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.

22 March 2017

### **Haydale Graphene Industries plc**

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

### Half Yearly Report for the six months ended 31 December 2016

Haydale (AIM: HAYD), the global technologies and materials group that facilitates the integration of nanomaterials into the next generation of commercial technologies and industrial materials, announces its unaudited interim results for the six months ended 31 December 2016 (the "period").

### **Operational Highlights**

- Successful integration of specialist materials business Advanced Composite Materials ("ACM"), now Haydale Technologies, Inc. ("HTI") acquired in October 2016, with initial sales at expected levels;
- Acquisition in September 2016 of Thai based specialist inks and pastes business, Innophene, now Haydale Technologies Thailand ("HTT"), providing the Group with dedicated service capabilities to Far East customers, with production facilities expected to be operational shortly;
- Continuation of collaboration agreement with Huntsman Advanced Materials ("Huntsman") to enhance
  their market leader epoxy resin, ARALDITE®, with Haydale's graphene, in key composite markets. Huntsman
  are now focussed on the significant increased thermal conductivity our graphene has achieved;
- Delivery, installation and commissioning of an HT60 and an HT200 R&D reactor to our collaboration partner AMG in their new nanomaterials facility in Hauzenburg, Bavaria;
- Successful launch of graphene enhanced PLA 3D Printing product with repeat orders and widening distribution;
- Secured contract extension worth £0.3 million with National Grid (of which £0.1 million has been recognised during the period) for provision of 14 lightweight variants of composite Gas Transition Pieces used to provide a support and seal around steel gas transmission pipelines passing through supporting concrete walls:
- Grant funded development projects totalling over £0.6 million secured, including UV visible bruisable composites and hydrogen pressure vessels for hydrogen powered fuel cell vehicles; and
- Patents applied for a graphene ink based pressure sensor and wearable heated apparel aimed at high performance material for elite sports.

### **Financial Highlights**

- Total income up 90% year-on-year to £1.5 million (H1-2015: £0.8 million);
- Continued significant investment in R&D in the period of £0.7 million (H1-2015: £0.5 million), including graphene enhanced resins for the composite markets;
- Total loss after tax for the period of £2.4 million (H1-2015: £1.9 million);
- Completion of placing, subscription and three times oversubscribed open offer raising a total of £2.6 million (before costs) to fund the acquisition of ACM;
- Investment in capex to expand processing capacity in the period of £0.2 million (2015: £0.5 million); and
- Cash at period end of £1.1 million (30 June 2016: £2.9 million).

### **Post Period End Highlights**

- Huntsman announced strong initial test results in early March 2017 from Haydale graphene enhanced Araldite® resins in thermal management;
- HTI (formerly ACM) secured a new four year supply contract from a large industrial corporation expected to
  generate sales of at least US\$2.6 million over the contract term for Silicon Carbine ("SiC") whiskers for
  production of hard edged cutting tools with initial sales expected this financial year of approximately US\$0.4
  million;
- Agreement for strategic investment by Everpower International Holdings Co Ltd, ("Everpower") for up to 9.9% of the enlarged share capital of the Group for a cash sum of £3.26 million in aggregate, of which the final tranche of £2.9 million is due on or before 31 March 2017;
- Subject to completion of the Everpower subscription, Haydale expects to enter into an exclusive binding collaboration agreement with Everpower to manufacture, supply and market existing Haydale products and develop nanomaterials and new graphene products for the Chinese market;
- Displayed an Airbus aileron using Haydale nanomaterials with enhanced electrical conductivity to aid protection against lightning strike under the NATAP project at the JEC Composite show in Paris; and
- HTT awarded two new contracts for approximately £0.1 million, in aggregate, the largest of which is from leading Thai petrochemical chemical processor, IRPC, and a smaller award from the Thai Ministry of Energy for a printed hybrid functionalized graphene electrode in a supercapacitor.

