

*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**

**18 September 2018**



**Haydale Graphene Industries plc**  
(‘Haydale’ or the ‘Group’ or the ‘Company’)

### **Full Year Results**

Haydale (AIM: HAYD), the global advanced materials group, is pleased to announce its full year results for the year ended 30 June 2018.

#### **Operational Highlights**

- Sales to more than 50 customers for the Group’s graphene related products and services in the year, almost double that of the prior year;
- Significant advances in functionalisation capabilities achieved, increasing customer base; and
- Two SBUs established that have increased sales across the Group leading to a united approach to grow sales.

#### **Financial Highlights**

- Commercial revenues increased to £3.4 million (2017: £3.0 million);
- Income of more than £1.0 million from graphene related products and services (2017: £1.0 million)
- Revenues from Far East region starting to grow significantly, up to £0.3 million (2017: £0.1 million); and
- New market in paints and coatings for the Group’s SiC opened with sales to major US-based customer of £0.2 million in the year (2017: nil).

#### **Post Period End Highlights:**

- New \$3.3 million, 5 year contract extension signed to supply the Group’s SiC;
- Contract with the English Institute of Sport secured to develop advanced wearables incorporating Haydale’s technologies for the 2020 Olympic and Paralympic Games, and
- Board strengthened with the appointment of David Banks as Interim Executive Chairman and Keith Broadbent as Chief Operating Officer.

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

*“Overall progress for the Group this year has been solid, albeit we are disappointed that we did not achieve the revenue growth we had anticipated and we now believe that we have made the necessary changes to address those issues.*

*There are significant growth opportunities with our new and adapted approach of using our global footprint as one team, with cross-selling and cross R&D focus combined with a re-orientation to organic growth and cost monitoring. Business development surrounding the major advances we have seen in our core skills on inks, functionalisation and dispersion of graphene, in conjunction with the new market segment for SiC, sets Haydale up for the next phase of evolution and scale up.”*

- Ends -

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**Notes to Editors**

Haydale is a global technologies and materials group that facilitates the integration of graphene and other 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, Australia, Japan and China and operates from six sites in the UK, USA and the Far East.

For more information please visit: [www.haydale.com](http://www.haydale.com)

Twitter: [@haydalegraphene](https://twitter.com/haydalegraphene)

***A copy of this preliminary statement will be available to download on the Group's website [www.haydale.com](http://www.haydale.com).***

***Copies of the Annual Report and Accounts, together with the notice convening the annual general meeting, will be posted to shareholders in due course at which time the Annual Report and Accounts will be made available to download on the Group's website, [www.haydale.com](http://www.haydale.com), in accordance with AIM Rule 26.***

## CHAIRMAN'S STATEMENT

### Introduction

I am pleased to present the Haydale Graphene Industries Plc's ("Haydale", the "Group" or the "Company") full year audited results to 30 June 2018 ("FY18").

The year under review has been a busy one for Haydale, building on the foundations of the previous year, integrating, investing in and growing the revenues of the two acquisitions made in the prior year, launching a specialist graphene ink operation facility in Taiwan and opening new markets for our advanced graphene and nanomaterials products. At the beginning of the year we split the Group's customer facing operations into two sales generating strategic business units (SBU) which has proved to be a beneficial stepping stone in our operational development, increasing our revenues across both SBUs from those generated in the prior year ended 30 June 2017 ("FY17").

### Summary financials

Total income for FY18 of £4.23 million (FY17: £3.91 million), comprised commercial revenues of £3.40 million (FY17: £3.00 million) and grant income of £0.83 million (FY17: £0.90 million). We continued to invest in increasing our know-how, knowledge and understanding of mixing and dispersion techniques alongside our industry-leading collaboration partners; being the bedrock for successful commercial sales.

