The information contained within this announcement is deemed by the Group to constitute inside information as stipulated under the Market Abuse Regulations (EU) No. 596/2014 ('MAR'). Upon the publication of this announcement via a Regulatory Information Service ('RIS'), this inside information is now considered to be in the public domain.

For immediate release 22 February 2019

### **Havdale Graphene Industries plc**

('Haydale', the 'Company', or the 'Group')

### **Interim Results**

Haydale (AIM: HAYD), the global advanced materials group, announces its unaudited interim results for the six months ended 31 December 2018 (the 'Period' or 'H1FY19').

## Financial Highlights

- Group Revenues of £1.64 million for the Period, 20% up on H2FY18, but 20% down on H1FY18;
- Revenue from US operations up 10% to £1.28 million from H1FY18;
- Loss before tax for the Period was £3.47 million (H1FY18: £2.74 million); and
- Cash at period end of £0.96 million (30 June 2018: £5.09 million)

## **Operational Highlights**

- Significant investment in production capabilities at our US site to manufacture new Silicon Carbide cutting tools to increase sales and improve gross margins;
- Sold over 200kg of functional ink from our Taiwan facility into the biomedical sensor market;
- First commercial revenues for Haydale's graphene piezoresitive inks produced in Ammanford for pressure sensors in sporting headgear;
- Haydale's proprietary functionalisation capabilities improved surface chemistry of graphenes from 4% to 20%; and
- Re-sizing of Group's cost base commenced with initial £1.0 million of annualised savings, primarily in the UK

# **Post Period End Highlights**

• Received £0.75 million loan from Development Bank of Wales for working capital

## Commenting on the interim results, David Banks, Interim Executive Chairman of Haydale, said:

"We will continue to implement the management actions already started to re-set the cost base and consolidate the Group's position over the next 6 months with our focus on SiC, functionalised inks and graphene composites. There will be a marginal impact on sales in the current financial year as the changes are bedded in. However, we are recruiting specific sales personnel to deliver on our expected growth over the medium term without adding to the cost base, as we move from R&D to commercial sales. We are looking to leverage our significant investment made in our US business to create a stable platform for the Group to enable us to achieve our plan to profitability."

## For further information:

## Haydale Graphene Industries plc

Gemma Smith, Head of Marketing

David Banks, Interim Executive Chairman

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**Notes to Editors** 

Haydale is a global technologies group and service provider that facilitates the integration of graphene and other nanomaterials into the next generation of industrial materials and commercial technologies. With expertise in graphene, silicon carbide and other nanomaterials, Haydale is able to deliver improvements in electrical, thermal and mechanical properties, as well as toughness. Haydale has granted patents for its technologies in Europe, USA, Australia, Japan and China and operates from six sites in the UK, USA and the Far East. For more information please visit: <a href="https://www.haydale.com">www.haydale.com</a> or Twitter: @haydalegraphene

## Caution regarding forward looking statements

Certain statements in this announcement, are, or may be deemed to be, forward looking statements. Forward looking statements are identified by their use of terms and phrases such as "believe", "could", "should" "envisage", "estimate", "intend", "may", "plan", "potentially", "will" or the negative of those, variations or comparable expressions, including references to assumptions. These forward looking statements are not based on historical facts but rather on the Directors' current expectations and assumptions regarding the Company's future growth, results of operations, performance, future capital and other expenditures (including the amount, nature and sources of funding thereof), competitive advantages, business prospects and opportunities. Such forward looking statements reflect the Directors' current beliefs and assumptions and are based on information currently available to the Directors.

A number of factors could cause actual results to differ materially from the results discussed in the forward looking statements including risks associated with vulnerability to general economic and business conditions, competition, environmental and other regulatory changes, actions by governmental authorities, the availability of capital markets, reliance on key personnel, uninsured and underinsured losses and other factors, many of which are beyond the control of the Company. Although any forward looking statements contained in this announcement are based upon what the Directors believe to be reasonable assumptions, the Company cannot assure investors that actual results will be consistent with such forward looking statements. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Subject to any continuing obligations under applicable law or any relevant AIM Rule requirements, in providing this information the Company does not undertake any obligation to publicly update or revise any of the forward looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

### **Interim Executive Chairman's Report**

#### Overview

This period has been one of considerable change for Haydale as the anticipated take up of our products and services did not materialise at the rate predicted. As a result, we have made management changes and are realigning the cost base to the revenues which should enable us to reach monthly cash flow breakeven by the end of 2020.

