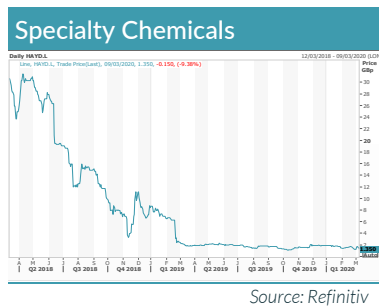




9 March 2020

**Market data**

EPIC/TKR	HAYD
Price (p)	1.5
12m High (p)	2.7
12m Low (p)	0.9
Shares (m)	340.2
Mkt Cap (£m)	5.1
EV (£m)	1.7
Free Float*	100%
Market	AIM

\*As defined by AIM Rule 26

**Description**

Haydale is involved in the production and functionalisation of nanomaterials, with key growth areas being silicon carbide (75% of revenues), functionalised inks and graphene composites.

**Company information**

CEO	Keith Broadbent
CFO	Mark Chapman
Chairman	David Banks
	+44 1269 842946
	<a href="http://www.haydale.com">www.haydale.com</a>

**Key shareholders**

Quilter Plc	13.3%
Anthony Best	11.4%
Nicholas Audley Money-Kyrle	8.3%
Davis & Monique Newlands	3.8%
Others	63.2%

**Diary**

Sep'20	Final results
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# HAYDALE

## Cost savings continue, revenue growth encouraging

Commercial traction is improving, medium-term financial issues have now been addressed, and the refocusing and re-orientating of the business with a major cost-saving programme is progressing well. The long-term risk/reward balance remains favourable, we believe. The markets, though, await clear evidence that the new management team is delivering on its revenue objectives.

- **Strategic developments:** The core operational objective remains the focus on SiC and the related cutting tools, functionalised inks and graphene composites. A global cross-site/cross-commodity sales team, each with specific product/market expertise, is now in place, with low regulated markets as key targets.
- **Financial developments:** 2018/19 interims revealed a 62% gross margin and excellent progress on cost-cutting initiatives. New management's key focus has been the reduction of central costs, e.g. marketing and travel, etc, and this is clearly visible. Management expects a reduced operating loss on a full-year basis.
- **Financial position:** Haydale's cash position was £2.7m at December 2019. Working capital management is well controlled, despite the rise in US inventory levels. Group management is assessing future debt funding options, but the group should remain in a positive cash position over the medium term.
- **Investment summary:** Haydale remains well positioned competitively, with a proprietary nanomaterial functionalisation plasma process. Commercial traction has now recovered, and the group has been financially de-risked. While the risk/reward balance remains favourable on a long-term basis, in our view, the market awaits clear evidence that the new management team is fully delivering on its revenue objectives.

**Financial summary and valuation**

Year-end Jun (£m)	2018	2019	2020E	2021E
Sales	3.4	3.5	4.1	5.7
Gross profit	2.0	1.9	2.5	3.5
Grant Income	0.8	0.8	0.6	0.6
EBITDA	-4.9	-4.4	-2.9	-0.6
Underlying EBIT	-5.7	-5.5	-3.9	-1.7
Reported EBIT	-6.0	-7.5	-3.9	-1.7
Underlying PBT	-5.8	-5.6	-3.9	-1.7
Underlying EPS (p)	-22.4	-2.9	-1.1	-0.4
Statutory EPS (p)	-23.7	-4.1	-1.1	-0.4
Net (debt)/cash	4.2	3.4	0.9	(0.1)
EV/sales (x)	0.3	0.3	0.4	0.3

Source: Hardman &amp; Co Research

**Analyst**

Paul Singer 020 7194 7622  
[ps@hardmanandco.com](mailto:ps@hardmanandco.com)

# Financials

## Profit and loss

- ▶ 2019/20 interims revealed revenues of £1.35m, down 17%, reflecting the previously announced slow start to the year, particularly in the silicon carbide (SiC) business into the US aerospace and petrochemical sectors. The gross margin remained healthy, at 62%, reflecting the favourable product sales mix.
- ▶ Management has been concentrating on reducing costs across all areas of the group, with the anticipated costs savings of £0.68m realised in the 2019/20 interims. Consequently, the adjusted operating loss before non-cash items reduced by 24% to £2.1m.
- ▶ Our forecasts assume a resumption of healthy growth in the group's silicon carbide business, with commercial levels and steadier purchasing patterns now being achieved, after early teething problems. The US SiC blanks continue to progress, with a \$700k order secured in October 2019, despite industry challenges.
- ▶ Gross margins are forecast to remain at over 60% in 2019/20 and 2020/21.
- ▶ 2019/2020 grant income will be marginally below that of 2018/19, reflecting the new emphasis on projects that should lead to commercial products in the short to medium term. Restructuring costs include costs associated with the closure of the loss-making Taiwan manufacturing facility.