As a leader in the graphene industry, an important KPI for Haydale is the amount of income that we generate from the sale of our graphene-related products and services. In FY18, I'm pleased that this figure remained in excess of £1.0 million for the second successive year, but more importantly it was made up from sales to more than 50 different customers across our countries of operation, almost double that of the prior year. We expect to be able to build further on this figure in the coming years.

### Operations

During the year under review we set up a graphene and specialty ink manufacturing facility in Taiwan, targeting the \$15 billion biomedical screen-printed sensors for the self-monitoring blood glucose market. This now takes our international operating sites to six, with two in the UK and one in each of the USA, Thailand, South Korea and Taiwan. Our Thailand operation is going from strength to strength and expects to build further on its improving sales in the current financial year ending 30 June 2019 ("FY19"). In particular, following successful functionalisation trials, we are delighted to have secured the sale of one of our HT60 plasma reactors to one of Thailand's leading Petro-chemical processors (final commissioning is due in Q1 of FY19), as well as long-term consulting contracts. The customer intends to add value to certain bi-products arising from their manufacturing process using our functionalisation capabilities.

Our USA facility, which was successfully rebranded to Haydale Ceramic Technologies ("HCT") during the year, manufactures a range of our proprietary silicon carbide micro-fibres ("SiC") which add strength, toughness and anti-scratch properties to existing materials. Despite taking longer than we had expected, HCT has now signed a number of long-term supply contracts with world-wide businesses that incorporate HCT's SiC in the manufacture of their hard-edged cutting tools and, as of 10 September 2018, had a long-term order book of approximately £4.15 million

(\$5.46 million) for delivery over the coming years, providing excellent revenue visibility. HCT has been developing new markets for its products and has successfully integrated its SiC into a major US-based paint and coatings customer where sales commenced in October 2017 and were approximately £0.22 million in FY18. Pleasingly, sales volumes in current financial year to this customer are continuing at higher monthly rates than in FY18.

Our South Korean sales office has secured SiC orders of approximately £0.09 million from industrial giant, Taegu Tec Ltd, based in South Korea. that we expect to increase in FY19. We have received positive feedback from a major oil conglomerate on the benefits of our SiC as a structural enhancer of their catalysts, a crucial part in the petrochemical refining process. We have high hopes of developing this new market opportunity in FY19 as our product offers a real benefit to an industry-wide problem.

Rather than just sell SiC “powder”, we took the decision in FY18 to add value to our SiC micro fibres by investing in our own in-house US manufacturing capabilities to address a growing market in selling our proprietary SiC cutting tools (“blanks”). We generated maiden sales of approximately £0.1 million in FY18, initially through selling third-party contract manufactured SiC blanks, but encountered supply chain issues from our European contractors which led to us deciding to accelerate our investment in our own capabilities. Our in-house manufacturing equipment is expected to be commissioned by the end of this calendar year with sales of product coming through in H2 of FY19.

During the year, we delivered phase 1 of a project to build a novel Automotive panel production line for Everpower in China. The sales value for phase 1 was approximately £0.28 million and phase 2 is expected to commence in Q3 of FY19, where the target application is initially focussed on internal car panels for the burgeoning Chinese auto industry.

The graphene teams in Loughborough and Ammanford have been working tirelessly during the year to enhance a number of customers’ products through the appropriate functionalisation, mixing and dispersion of the correct commercially available graphene into their existing products. An excellent example of this was the strong commercial progress made over the last year with a global composite materials group to enhance mechanical properties for selected lines within their product range. The global customer paid approximately £0.11 million to Haydale in FY18 as we delivered various formulations of graphene enhanced masterbatches for trials.

In collaboration with GKN, Cobham and BAE Systems, we have successfully increased the electrical conductivity of an aircraft aileron by 600% to defeat lightning strike and potentially reduce the need for heavy “parasitic copper” in a composite built aircraft. Whilst we acknowledge that material revenues from the commercial aircraft market will be longer term, its application in the fast-growing drone market is potentially considerable. We were delighted to be involved with the University of Central Lancaster, to develop the world’s first graphene skinned plane which was unveiled at the Farnborough Airshow in July 2018.

