



Creating Material Change

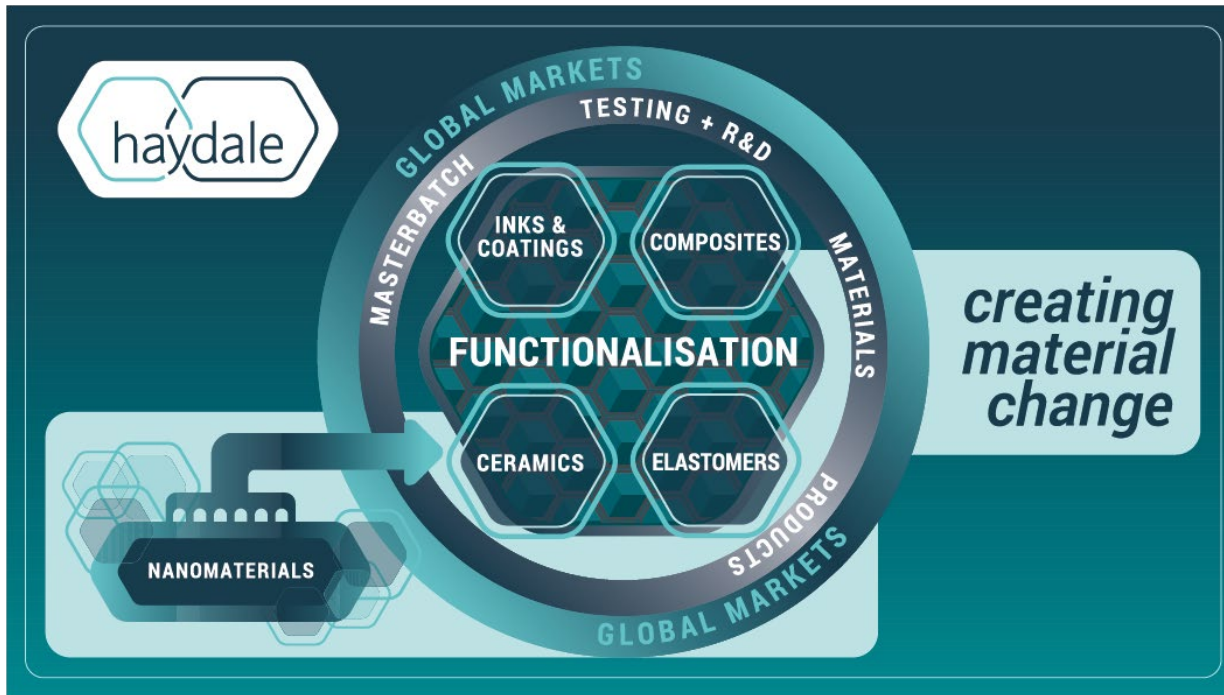
Year ended 30 June 2019
Results Presentation

October 2019



haydale

What We Do



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

Keith Broadbent
CEO

Laura Redman-Thomas
FD

Industries we are Involved In...

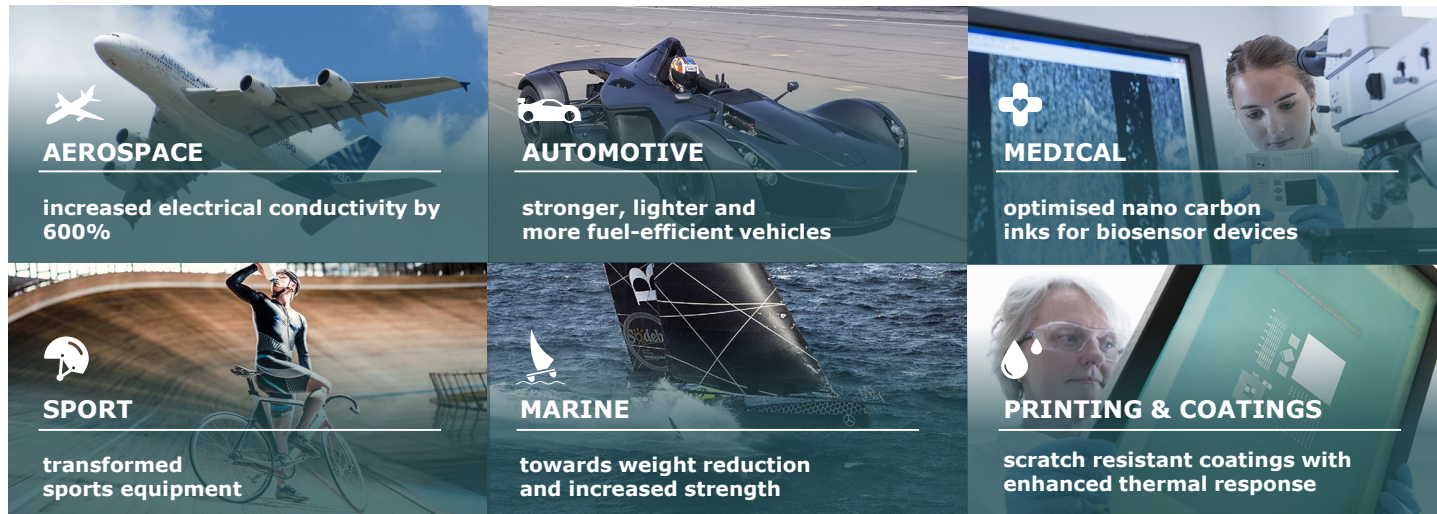
We are a trusted partner with our customers, putting quality, performance and customer service at the heart of everything we do.