### Commenting on the interim results, Ray Gibbs, CEO of Haydale, said:

"This half year has seen the successful acquisition and integration of two businesses that substantially increases our international reach and broadens our speciality nanomaterials offering. These businesses have widened our offering of advanced material products and expertise to include silicon carbide from our US operations, and a range of graphene and other functional inks from the Far East. We still see the composites market as fertile ground for our materials and dispersion know-how to deliver real, enhanced product solutions to the market. Although the Huntsman work has taken more time, they remain committed to launching a graphene adhesive and a thermally enhanced graphene pre preg in the next financial year. In addition, by combining nanomaterials we can create unique property enhancing hybrids that offer high performance electrical conductivity, improved thermal heat management and light-weighting opportunities.

Our market presence is such that we are attracting significant global "best in class" organisations wishing to engage with us to provide engineering solutions for defined commercial needs. The next 12 to 18 months should be an exciting time for the Group, which we believe now has the customer engagement, geographic reach and product know how to create material change in the Group's future revenues."

### For further information:

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**Notes to Editors** 

Haydale is a global technologies and materials group that facilitates the integration of nanomaterials into the next generation of commercial technologies and industrial materials. 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 and China and operates from four facilities in the UK, USA and the Far East.

For more information please visit:

www.haydale.com

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.

### **Chief Executive Officers Report**

#### Overview

I am delighted to present the Group's third set of interim results since the Company's AIM IPO in 2014. There have been several key events in the period, not least expanding our international reach and product offering through strategic acquisitions in the USA and Thailand. Both businesses have been successfully integrated into the Group and provide us with routes to geographic markets with a range of novel speciality nanomaterials and products to add to our portfolio of graphene and other carbons. Crucially, their addition allows us to combine our graphene nanomaterials and produce hybrid "masterbatches" as we see this as the optimal way to significantly improve end-product performance and overcome industry's reluctance to handle powders.

With the increase in our international footprint, combined with our current and target customers who typically operate internationally across a variety of sectors, we have started the process of reorganising our operations into two distinct strategic business units.

In the autumn of 2016, we commissioned two plasma reactors sold to Graphit Kropfmühl GmbH, as part of our strategic collaboration and industrial scale up plans to accommodate masterbatch products required initially for our collaboration partners Huntsman and Flowtite. The Group remains on course to install and commission an HT60 plasma reactor into the Thailand Science Park at our Bangkok facility acquired last year by the end of March and we expect this unit to be fully operational within the coming weeks. Once operational, it will service Thai customers and regional projects plus other Far East countries such as Korea and Taiwan. Our sales team in the Far East are making good inroads into customers requiring graphene conductive inks, mainly from our Thailand operation and Taiwanese collaboration.

### Strategic Business Units ("SBUs")

Following a period of intense corporate activity, the Group is now established as a global advanced materials business. To exploit this, we are creating two SBUs to focus delivery of next generation products to our customers:

- Resin and Polymer based Composites ("RPC"); and
- Advanced Nanomaterials

Feeding into each SBU will be dedicated service and support functions, including the plasma functionalisation and nano powders handling capability of our Ammanford and, soon to be operational, Thailand facilities. Other dedicated service units will be added when appropriate.

### **Resin and Polymer based Composites**

The RPC SBU has had a busy and productive period. We continued progressing our self-funded resin project with Huntsman and, as reported in last year's AGM Statement and the February trading update, the customer sampling process with Huntsman for graphene enhanced Araldite® epoxy resin is taking longer than the Group had originally anticipated. As a result, commercial revenues from this agreement are now expected to commence in the second half of the next financial year. The focus of this work remains on the graphene enhanced Araldite® adhesive. The follow-on product, expected to be ready in early 2018, is a thermally conductive graphene pre-preg designed to increase composite throughput by improving epoxy resin systems "cure" time and to manage the exothermic reaction on thick section thermoset mouldings. Improving the speed of production is a major operational driver in the composite industry.

