

Interims Results Review

Period Ending December 2020

Keith Broadbent - CEO

Mark Chapman - CFO

March 2021



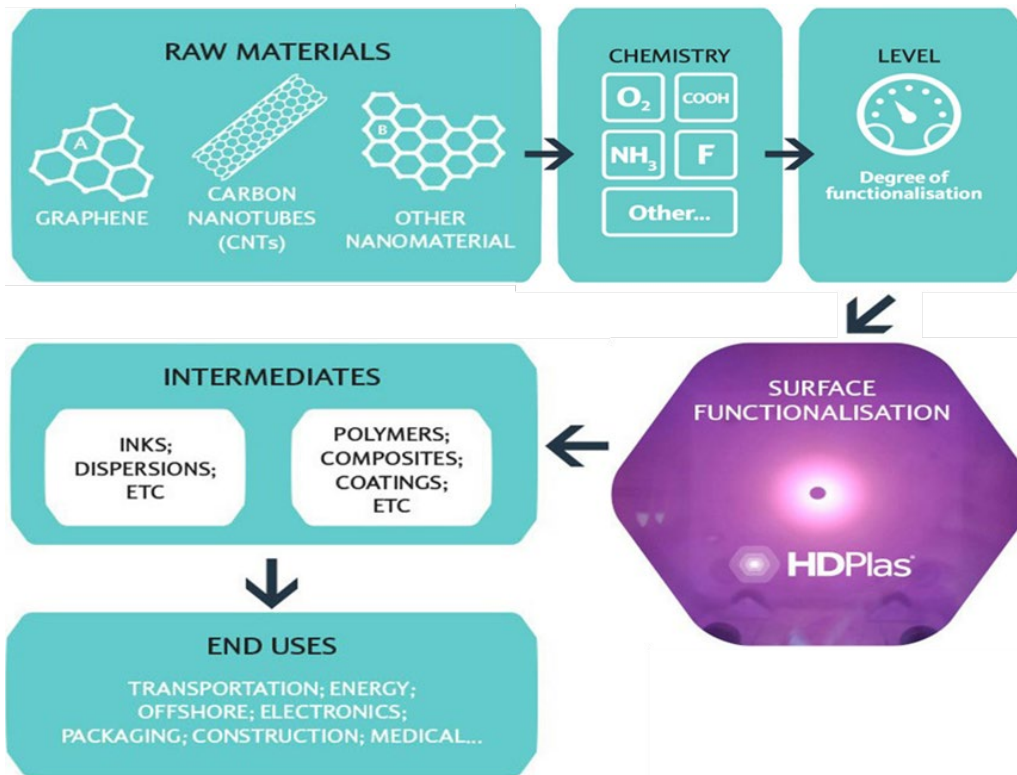
Haydale our DNA

An Industry leading materials technology beacon

- Two state-of-the-art technologies brought together – plasma functionalisation and nanomaterials – in unique, environmentally friendly and growing world-wide applications
- Our capacity to produce commercial levels of functionalised nanomaterials sets us apart
- The next phase of these technologies is ready to roll out – keeping Haydale ahead of the competition
- Patents on the HDPlas® process and PATit technologies (the latter with a number pending) being supplemented and aligned to considerable in-house know-how
- Loss from Operations reduced by £0.84m (32%) and LFL Cash used in Operations reduced by 50% to £200k pcm
- The company has moved swiftly to address new markets and at the same time further reduced costs to streamline for the new normal commercial business world – team is now circa 50

Haydale HDPlas™

Our expertise and USP is our **worldwide patented HDPlas™ functionalisation** process

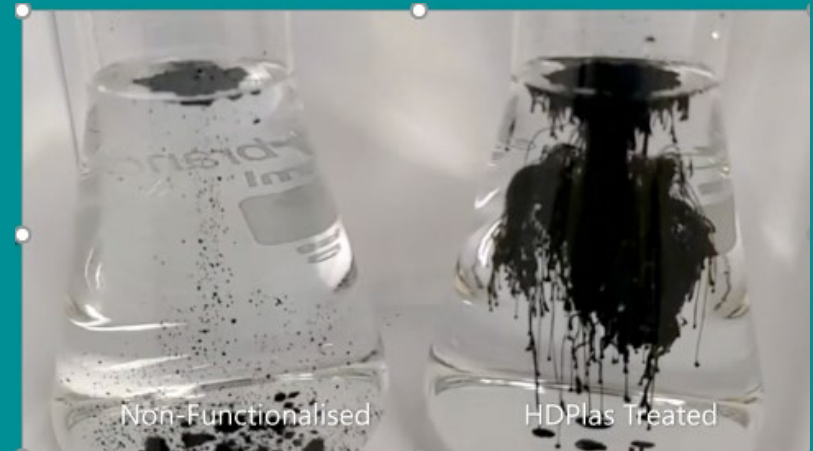


Industry leader applying advanced and unique material plasma functionalisation techniques to nano and other materials, including graphene, thereby enhancing existing products across a wide range of industries.