Unique industrial position in the graphene and advanced materials world today:

geographic coverage

increased product portfolio

Significant markets



Highlights

A year of change...

- Total income in FY19 was broadly in line with last year at £4.25 million (FY18: £4.23 million)
- Business cost base re-aligned with savings annualized at circa £1.6 million. Overhead reduction focused on slimming down the board, senior management, consultants and travel costs
- Significant adverse one-off administrative costs of £2.13 million for impairment and exceptional items meant that the total admin expenses for the year were £10.44 million (FY18 £8.95 million). Adjusted operating loss for the year reduced to £5.62 million (FY18: £6.12 million) showing an underlying improvement in the second half
- Cash at period end of £4.69 million (June 2018: £5.09 million)
- Major focus on sales approach creating a global sales team generating sales pipeline with new and existing product introduced to significant sized markets
- \$1.5 million invested in the US blanks business to allow movement up the supply chain, strengthen customer relations and open new opportunities
- Functionalization capabilities continue to be developed – from 5% to 18% in Oxygen (atomic weight), challenging reduced GO markets
- Strategic focus now in place and ongoing

Consolidated Profit & Loss (*audited*)

Financial Review

	Y/E June 2019	Y/E June 2018	Change
	<u>£'000</u>	<u>£'000</u>	<u>%</u>
Revenue	3,467	3,403	1.90
Cost of sales	(1,567)	(1,403)	
Gross Profit	1,900	2,000	(5.00)
Other income	785	831	(5.50)
Group income	4,252	4,234	0.40
Expenses			
Share based payment expenses	(200)	(291)	31.30
Restructuring costs	(350)		
Impairment intangible assets	(1,784)		
Finance costs	(123)	(95)	(29.50)
Other administrative expenses	(7,983)	(8,562)	6.80
Group costs	(10,440)	(8,948)	(16.70)
Loss before taxation	(7,755)	(6,117)	(26.80)
Loss per share	(0.06)	(0.21)	74.40
Adjusted Loss before taxation	(5,621)	(6,117)	8.10

Financial Review

Consolidated balance sheet (*audited*)

	30 June 2019	30 June 2018	Change
	<u>£'000</u>	<u>£'000</u>	<u>£'000</u>
Non-current assets	8,033	9,278	(1,245)
Inventories	1,182	781	401
Trade and other receivables	1,109	1,308	(199)
Corporation Tax	836	473	363
Cash	4,688	5,092	(404)
Total Assets	15,848	16,932	(1,084)
Non-Current Liabilities: Bank loans	(388)	(640)	252
Deferred tax and pension obligations	(1,085)	(1,245)	160
Current Liabilities: Bank loans	(859)	(256)	(603)
Trade and other payables	(2,056)	(2,172)	116
Deferred income	(209)	(78)	(131)
Total Liabilities	(4,597)	(4,391)	(206)
Total Net assets	11,251	12,541	(1,290)

Financial Review

Consolidated cash flow (*audited*)

	Y/E June 2019	Y/E June 2018	Change
	£'000	£'000	£'000
Loss before taxation	(7,755)	(6,117)	(1,638)
Non cash items	3,283	1,289	1,994
Pension plan payments	(118)		(118)
Operating cash flow	(4,590)	(4,828)	238
Working capital movement	(188)	615	(803)
Cap Ex /investing activities	(1,472)	(1,259)	(213)
Tax received	76	269	(193)
Net cash from financing activities	5,634	8,757	(3,123)
Finance costs	(123)	(95)	(28)
Net borrowing movements	250	(446)	696
FX	9	(12)	21
Net (decrease)/increase in cash	(404)	3,001	(3,405)
Cash at the beginning of the year	5,092	2,091	3,001
Cash at the end of the year	4,688	5,092	(404)