Prior to the recent JEC Composites Show in Paris, on 9 March 2017, Huntsman announced strong initial test results from our graphene enhanced Araldite® resins in thermal management, demonstrating high performance solutions under their theme "Chemistry for Lightweight". Huntsman's target markets range from structural composite parts of transportation interiors, to carbon hybrid composite wheels for automotive and from mass-production to pultrusion solutions. The next key milestone will be for Huntsman to test the market in high-end toughened adhesives and thermally conductive pre-preg systems in the automotive and aerospace markets.

Pleasingly, the Group recently received independently verified results from Haydale developed graphene enhanced epoxy Carbon Fibre pre-pregs ("CFRP") which show superior mechanical performance of up to 20 per cent. when compared to a standard non-graphene enhanced CFRP. This has the potential to be a major industrial breakthrough enabling engineers to design lighter weight structures with the same physical performance. A reduction in the number of layers would not only save significant weight and material usage but also reduce the laminating costs making composite materials and structures more affordable for a range of mass market products, such as composite tooling.

As previously announced, the Group's ongoing project with Flowtite Technology ("Flowtite") on developing a graphene enhanced glass fibre reinforced pipe ("GRP") moves into the development phase with the first production trials now set for April 2017. A period of testing and certification of up to twelve months will then follow the production trials and, if successful, Flowtite expects to launch their new graphene enhanced GRP in the second half of the next financial year.

#### Contract wins

Since the beginning of the current financial year, the Group has secured grants to develop several next generation commercial products worth in excess of £0.6 million over the next 12-18 months that we see as our future product pipeline. These include: hydrogen storage vessels for Arcola Energy, a leading UK fuel cell system integrator; a novel water filter for the nuclear industry with Sellafield Limited as the commercial partner; and a research and development agreement with the Malaysian Government developing a series of enhanced natural rubber products into graphene composites, aimed at next stage industrial products in Malaysia.

Demonstrating the reach of the composite sector, the UK Space Agency has contracted Haydale to develop advanced composite gas propellant storage tanks for spacecraft and satellites, and; Wave Energy Scotland has contracted Haydale to develop a new rotational moulding, graphene enhanced thermoplastic material to be used in renewable wave energy devices.

Following the commissioning of the pipe testing facility at Loughborough, we are pleased to announce that the Group has secured its first commercial order worth over £90,000 for development of a reinforced thermoplastic pipe to enable the development and approval of graphene enhanced polymer pipes. The initial contract to design, manufacture and test new specification pipes for a leading composite pipes manufacturer, utilising our novel pipe testing facilities is the first phase of a potential significant development contract to certify composite pipes for the oil and gas industry.

As well as the significant next generation of advanced materials that we are developing with tier one partners over the medium to long term, we should not lose sight of the ongoing day-to-day engineering applications composite consulting and testing business, which continues to secure contracts for delivery over the next 24 months. There are a number of projects coming to fruition which we hope will offer substantial future collaboration and revenue potential, and which we will announce as and when appropriate. The expertise, knowledge and knowhow that we have built up within thermoset and thermoplastic sectors continues to provide international cross selling opportunities of the advanced materials being developed within the Group. In particular, the recently announced proposed collaboration with Everpower, (subject to completion of their investment) should provide significant opportunities to develop next generation products for the Chinese market with their extensive in-country presence.

### **Advanced Nanomaterials**

Haydale's newly acquired USA specialty materials business, HTI (formerly ACM), has integrated well into the Group and its trading is in line with management's expectations, delivering sales of approximately almost £0.8 million in the period since its acquisition on 12 October 2016 to 31 December 2016. New business wins include the recently announced four year supply agreement of our proprietary Silicon Carbide ("SiC") whiskers with a leading industrial company manufacturing hard edged cutting tools. The contract specifies an order for the first six months' requirement to be placed in April 2017 and delivered in this financial year. Other smaller but equally important wins have also been achieved, such that the inventory of the SiC fibre is in need of replenishing and that will require a production run starting in April 2017. We still have sufficient inventory to supply nano-sized SiC whiskers for our cutting tool customers, including supplying the initial order under the new four year supply agreement described above.