We welcomed Keith Broadbent to the Board as Chief Operating Officer on 5 September 2018 and Laura Redman-Thomas as Chief Financial Officer on 21 December 2018.

The Group's commercial revenues for the Period were £1.64 million and, whilst down on the corresponding period last year, which included the sales of a functionalisation reactor, was up 20% on the second half of the last financial year.

## **Operations**

As announced on 9 November 2018, we have taken actions to reduce our annualised costs by over £1.0 million and there are additional cost savings to be made as the Group's operations focus on our core markets of silicon carbide, functional inks and graphene enhanced pre-pregs. Inevitably this has resulted in a reduction in our staff numbers and contractors, which will have reduced from 85 at the end of August 2018 to below 70 by the end of March 2019. Our Ammanford site, which has historically been our R&D operation for the Group is now a profit centre and has already started selling our functionalised inks.

We are focusing on three main areas where we can make money, silicon carbide ("SiC"), functionalised inks and graphene enhanced composites. We have invested heavily in our SiC business in the US that we acquired in late 2017 to enable it to move our products up the value chain by producing our own cutting tools ("Blanks") for the turbine jet engine market. Pleasingly, our new products are now pre-qualified with the three leading Western manufacturers. We have also expanded the market for SiC into S. Korea and also opened new markets for SiC in paints and coatings for the petrochemical pipes and propeller markets. We anticipate that this business will become EBITDA positive in the coming months which will enable us to make better use of its \$5.5 million of tangible assets, including our recent \$1.5 million investment in the Blanks machinery.

Our functionalised inks business is focused on biomedical sensors and pressure Sensors. We have now sold over 200kg of biomedical ink and, whilst take-up has been slower than anticipated, we are now seeing growing demand and good customer feedback. In pressure sensor inks, we have received the first commercial orders for piezoresistive ink from HP1 that is printed in an array within an equestrian riding helmet that records relevant data in a head impact. We are also looking to develop our PATit technology for non-visualised graphene security coding both with our Far East licensee, TKS, and ourselves as announced on 19 November 2018. Also, we are developing graphene enhanced wearables with EIS (English Institute of Sport) for a muscle enhancing heating application (announced 18 September 2018) and with Makalot, a large contract clothing manufacturer based in the Far East (announced today). Trials are also ongoing with customers in heating inks.

Enhanced composites has attracted the most hype in the graphene space and this is the area where we have had to make the most changes to align our cost base to the demand and so we are now clearly focused on the early adopters. Whilst the large multi-nationals have not progressed the projects as expected, we have taken the knowledge and know how gained to exploit easier to access and quicker markets around thermal improvement in automotive tooling with BAC Mono and the Niche Vehicle Network program, and also in mechanical strength in premium bike frames.

Probably the most important development during the Period has been the significant improvements achieved in our functionalisation HDPlas<sup>TM</sup> plasma process that is being verified by independent third parties to show that we have improved the surface chemistry from 4% to 20%. There are now 11 of our plasma reactors around the world, including our most recent one which is located at the Graphene Engineering Innovation Centre in Manchester ("GEIC"). We anticipate revenues will be generated from our reactor at the GEIC in due course as those reactors already installed in CPI and IRPC are doing.

### **Financial Results**

The Group's unaudited commercial income recognised in the Period of £1.64 million was lower than that recognised in the corresponding period last year of £2.04 million, but 20% higher than that reported in the 2<sup>nd</sup> half of the last financial year (H2FY18: £1.36 million). £1.28 million of the Group's revenues for the Period derived from the sales of the Group's Silicon Carbide nanomaterials manufactured in the US (H1FY18: £1.15 million), with the balance being sales of functionalised and speciality inks and composite consulting.

As Haydale transitions to commercial sales, our investment in development projects has reduced in the six months under review to £0.25 million (H1FY18: £0.43 million). Other administration costs during the Period totalled £4.29 million, up from £3.77 million in the corresponding period last year, due principally to an increased headcount across the Group. However, as previously announced, a re-focussing of the Group's operations over the last 3 months will result in administrative costs reducing going forward, together with the Group's headcount and number of contractors. Loss for the Period before taxation was £3.47 million compared to £2.74 million a year earlier. Increased expenditure on capital equipment during this Period of £0.96 million (H1FY18: £0.25 million) was due to the Group's investment in new production facilities in its US operations, the benefits of which are expected to be felt in the coming months.

