Highly experienced team with track record of value creation in specialty materials

**Jon Mabbitt – Chief Executive Officer**
- 30 years’ senior experience in manufacturing and engineering
- MD of Umeco Composite Structural Materials
- MD of Advanced Composite Group
- BEng in Chemical Engineering

**Gareth Jones – Chief Financial Officer**
- Divisional Finance Director of Gardner Denver
- CFO of Vireol plc
- Chartered Accountant
- B Eng in Mining Engineering
- 27 years’ experience in finance

**Other Directors**
- Bryan Dobson – Chairman
  - Bryan has over 33 years’ experience in the chemical industry with ICI plc and Croda International plc
- Karl Coleman – Chief Scientific Officer
  - Karl invented AGM’s proprietary production process and established the Company in 2010
- Sean Christie – NED
  - Sean was Group Finance Director of Croda International plc
- Mike Townend – NED
  - Mike is Chief Investment Officer of IP Group
OVERVIEW – MAKE IT, FORMAT IT

OUR BUSINESS

• Unique, patented production process
  • Bulk
  • Sustainable
  • Continuous
  • Scalable
  • Consistent quality
  • Multiple formats

• Significant intellectual property and know how around:
  • manufacture of graphene nano-platelets using proprietary processes
  • formatting of graphene for end customer use

OUR STRATEGY

Collaboration with commercial partners to accelerate adoption of graphene and drive orders

Focused on core target market sectors with global potential for industrial scale future orders

Targeting market leadership based on in-depth knowledge and proprietary processes

OUR CORE SECTORS

COATINGS

COMPOSITES

OILS AND LUBRICANTS

DELIVER MATERIAL ENHANCEMENTS
PERIOD HIGHLIGHTS

Commercial
• Collaboration with Airbus Space & Defence for satellite application with adoption expected in 2018
• Initial orders from SHD Composites for launch of MTC9800, a series of graphene enhanced pre-impregnated materials
• First graphene production orders received for Century Composites for inclusion in a range of fishing rods
• Over 110 evaluation samples provided, including 35 new customers in the period
• Progressing final formulations with James Briggs Ltd for inclusion in aerosol primers

Operational
• Initiation of modular product capacity expansion to meet anticipated near term demand
• Strengthened Management and Commercial teams
• Increased IP know-how with further expansion of our graphene nanoplatelet product range
Manufacturing capability

- Programme for increased capacity with a modular lower capex scale-up to better match capacity to demand
- Optimised methods and conditions of manufacture to ensure consistent transfer of material enhancements to end applications in our target markets
- Ongoing investment in complementary and IP protected production techniques to enhance product range
- Significant know-how, understanding and ability built up. Skilled team significantly strengthened
- Patent applications filed; Japanese patent granted along with USA and Korea

Dispersions/formatting

- Investment in in-house formulation and application expertise
- Portfolio of standard dispersions formatted for different product markets
- Data generated to accelerate customer sampling

We are recognised by our customers as having significant expertise in dispersion – this is highly valued by customers and critical to performance in certain applications.
Independent testing accreditation for AGM

**May 2015**  
Initial findings of friction and wear reduction from BfB Oil Research, Belgium

**March 2016**  
Positive preliminary findings on graphene reinforced polyurethane coatings, undertaken by PRA (formerly known as the Paint Research Association) indicating scratch resistance

**August 2016**  
PRA testing demonstrated six-fold improvement in barrier and anti-corrosion properties

**October 2016**  
Full database on the performance of Puraglobe products containing AGM graphene by German accredited test house, Optimol

**October 2016**  
Composites materials database generated at CTE
The majority of AGM collaborations are currently subject to non-disclosure agreements

- **Century Composites** – launch of carp fishing rods – October 2016

- **SHD prepregs range MTC9800** launched March 2017

- **James Briggs** – JDA to incorporate graphene into existing paint formulas - new range of primers expected to be launched in 2017

- Anti-corrosion coatings development – **Innovate UK** supported phase 1 complete end April 2017

- **Puraglobe** – Joint development on sustainable re-engineered base oils

- **NATEP** – SHD/AMRC with The Boeing Company for lighter and more damage tolerant composite structures

- **Airbus Defence and Space** – application on satellites – final development stage – first application expected early 2018
MARKET SIZE
- Anti-corrosion coatings £8.1Bn (2013)
- Corrosion primers £1.4Bn
- Zinc rich proportion £0.5Bn

ENHANCEMENTS
- Barrier properties – corrosion prevention
- Electrostatic discharge
- Toughening of surfaces
- Reduced surface friction

ROUTES TO MARKET
- Coatings material formulators
- Additives manufacturers
- System applicators
- End-users – equipment/plant operators

TARGET MARKET - COATINGS
COATINGS

• AGM is collaborating in a 12-month assessment project, funded by Innovate UK, to underpin the use of graphene in advanced coatings specifically targeted at corrosion prevention in primer layers.