The acquisition of ACM (now HTI) added a dimension to the Group's nanomaterials product portfolio and an opportunity to cross sell and hybridise its material into our growing customer and contact base. This has already been proven in the Far East with a potential new product launch by a cookware customer currently testing a Haydale developed SiC and graphene hybrid which, if successful could lead to significant orders in subsequent financial years. The global automotive industry represents a sector of extensive opportunity for Haydale's nanomaterials and dispersion know-how where, through our US CEO, Trevor Rudderham, we have extensive connections. Haydale has commenced discussions with a number of major corporations and high profile organisations as a direct result of our product demonstrations at JEC recently, which included the rear diffuser for the BAC Mono and an electrically conductive Airbus aileron using a combination of nanomaterials.

Our patented functionalisation process of nanomaterials, and particularly carbon nanotubes ("CNTs") remains a major added value driver and enabling technology as the market moves towards using hybrid materials where those treated CNTs are mixed with a range of graphenes. The Far East, especially South Korea, is a large producer and user of CNTs and whom we consider lead the world in exploiting commercial opportunities for this material. Our sales office in Seoul is now gathering momentum and we are pleased with progress from this region.

Since our proprietary inks are printed in layers, we consider them to be a part of additive manufacturing, as are the recently launched graphene enhanced 3D PLA printing filaments. After a steady start on conductive inks/pastes Haydale is now starting to see the effects of product development and targeted marketing.

The benefits of grant funded work can be demonstrated at our Ammanford site where two important projects on bio-medical sensors have significantly increased our knowledge and capability in the use of graphene based carbon conductive inks to improve performance metrics. Consequently, the Group remains very active in providing our nano inks into the sensor market which we see as a significant opportunity. The sensor market is a rapidly growing and accessible sector for the Group with significant Far East opportunities under development potentially able to offer relatively short term revenues as well as potentially sustainable longer term revenue returns. In the Far East, we currently have one FDA approved bio-medical ink approved with discussions ongoing with potential customers. Two more bio-medical inks are undergoing FDA approvals, which we are confident of receiving. While the approval process can take time, once approved, printers should start to use them and regular repeat orders are the industry norm. Our ink is also currently under evaluation for a mobile phone application.

In addition, during the period under review, we appointed a sales manager to market and sell Haydale's proprietary graphene enhanced 3D PLA filament, which was launched in Q4 2016. Repeat orders, albeit at a relatively small amount at this early stage, have been received from international distributors and the Group anticipates agreeing additional distribution agreements during 2017. The feedback from distributors and end users has been encouraging, with reference to enhancements in flow speed and post production processing. Other 3D printing developments are under evaluation for future product launches.

### Contract wins

We have received some small but important UK Government grants focussed on the use of our base ink. One successful project is the use of an ink system to create a de-icing coating for the aircraft and related industries.

Post period end, Haydale has had two important contract wins. Firstly, the third largest petrochemical company in Thailand, IRPC, has placed a contract with HTT for approximately £70,000. Details of the work remain confidential but project delivery commences in April 2017 and will last nine months. In addition, we are in discussion over our customised nano materials utilising the patented plasma process. Secondly, in early March 2017, the Thai Ministry of Energy, in conjunction with the National Science and Technology Development Agent ("NSTDA"), announced the final successful applicants for the 2017 Energy Storage Research call. Pleasingly, HTT was chosen to produce a printed hybrid functionalised graphene electrode in a supercapacitor, being the only private company to be awarded a grant under this programme. The project starts on 1 April 2017 and will last for 18 months.

### Intellectual property

Haydale continues to add to its IP base, with both know-how and granted patents. Increasingly, the knowledge based systems in our business have taken on more prominence rather than the process patents. In due course, we anticipate that the know-how and knowledge created will be protected as commercial products are developed such that we secure product patents. It is this knowledge, which is not disclosed, that defines our capability as a leading provider of solutions to our targeted sectors. An example of this migration towards product patents capturing IP know-how is our belief that once a nanomaterial masterbatch is produced, it would be virtually impossible to "reverse engineer" the formulation to determine the functionalisation, mixing and dispersion techniques used to create it.