## **Management**

As recently announced, Keith Broadbent, who has been with Haydale for just over a year as Managing Director of the Resins, Polymers and Composites business unit, has now stepped up and joined the Board of Directors as Chief Operating Officer. Keith brings extensive operational experience in driving sales and will have overall responsibility

for delivery of the Group's budgets. This allows Ray Gibbs, formerly CEO and now President, Business Development, to concentrate on global sales opportunities and focus on our key markets of ceramics, composites, conductive inks and elastomers.

I have also taken on the role of Interim Executive Chairman during this important phase of the Group's development. All businesses face challenges as they grow and develop and we have not been immune to a number of these challenges, specifically around sales order delays caused by the actions outside of our control by multi-national corporates. However, we now believe that we have in place an improved management structure capable of minimising these types of issues in the future.

### **Outlook**

We enter FY19 with cautious optimism. The recently announced five-year SiC contract extension with an existing cutting tool customer has provided even more sales visibility for our US operation and our steadily increasing graphene ink sales to several print houses for the bio-medical sensor market is an encouraging start to the financial year.

We are delighted to be a Tier-1 partner to the new Graphene Engineering Innovation Centre (GEIC) at the University of Manchester, where we will install and showcase one of our HT60 plasma reactors. The enhanced functionalisation now being generated from upgrades we have made to the reactor makes for exciting product improvement opportunities for the myriad of companies now looking at collaborating with the GEIC and its Tier-1 Graphene partners. The facility officially opens in December 2018.

Overall progress for the Group this year has been solid, albeit we are disappointed that we did not achieve the revenue growth we had anticipated and we have previously updated the market on the reasons for this. We now believe that we have made the necessary changes to address those issues.

There are significant growth opportunities with the new and adapted approach of using our global footprint as one team, with cross-selling and cross R&D focus, and a re-orientation to organic growth and cost monitoring. Business development surrounding the major advances we have seen in the core skills on inks, functionalisation and dispersion of graphene, in conjunction with the new market segment of SiC, sets Haydale up for the next phase of evolution and scale up.

I would like to thank the staff, our advisors and my fellow Board members for their hard work and dedication in positioning the Group for the next stage of its growth. I would also like to thank our shareholders for their continued support.

David Banks  
Interim Executive Chairman  
17 September 2018

### **STRATEGIC REPORT**

The directors present their Strategic Report for the year ended 30 June 2018.

### ***PRINCIPAL ACTIVITIES***

Haydale Graphene Industries Plc (“Haydale” or the “Group”) is the AIM listed group that uses tailored advanced materials, including graphene and silicon carbide micro-fibre (SiC). The Group’s vision is to use its knowledge of advanced materials and dispersion to become one of the World’s foremost creators of material change, enabling its customers to improve the performance of their products.

The Group has developed regulatory approved proprietary graphene-based and other speciality inks and coatings for the print and biomedical sensor markets, as well as enhanced resins for the pre-preg carbon fibre market. In the USA, Haydale manufactures proprietary SiC micro-fibres and whiskers that strengthen ceramics and enable highly scratch and wear resistant coatings. Applications for SiC include corrosion barriers for oil and gas pipelines and hard-edged cutting tools for fashioning jet engine turbine blades from solid super alloy billets. The Group has operational activities in its six chosen geographies worldwide. In summary, these are:

<i>Haydale subsidiary</i>	<i>Location</i>	<i>Principal activities</i>
Haydale Limited	Ammanford, Wales	R&D operation, supporting the resins, polymers and composites strategic business unit, developing ink production capability
Haydale Composite Solutions Limited (“HCS”)	Loughborough, England	Principally consulting on advanced composites and elastomers design, R&D and testing specialist, covering the full product development lifecycle
Haydale Technologies (Korea) Limited (“HTK”)	Seoul, South Korea	Dedicated sales servicing the fast-moving Korean, Chinese and Japanese markets
Haydale Technologies (Thailand) Company Limited (“HTT”)	Bangkok, Thailand	Provides low-cost, high-value R&D and plasma functionalisation facilities, servicing the APAC region and supporting the Far East sales teams.
Haydale Technologies, Inc. (“HTI”)	South Carolina, USA	Haydale Ceramic Technologies (formerly ACM) is HTI’s wholly owned operating subsidiary which produces and sells novel SiC micro fibres and whiskers
Haydale Technologies Taiwan Ltd (“HTW”)	Kaohsiung, Taiwan	Established in July 2017 as the production facility and technical centre for sales of speciality inks initially into the biomedical sensor market

### **Evolution of Strategic Business Units**

From 1 July 2017, we created two strategic business units (SBU’s) within the Group, each with their own dedicated management teams to focus on and deliver our anticipated sales growth:

1. Resins, Polymers and Composites (“**RPC**”); and
2. Advanced Materials (including SiC and inks) (“**AMAT**”)

The RPC SBU increased its commercial revenues in the year to £1.02 million from £0.87 million in FY17, whilst AMAT’s revenue increased to £2.39 million from £2.13 million in the prior year. RPC’s revenues include those

generated by the three UK entities, whereas the revenue from AMAT is derived from the Group's operations in the US and the Far East.

The setting up of two business units, as detailed in last year's strategic report, has delivered some success and ensured growth in all areas of the global business, albeit it did not deliver on our expected sales targets for the year. Accordingly, the dynamic nature of the growth requirement has necessitated an evolution in this approach, and consequently performance reporting for FY19 will see the three regional areas of: (1) USA; (2) UK (and Europe); and (3) Far East being brought together as a team under the newly created position of Group's Chief Operating Officer, with Keith Broadbent, the UK's MD for Resins, Polymers & Composites, having recently been promoted into the role, and becoming an executive director of Haydale Graphene Industries Plc.

This change is designed to facilitate greater cross-selling and accountability across the Group, and success has already been seen with commercial activities on coatings with SiC now in progress in the UK, and graphene initiatives being targeted with major players in the US. The combination of our ink expertise in the UK with that in our Taiwan facility is also bearing fruit, not just on the technology side, but also sharing best operational practice on Health and Safety, Quality (ISO9001) and Production techniques. The Group's US MD, Trevor Rudderham, has very recently decided to step away from the business for family reasons and, whilst his contribution to Group's growth has been appreciated, his decision will allow the Group's transition from SBU focus to global focus. This position will not be replaced.

### **Plasma functionalisation and enhanced performance**

During the year we have successfully completed several key research and development projects to enhance Haydale's capabilities and product offerings through the HDPlas™ process. We have made significant investments into capital equipment and our team's knowledge base to enhance our HT60 plasma reactors' performance and yield increased functionalisation levels to improve the concentration of bonded functional groups. Improving our product offering to compete in the advanced materials markets has been critical. Our ability to now offer enhanced functionalisation, including amines, means we can tailor functionalisation levels to further improve the dispersion characteristics of nanomaterials in wide ranging matrices. This has resulted in some significant graphene-related sales contracts being secured and delivered in the year under review.

### **The UK**

In the UK, where RPC is principally situated, we have two operational facilities: Ammanford, South Wales; and Loughborough, East Midlands. We also opened a Group Head Office in Harwell Business Park, Oxfordshire in June 2018, to provide a central location for business development alongside significant potential customers operating in the aerospace and advanced materials sectors.

Ammanford is primarily a R&D operation which also sources, handles, functionalises and processes nanomaterials using a suite of prototyping and analytical equipment, as well as its own patented plasma reactors (HT60s and HT200s). Ammanford is responsible for installing, commissioning and maintaining the plasma reactors used internally and by third parties. The aim is to provide the Group with sustainable commercially available graphene and other nanomaterials for both internal product development and third-party customers. In addition, we have recently recruited a dedicated technical sales person with a track record in growing conductive inks.