Advanced Materials

Strategic Business Unit

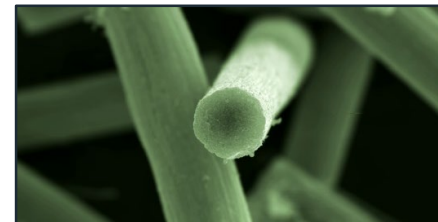
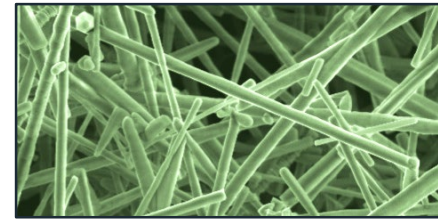


Operational Highlights

Greer, South Carolina AMAT SBU

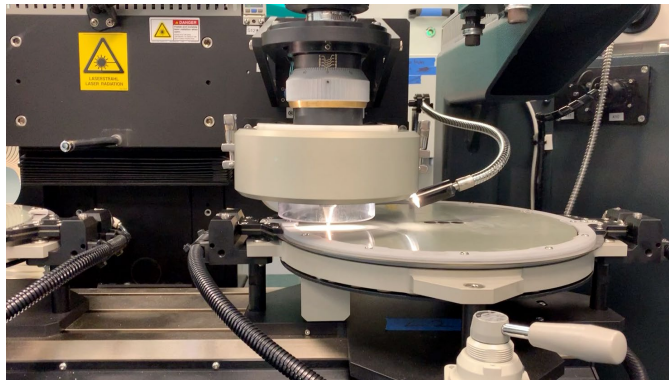
Total income of £2.62m (FY18: £2.12m)

- Revenue up circa 20% from FY18 with new blanks business looking to increase future revenues organically
- Blanks line has now been fully installed overcoming teething problems.
- Structure flattened with BU Director not replaced
- Number of customer engagements y-on-y continues to progress with new opportunities and new pipeline underway
- A four-year agreement to supply SiC micro-fibre to a global group selling tooling and wear-resistant solutions was developed and extended
- The introduction of SiC in the powder-coating anti-corrosion market has continued with revenue growth expected
- Group's new Sales VP, Neil Taylor, is located at Greer and is working on opportunities with new Group sales team to introduce graphene enhanced composites (Pre Preg) into the US and SiC into Europe
- An example being a paid-for commercial contract in the UK in the anti-corrosion market, with a bespoke coating process using SiC



Operational Highlights – Next steps

- Teething and quality issues on blanks business have been overcome post year end (Sept 19) Significant growth is still anticipated in FY20
- CT12 product designed to compete with lower cost ceramic cutting tools – blanks customers have expressed interest



APAC Inks and Commercial Projects

Strategic Business Unit



Operational Highlights

Thailand, Korea and Taiwan APAC SBU

Total income of £0.41m (FY18: £0.26m)

- Revenue rise mostly centered around Group's Thailand Operation
- Several Senior associates exited in FY19 and the beginning of FY20 thereby flattening the structure
- Closer co-operation with other Group sites and expertise underway but is subject to an ongoing review that is planned to be finalized in FY20
- Thailand continued to work with IRPC (Thailand's leading Petro-Chemical Company) on several commercial projects after having successfully commissioned a new reactor for them (HT60)
- An agreement was signed with TKS Siampress Management Co., Ltd to use the PATit technology in commercial applications on an exclusive basis in Thailand and one other territory to be decided by the parties
- They are working with Haydale and other customers on potential end applications for PATit
- Sales of specialty inks the biomedical sensor market through Taiwan remains at lower than expected volumes



Resins & Polymer based Composites

Strategic Business Unit



Operational Highlights

Resins, Polymers & Composites ("RPC")

Total income of £0.44m (FY18: £1.02m)

- Significant staff reductions at the UK composite site
- Revenues down - FY18 included several one-off customer sales
- Product Portfolio was very limited and required action as below
- Major focus on TRL (Technical Readiness Levels) means new Market offerings with complete Data sheets (Mechanical and Thermal pre preg with Electrical in progress) now in place plus associated masterbatch
- Customer paid-for projects now the absolute focus with only strategic projects grant funded
- Functionalisation process improvements major – from 5% to 18% in Oxygen (atomic weight)



Operational Highlights

Resins, Polymers & Composites ("RPC")

- World's first graphene enhanced car launched at Goodwood, BAC Mono. Expected to lead to further commercial sales of Haydale's pre preg products
- European space agency grant award - partnered with Airbus to develop next generation space products (demisable tanks)
- And next to come – Electrical Pre Preg data sheet as a result of grant funded previous activity with real commercial potential in Aerospace industries





World first with BAC Mono supercar – use of graphene in car body panels and tooling . Overall increased mechanical performance and weight reduction.

