January 2017 £'000	Audited year ended 31 July 2017 £'000
<b>Operating activities</b>				
Net cash used in operations	7	<b>(1,998)</b>	(2,040)	(3,962)
Net finance income		<b>15</b>	19	52
Tax received		<b>—</b>	—	1,234
<b>Net cash used in operating activities</b>		<b>(1,983)</b>	(2,021)	(2,676)
<b>Investing activities</b>				
Purchase of intangible assets		<b>(1)</b>	—	(41)
Purchase of property, plant and equipment		<b>(132)</b>	(272)	(684)
<b>Net cash used in investing activities</b>		<b>(133)</b>	(272)	(725)
<b>Financing activities</b>				
Net proceeds from issue of Ordinary shares		<b>9,369</b>	145	407
<b>Net cash generated from financing activities</b>		<b>9,369</b>	145	407
<b>Net increase/(decrease) in net cash and cash deposits</b>		<b>7,253</b>	(2,148)	(2,994)
Net cash and cash deposits at 31 July 2017		<b>4,708</b>	7,702	7,702
<b>Net cash and cash deposits at 31 January 2018</b>		<b>11,961</b>	5,554	4,708

Net cash and cash deposits include:

Cash deposits (maturity greater than three months)	<b>—</b>	—	—
Cash (maturity less than three months)	<b>11,961</b>	5,554	4,708
<b>Net cash and cash deposits at 31 January 2018</b>	<b>11,961</b>	5,554	4,708

## **1 General information**

The principal activity of Applied Graphene Materials plc is the manufacture, dispersion and development of applications for graphene. The Group operates principally in the United Kingdom.

The Company is incorporated and domiciled in the United Kingdom and its registered number is 8708426. The address of the registered office is The Wilton Centre, Redcar, Cleveland TS10 4RF. The Company was incorporated on 27 September 2013.

The interim financial information was approved for issue on 10 April 2018.

## **2 Basis of accounting**

The consolidated interim financial information for the period ended 31 January 2018 has been presented under the historical cost accounting convention, as modified by financial assets and liabilities at fair value through the income statement and share based payments at fair value, and in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union, IFRIC interpretations and those parts of the Companies Act 2006 applicable to companies reporting under IFRS. The consolidated interim financial information has been prepared on a going concern basis.

The accounting policies used in the consolidated interim financial information are consistent with those set out in the audited financial statements for the year ended 31 July 2017. Further IFRS standards or interpretations may be issued that could apply to the Group's financial statements for the year ending July 2018. If any such amendments, new standards or interpretations are issued, then these may require the consolidated financial information provided in this report to be changed. The Group will continue to review its accounting policies in light of emerging industry consensus on the practical application of IFRS.

The preparation of financial information in conformity with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Although these estimates are based on management's best knowledge of the amount, events or actions, actual events ultimately may differ from those estimates.

The consolidated interim financial information does not include all financial risk management information and disclosures required in the annual financial statements.

The consolidated interim financial information for the six months ended 31 January 2018 and for the six months ended 31 January 2017 contained within the Interim Report does not constitute statutory financial statements within the meaning of Section 434 of the Companies Act 2006 and is unaudited. The comparative figures for the year ended 31 July 2017 have been extracted from the audited financial statements, on which the Company's auditors have given an unqualified opinion.

## **3 Taxation**

The Group has not recognised any tax assets in respect of trading losses arising in either the current financial year or accumulated losses in previous financial years. The tax credit recognised in respect of the previous financial year arises from the receipt of R&D tax credits.

## **4 Dividends**

No dividend has been proposed for the period ended 31 January 2018 (2017: Nil).

## 5 Segmental analysis

The Group currently has one operating segment. Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the Chief Operating Decision Maker (CODM) in deciding how to allocate resources and in assessing performance. The Group's Chief Executive Officer has been identified as the CODM. Revenue and profits arising from that operating segment are the same as presented on the face of the consolidated income statement and statement of comprehensive income.

## 6 Earnings per share

Basic earnings per share is calculated by dividing the earnings attributable to ordinary shareholders by the weighted average number of shares in issue during each period. The weighted average number of shares in issue during the period used in the calculation of basic earnings per share was as follows:

	Unaudited 6 months to 31 January 2018 'm	Unaudited 6 months to 31 January 2017 'm	Audited year ended 31 July 2017 'm
Weighted average number of shares for basic earnings per share	<b>36.0</b>	22.1	22.1

Adjusted earnings per share has been calculated so as to exclude the effect of exceptional costs including related tax charges and credits. Adjusted earnings used in the calculation of basic and diluted earnings per share reconciles to basic earnings as follows:

	Unaudited 6 months to 31 January 2018 £'000	Unaudited 6 months to 31 January 2017 £'000	Audited year ended 31 July 2017 £'000
<b>Basic earnings</b>	<b>(2,291)</b>	(2,053)	(3,043)
Adjustments for taxation	—	—	—
Exceptional costs	<b>205</b>	—	—
<b>Adjusted earnings</b>	<b>(2,086)</b>	(2,053)	(3,043)
<b>Earnings per share (pence per share)</b>			
Basic	<b>(6.4)</b>	(9.3)	(13.8)
Diluted	<b>(6.4)</b>	(9.3)	(13.8)
<b>Adjusted earnings per share (pence per share)</b>			
Basic	<b>(5.8)</b>	(9.3)	(13.8)
Diluted	<b>(5.8)</b>	(9.3)	(13.8)

The Group was loss making for the periods ended 31 January 2018 and 31 January 2017 and also for the year ended 31 July 2017. Therefore, the dilutive effect of share options has not been taken account of in the calculation of diluted earnings per share, since this would decrease the loss per share for each of the periods reported.

**7 Notes to the cash flow statement**

	Unaudited 6 months to 31 January 2018 £'000	Unaudited 6 months to 31 January 2017 £'000	Audited year ended 31 July 2017 £'000
<b>Loss for the period attributable to equity shareholders</b>	<b>(2,291)</b>	(2,053)	(3,043)
Tax on loss	—	—	(1,234)
Net finance income	(20)	(22)	(33)
Depreciation of property, plant and equipment	154	118	251
Exceptional costs	205	—	—
<b>EBITDA</b>	<b>(1,952)</b>	(1,957)	(4,059)
Depreciation of property, plant and equipment	(154)	(118)	(251)
Exceptional costs	(205)	—	—
<b>Operating loss</b>	<b>(2,311)</b>	(2,075)	(4,310)
Depreciation of tangible fixed assets	154	118	251
IFRS 2 share based payments charge	138	78	192
(Increase)/decrease in net working capital	21	(161)	(95)
<b>Net cash used within operations</b>	<b>(1,998)</b>	(2,040)	(3,962)

**8 Share capital**

	Unaudited number of Ordinary shares	Unaudited total £'000
<b>Allotted, called up and fully paid</b>		
At 31 July 2016 Ordinary shares of 2 pence each	21,872,551	437
Issued on 18 August 2016	166,204	3
Issued on 4 November 2016	83,102	2
Issued on 26 May 2017	168,906	4
At 31 July 2017 Ordinary shares of 2 pence each	22,290,763	446
Issued on 31 October 2017	27,138,617	543
<b>At 31 January 2018 Ordinary shares of 2 pence each</b>	<b>49,429,380</b>	<b>989</b>

On 18 August 2016, 166,204 Ordinary shares of 2 pence each were issued at a price of £0.583 per share to satisfy the exercise of EMI share options.

On 4 November 2016, 83,102 Ordinary shares of 2 pence each were issued at a price of £0.583 per share to satisfy the exercise of EMI share options.

On 26 May 2017, 168,906 Ordinary shares of 2 pence each were issued at a price of £1.55 per share following the exercise of warrants.

On 31 October 2017, 27,138,617 Ordinary shares of 2 pence each were issued at a price of £0.36 per share to institutional and other investors.

## 9 Related party transactions

Transactions between Applied Graphene Materials plc and its subsidiaries, which are related parties, have been eliminated on consolidation and are not disclosed in this note.

### Transactions with shareholders

The following transactions with shareholders of the Group were recorded, excluding VAT, during the period:

	Unaudited 6 months to 31 January 2018 £'000	Unaudited 6 months to 31 January 2017 £'000	Audited year ended 31 July 2017 £'000
<b>University of Durham (shareholder)</b>			
Staff secondment, consultancy and other fees	20	22	57
<b>Top Technology Limited (controlled by shareholder)</b>			
Non-Executive fees and expenses	8	8	16
Corporate finance fees	20	—	—

### Remuneration of key management personnel

The remuneration of the Directors, who are the key management personnel of the Group, is set out below in aggregate for each of the categories specified in IAS 24 Related Party Disclosures:

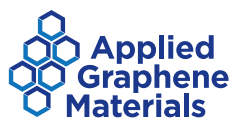
	Unaudited 6 months to 31 January 2018 £'000	Unaudited 6 months to 31 January 2017 £'000	Audited year ended 31 July 2017 £'000
Short term employee benefits (excluding bonuses)	338	303	643
Payments to third parties	8	8	15
IFRS 2 share based payments charge	138	78	146
	484	389	804

## 10 Seasonality

The Group experiences no material variations in performance arising due to seasonality.

## 11 Availability of Interim Report

It is anticipated that the Interim Report will be sent to all shareholders on 27 April 2018. Electronic copies of the report will also be available on Applied Graphene Materials' website at [www.appliedgraphenematerials.com](http://www.appliedgraphenematerials.com).



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