In Loughborough, we are focussed on producing applications engineering solutions in composite and elastomer materials to enhance their mechanical properties (strength and stiffness), electrically conductive properties, and their thermally conductive properties.

## **The USA**

Our US operation delivered the bulk of AMAT's revenues for FY18, with sales of SiC at £2.11 million (FY17: £2.05 million). We rebranded the operation from Advanced Composite Materials ("ACM") to Haydale Ceramic Technologies ("HCT") during the year, having acquired ACM in the autumn of 2016. The SiC comparative sales figure for FY17 represents the sales generated in the period from acquisition to 30 June 2017, which is the same as that generated in the full 12 months to 30 June 2017. During the year, we began an investment programme to instal a new product line in HCT to add value to its proprietary SiC micro fibres by incorporating them with aluminium oxide to enable us to manufacture our own cutting tool blanks. Revenues from this new product line are expected to start in the second half of FY19.

We also successfully opened up new markets for our SiC in the powder-coating anti-corrosion market where we generated maiden sales of approximately £0.22 million in FY18 and which have continued into the current year. Although sales in this market are at a lower gross profit margin than sales into the cutting tools market, the market size is potentially significantly larger. We also received encouraging feedback from a major oil conglomerate that has tested our SiC as a structural enhancer of catalysts which are a crucial part in the petrochemical refining process.

HCT has a long-term sales order book for delivery of SiC which was added to post year end with a new five-year supply contract extension and, as at 10 September 2018, stood at approximately £4.15 million (\$5.46 million).

## **The Far East**

We now have three operational sites in the Far East: a sales office in Seoul, South Korea (HTK); an R&D and consulting facility in Bangkok, Thailand (HTT); and an ink formulation and manufacturing facility in Kaohsiung, Taiwan (HTW).

HTT has quickly established itself as a technical and sales support service for our Korean and Taiwan activities. In FY18, HTT generated revenues of £0.23 million, up from £0.07 million in the prior year from a mixture of commercially funded contract research projects and the sale of an HT60 reactor to leading Thai petrochemical processor, IRPC, for functionalisation of some of its bi-products. Our high-class facility in the prestigious Thailand Science Park in Bangkok houses two of our patented plasma HT60 graphene functionalisation reactors, with one being owned by IRPC. The commissioning of IRPC's reactor straddled the end of the financial year so some revenues associated with its sale will fall into FY19.

Other developing graphene-related opportunities include PATit, Haydale's software driven anti-counterfeiting device that "reads" our unique conductive transparent and opaque inks when printed onto a product label, proving the authenticity (or otherwise) of the goods. The specialist ink uses graphite block from our collaboration partner, Talga Resources. To date, we have signed a LOI with one of Thailand's leading security printers.

HTW was established in July 2017 and commenced providing graphene and other speciality inks samples principally to leading biomedical sensor printers in the diabetes testing market. The time that customers take to evaluate our graphene inks has proven to take longer than we originally anticipated yet, pleasingly, we are now receiving regular repeat orders from customers, albeit still in relatively small quantities. Once our existing facility is operating at maximum capacity and our commercial revenues are fully established, our intention is to relocate production to a larger 10,000sq ft unit.

## ***OPERATING REVIEW***

The Group's key objective now is to accelerate the transition of the business from an R&D focussed operation into a sales and marketing organisation.



The improvements in our analysis, testing and characterisation expertise, both in-house and in collaboration with external partners in academia and industry, have increased the pace at which customer solutions can be obtained as well as giving potential for additional IP owned products. We have invested heavily in our UK teams' understanding of dispersion technologies, developing our knowledge of dispersibility of Nano materials into a wide range of polymer systems. This has included equipment and personnel, and the sharing of best practice throughout our company turning Haydale into a learning organisation.