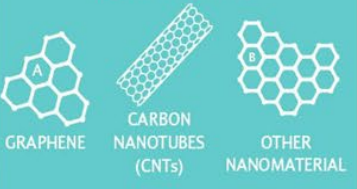





















Haydale HDPlas™

- Graphene and nano materials are inert, they do not disperse easily.
- Haydale HDPlas™ is a world wide patented technology to enhance the dispersibility of nano materials
- Improving properties such as mechanical, electrical and thermal performance in a wide range of applications



Industry Impact

Nano Materials	Functionalisation	Property Improvements	Product types	Industries	Applications
<p>RAW MATERIALS</p>  <p>GRAPHENE CARBON NANOTUBES (CNTs) OTHER NANOMATERIAL</p> <p>Nano materials; Boron Nitride, Boron Nitride Nano Tubes</p>	<p>SURFACE FUNCTIONALISATION</p>  <p>HDPlas</p>	<p> ELECTRICAL CONDUCTIVITY</p> <p> THERMAL CONDUCTIVITY</p> <p> MECHANICAL STRENGTH</p> <p> Dispersion</p>	<p> Composites</p> <p> Functional Inks</p> <p> Elastomers</p> <p> Coatings</p>	<p> Sports</p> <p> Aerospace</p> <p> Medical</p> <p> Automotive</p> <p> Construction</p>	    

FY21 Interim Highlights

- Agreement with Qinhuangdao ENO High-Tech Material Development Co., Ltd., to act as a representative for Haydale's ceramic and silicon carbide products in China
- Ahead of schedule on the three-year exclusive agreement with iCraft announced in September 2020 with 0.4 tonnes being shipped by the Period end and further orders pending of 1.6 tonnes for H2 FY2021
- Commercial progress with elastomers now evident following first sale to Bolflex of our functionalised nano-enhanced rubber masterbatch for use in its premium shoe range. Follow up orders are scheduled for H2 FY2021
- In collaboration with a leading biosensor technology company, developed a next generation functionalised biomedical ink with improved analyte detection which enhances detection and the accuracy of diagnosis.
- In broadening the product range in the U.S, completed a successful trial of CeramycShield™, a ceramic surface treatment that utilises SIC to enhance and protect concrete assets, at a Central American water treatment facility (see next slide)

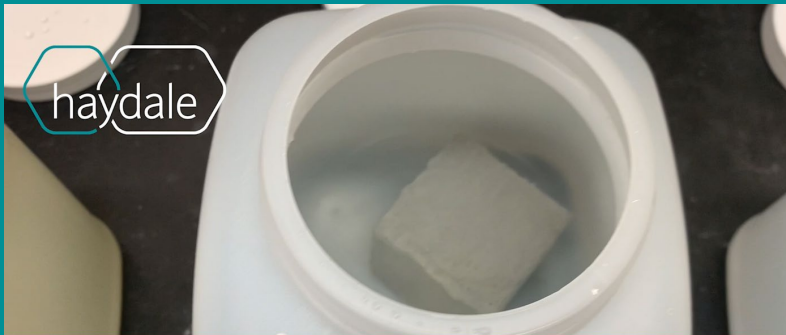
CeramycShield™

This unique technology is NOT a coating but a **Ceramic Shield**. It forms a new surface and fills in cracks and voids.

It is reinforced with SI-TUFF™ silicon carbide.

Repair in Place

Ceramic polymer with SI-TUFF® is spray-applied to existing concrete piping and structures. It cures in-place under almost all conditions.



The Quartz sealed material is not bubbling with no degradation taking place.

Profit & Loss

	Dec-20 Unaudited £'000	Dec-19 Unaudited £'000	% Mov
Revenue	1,277	1,347	-5%
Gross Profit	939	838	12%
<i>Gross Profit Margin</i>	74%	62%	
Other Operating Income	212	320	-34%
Adjusted Admin Expenses	2,545	3,268	22%
Adjusted Operating Loss	1,394	2,110	34%
Adjusting Administrative Items			
Share Based Payment Exp	75	142	
Lease rental Charges (IFRS 16)	310	315	
Restructuring Costs	-	123	
Dep & Amort	627	854	
Total Trading Admin Expenses	2,937	3,788	-22%
Loss from Operations	1,786	2,630	-32%
Finance Costs	147	94	-56%
Loss Before Taxation	1,933	2,724	29%
Taxation	182	159	14%
Loss for Year from Cont. Ops	1,751	2,565	32%

