



**APPLIED  
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MATERIALS**

Making strong progress as the  
market leader in graphene  
dispersion and application  
technology

## **Full Year Results**

**Year ended 31 July 2020**

**October 2020**

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This presentation contains forward-looking statements with respect to AGM’s plans and objectives regarding its financial conditions, results of operations and businesses.

# Investment Summary

## Unlocking the Potential of Graphene



Commercializing world-leading graphene dispersion technology – dispersing graphene **effectively and safely** in liquids primarily for coatings, composites and other high-performance additive applications



Addressing a **\$38.7Bn coatings resin market** expected to grow to \$48.8Bn by 2025, and the global paints and coatings market expected to reach \$286.5Bn by 2026



**Patent-protected** IP for both manufacture of high-quality synthetic graphene plus dispersion and application technology – key for graphene's deployment in structural / performance applications



**Long-term customer collaborations** resulting in increased product launches and sales momentum throughout 2020



Active technology and product development with **109 industrial and academic partners**



Products launched to market increased **200%** over past year; continued opportunities to develop coatings, composites, inks, printing and adjacent technologies



**More than £20m** invested in company R&D since inception

# Highlights for the period



Excellent commercial progress made, with a number of major customer projects advancing towards completion and product launch

- Blocksil – introduced Top Coat MT anti-corrosion paint system



Achieved major expansion of sales network. New distribution partners include:

- Maroon Chemicals Group – The USA and Canada
- Arpadis – UK, Germany, France, Spain, Portugal and Scandinavia
- Will & Co – Benelux
- Dichem - Greece



Continued to grow IP portfolio with the progress of several graphene dispersion technology based patents



Launched the **Genable**® 1400 series of dispersions, a cost-effective range of products offering outstanding barrier performance



A realignment of our resources was completed in December 2019, to enable a focus on graphene dispersions capacity and capability



Development of production scaling for dispersions manufacture – continuous commitment to build production scale platform for the range of dispersions we manufacture



**Limited impact from COVID-19 on collaborations, and customer pipeline continues to grow**

# Highlights for the period (continued)



## Financial overview

- Revenue £0.08 million (2019: £0.05 million)
- EBITDA\* Loss of £3.08 million (2019: loss of £4.56 million)
- Cash at bank £3.68 million (2019: £6.13 million)
- Basic EPS Loss of 6.4 pence per share (2019: loss of 7.9 pence)
- Adjusted EPS Loss of 6.1 pence per share (2019: loss of 7.9 pence)

\* EBITDA comprises loss before interest, tax, exceptional costs, depreciation and amortisation.

## Post year end



Sustainability review, roadmapping plan and intent to sign up to the UN Global Connect in the near future



### Customer product launches

- Infinity Wax – launch of Graphene QDX detailing polish for the car care market
- Kent Europe GmbH – launch of aerosol anti-corrosion primer
- Halo Automotive Ltd / EZ Car Care – launch of Graphene Wax - enhanced product for car care market



AGM launched commercial R&D partnership service for customer product development - Innovation Accelerator

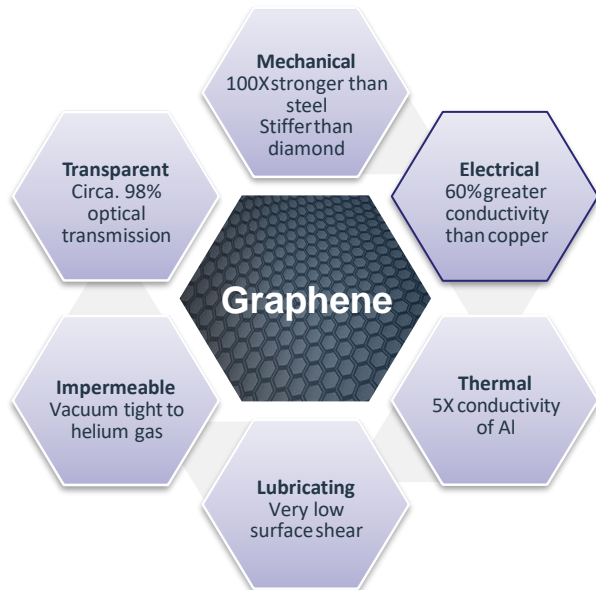


AGM shares commenced trading on the OTCQB Venture Market in the United States

# The Power of Graphene



## Key Properties



## Brief history

- First isolated in 2004 by researchers at University of Manchester
- Nobel Prize 2010
- Following initial hype cycle, graphene has now reached a commercial reality, resulting in a sharp increase in customer projects and applications