Haydale has been working with its key OEM, to plan and design the next generation of HDPlas™ reactors , which will provide the ability to meet commercial volumes in anticipation of the breakthrough driven by the increasing scope of the core and patented technology.

Following the sale of a HT60 reactor to the Centre for Process Innovation (CPI) in 2015, CPI continues to assist Haydale to be at the forefront of graphene enhanced development in a range of applications. Working closely with Haydale's technical team through grant funded projects, Haydale and CPI, have developed filter technology for oil/water separation, desalination and industrial waste water, evaluation of which will continue during the current financial year.

At the end of June 2018, we were pleased to have been selected as one of the core Tier-1 partners of the University of Manchester's recently completed £60 million Graphene Engineering Innovation Centre (GEIC) where one of our patented HT60 plasma reactors is to be housed. This will help further functionalisation and applications knowledge across a range of graphene and other 2D materials where correct chemical bonding is a key part ensuring graphene disperses uniformly within its host material.

In the UK, our work on inks over the past year has been focused on the commercialisation of our patented pressure sensor and screen printable inks. Over the next 12 months, Haydale will continue to focus on bringing innovative and novel printed solutions to the market and has invested in it sales team to realise this potential. Other ink applications include wearables, focussed around a contract with The English Institute of Sport, as announced today.

Non-regulated markets, such as sporting goods, provide potentially significant short-term revenue opportunities for Haydale. An example of which has been supply during the year of graphene-enhanced carbon fibre pre-preg to a high specification bespoke UK bicycle manufacturer, which has met with some success.

Progress on two other longer-term projects continues, albeit slower than originally anticipated. Testing by Flowtite A/S of graphene-enhanced resins for their glass reinforced pipe systems took longer than anticipated and, whilst it showed certain improvements, there remains the need for further testing. Importantly, progress has been made but the incorporation of lab-based improvements into a full-blown production process is the key challenge, with functionalisation and dispersion in harmony with the manufacturing process still requiring further work. The Haydale and Flowtite teams are regrouping next month to determine next steps.

Results from the work carried out with Huntsman has subsequently significantly benefited other trials carried out with specific applications for component pre-preg in less regulated markets such as sports goods (cycles) and low volume automotive components. We continue to work on improvements in incorporating Haydale's graphene dispersions into Huntsman specific high value, specialist applications.

### **Grant Funded Projects**

During the year under review, the Group has been busy progressing R&D programmes with important commercial partners where development of commercially viable end products is a pre-requisite of securing each projects' funding. Income from such projects totalled £0.83 million for the year under review (FY17: £0.91 million) and, as at 10 September 2018, the Group had secured grant funded projects worth approximately £0.86 million for delivery over the coming years.

### **Management and Personnel**

We have continued to invest in our people across the Group during the year, which now employs 79 people across five countries (FY17: 70).

In July 2017, David Banks replaced John Knowles as non-executive Chairman and, since the year end, has become the Group's Interim Executive Chairman. We further strengthened other key management with the recruitment in July 2017 of Keith Broadbent as MD of the RPC SBU. Keith has successfully demonstrated his operational and commercial capabilities during the past year such that, post year end, Keith has been promoted to the newly created role of the Group's Chief Operating Officer and as a director of the Company.

In June 2018, Ray Gibbs, who has served as the Company's Chief Executive Officer since 2013, informed the Board of his intention to step down as CEO in order to concentrate on the Group's business development activities. Ray was appointed to his new role as President, Business Development in early September 2018.

### **Patents, IP and Licensing**

Our patents are process patents in key selected strategic territories where their use is as a blocking prior art tool. We are aware of one patent application by a third party where the examiner threw out their claims citing Haydale's patents as prior art. Our critical IP however, is our processing, mixing and dispersion knowledge and know-how derived from the work we have carried out in conjunction with Huntsman, together with the FDA approved ink formulations that have been developed in the Far East. We are in the process of documenting our knowledge and know-how IP, including ink recipes and masterbatching techniques.

