Applied Graphene Materials plc
Interim results
Period ended 31 January 2016



Overview

- Significant intellectual property and know-how around:
 - ► Manufacture of graphene using proprietary processes
 - Formatting of graphene for end customer use to enhance materials and products using graphene
- Focused on three core target markets of paints and coatings, composites/polymers, and functional fluids
- Significant commercial progress with customer evaluations being converted into JDAs and collaborations with partners including Sherwin-Williams, Dyson, P&G, Millers Oils and Puraglobe
- Recent £8.5m fundraise to expand manufacturing capacity underpinned by momentum of customer development work



Tomorrow's material. Today

Overview of operational progress

- Completion of placing and open offer raising £8.5m
- Over 70 evaluation samples provided to customers in the period
- Targeted focus working closely with over 20 partners via collaborations, JDAs and near term production opportunities. Trials continuing in line with our expectations
- New collaboration project with Sherwin-Williams. Strict confidentiality governs other relationships
- Progress on production capacity expansion on schedule



Continuing to target first production orders

2015 Financial overview

		2016 £'000	2015 £'000
	Revenue & other income	83	29
	EBITDA loss	(2,108)	(1,816)
	Loss before tax	(2,326)	(1,919)
	Basic & diluted EPS	(13.2p)	(11.3p)
	Adjusted diluted EPS	(12.3p)	(10.8p)
	Cash at bank	10,231	6,641
	Capital expenditure	(408)	(234)
>	Cash used in operations	(2,122)	(1,662)



Commercial relationships

- Ongoing assessment of graphene enhanced parts and products by an increasing number of customers, with whom we are working closely
- "Plug and play" into existing customer processes, or with minimum change, reduces time to adoption
- Trials continuing in line with our expectations
- New collaboration project with Sherwin-Williams
- Targeted focus on where our graphene can add value
- Production orders dependent on period to qualification, approval and adoption, with near term opportunities from early adopters



Target markets - targeted focus

Functional fluids	Coatings	Polymers & composites
Advantages Low wear Low friction Low speed & extreme pressure performance Thermal conductivity Impermeable to oxygen or water High surface affinity Nano-filler for wear crevices Synergies with other additives	 Excellent barrier properties giving high corrosion resistance UV absorption Resistance to scratch and abrasion Electrical conductivity (anti-static +) Mechanical enhancement Thermal conductivity Foul release 	 Improved fracture toughness Enhanced matrix stiffness Thermal conductivity Electrical conductivity (anti static) Enhanced fatigue performance Improved FST and heat release Increased moisture barrier properties Low shrinkage and CTE control
End markets		
 ✓ Automotive (oils and lubricants) ✓ Speciality greases ✓ Industrial (coolants and lubricants) ✓ Cutting fluids ✓ Hydraulics ✓ Oil and gas (drilling fluids) 	 ✓ Industrial protective primers ✓ Construction (harsh environment and corrosion resistance) ✓ Marine protection ✓ Aerospace (corrosion, lightning strikes) ✓ Automotive (corrosion, electrosprayed paints) ✓ Defence (electromagnetic absorption) 	 ✓ Aerospace and defence ✓ Sports and leisure ✓ Consumer goods ✓ Automotive ✓ Alternative energy ✓ Oil and gas ✓ 3D printing



Proven benefits – targeted engagements

Current product portfolio

Strength of property ¹	A-GNP10 (Liquid)	A-GNP20X (Liquid)	A-GNP30X (Solid)	A-GNP40X (Solid)
***	Lubricity	Electrical conductivity	Mechanical	Thermal conductivity
**	Mechanical, Impermeability	Lubricity	Electrical conductivity, Impermeability, Lubricity	Mechanical
*		Mechanical, Thermal conductivity, Impermeability	Thermal conductivity	Electrical conductivity, Impermeability, Lubricity