• Concurrently AGM is working closely with four leading, global manufacturers of Marine coatings to establish the role of graphene in zinc-free, chromate-free high performance barrier protection, in response to environmental pressures and regulatory-led restrictions coming into force.

• Resultant formulations deliver affordable and significant performance improvements without changing material processing.
MARKET SIZE
- €70Bn total
- Materials portion €7Bn

ENHANCEMENTS
- Increased toughness
- Increased stiffness
- Increased strength
- Electrostatic dissipation
- Thermal management
- Reduced weight

ROUTES TO MARKET
- Formatted materials – pre-impregnated composites
- Infusion systems – bulk resin suppliers
- Adhesive producers
- Fibre interfaces – carbon/glass suppliers
- Elastometrics – seals
- End-users – specifiers and designers

TARGET MARKET - COMPOSITES
• Delivery of graphene suitably dispersed into resin for intermediate composite material providers, such that the graphene dispersion can be used directly in existing processes without any change to production methodology

• Verified composite material properties at independent test houses

• Engaged with potential end-users to spell out benefits. Century Composites first adopter.

• Resultant collaborations to promote pre-impregnated graphene composites into sports goods, energy, automotive, marine and aerospace markets
TARGET MARKET - OILS & LUBRICANTS

MARKET SIZE
- 41bn litres (2014)
- Additives market 4.2 million tonnes
- Friction modifiers c. 70 tonnes

ROUTE TO MARKET
- Formulators of additives for lubricants/greases
- Cutting fluids producers
- System specifiers

ENHANCEMENTS
- Friction modification
- Heat dissipation/cooling
- Wear reduction

PURAGLOBE
Collaboration with Puraglobe to develop sustainable base oil products, which lower CO2 output, and improve machine performance through reduced friction thereby reducing wear on bearing faces

- Full database generated on formulated products by independent German test house
- Initiation of tri-partite product performance with select customers
Top ten customer opportunities

Expected time to adoption in production

Complexity of qualification approval

Upper Range of opportunity

- Primers for zinc replacement
- Lubricants and cutting fluids
- Aircraft primer
- Conductive ink
- Aerospace adhesive
- Prepregs
- Aerosol primers
- Other sports goods
- Century carp rods
- NATEP project Toughening of composites for aerospace

Source: Directors best estimates
INCOME STATEMENT SUMMARY

- Revenues were derived from first production orders to supply Century Composites along with the supply of evaluation material.
- Other income relates to grants received primarily for the development of graphene applications.
- Lower operating costs arising mainly from lower exceptional costs relating to placing and open offer in 2016.

<table>
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<th></th>
<th>Interims 2017</th>
<th>Interims 2016</th>
<th>FY 2016</th>
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<tr>
<td>Revenue</td>
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<td>Other income</td>
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<tr>
<td>Cost of sales</td>
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<td>Gross loss</td>
<td>(21)</td>
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<td>Operating expenses</td>
<td>(2,054)</td>
<td>(2,213)</td>
<td>(4,429)</td>
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<td>EBITDA</td>
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<td>Exceptional costs</td>
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<td>Depreciation</td>
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<td>Operating loss</td>
<td>(2,075)</td>
<td>(2,344)</td>
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<td>Net finance income</td>
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<td>Loss before tax</td>
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<td>175</td>
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<td>Loss for the period</td>
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<td>(4,344)</td>
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<td>Diluted EPS (pence)</td>
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<td>Adjusted diluted EPS (pence)</td>
<td>(9.3)</td>
<td>(13.2)</td>
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CASH FLOW SUMMARY

- Net cash of £5.6m on deposit with maturity of less than one year
- Increase in depreciation resulting from additional capital investment in production capabilities
- Ongoing capital expenditure programme investment for development of production processes and related assets
- Net working capital requirement increase due to reduction in trade creditors and accruals

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<tr>
<td>Depreciation</td>
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<td>IFRS 2 Share based payments</td>
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<tr>
<td>Net working capital movement</td>
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<td>Cash used in operations</td>
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<td>Capital expenditure</td>
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<td>(408)</td>
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<td>Free cash flow</td>
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<td>Proceeds from issue of shares</td>
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<td>Opening cash at bank</td>
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<tr>
<td>Cash at bank</td>
<td>5,554</td>
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SUMMARY

- Orders underway as customers evolve from sampling to purchasing
- Continued momentum with numerous blue chip customer collaborations and strengthened commercial pipeline within core markets, with significant progress during the period
- IP further developed to enable a market leading position through enhanced graphene manufacturing, dispersion capability and testing accreditation
- Significant investment into strengthening the management team and widening Company’s geographic reach
- Graphene remains a ‘wonder’ material with global recognition and awareness of the considerable material enhancements it can deliver end industries
- **Applied Graphene Materials is confident of being the UK’s leading graphene manufacturer as it continues to benefit from unique IP and increased commercial momentum within its target sectors**