

# Creating Material Change

Year ended 30 June 2018  
Results Presentation

September 2018



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# Creating Material Change

Industry leader applying advanced materials, including graphene, to enhance existing products across a wide range of industries

We bring advanced engineering and materials know-how to unlock the performance potential of targeted next generation products

**David Banks**  
**Keith Broadbent**  
**Matt Wood**

*Chairman*  
*COO*  
*FD*

# Highlights

## *Customer numbers and volumes up*

- 13% increase in commercial revenues to £3.4m (FY17: £3.0m), Excludes sales deferred into current year
- Record sales of over £1.0m of graphene related products and services
- Invoiced more than 50 customers for graphene products/services
- Two SBUs (AMAT and RPC) established, both increased sales
- Group loss from operations at £5.3m (FY17: £4.8m)
- Board strengthened – Keith Broadbent appointed COO with CEO search ongoing
- Long-term contracts secured in SiC (US) and graphene/nanomaterial services (Thailand)
- Significant improvements made in graphene functionalisation capabilities
- Cash at period end of £5.0m (June 2017: £2.1m)
- Current contracted order book of £5.2m, with two customers over three years and five years, respectively

# Financial Review

## Consolidated Profit & Loss (*audited*)

	Y/E June 2018	Y/E June 2017	Change
	<u>£'000</u>	<u>£'000</u>	<u>%</u>
Revenue	3,403	3,004	13.3
Cost of sales	(1,403)	(894)	
<b>Gross Profit</b>	<b>2,000</b>	<b>2,110</b>	<b>(5.5)</b>
Other income	831	901	(7.8)
<b>Group income</b>	<b>4,234</b>	<b>3,905</b>	<b>8.4</b>
<b>Expenses</b>			
R & D expenditure	(878)	(908)	(3.3)
Share based payment expense	(291)	(351)	(17.1)
Finance costs	(95)	(297)	(68.0)
Other administrative expenses	(7,684)	(7,090)	8.4
<b>Group costs</b>	<b>(8,948)</b>	<b>(8,646)</b>	<b>3.5</b>
<b>Loss before taxation</b>	<b>(6,117)</b>	<b>(5,635)</b>	<b>3.5</b>
Loss per share (£)	(0.22)	(0.28)	(21.4)

# Financial Review

## Consolidated balance sheet (*audited*)

	30 June 2018	30 June 2017	change
	<u>£'000</u>	<u>£'000</u>	<u>£'000</u>
Non-current assets	9,828	10,020	(192)
Inventories	1,022	1,212	(190)
Trade and other receivables	1,067	1,333	(266)
Corporation Tax	473	345	128
Cash	<u>5,092</u>	<u>2,091</u>	<u>3,001</u>
<b>Total Assets</b>	<b>17,482</b>	<b>15,001</b>	<b>2,481</b>
Current:			
Trade and other payables	2,250	2,623	373
Bank loans	<u>256</u>	<u>359</u>	<u>103</u>
	<b>2,506</b>	<b>2,982</b>	<b>476</b>
Non-current: Bank loans	640	911	271
Deferred tax and pension obligations	<u>1,795</u>	<u>2,203</u>	<u>408</u>
	<b>2,435</b>	<b>3,114</b>	<b>679</b>
<b>Total Liabilities</b>	<b>4,941</b>	<b>6,096</b>	<b>1,155</b>
<b>Total Net Assets</b>	<b>12,541</b>	<b>8,905</b>	<b>3,636</b>

# Financial Review

## Consolidated cash flow (*audited*)

	Y/e June 2018	Y/e June 2017	Change
	<u>£'000</u>	<u>£'000</u>	<u>£'000</u>
<b>Loss before taxation</b>	<b>(6,117)</b>	<b>(5,635)</b>	<b>(482)</b>
Non cash items	<u>1,262</u>	<u>1,442</u>	<u>(180)</u>
<b>Operating cash flow</b>	<b>(4,855)</b>	<b>(4,193)</b>	<b>(662)</b>
Working capital movement	615	(348)	963
Cap Ex / investing activities	(1,259)	(1,069)	(190)
Tax received	269	412	(143)
Net cash from equity issues	8,757	6,058	2,699
Finance costs	(95)	(297)	(202)
Net borrowing movements	(446)	(1,409)	(1,409)
FX	<u>15</u>	<u>75</u>	<u>75</u>
<b>Net increase / (decrease) in cash</b>	<b>3,001</b>	<b>(771)</b>	<b>(3,772)</b>
Cash at the beginning of the year	<u>2,091</u>	<u>2,862</u>	<u>(771)</u>
<b>Cash at the end of the year</b>	<b>5,092</b>	<b>2,091</b>	<b>3,001</b>