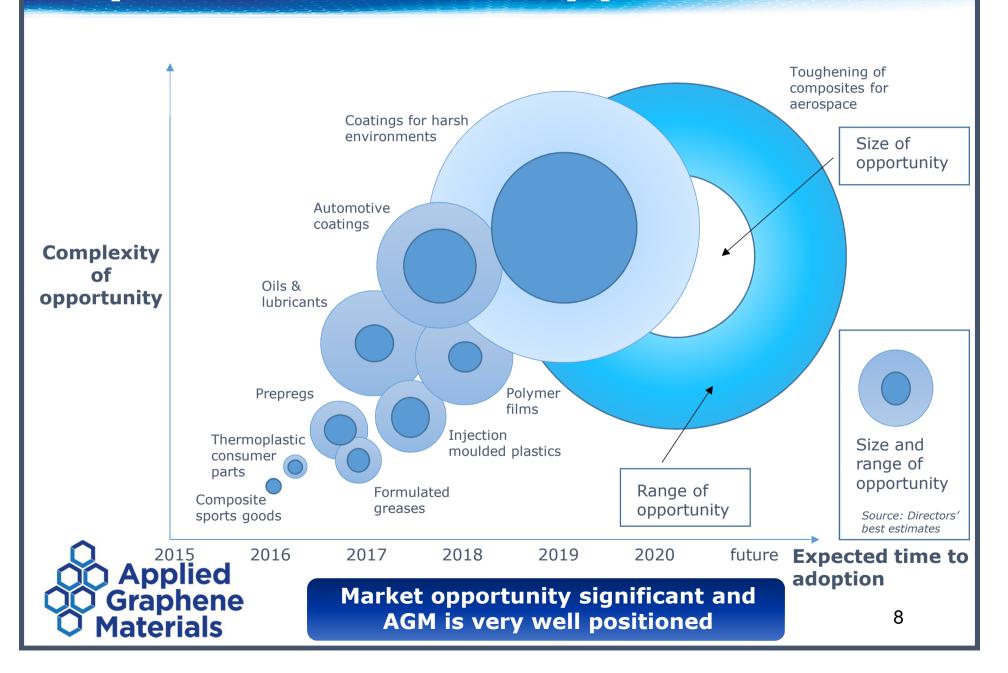
Sources: In-house test data, independent test data and customer test data

(1) Indicates enhancement to base materials relative to the Group's other graphene products



Delivery of specific property enhancements

Top ten customer opportunities



Customer engagement

Initial engagement

of opportunity

Measured prioritisation | Ongoing collaboration and data generation on multiple graphene formats

> 800 initial customer contacts including:

- Composites
- Polymers
- Coatings
- Functional fluids
- Automotive
- Aerospace
- Metallurgy
- **Flectronics**
- Semiconductors
- Inks and printing
- Energy

> 250 active companies including:

- Consumers goods Dyson, P&G
- Chemicals and polymer manufacturers - DuPont Teiiin
- Printed electronics PolvPhotonix
- Oils & lubricants Millers Oils. Puralube

> 190 samples provided:

Supply of sample quantities of graphene dispersions primarily into three core target market sectors

Current position > 20 customers:

JDAs, application development work, near term production opportunities, repeat supplies and preproduction sampling

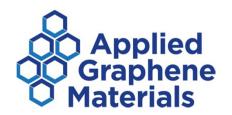
Leading to first production orders



Strong momentum with potential customers

Development of manufacturing capacity

- Conditions of manufacture impact properties of graphene
- Essential to be able to modify manufacturing conditions to augment properties for specific end applications
- Significant know-how, understanding and ability has been built up to deliver specific property enhancements. Japanese process patents granted, others pending
- Engineering design work to enhance manufacturing capacity is ongoing
- Initial capital expenditure in support of expansion commenced in the first half of the year



Expansion of capacity to support anticipated demand – on schedule

Income statement summary

- Ongoing costs of
 working with
 commercial partners
 and headcount to
 support this
- Exceptional costs relate to fundraise

	2016	2015
	£'000	£'000
Revenue	18	13
Other income	65	16
	83	29
Cost of sales	(214)	(142)
Gross loss	(131)	(113)
Operating expenses	(2,213)	(1,842)
EBITDA	(2,108)	(1,816)
Exceptional costs	(161)	(90)
Depreciation	(75)	(49)
Operating loss	(2,344)	(1,955)
Net finance income	18	36
Loss before tax	(2,326)	(1,919)
Tax on loss	-	-
Loss for the period	(2,326)	(1,919)
Diluted EPS (pence)	(13.2)	(11.3)
Adjusted diluted EPS (pence)	(12.3)	(10.8)



Cash flow summary

- Net £7.9m placing proceeds placed on deposit for maturities of less than one year
- Increase in capital
 expenditure for
 development of
 production processes
 and related assets

	2016 £'000	2015 £'000
On austing Lags		
Operating loss	(2,344)	(1,955)
Depreciation	75	49
IFRS 2 Share based payments	113	125
Net working capital movement	34	119
Cash used in operations	(2,122)	(1,662)
Interest received	21	47
Tax received	-	-
Capital expenditure	(408)	(234)
Free cash flow	(2,509)	(1,849)
Proceeds from issue of shares	8,031	13
Opening cash at bank	4,709	8,477
Cash at bank	10,231	6,641



Summary and outlook

- Excellent operational and customer collaboration progress made
- Significant and enhanced know-how around manufacture and formatting of graphene
- Fundraise allows for significant increase in production capacity
- Remain focused on conversion of collaborations into first production orders



Aim is to become global graphene market leader