The Group's unaudited net assets at 31 December 2018 were £9.26 million (31 December 2017: £15.42 million). The Group's borrowings reduced £0.10 million during the Period to £0.80 million at the period end (30 June 2018: £0.90 million). Cash at the period end was £0.96 million (30 June 2018: £5.09m), including the £0.25 million of new equity funds received in December 2018, for which shares were admitted to trading on AIM in January 2019. The reduction in cash balances during the Period of £4.13 million was broadly made up of £2.80 million of operational losses, £0.23 million used in working capital, £0.96 million of capital expenditure and the balance being repayments of borrowings.

On 21 December 2018, the Company announced that it had entered into a new £0.75 million loan facility with the Development Bank of Wales ("DBW Loan") to assist with the Group's general working capital. As at the date of this announcement, the Company confirms that it has fully drawn down the DBW Loan.

No new ordinary shares were issued during the Period, but post Period end, the Company issued 1,250,000 new ordinary shares at a price of 20p each to raise £250,000. As at 31 December 2018, the Company had 27,328,773 ordinary shares in issue and, at the date of this announcement, the Company has 28,578,773 ordinary shares in issue.

## **Board changes**

In September 2018, Keith Broadbent was appointed to the role of the Group's COO and I became the Group's Interim Executive Chairman. In December 2018, Laura Redman-Thomas joined as Group CFO, replacing Matt Wood, and Ray Gibbs, former CEO, stepped down from the Board. In January 2019, Roger Smith, a non-executive director and founder of the Group, stepped down from the Board. On behalf of the Board, I would like to thank Ray, Matt and Roger for their service to the Group.

### Outlook

We will continue to implement the management actions already started to re-set the cost base and consolidate the Group's position over the next 6 months with our focus on SiC, functionalised inks and graphene composites. There will be a marginal impact on sales in the current financial year as the changes are bedded in. However, we are recruiting specific sales personnel to deliver on our expected growth over the medium term without adding to the cost base, as we move from R&D to commercial sales. We are looking to leverage our significant investment made in our US business to create a stable platform for the Group to enable us to achieve our plan to profitability.

**David Banks Interim Executive Chairman**22 February 2019

# CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (UNAUDITED)

# For the six months ended 31 December 2018

	Note	Unaudited Six months ended 31 Dec 2018 £'000	Unaudited Six months ended 31 Dec 2017 £'000	Audited Year ended 30 Jun 2018 £'000
REVENUE		1,635	2,041	3,403
Cost of sales		(758)	(852)	(1,403)
Gross Profit		877	1,189	2,000
Other income		377	456	831
Administrative expenses				
Research and development expenditure		(250)	(433)	(878)
Share based payment expense		(147)	(114)	(291)
Other administrative expenses		(4,292)	(3,768)	(7,684)
		(4,689)	(4,315)	(8,853)
LOSS FROM OPERATIONS		(3,435)	(2,670)	(6,022)
Finance costs		(36)	(69)	(95)
Timalee costs		(30)		
LOSS BEFORE TAXATION		(3,471)	(2,739)	(6,117)
Taxation		143	557	850
LOSS FOR THE YEAR FROM CONTINUING OPERATIONS	\$	(3,328)	(2,182)	(5,267)
Other comprehensive income:  Items that may be reclassified to profit or loss:				
Exchange differences on translation of foreign operations		5	(25)	(47)
Remeasurements of defined benefit pension scheme		(109)	(148)	(99)
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TOTAL COMPREHENSIVE LOSS FOR THE YEAR FROM CONTINUING OPERATIONS		(3,432)	(2,355)	(5,413)
CONTINUING OF EXALIONS		(3,432)	(2,333)	(5,413)
Loss per share attributable to owners of the Parent				
Basic (£)	2	(0.13)	(0.10)	(0.22)
Diluted (£)	2	(0.13)	(0.10)	(0.22) $(0.22)$
	_		(3.10)	(*.= <u>-</u> )