Meanwhile, the Group has now been advised that the Japanese patent office has allowed us to proceed to grant of patent on our plasma functionalisation process, which we will apply for in early April 2017.

### **Financial Results**

Total unaudited income recognised in the period, which comprised commercial revenues, grants and approximately two and a half months' contribution from ACM (now HTI), was up more than 90 per cent. on the same period last year at £1.5 million (H1-2015: £0.8 million). The Group's forward order book continues to grow, providing improved visibility on future income.

HTI (formerly ACM) contributed just under £0.8 million of revenues during the period at a gross margin of almost 80%., with overall net profit of approximately £0.1 million. Pleasingly, the recently secured new four-year supply agreement should provide additional long term recurring revenues.

Income recognised from grant funded projects fell in the period under review from just under £0.5 million to £0.4 million. This was primarily due to a number of projects moving towards completion in the period and the fact that our contribution in these projects is often front end loaded, being the provision of nanomaterials for dispersion. Nevertheless, the Group sees this small year-on-year reduction being reversed in subsequent periods as the newly secured projects in the period begin to generate income. We remain confident that a number of our funded projects will lead to the launch of a commercial product, incorporating our materials.

As in previous periods, we invested heavily in our own development projects in the six months under review. Total R&D expenditure was almost £0.7 million (H1-2015: £0.5 million), of which £0.55 million was expensed in the period, with £0.15 million being capitalised and amortised over 20 years. Total administration costs during the period amounted to £3.4 million, up from £2.1 million in the corresponding period last year, of which approximately £0.7 million was in relation to the two businesses acquired last year. The balance of the increase in administration costs relates to acquisition costs of just over £0.2 million and the increase in headcount to 50 in the UK. Expenditure on capital equipment during this period was £0.2 million, lower than the £0.5 million spent in H1-2015. Loss after taxation for the period was £2.4 million, up from £1.9 million in the prior period.

The Group's unaudited net assets at 31 December 2016 were £7.8 million (31 December 2015: £8.2 million). The addition of HTI (formerly ACM's) net assets during the period bolstered the Group's fixed assets and inventory balances considerably and also increased the Group's borrowings to £1.6 million at the period end (31 December 2015: £0.4 million). Cash at the period end was £1.1 million. Since the period end, we entered into a subscription agreement for £3.3 million with Everpower, a New York based investment company engaged in investing in leading edge technologies and integrating these technologies into China. In accordance with the agreements with Everpower, we have received approximately £0.3 million of the subscription monies to date, with the balance of £2.9 million due by 31 March 2017.

The two businesses acquired during the period under review were purchased with a mixture of cash, issue of new shares and entering new debt funding facilities. Specifically, it was pleasing to note that the acquisition of ACM (now HTI) was extremely well supported by our shareholders through the 3x oversubscribed open offer which, alongside the placing and subscription, raised approximately £2.6 million.

### **Director Changes**

In December 2016, Tony Belisario retired as Deputy Chairman and stepped down from the Board. On behalf of the Board and as a shareholder, I would like to again thank Tony for his contribution to the Board.

Our search for a non-executive Chairman, to take over from John Knowles, who has indicated his intention to step down when a suitable candidate is identified, continues. We will update shareholders on this matter in due course.

### Outlook

Whilst the last period has been busy, we can see an even greater level of activity now that we have both product sales and a pipeline of engineered applications projects for customers with known requirements starting to generate income across the Group. An unknown factor in all of this is the impact that Everpower will have in the coming months. Even before the final sum of investment has been received (which is due on or before 31 March 2017) they have already requested (and received) product samples to test and promote in China of our SiC and conductive inks, as well as our 3D PLA filaments. Of perhaps greater significance is that they have introduced us as a technology partner to one of the leading Chinese car manufacturers, BYB (Build Your Dreams).