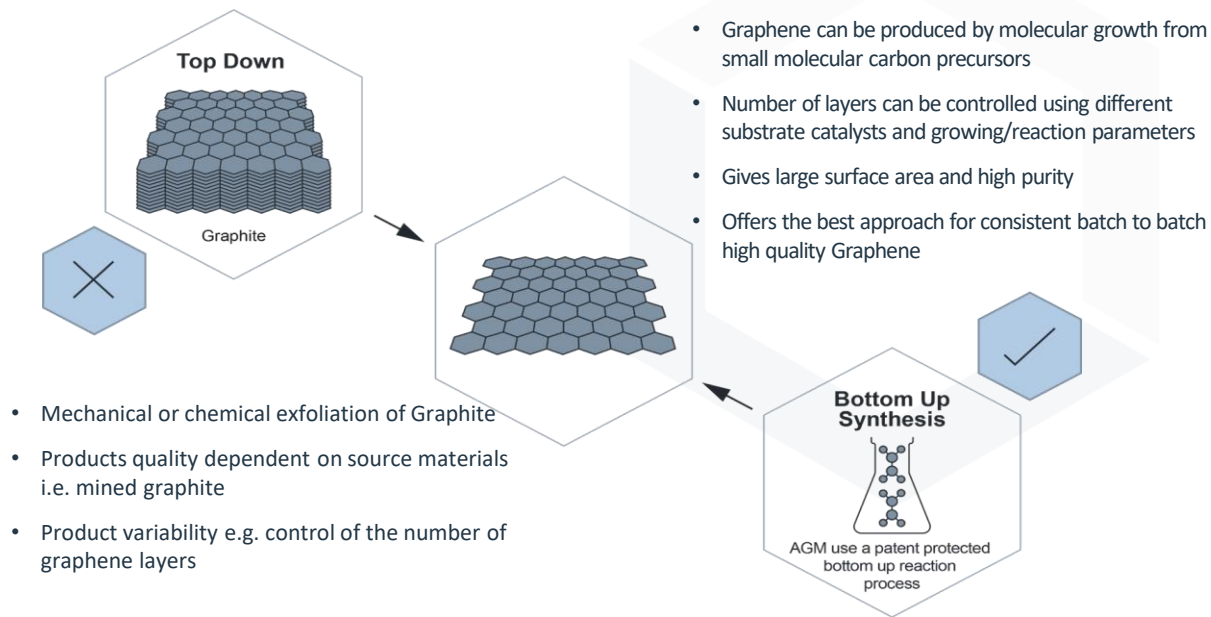
## AGM Application Technology

- The commercial value of graphene lies in the ability to **robustly transfer its intrinsic properties into other materials**, thus creating higher value materials and products which possess specifically enhanced characteristics
- AGM utilizes differentiated application technology to create both standardized and end-use specific customized solutions for a range of applications

# AGM's Differentiated Manufacturing Process: Synthetic Graphene



AGM was built on synthetic graphene manufacturing, however the pillar that underpins commercialization is our **patent-protected dispersion technology and applications know-how**



## Synthetic Graphene Production

- Patented bottom-up process for efficient manufacturing
- Unique process technology for graphene nanoplatelets
- Defensibility both through IP and manufacturing know-how
- The **real value** is the ability to realize the potential of graphene; AGM's application technology and know-how are the true differentiators



# AGM Commercial Focus – success underpinned by AGM’s dispersion and application IP



Commercial value of graphene lies in the ability to **robustly transfer its intrinsic properties** into other materials, creating higher value materials and products which possess specifically enhanced characteristics