Profit & loss				
Year-end Jun (£m)	2018	2019	2020E	2021E
Sales	3.40	3.47	4.10	5.68
COGS	-1.40	-1.57	-1.58	-2.16
Gross profit	2.00	1.90	2.52	3.52
Gross margin	58.8%	54.8%	61.5%	62.0%
Other income – grant	0.83	0.79	0.60	0.60
Sales & marketing	0.00	0.00	0.00	0.00
Admin.	-7.71	-6.87	-5.97	-4.90
R&D	-0.88	-1.00	-0.90	-0.90
EBITDA	-4.94	-4.41	-2.86	-0.63
Depreciation & amortisation	-0.82	-1.12	-1.05	-1.05
Restructuring costs	0.00	-0.35	-0.15	0.00
Underlying EBIT	-5.76	-5.53	-3.90	-1.68
Share-based costs	-0.29	-0.20	0.00	0.00
Exceptional items	0.00	-1.78	0.00	0.00
Statutory operating profit	-6.05	-7.51	-3.90	-1.68
Finance income	0.00	0.00	0.00	0.00
Finance cost	-0.10	-0.12	0.00	0.00
Associates	0.00	0.00	0.00	0.00
Net financials	-0.10	-0.12	0.00	0.00
Pre-tax profit	-5.86	-5.65	-3.90	-1.68
Reported pre-tax profit	-6.15	-7.63	-3.90	-1.68
Tax payable/receivable	0.85	0.57	0.39	0.17
Minorities	0.00	0.00	0.00	0.00
Underlying net income	-5.01	-5.08	-3.51	-1.51
Statutory net income	-5.30	-7.06	-3.51	-1.51

Source: Hardman & Co Research

## Balance sheet

- ▶ Haydale was in a cash position at December 2019 of £2.7m, with net cash at £2.0m, compared with the £4.69m cash position at 30 June 2019. This follows a new share subscription of £0.45m and a significant reduction in the cash burn rate.
- ▶ The cash position includes cash drawn from the working capital facility held by the group's US subsidiary, which, as at 31 December 2019, stood at £0.68m. The working capital facility is secured against the US inventory and debtor book, and is included in trade and other payables.
- ▶ Loan repayments are declining, with the DBW loan repayment of £70k per month ending in March 2020. Management is using cash to pay down debt in 2019/20 and is currently assessing future debt options.
- ▶ We forecast that Haydale will be in a net cash position of ca.£0.9m at the end of 2019/20, with cash neutrality in 2020/21.

Balance sheet				
@30 Jun (£m)	2018	2019	2020E	2021E
Shareholders' funds	12.5	11.3	8.2	6.7
Cumulated goodwill	0.0	0.0	0.0	0.0
Total equity	12.5	11.3	8.2	6.7
Share capital	0.5	6.4	6.4	6.4
Reserves	12.0	4.9	1.8	0.3
Minorities	0.0	0.0	0.0	0.0
Provisions/liabilities	0.0	0.0	0.0	0.0
Deferred tax	0.1	0.0	0.0	0.0
Long-term debt	0.3	0.9	0.4	0.4
Short-term loans	0.6	0.4	0.0	0.0
less: Cash	5.1	4.7	1.4	0.4
less: Deposits	0.0	0.0	0.0	0.0
less: Non-core invests.	0.0	0.0	0.0	0.0
Invested capital	8.5	7.8	7.3	6.7
Fixed assets	5.1	5.6	5.1	4.6
Intangible assets	2.1	1.0	0.9	0.7
Goodwill	2.1	1.5	1.5	1.5
Inventories	1.0	1.2	1.4	1.5
Trade debtors	0.7	0.6	0.7	0.8
Other debtors	0.4	0.5	0.5	0.5
Tax credit/liability	0.5	0.8	0.8	0.8
Trade creditors	-2.2	-2.1	-2.2	-2.3
Other creditors	-1.2	-1.3	-1.3	-1.3
Debtors less creditors	-1.8	-1.4	-1.5	-1.5
Invested capital	8.5	7.8	7.3	6.7
Net debt/cash	-4.2	-3.4	-0.9	0.1

Source: Hardman & Co Research

## Cashflow

- ▶ For 2019/20, capital expenditure will remain restrained at around £0.4m, we estimate.
- ▶ Working capital management has been good, despite the rises in US inventory levels, and will remain well controlled.