Gearing up for growth and moving from a technically driven organisation to a sales-led business is challenging. It requires focus and dedication with the right people in place and the move to dedicated SBUs. Each unit will be tasked with generating profits and will have a Managing Director, supported by a Sales and Marketing Director and a Technical Director, all with appropriate dedicated service and support teams.

The acquisition of ACM (now HTI) has provided instant product and revenues from which to build upon and the US team are already demonstrating sales wins with other targets identified and being pursued. There are significant opportunities in the nano ceramics market, especially when combining with another material such as graphene. Our Far East inks business has been also winning work and the pipeline of opportunities looks strong, especially in the area of FDA approved inks for bio-medical sensors.

For our composites business, the time taken for large companies to move to product sales has been amply emphasised by the Huntsman work, which is carefully planned to make an impact on a "right first time" basis after focussed Beta testing. The traditional composite based application engineering solutions consultancy of Haydale has been working hard at generating significant work now that the Huntsman R&D project is moving towards a different level. They have several potential contracts under discussion utilising their traditional skills whilst now incorporating property enhancements from using graphene and other nanomaterials at their disposal.

The Haydale team looks forward to a fast moving, income led next 12-18 months.

Ray Gibbs Chief Executive Officer 22 March 2017

# CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME (UNAUDITED)

# For the six months ended 31 December 2016

Note	Unaudited Six months ended 31 Dec 2016 £'000	Unaudited Six months ended 31 Dec 2015 £'000	Audited Year ended 30 Jun 2016 £'000
REVENUE	1,106	325	1,169
Other income	384	459	754
TOTAL INCOME	1,490	784	1,923
Administrative expenses			
Research and development expenditure	(548)	(496)	(514)
Share based payment expense	(187)	(174)	(326)
Other administrative expenses	(3,350)	(2,121)	(5,092)
	(4,085)	(2,791)	(5,932)
LOSS FROM OPERATIONS	(2,595)	(2,007)	(4,009)
Finance costs	(29)	(7)	(14)
LOSS BEFORE TAXATION	(2,624)	(2,014)	(4,023)
Taxation	221	97	386
TOTAL COMPREHENSIVE LOSS FOR THE YEAR FROM CONTINUING OPERATIONS	(2,403)	(1,917)	(3,637)
Loss per share attributable to owners of the Parent			
Basic (£) 2 Diluted (£) 2	(0.15) (0.15)	(0.16) (0.16)	(0.26)

# CONSOLIDATED STATEMENT OF FINANCIAL POSITION (UNAUDITED)

# As at 31 December 2016

	Unaudited 31 Dec 2016 £'000	Unaudited 31 Dec 2015 £'000	Audited 30 Jun 2016 £'000
ASSETS			
Non-current assets			
Intangible assets	2,042	1,443	1,826
Property, plant and equipment Investments	5,287	1,782	1,576
livestments		117	
	7,329	3,342	3,402
Company assets			
Current assets Inventories	1,048	503	398
Trade receivables	466	62	49
Other receivables	884	335	613
Corporation tax	547	218	379
Cash and bank balances	1,127	5,020	2,862
	4,072	6,138	4,301
TOTAL ASSETS	11,401	9,480	7,703
LIABILITIES			
Non-current liabilities			
Bank loans – due after one year	1,120	184	104
Current liabilities			
Bank loans – due within one year	506	168	166
Trade and other payables	1,131	719	656
Deferred income	304	87	176
Corporation tax	-	1	-
Deferred consideration	500	117	
	2,441	1,092	998
TOTAL LIABILITIES	3,561	1,276	1,102
TOTAL NET ASSETS	7,840	8,204	6,601
EQUITY Capital and reserves attributable to equity holders of the parent			
Share capital	349	305	305
Share premium account	15,356	11,859	11,840
Share-based payment reserve	843	484	656
Retained (deficits) / profits	(8,559)	(4,436)	(6,156)
Other reserves	(149)	(8)	(44)
TOTAL EQUITY	7,840	8,204	6,601