Current Partner:

BAC

Opportunities/Applications Haydale and BAC:



Commercialisation of graphene and other nanomaterials.



Printed sensors using graphene based inks in vehicle diagnostics.



Provide driver/ vehicle interfaces.

Outcomes



Weight reduction.



Design optimisation.



Improved vehicle performance.



Improved driver safety.



Outlook and Next Phase of Evolution....



Outlook – continuing the Commercial Journey....

Where we are:

1. Brought together a commercially focused team.
2. Operationally focused on meeting customer needs and business needs within affordability.
3. Products in place with real data. Target market and customer based sales tools created.
4. Pipeline in place with over 100 customers contacted since June 2019.
5. Driven by opportunities; taking low hanging fruit, working with customers on large commercial projects



Close association with the right networks and customers

Secure and dedicated supply chain

Process technology

Commercialisation of resins, polymers, composites inks and advanced materials

Outlook

Next Phase of Evolution...

- Much of the commercial re focus and cost re-alignment complete - O/H reduction as part of restructure, key skills retained in business with a new commercial focus
- Developing people through greater empowerment and a new emphasis on appraisal and management and associate development – round tables
- Maintaining the much tighter financial control of costs and investments with business review processes becoming part of the monthly cycle
- Converting the work recently done on commercial Product offering definition (new product lines and data sheets – established a product portfolio) through active and sales orientated pipeline to facilitate organic growth
- Implementing an all-inclusive company website focusing on sales and product offering with pipeline opportunities FY20 (ongoing)
- Functionalisation levels improvement and the core technology remains a key to future success – working with NPL (National Physics Laboratory) to continue progress
- Continue the strategic BU review with the APAC region
- Continue the commercial journey, it doesn't end – it's just the beginning

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Additional slides / Appendices



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Board of directors

Executive Directors

Keith Broadbent; Chief Executive 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 before becoming the Group's Chief Operating Officer on 5 September 2018. Prior to joining Haydale, Keith held several senior operational and commercial positions which covered aerospace, automotive, defence, 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. Following the general meeting on 12 March 2019, Keith was appointed as the Group's Chief Executive Officer.

Laura Redman-Thomas - Chief Financial Officer

Laura is an experienced finance professional, having held a variety of senior finance roles over the last 20 years, latterly at Stadium Group Plc where she was the finance director of its Technology Product Division before its sale to TT Electronics Plc in 2018. Prior to that, Laura spent almost 14 years at De La Rue, as both finance director and commercial director of a number of De La Rue operating companies. Laura holds a Masters degree in Strategic Business Management and is an Associate Member of the Chartered Institute of Management Accountants. Laura joined Haydale as CFO in December 2018.

Board of directors (cont'd)

Non-executive Directors

David Doidge Richard Banks, Non-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 and, following the general meeting on the 12TH March 2019 reverted to Non-executive Chairman.

Roger James Humm MBA BSc (Hons) FCA, Senior Independent Non-Executive Director

Roger is a chartered accountant with over 30 years technology business experience. He runs his own consultancy business and is currently CFO at Boxarr Limited and G-Volution Limited, a trustee director at Oxford Instruments Pension Trustee Limited and chairs the Investment Committee of the University of Bristol Enterprise Funds. He has recently held finance roles with Ixico plc, Nanosight Limited and Blue Earth Diagnostics Limited amongst others. Roger is chairman of Haydale's audit & risk committee and a member of the remuneration committee.

Graham Dudley Eves MA, Non-Executive Director

Graham Eves joined GKN plc in 1967 where he spent 13 years operating across multiple overseas jurisdictions including, for the last 5 years, 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 and he co-founded and was chairman of an automotive technology company, Mechadyne (now part of KolbenschmidtPierburg AG). Graham is a non-executive director of AB Dynamics plc. He was on the AIM advisory committee of the London Stock Exchange for 6 years and has a Master of Arts degree in Modern and Medieval Languages from the University of Cambridge.



Thank you