## Graphene: A Performance Enhancer

Graphene has **significant anti-corrosion and chemical resistance benefits** which makes it useful in a number of end-markets

- Proven performance advantages open up nearer term commercial opportunities
- To make graphene effective, it needs to be dispersed into the host liquid
- **Effectively** – so that platelets are well separated to maximize utility
- **Safely** – key to new materials introduction

### How does graphene improve materials performance?

- Chemical resistant coatings are designed to protect a substrate from degradation (chemical corrosion)
- **Graphene** possesses excellent impermeability
- **Graphene** dispersions added to coatings have been shown to substantially improve their **corrosion resistance**
- Principal mechanism employed is that of **increased tortuosity**



## Dispersion Technology: Key Highlights

### AGM’s patented dispersion technology

- Clear understanding of end-use need and how to achieve it
- AGM’s “How-To” data enables easy use of graphene:
- Impressive technical data to support claims
- “How-To” knowledge to assist the customer practically
- Regulatory leadership for safe use of nano-materials

### Customized end-to-end solutions

- Whilst graphene is capable of delivering transformational improvements to a variety of materials, its complex nature means successful integration is dependent upon highly collaborative relationship with customers
- Provide either standard dispersions (general purpose additives across a range of applications) or customized solutions



# Dispersion

## Use Cases & Early Deployment

AGM's *Genable*<sup>®</sup> standard dispersions are currently the **only** graphene-based dispersion product able to be sold through distribution partners



### AGM Customer Product Launches



### AGM Dispersions

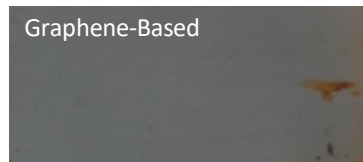
#### Standard Dispersions:



#### Customized Dispersions:

- 30+ parent materials into which AGM is currently developing production-ready graphene dispersions for existing and new customer base.
- In the last 2 years, AGM has developed over 200 customized dispersions for customer development trials.