The Group currently holds patents in the US, UK, Europe, China, Japan and Australia.

### **Key Performance Indicators ("KPIs")**

The Group's KPIs are its financial metrics are its revenues, graphene related income, gross profit margin, grant income, adjusted EBITDA, cash position, total borrowings and long-term sales order book as follows:

	<b>FY18 (£'000)</b>	<b>FY17 (£'000)</b>
Revenue	3,403	3,004
Gross profit margin	59%	70%
Income from graphene related products and services	1,070	1,020
Adjusted EBITDA	(4,892)	(4,193)
Cash position	5,092	2,091
Borrowings	896	1,270
Long-term sales order book*	4,674	5,400

\* The figure increased to £5.19 million as at 10 September 2018

## **FINANCIAL REVIEW**

### **Statement of Comprehensive Income**

In the year under review, the Group's three principal areas of income were: (i) graphene-enhanced and advanced composite consulting services; (ii) sale of silicon carbide whiskers and fibres; and (iii) long-term graphene-related grant funded projects.

The Group's total income for the year ended 30 June 2018 of £4.23 million (FY17: £3.91 million), comprised commercial revenues of £3.40 million (FY17: £3.00 million) and grant income of £0.83 million (FY17: £0.90 million). Although the Group has made significant progress during the year, the 8 per cent. increase in income year-on-year was lower than management's expectations. The Group's income suffered in the second half of FY18 from a combination of specific customers requesting to defer shipment of product into the current financial year and longer than anticipated lead times by customers to reach commercial volumes.

The Group's gross profit, which excludes the income from grant funded projects was £2.0 million (FY17: £2.1 million) delivering a gross profit margin of 59% (FY17: 70%). The reduction in margin was primarily due to a different sales mix from the Group's US operations as it looks to expand the markets for its products. The Group's adjusted EBITDA (adjusted for share-based payment charges, profit/loss on disposal of property, plant and equipment and profit/loss on disposal of intangible assets) was a loss of £4.89 million (FY17: £4.19 million). The Directors consider that adjusted EBITDA is a more useful measure of the Group's performance and comparative performance than EBITDA because it is a closer measure to operating cashflow and it reduces the effects of one-off transactions and other non-cash items.

At the year end, the Group's contracted order book stood at £4.67 million (FY17: £5.40 million) and, since the year end, additional long term orders have been secured resulting in an order book as at 10 September 2018 of £5.19 million to be delivered over the coming years.

Total administrative costs increased approximately 6 per cent. In the year to £8.85 million (FY17: £8.35 million). During the year, we continued to invest in increasing our know-how, knowledge and understanding of mixing and dispersion techniques alongside our industry leading collaboration partners. Overall R&D spend for the year was £1.05 million (FY17: £1.15 million), of which £0.88 million was expensed during the year (FY17: £0.91 million), with the balance of £0.18 million being capitalised, (FY17: £0.24 million). This internal funded development expenditure is expected to lead to sales of new products in future financial years. The Group's other administrative costs for the year totaled £7.68 million (FY17: £7.09 million), the increase reflecting the investment in our Far East operations during the year, specifically in Taiwan. Overall, the loss from before tax for the year was £6.12 million (FY17: £5.64 million loss), and included non-cash items of £1.17 million (FY17: £1.14 million). The loss per share for the year reduced marginally to £0.22 (FY17: £0.28 loss).