- Turnover adversely impacted by depressed aerospace/petrochemical demand
 - Minimal Blanks sales;
 - Support from Far East customer for whisker but partially offset by US customer not taking contractual commitment;
 - Sales of functionalized nanomaterials increased in Period and this will continue in H2 FY21.
- Product mix led to GP margin improvement – should fall back slightly in H2 FY21.
- Other operating income including grants reduced reflecting commercial focus of Group.
- Adjusted Admin Expenses of £2.54m (H1 FY20: 3.26m), reduction anticipated to continue in H2 FY21:
 - Diminishing returns achievable on cost savings in the future
 - R&D capitalisation of £0.13m (H1 FY20: £0.12m)
- Loss from Operations of £1.79m (H1 FY20: £2.63m) reduced by £0.84m (32%)

Cashflow

	Dec-20 Unaudited £'000	Dec-19 Unaudited £'000	% Mov
Operating cash flow before working capital changes	1,061	2,088	49%
Working Capital Movement	106	430	125%
Cash used in Operations	955	2,518	62%
R&D Tax Credit Received	-	846	-100%
Net Cash used in investing activities	150	149	1%
Cash Flow used in Financing Act			
Finance Costs	91	94	3%
Finance Costs - Right of Use Asset	56	0	-
Payment of Lease Liability	310	0	-
Net proceeds from Share Issue	2,757	436	532%
New Bank Loans Raised	-	-	
Repayment of Borrowings	77	545	86%
	2,223	203	
Effect of XR Changes	66	36	-283%
Net Change in Cash	1,052	1,988	153%
Balance at Start of Year	823	4,688	82%
Balance at End of Year	1,875	2,700	31%
Net Cash used in Operations	955	2,518	62%
IFRS 16 Adj Payment of Lease Liabilities	310	-	-
LFL Net Cash used in Operations	1,265	2,518	50%

- Significantly reduced Cash used in Operations in H1 FY21 - improvement of £1.26 million (50%) on a LFL basis
 - Cash burn reduced to circa £200k pcm for Operations
- Small positive working capital movement due to:
 - Timing on sales/receivables;
 - US inventory – should continue to unwind through H2 FY21.
- R&D Tax Credits – delayed receipt of £0.4m to H2 FY21. Prior Yr double receipt from both FY18 and FY19 received in Period;
- Capex remains muted but will increase in H2 FY21.
- Financing
 - Fund raise of £2.76 million (H1 FY20 - £0.44m)
 - H1 FY21 continued repayment of US Fixed Asset loan (final payment in Oct 2021). Prior year repayment of Development Bank of Wales loan and repayment of US Fixed Asset loan.

Balance Sheet

	Dec-20 Unaudited £'000	Dec-19 Unaudited £'000	% Mov
Non Current Assets	9,617	7,347	31%
Goodwill	1,454	1,454	0%
Intangible Assets	1,184	1,078	10%
Property, Plant & Equip	6,979	4,815	45%
Current Assets	5,167	5,331	-3%
Inventories	1,562	1,618	-3%
Trade Receivables	580	512	13%
Other Receivables	483	352	37%
Corporation Tax	567	149	281%
Cash	1,975	2,700	-27%
Total Assets	14,784	12,678	17%
Non Current Liabilities	3,888	1,128	-245%
Bank Loans	44	234	-81%
Pension Obligation	1,280	894	43%
Other Payables	2,564	0	
Current Liabilities	2,551	2,495	2%
Bank Loans	1,024	1,148	-11%
Trade & Other Payables	1,391	1,174	18%
Deferred Income	136	173	-21%
Total Liabilities	6,439	3,623	78%
Total Net Assets	8,345	9,055	-8%

- IFRS 16 adjustments
 - Property, Plant and Equipment increased by £2.1 million; offset by
 - Right of use liability included in Other Payables of £2.56 million
- Reduction in working capital due to
 - Gradual unwinding of US inventory through FY21 – hampered by subdued sales
 - Increase in trade receivables only party offset by Trade and other payables
- Corporation tax (R&D tax credits) increased by the £0.39m due in H2 FY21.
- US Defined Benefit Pension Scheme (Closed)-obligation increased due to reduction in discount rate used - no payments into the scheme expected in H2 FY21.
- Net repayment of Bank loans in the Period of £0.31 m – repayment per cash flow offset by £0.05m UK Bounceback Loan.

Summary Outlook

- COVID-19 has been a major challenge with the US operation in the 'eye of the storm'
- The crisis has been used as a catalyst to further gear Haydale for growth in all regions – New products, New geographies, New commercial hires (Uwe Kemper)
- Haydale's spread of current and potential customers in different industries and geographies continues to grow and provides business resilience
- Our long term business confidence is underpinned by belief in the significant impact our state-of-the-art technology can have on materials science across many sectors
- The next phase of these technologies is ready and rolling out – keeping Haydale ahead of the competition
- The team has shown that it is fully adaptable to the challenges of the new world, looking to turn obstacles into opportunities – and moves at speed – commercially
- Directors are focused and have a will to win for all stakeholders and the progress continues

Thank you