#### Use Case:



Typical results: 3000hrs test in salt spray

# Dispersion

## Commercial Pipeline



### Stage of Development

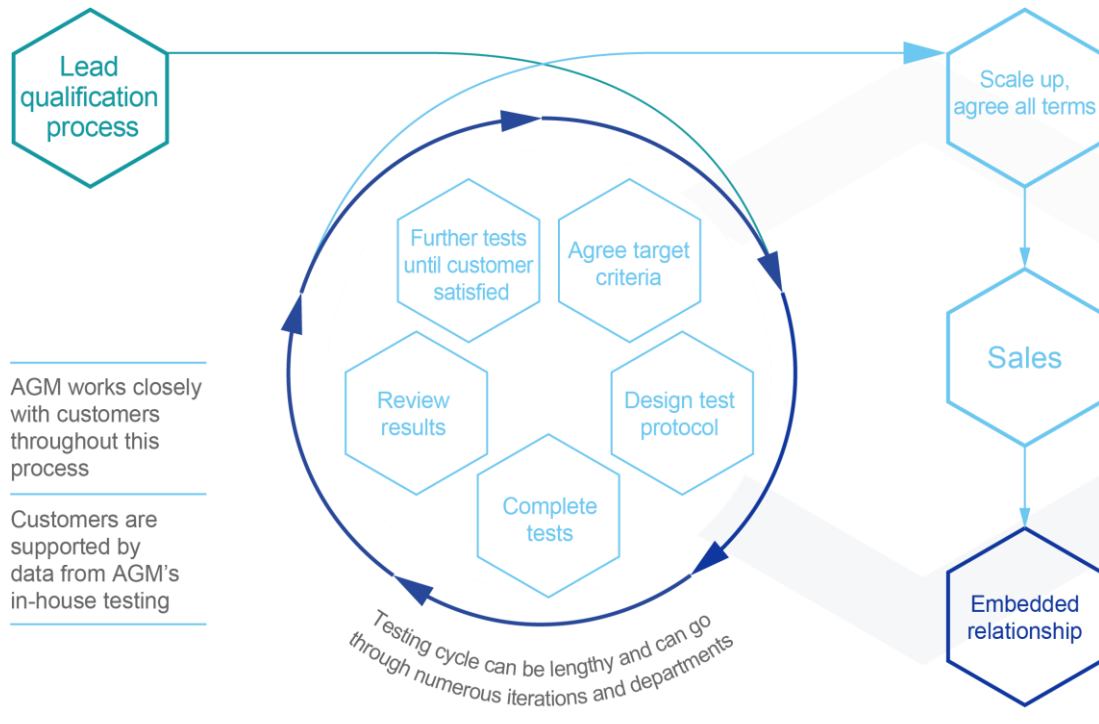
### Approval Time

### Total

	Short	Medium	Long	
Agreement on scope of sampling and engagement	7 (+3)	11 (+3)	1 (+1)	19 (+7)
Initial testing and interpretation of results	18 (+6)	24 (-3)	15 (+9)	57 (+12)
Repeat testing for consistency and review of results	8 (+1)	9 (+3)	1 (0)	18 (+4)
Final product trials formulation and specification	4 (-1)	7 (-1)	1 (+1)	12 (-1)
Final commercial engagement	2 (-4)	1 (-1)	0 (0)	3 (-5)
<b>Total at 31 July 2020</b>	<b>39</b>	<b>52</b>	<b>18</b>	<b>109</b>
<b>Movement since 31 January 2020</b>	<b>(+5)</b>	<b>(+1)</b>	<b>(+11)</b>	<b>(+17)</b>

**6** Projects completed since 31 January 2020 and removed from pipeline

# AGM Standard Sales Cycle



## Case Study

- Engagement on potential of graphene as a product enhancer for construction coatings
- Aspirational targets agreed; Testing work and formulation carried out at AGM using extensive facilities
- Results **exceed expectations** for anti-corrosion performance for infrastructure applications; Warranty extension increased by Alltimes from **20 to 30 years**
- Blocksil materials approved for use by Avanti and RTE for communications network refurbishment
- Alltimes CPD proving valuable for specifier approvals
- Revenue bearing applications expected to start with coronavirus lockdown easing
- Partnership engaged for further product development



# Sales Team and Geographical Expansion



AGM now has **60+** salespeople focused on selling our products worldwide, up from 17 in 1H 2020

Building on a platform of product maturity and demonstrable performance advantages, AGM continues to sign lucrative deals with new distributors in key geographies – recently demonstrated by agreements with **Maroon LLC (USA)**, **Arpadis Benelux NV (Belgium)**, and **Will & Co** and established agreements with – **Inabata (Japan)**, **CAME (Italy)**, **Carst and Walker (South Africa)** and **Dichem (Greece)**.



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**M MAROON GROUP**

- Major focus on USA coatings market. Significantly strengthens AGM's presence in the United States and Canada
- Maroon Group has decades of experience and leading expertise in additive sales and customer service, which is essential to support sales at this early stage of the graphene market's development
- Exclusive agreement



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**ARPADIS**

- Strengthens AGM's supply position across the United Kingdom, Germany, Spain, France, Portugal and Scandinavia
- Exclusive agreement in all regions apart from the United Kingdom, where the agreement is non-exclusive to allow for AGM's UK sales team to further strengthen existing relationships and develop the strong pipeline of existing sales opportunities directly



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**will&co®**

- Strengthens AGM's supply position across The Netherlands, Belgium, and Luxembourg
- Exclusive agreement; Will & Co regional sales network to provide access to customer opportunities and introduce AGM's proprietary **Genable®** graphene dispersions technology into the Benelux coatings and polymers markets