# Advanced Materials Strategic Business Unit



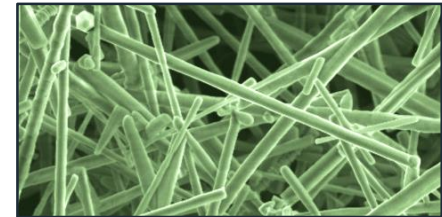


# Operational Highlights

## Advanced Materials SBU ('AMAT')

Total income of £2.4m (FY17: £2.1m)

- Number of customer live enquiry / engagements y-on-y increased to over 60 (18 month gestation)
- Strategic decision to open new markets: change to sales mix, and impact on GP margin, but long-term benefits expected
- Maiden sales of own cutting tool product (Blanks) have led to in-house investment and opportunity
- Powder-coating paint customer sales continued, now formalized into quarterly recurring order – Further increases in order volumes under discussion
- Taiwan facility production of biomedical inks ramping up
- Bespoke ink samples sent and in progress continue to be around 25-30 customers in APAC region
- Happy Call ceramic coating cookware opportunity in South Korea stalled following promise of product launch. Other customers approached for same application
- Reactor sale and functionalisation contract secured in Thailand



# AMAT: Post Period end Highlights

- New contract by secured HCT of \$3.3m over 5 years – total orderbook \$5.46m
- Supplied SiC fibre to major oil services multi-national to enhance catalysts. Tests ongoing in-house. Future sales dependent on test results
- HT60 purchased by IRPC (Major Petrochemical company listed in Thailand) now commissioned & two research contracts secured
- Ceramic cutting tool blanks project on time and will allow access to major customers up the value chain. Will maintain/improve margins
- Operating structure improvements to facilitate more access to our complementary technologies and expertise





# Resins & Polymer based Composites

**Strategic Business Unit**





# Operational Highlights

## Resins, Polymers & Composites ("RPC")

- SBU Commercial income increased to £1.02m (FY17: £0.87m) up 11%
- In-house dispersion capabilities at Ammanford significantly enhanced through customer paid projects
- Major functionalisation process improvements achieved – from 5% to 18% in Oxygen (atomic weight)
- Sale of panel prototype system to Everpower (Xiamen) for automotive and aerospace sector with potential for phase 2 to develop further the technology
- New grant contracts secured – Elastoplas £280k; CoCasl £90k; and F4Paek £130k.
- GTP product first orders released and shipped for a gas transition pipe application in the UK (£0.1m)
- Flowtite second test did not achieve the required results to progress to next product development stage –Further technology development and commercial discussions ongoing based on test results



# RPC: Post Period end Highlights

- >£0.6m new grant wins since 1 July 2018
  - Nanotool £110k
  - Graphosite £226k
  - Niche Vehicle Network £120k
  - grEAT Fun2 £105k
  - GraCELS2 £130k
- Reactor agreed to be installed in the new GEIC building in Q2 FY19
- Contract with The English Institute for Sport (EIS) on wearable technologies for 2020 Olympic and Paralympic athletes
- A first order for a graphene ink formulation of £17.5k made from Ammanford site made to large packing solutions customer



# Outlook

## *Building blocks in place for growth*

- Focus on sales growth from expansion activities and cross-selling opportunities to be exploited (first SiC application in UK commenced (subject to T+Cs))
- New functionalisation levels on reactors to be verified by NPL
- Payment for development of bespoke applications now in place in UK and being transferred i.e. commercial total focus
- Tight control of costs and investment. Funds raised being invested in in-house SiC cutting tools production (blanks), but not on Taiwan facility until commercial orders are received
- Everpower opportunities to be sought in Q2 to follow up on sales in FY18 for next stages
- Inks sales in Taiwan into the biomedical sensor market being supported by expertise in the UK to assist accreditation requirements
- Continued investment in facilities in UK with quick turnaround samples to expedite iterative development