# CONSOLIDATED STATEMENT OF CASH FLOWS (UNAUDITED)

# For the six months ended 31 December 2016

		Unaudited Six months ended 31 Dec 2016	Unaudited Six months ended 31 Dec 2015	Audited Year ended 30 Jun 2016
0.10.6	Note	£'000	£'000	£'000
Cash flow from operating activities Loss before taxation Adjustments for:-		(2,624)	(2,014)	(4,023)
Amortisation of intangible assets		35	17	63
Depreciation of property, plant and		250	173	370
equipment Share-based payment charge		187	174	327
(Profit)/Loss on disposal of property,		_	_	(107)
plant and equipment Finance costs		29	7	14
Operating cash flow before working capital changes	-	(2,123)	(1,643)	(3,356)
(Increase) / decrease in inventories		152	(120)	(115)
(Increase) / decrease in trade and other receivables		(620)	137	(128)
Increase / (decrease) in payables and deferred income		170	(499)	187
Income tax (paid) / received		54	-	128
Net cash flow from operating activities	-	(2,367)	(2,125)	(3,284)
Cash flow used in investing activities				
Purchase of property, plant and equipment		(225)	(477)	(470)
Acquisition of subsidiary	3	4	-	(429)
Proceeds from disposal of property,		-	-	207
plant and equipment Settlement of deferred consideration		-	-	(350)
Net cash flow in investing activities	-	(221)	(477)	(1,042)
Cash flow used in financing activities		45-1	<i>(</i> -)	4
Finance costs Proceeds from issue of share capital		(29) 2,591	(7) 6,038	(14) 5,359
Share issue costs		(157)	(377)	-
New bank loans raised		1,405	-	-
Repayments of borrowings		(2,921)	(81)	(162)
Net cash flow from financing activities	-	889	5,573	5,183
Effects of exchange rate changes		(36)	-	(44)
Net (decrease) / increase in cash and cash equivalents		(1,735)	2,971	813
Cash and cash equivalents at beginning of the financial period		2,862	2,049	2,049
Cash and cash equivalents at end of the financial period		1,127	5,020	2,862

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY (UNAUDITED)

	Share Capital	Share premium	Share- based payment reserve	Retained profits	Other reserves	Total
	£'000	£'000	£'000	£'000	£'000	£'000
At 1 July 2015	229	6,254	329	(2,519)	-	4,293
Total comprehensive loss for the period	-	-	-	(1,917)	-	(1,917)
Recognition of share-based payments	-	-	174	-	-	174
Issue of ordinary share capital	75	5,925	-	-	-	6,000
Options Exercised	1	57	(19)	-	-	39
Currency Reserve	-	-	-	-	(8)	(8)
Transaction costs in respect of share issues	-	(377)				(377)
At 31 December 2015	305	11,859	484	(4,436)	(8)	8,204
Total comprehensive loss for the period	-	-	-	(1,681)	-	(1,681)
Recognition of share-based payments	-	-	153	-	-	153
Reduction in share premium	-	(19)	19	-	-	0
Non-Controlling Interest	-	-	-	-	(44)	(44)
Other comprehensive loss	-			(39)	8	(31)
At 30 June 2016	305	11,840	656	(6,156)	(44)	6,601
Total comprehensive loss for the period	-	-	-	(2,403)	-	(2,403)
Recognition of share-based payments	-	-	187	-	-	187
Issue of ordinary share capital	44	3,673	-	-	-	3,717
Transaction costs in respect of share issues	-	(157)	-	-	-	(157)
Other Comprehensive Income	-	-	-	-	(227)	(227)
Currency Reserve	-	-	-	-	122	122
At 31 December 2016	349	15,356	843	(8,559)	(149)	7,840

# 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 accounts 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 2016

### 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 2017 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 2016.