# Financials & Operations



## Cash Flow Summary

	Year ended 31 July 2020	Year ended 31 July 2019
	£'000	£'000
<b>Operating activities</b>		
Net cash used in operations	(3,465)	(4,184)
Net finance income	41	69
Tax received	1,316	–
Net cash used in operating activities	(2,108)	(4,115)
<b>Investing activities</b>		
Purchase of intangible assets	(121)	(77)
Purchase of property, plant and equipment	(221)	(116)
Net cash used in investing activities	(342)	(193)
Net decrease in net cash and cash deposits	(2,450)	(4,308)
Net cash and cash deposits at 31 July 2019	6,135	10,443
Net cash and cash deposits at 31 July 2020	3,685	6,135



## Income Statement Summary

	Year ended 31 July 2020	Year ended 31 July 2019
	£'000	£'000
Revenue	83	50
Cost of sales	(215)	(472)
Other income	–	74
Gross loss	(132)	(348)
Operating expenses	(3,566)	(4,554)
EBITDA	(3,084)	(4,559)
Exceptional costs	(168)	–
Depreciation	(446)	(343)
Operating loss	(3,698)	(4,902)
Net finance income	33	67
Loss on ordinary activities before tax	(3,665)	(4,835)
Tax on loss on ordinary activities	476	908
Loss for period attributable to equity shareholders	(3,189)	(3,927)

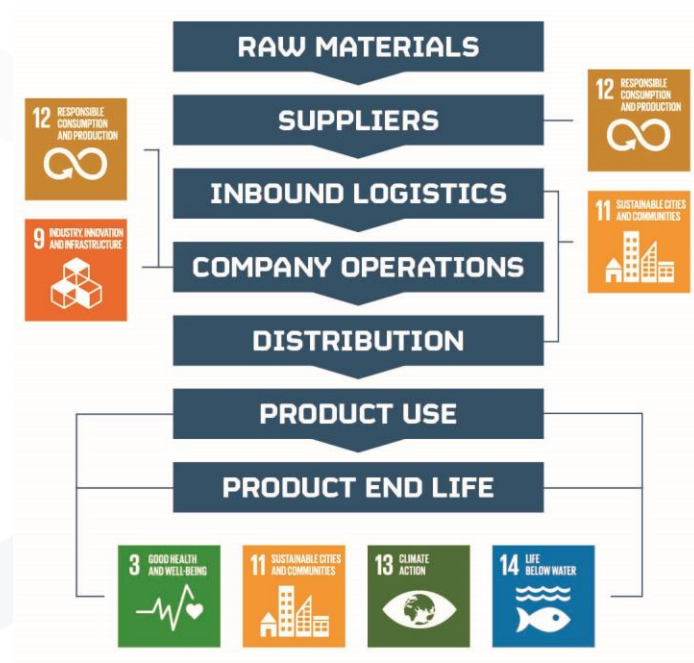


## Operations

### Impact of COVID-19:

- Minimal impact on technology development though second half revenue slowed
- Company cash forecasts already based on very conservative revenue; funded to October 2021
- No impact on personnel count; did not need to downsize or lay any employees off
- Continued to sign new distributors and launch new products throughout 2020; working in accordance with all guidelines as we work to re-launch customers and increase sales
- Continue to work in accordance with government restrictions and guidelines

# Sustainability



# Near-Term Drivers



**Sales team expansion**; substantially increased salesforce over FY20, with a particular focus on the liquid resins market, as a result of the appointment of 4 additional distributors across multiple geographies



**Accelerated product development**; dispersion innovations available to be commercialized in the next 12 months



Early commercial agreements reaching **product sales stage**; ability to cross-sell into existing customer base



**OTCQB listing completed** – Access to stock for US investors. Listed on AIM in UK



Technology development platform bringing new product iterations to market; continual focus on ability to **customize product** for different end-users



**New products** already launched with customers validating the coatings technology and product roadmap to market



Introduction of **Innovation Accelerator** – opportunity for end-users to fast track their product development using AGM facilities and expertise



Commitment to **UN Global Compact** – roadmap for end to end engagement and compelling benefits of graphene use

# Summary



Significant commercial and product momentum achieved during the period



Enhanced sales and distribution network already accelerating commercial pipeline



Strong start to the current year with new product launches and AGM's commercial R&D partnership service launched