# Outlook

*Building blocks in place for growth  
(continued)*

- Unique industrial position in the graphene and advanced materials world today:
  - Geographic coverage
  - Increased product portfolio
  - Significant markets
- 1. New structure focused on commercial operations and business development
- 1. One Company – One team: Facilitating strategic resource planning to maximise revenue generation





# Creating Material Change

**Additional slides / Appendices**



haydale



# Board of directors

- David Banks, Interim-Executive Chairman

David Banks started in Stock Broking in Birmingham in 1979 with Harris, Allday, Lea and Brooks before moving to London and becoming an Institutional Salesman at Panmure Gordon where he was acclaimed in the Automotive, Engineering, Aerospace and Motor Distributors sectors. He subsequently became a Corporate Broker advising many companies on their Corporate Structure, Strategy, Messaging and Presentations. He also raised the Capital for many of these Companies both at IPO and in Secondary fund raises. David joined Haydale as Non-executive Chairman in July 2017 and was appointed as Interim-Executive Chairman on 5 September 2018

- Keith Broadbent, Chief Operating Officer

Keith joined Haydale in July 2017 as head of its Resins, Polymers and Composites Strategic Business Unit (RPC SBU) and as Managing Director of Haydale Composites Solutions Ltd. Prior to joining Haydale, Keith held a number of senior operational and commercial positions which covered aerospace, automotive, defence, automotive, marine and medical sectors. His experience includes significant multi-site responsibilities in both the UK and internationally. The companies he has worked for include Princess Yachts International, Sunseeker, TT Electronics and most recently at Ultra Electronics. Keith has demonstrated a strong track record in the delivery of budgets, high level customer service and enhancing shareholder value. Keith was appointed as the Group's Chief Operating Officer on 5 September 2018. Keith has an MBA in strategy and management

- Matt Wood, Finance Director

Matt Wood is a Chartered Accountant and experienced finance director and corporate finance professional with a background in advising quoted growth companies. A former nomad, since 2006, Matt has worked as a finance and non-executive director with a variety of companies and joined Haydale in early 2014 before its AIM IPO. Matt holds a first-class degree in Economics.



## Board of directors (cont'd)

- Ray Gibbs, President, Business Development

Ray Gibbs is a Chartered Accountant, and former Deloitte audit and corporate finance partner for 9 years. He has spent the last 21 years in industry as CFO or commercial director of high technology and fast-moving consumer goods businesses both in the quoted and private arenas with sales ranging from £0.5 million to £500 million. He was a former CFO of Chemring Group Plc. Ray is a Board Member of the USA based National Graphene Association and is the UK Chairman of the UK and China Joint Working Group on Graphene Standardisation, organised by the BSI Group. Ray was part of the original Haydale Graphene Industries' management team that acquired Haydale Limited in 2010, was its CEO between 2013 and 2018, and was appointed as President, Business Development on 5 September 2018.

- Roger Smith, Executive Director

Roger Smith graduated with a degree in physics and has worked in the global oil and gas sector for the past 30 years. He has set up and invested in businesses in Europe, Middle East and North America. Roger has started up, managed and subsequently sold 2 successful consulting businesses and in doing so has worked with venture capital and private equity houses. He has also held the post of commercial director with Bureau Veritas and Senior Vice President with Petrofac Plc. Roger was part of the original Haydale Graphene Industries' management team that acquired Haydale Limited in 2010.

- Roger Humm, Senior Independent Non-Executive Director

Roger is an experienced Commercial and Finance Director with extensive knowledge of high-growth technology companies. He held corporate, financial and senior management roles with Oxford Instruments plc both in the UK and USA, including responsibility for corporate. Roger gained his BSc in microbiology and virology from Warwick University before qualifying as a chartered accountant with Grant Thornton. He has an MBA from the University of Bath.

## Board of directors (cont'd)

- Graham Eves, Non-Executive Director

Graham Eves joined GKN plc in 1967 setting up and running a special operation for GKN plc's head office in Switzerland. He returned to the UK in 1980 to work in venture capital and establish his own international business consultancy. His main activities covered advising a range of German, North American and Japanese automotive component/technology suppliers. Graham is a non-executive director of AB Dynamics plc. He was on the AIM advisory committee of the London Stock Exchange and has a Master of Arts degree in Modern and Medieval Languages from the University of Cambridge.



Thank you