# CONSOLIDATED STATEMENT OF FINANCIAL POSITION (UNAUDITED)

# As at 31 December 2018

	Unaudited 31 Dec 2018 £'000	Unaudited 31 Dec 2017 £'000	Audited 30 Jun 2018 £'000
ASSETS			
Non-current assets			
Goodwill	2,088	2,088	2,087
Intangible assets	1,950	2,110	2,130
Property, plant and equipment	5,751	4,848	5,061
Deferred tax asset	680	536	550
	10,469	9,582	9,828
Current assets			
Inventories	1,255	1,237	1,022
Trade receivables	861	566	705
Other receivables	314	451	362
Corporation tax	547	441	473
Cash and bank balances	961	7,992	5,092
	3,938	10,687	7,654
TOTAL ASSETS	14,407	20,269	17,482
LIABILITIES			
Non-current liabilities			
Bank loans	526	752	640
Deferred tax	820	687	675
Pension obligation	1,173	1,095	1,120
	2,519	2,534	2,435
Current liabilities			
Bank loans	270	272	256
Trade and other payables	2,197	1,975	2,172
Deferred income	165	66	78
	2,632	2,313	2,506
TOTAL LIABILITIES	5,151	4,847	4,941
TOTAL NET ASSETS	9,256	15,422	12,541
EQUITY			
Capital and reserves attributable to equity holders of the parent			
Share capital	547	547	547
Share premium account	27,539	27,539	27,539
Share-based payment reserve	1,445	1,121	1,298
Retained (deficits) / profits	(20,120)	(13,647)	(16,683)
Foreign exchange reserve	(155)	(138)	(160)
TOTAL EQUITY	9,256	15,422	12,541

# CONSOLIDATED STATEMENT OF CASH FLOWS (UNAUDITED)

For the six months ended 31 December 2018

	Unaudited Six months ended 31 Dec 2018 £'000	Unaudited Six months ended 31 Dec 2017 £'000	Audited Year ended 30 Jun 2018 £'000
Cash flow from operating activities			
Loss before taxation  Adjustments for:-	(3,471)	(2,739)	(6,117)
Amortisation of intangible assets Capitalised loan costs written off	180	102	149 75
Depreciation of property, plant and equipment	411	320	675
Share-based payment charge	147	114	291
Loss/(Profit) on disposal of property, plant and equipment	-	51	(60)
Pension plan contributions	(120)	-	-
Finance costs	36	69	95
Pension - net interest expense	19	20	37
Operating cash flow before working capital changes	(2,798)	(2,063)	(4,855)
(Increase)/ decrease in inventories	(233)	(25)	190
(Increase) / decrease in trade and other receivables	(108)	316	266
Increase/(decrease) in payables and deferred income	112	(517)	159
Cash used in operations	(3,027)	(2,289)	(4,240)
Income tax received	76	-	269
Net cash used in operating activities	(2,951)	(2,289)	(3,971)
Cash flow used in investing activities			
Purchase of property, plant and equipment	(964)	(247)	(723)
Purchase of intangible assets	-	(80)	(175)
Proceeds from disposal of property, plant and equipment	-	20	83
Acquisition of subsidiary – deferred consideration	-	-	(444)
Net cash used in investing activities	(964)	(307)	(1,259)
Cash flow used in financing activities			
Finance costs	(36)	(69)	(95)
Proceeds from issue of share capital (net of share issue costs)	-	8,757	8,757
Repayments of borrowings	(149)	(259)	(446)
Net cash flow from financing activities	(185)	8,429	8,216
Effects of exchange rate changes	(31)	68	15
Net (decrease) / increase in cash and cash equivalents	(4,131)	5,901	3,001
Cash and cash equivalents at beginning of the financial period	5,092	2,091	2,091
Cash and cash equivalents at end of the financial period	961	7,992	5,092