Near term sales opportunities uninterrupted by COVID-19



Sustainability initiative advancing



Well placed to make strong progress in 2021





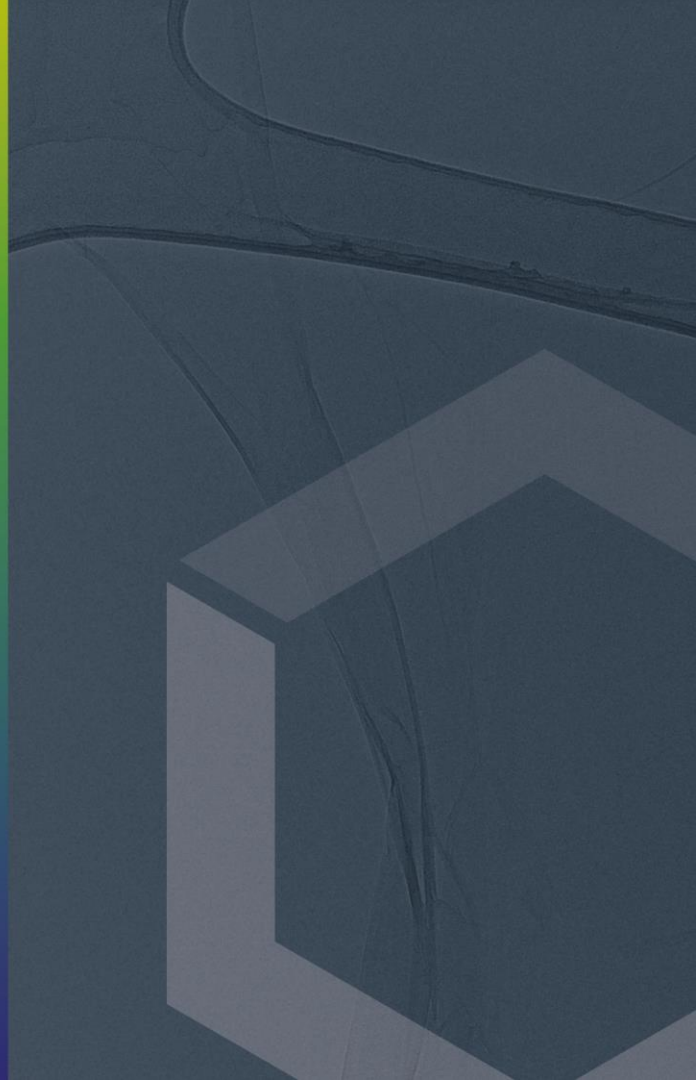
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# Appendix

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# Management Team



## **DR ADRIAN POTTS** Chief Executive Officer

Joined AGM in January 2015, CEO from August 2018

Various senior roles in composites industry including UMECO

Experienced in strategy development, business turn-arounds and integrating new innovation

Based in Tulsa, Oklahoma



## **DAVID BLAIN** Chief Financial Officer

Joined AGM in October 2018 from Nanoco Group PLC

Substantial experience in PLCs and the nanomaterials industry

Experienced at delivering successful commercialisation of technology startups

# Patents granted and pending



	Number	No. of countries in which granted	Patents pending
Total granted	3	15	
Pending	9		Various stages throughout various territories

# Major Shareholders



As of 31 July 2020, Applied Graphene Materials had in issue 49,429,380 Ordinary Shares of 2 pence each; No shares are held in treasury

Shareholder	% Holding
IP Group	14.91
Hargreaves Lansdown Stockbrokers	13.77
Herald Investment Management	9.61
Eden Tree Investment	7.59
Insight Investment	4.86
Interactive Investor	5.91
HSDL Stockbrokers	4.44
North East Finance	4.18
University of Durham	2.49

Shareholder - Directors	% Holding
Professor Karl Coleman	3.60
Dr Bryan Dobson	0.27
Adrian Potts	0.14
Sean Christie	0.07
David Blain	0.07
Mike Townsend	0.05



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