Cashflow				
Year-end Jun (£m)	2018	2019	2020E	2021E
Trading profit	-5.76	-5.5	-3.9	-1.7
Depreciation	0.65	0.9	0.9	0.9
Amortisation	0.15	2.0	0.2	0.2
Working capital	0.16	-0.2	-0.1	-0.1
Other	0.00	0.0	0.0	0.0
Company op. cashflow	-4.81	-2.8	-3.0	-0.7
Net interest	-0.1	-0.1	0.0	0.0
Tax paid/received	0.9	0.7	0.4	0.2
Operational cashflow	-4.1	-2.3	-2.6	-0.6
Capital expenditure	-0.7	-1.2	-0.4	-0.4
Sale of fixed assets	0.0	0.0	0.0	0.0
Free cashflow	-4.8	-3.5	-3.0	-1.0
Dividends	0.0	0.0	0.0	0.0
Acquisitions	-0.6	-0.3	0.0	0.0
Disposals	0.0	0.0	0.0	0.0
Other investments	0.0	0.0	0.0	0.0
Cashflow after invests.	-5.4	-3.7	-3.0	-1.0
Share repurchases	0.0	0.0	0.0	0.0
Share issues	8.8	5.9	0.4	0.0
Change in net debt	3.4	2.9	-2.5	-1.0

Source: Hardman & Co Research

## Commercial opportunities

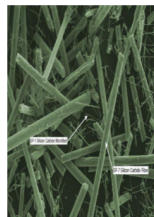
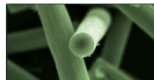
- ▶ Haydale’s commercial team is now operating globally, cross-selling the group’s newly standardised product range. The group has a pipeline in place, with current customer prospects of over 200. The sales team is focused on converting near-term opportunities, while the marketing team is focused upon bringing in longer-term business development opportunities. In the near term, Haydale’s overall business will be driven by the SiC business, reflecting the recently secured \$700k order.
- ▶ The group has launched functionalised graphene-enhanced pre-preg for lightning strike protection, with double-figure live enquiries from customers.
- ▶ We also note that the group’s functionalisation capabilities continue to improve. They are now approaching levels that would allow Haydale to challenge the Graphene Oxide and Reduced Graphene Oxide markets, and also offer scale improvements on other nano treatments.
- ▶ The group’s PATiT technology product (anti-counterfeiting software device) continues to progress, with several customers now in later stages of discussion.

### Silicon Carbide – the near-term driver

#### US – Greer, South Carolina

#### Silicon Carbide

- Contracted Silicon Carbide powder customers have been affected by slowdown in US aerospace – expected to pick back up in H2 2020 as the market recovers
- Blanks sales continue to progress as new customers targeted and in discussion on moving from powder to blanks (up supply chain) – double shifts in place
- Opportunity in progress with new partner technology containing SiC with UK utilities business (Cross selling)
- SiC anti-corrosion coating commercial contract in UK still progressing well and will have potential for other industries (other than aerospace)
- CT12 lower cost cutting tools for the cast Iron and steel markets being tested to look to open new sales channel
- The Sales VP located at Greer continues to work on opportunities across the group as part of the global sales team. To be supported by new ‘one company’ website in March 2020



### Haydale – commercialisation focus areas

#### Some of the key focus areas...

#### Major Opportunities :

1. We have a state of the art product in the PATiT offering – a product that could assist the fight against counterfeit goods.
2. We have major developments in our functionalisation process and are aiming at existing markets such as Graphene Oxide.
3. We have launched a lightning strike product and have generated interest from a number of important aerospace arenas.
4. We have an innovative offering with a partner involving our Silicon Carbide material with a UK Utilities provider

Source: Haydale

# Notes

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