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 2016 does not constitute the full statutory accounts for that period. The Annual Report and Accounts for 30 June 2016 have been filed with the Registrar of Companies. The Independent Auditors' Report on the Annual Report and Accounts for 2016 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 2016 amounted to £1.13 million and the pending receipt of the recently announced £3.3 million equity investment from Everpower. 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 2016 £'000	Unaudited Six months ended 31 Dec 2015 £'000	Audited Year ended 30 Jun 2016 £'000
Loss after tax attributable to owners of the Haydale Graphene Industries Group	(2,403)	(1,917)	(3,637)
Weighted average number of shares: - Basic - Diluted	16,078,679	12,207,125	13,713,757
	16,078,679	12,207,125	13,713,757
Loss per share: - Basic (£) - Diluted (£)	(0.15)	(0.16)	(0.26)
	(0.15)	(0.16)	(0.26)

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. Acquisitions

### Innophene

On 13 September 2016, the Company announced that it had acquired the entire issued share capital of Innophene based in Thailand for a maximum consideration of £306,466, which was satisfied through the issue of 176,952 ordinary shares. Direct acquisition costs amounting to £36,558 have been written off to the consolidated statement of comprehensive income.

The provisional fair values of Innophene are detailed below:-

	£′000
ASSETS	
Property, plant and equipment	4
Other Intangibles	327
Patents	55
Trade and other receivables	72
Cash and bank balances	1
TOTAL ASSETS	459
LIABILITIES	
Trade and other payables	152
,	
TOTAL LIABILITIES	152
NET ASSETS ACQUIRED	307
Constituents	
Consideration Share consideration	207
Share consideration	307
	307
Effect within consolidated statement of cashflows:-	
Errott Within Consolidated Statement of Cashinows.	
Cash and bank balances acquired	1
·	
	1

### **ACMC Holding, Inc.**

On 13 October 2016, the Company completed the acquisition of the entire issued share capital of ACMC Holding, Inc. ("ACM") for an initial consideration of approximately \$5.0 million (£3.8 million), with up to a further \$2.0 million (£1.5 million) of deferred consideration payable in cash or shares, dependent upon ACM's future performance. £1.3 million of the initial consideration was attributed to the purchase of shares of ACM, comprising cash of approximately £0.5 million, which has been deferred and will be payable during 2017, and the issue of 415,618 new ordinary shares in the Company, which were issued in January 2017 ("ACM Acquisition"). As part of the ACM Acquisition, the Group assumed borrowings of approximately £2.6 million (\$3.5 million), approximately £1.4 million of which was refinanced through a new 5-year secured repayment loan from ACM's bankers, with the balance paid out of the Group's resources.

Direct acquisition costs amounting to approximately £0.4 million have been incurred in the period of review, with approximately £0.2 million being written off to the consolidated statement of comprehensive income and approximately £0.2 million being charged to the share premium reserve.

The provisional fair values of ACM Holding Inc. are detailed below. Once the provisional fair values have been finalised as part of the year end audit process, any negative goodwill arising will be credited to the Consolidated Statement of Comprehensive Income. IFRS 3 Business Combinations gives 12 months from the date of acquisition to finalise the fair values of the assets and liabilities acquired. Due to the proximity of the acquisition to the reporting date, the Group is still in the process of finalising the fair value assessment.

	£′000
ASSETS	
Property, plant and equipment	3,940
Inventories Trade and other receivables	802 1
Cash and bank balances	3
Cash and bank balances	
TOTAL ASSETS	4,746
LIABILITIES	
Trade and other payables	1,075
Negative goodwill	277
Bank loans	2,084
TOTAL LIABILITIES	3,436
NET ASSETS ACQUIRED	1,310
Consideration	
Cash consideration	490
Share Consideration	820
	1,310
Effect within consolidated statement of cashflows:-	
Cash consideration	490
Less: deferred consideration	(490)
Less: cash and bank balances acquired	3
	3

# 4. Approval

The 31 December 2016 interim financial statements were approved by a duly appointed and authorised committee of the Board of Directors on 21 March 2017.