## CONSOLIDATED STATEMENT OF CHANGES IN EQUITY (UNAUDITED)

	Share Capital	Share premium	Share- based payment reserve	Foreign exchange reserve	Retained profits	Total
	£'000	£'000	£'000	£'000	£'000	£'000
At 1 July 2017	392	18,936	1,007	(113)	(11,317)	8,905
Total comprehensive loss for the period	-	-	-	(25)	(2,330)	(2,355)
Recognition of share-based payments	-	-	114	-	-	114
Issue of ordinary share capital	155	9,123	-	-	-	9,278
Transaction costs in respect of share issues	-	(520)	-	-	-	(520)
At 31 December 2017	547	27,539	1,121	(138)	(13,647)	15,422
Total comprehensive loss for the period	-	-	-	(22)	(3,036)	(3,058)
Recognition of share-based payments	-	-	177	-	-	177
At 30 June 2018	547	27,539	1,298	(160)	(16,683)	12,541
Total comprehensive loss for the period	-	-	-	5	(3,437)	(3,432)
Recognition of share-based payments	-	-	147	-	-	147
At 31 December 2018	547	27,539	1,445	(155)	(20,120)	9,256

## Equity share capital and share premium

The balance classified as share capital and share premium includes the total net proceeds on issue of the Company's equity share capital, comprising £0.02 ordinary shares. The share premium account can only be used for bonus issues, to provide for the premium payable on redemption of debentures or to write off preliminary expenses, or expenses of, or commissions paid on, or discounts allowed on, any issues of shares or debentures of the company.

## Share premium account

The share premium account represents the amount received on the issue of ordinary shares in excess of their nominal value and is non-distributable.

# Share-based payment reserve

The share-based payment reserve comprises the cumulative expense representing the extent to which the vesting period of share options has expired and management's best estimate of the achievement or otherwise of non-market conditions and the number of equity instruments that will ultimately vest.

## **Retained profits**

The retained profits reserve comprises the cumulative effect of all other net gains, losses and transactions with owners (e.g. dividends) not recognised elsewhere.

### NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

#### For the six months ended 31 December 2018

## 1. Accounting policies

#### **Basis of preparation**

The interim financial statements, which are unaudited, have been prepared on the basis of the accounting policies expected to apply for the financial year to 30 June 2019 and in accordance with recognition and measurement principles of International Financial Reporting Standards (IFRSs) as endorsed by the European Union. The accounting policies applied in the preparation of these interim financial statements are consistent with those used in the financial statements for the year ended 30 June 2018.

The interim financial statements do not include all of the information required for full annual financial statements and do not comply with all of the disclosures in IAS34 'Interim Financial Reporting'. Accordingly, while the interim financial statements have been prepared in accordance with IFRS they cannot be construed as being in full compliance with IFRS.

The financial information for the year ended 30 June 2018 does not constitute the full statutory accounts for that period. The Annual Report and Accounts for 30 June 2018 have been filed with the Registrar of Companies. The Independent Auditors' Report on the Annual Report and Accounts for 2018 was unqualified and did not include references to any matters which the auditors drew attention to by way of emphasis without qualifying their report and did not contain statements under Section 498(2) or 498(3) of the Companies Act 2006.

## Going concern

The consolidated financial statements are prepared on a going concern basis which the Directors believe continues to be appropriate. The Group meets its day-to-day working capital requirements through existing cash resources which, at 31 December 2018 amounted to £0.96 million. The Directors have prepared cash flow projections for the period ending no less than 12 months from the date of their approval of these financial statements. On the basis of those projections, the Directors believe that the Group will be able to continue to trade for the foreseeable future.

### 2. Loss per share

The calculations of loss per share are based on the following losses and number of shares:

	Unaudited Six months ended 31 Dec 2018 £'000	Unaudited Six months ended 31 Dec 2017 £'000	Audited Year ended 30 Jun 2018 £'000
Loss after tax attributable to owners of the			
Haydale Graphene Industries Group	(3,432)	(2,330)	(5,413)
Weighted average number of shares:			
- Basic	27,328,773	22,202,744	24,744,693
- Diluted	27,328,773	22,202,744	24,744,693
Loss per share:			
- Basic (£)	(0.13)	(0.10)	(0.22)
- Diluted (£)	(0.13)	(0.10)	(0.22)

The loss attributable to ordinary shareholders and weighted average number of ordinary shares for the purpose of calculating the diluted earnings per ordinary share are identical to those used for basic earnings per share. This is because the exercise of share options would have the effect of reducing the loss per ordinary share and is therefore not dilutive under the terms of IAS 33.

# 3. Approval

The 31 December 2018 interim financial statements were approved by a duly appointed and authorised committee of the Board of Directors on 21 February 2019