#### **Statement of Financial Position and Cashflows**

As at 30 June 2018, net assets amounted to £12.54 million (2017: £8.91 million), including cash balances of £5.09 million (2017: £2.10 million). Other current assets decreased to £2.56 million at the year end (2017: £2.89 million), and current liabilities reduced to £2.51 million as at 30 June 2018 (2017: £2.89 million). Deferred consideration of £0.47 million was settled during the year, being amounts due to the vendors following the acquisition of ACM in 2016. Net cash outflow from operating activities, before working capital movements for the year was £4.86 million (2017: £4.19 million), the principal contributing factor being the loss from operations activities of £6.02 million (2017: £5.34 million). Expenditure on capital equipment again utilised a significant portion of cash during the year at £0.72 million (FY17: £0.42 million).

#### **Capital Structure and Funding**

As at 30 June 2018, the Company had 27,328,773 ordinary shares in issue (2017: 19,597,713). During the year, the Company issued 7,731,060 new ordinary shares, in connection with the Company's placing and offer for subscription which raised £9.28 million (before expenses) and was completed on 30 October 2017. No options were exercised into ordinary shares during the year (FY17: 39,500).

The Group repaid borrowings of £0.47 million during the year (FY17: £2.82 million), principally in relation to the Group's US borrowing facilities which are secured on the Group's US based tangible assets. This in turn reduced Haydale's financing costs in the year to £0.1 million from £0.3 million in the prior year. The Group's total borrowings at the year end were £0.90 million (2017: £1.27 million), all of which were held by the Group's US subsidiaries.

Haydale's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide return to equity holders of the Company and benefits to other stakeholders and to maintain an optimal capital structure to reduce the cost of capital. The Group manages this objective through tight control of its cash resources to meet its forecast future cash requirements.

**CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME**  
**For the year ended 30 June 2018**

	Note	Year ended 30 June 2018 £'000	Year ended 30 June 2017 £'000
<b>REVENUE</b>	5	3,403	3,004
Cost of sales		(1,403)	(894)
<b>Gross profit</b>		2,000	2,110
Other operating income	5	831	901
Administrative expenses			
Research and development expenditure		(878)	(908)
Share based payment expense		(291)	(351)
Other administrative expenses		(7,684)	(7,090)
		(8,853)	(8,349)
<b>LOSS FROM OPERATIONS</b>		(6,022)	(5,338)
Finance costs		(95)	(297)
<b>LOSS BEFORE TAXATION</b>	6	(6,117)	(5,635)
Taxation	7	850	883
<b>LOSS FOR THE YEAR FROM CONTINUING OPERATIONS</b>		(5,267)	(4,752)
<b>Other comprehensive income:</b>			
<i>Items that may be reclassified to profit or loss:</i>			
Exchange differences on translation of foreign operations		(47)	(74)
Remeasurements of defined benefit pension schemes		(99)	(36)
<b>TOTAL COMPREHENSIVE LOSS FOR THE YEAR FROM CONTINUING OPERATIONS</b>		(5,413)	(4,862)
<b>Loss for the year attributable to:</b>			
Owners of the parent		(5,413)	(4,862)
Non-controlling interest		-	-
		(5,413)	(4,862)
<b>Total comprehensive loss attributable to:</b>			
Owners of the parent		(5,413)	(4,862)
Non-controlling interest		-	-
		(5,413)	(4,862)
Loss per share attributable to owners of the Parent			
Basic (£)	8	(0.22)	(0.28)
Diluted (£)	8	(0.22)	(0.28)

**CONSOLIDATED STATEMENT OF FINANCIAL POSITION**

As at 30 June 2018

Company Registration No. 07228939

		30 June 2018 £'000	30 June 2017 £'000
	Note		
<b>ASSETS</b>			
<b>Non-current assets</b>			
Goodwill	9	2,087	2,115
Intangible assets	9	2,130	2,152
Property, plant and equipment	10	5,061	5,074
Deferred tax asset		550	679
		<hr/>	<hr/>
		9,828	10,020
		<hr/>	<hr/>
<b>Current assets</b>			
Inventories	11	1,022	1,212
Trade receivables	13	705	798
Other receivables	14	362	535
Corporation tax		473	345
Cash and bank balances		5,092	2,091
		<hr/>	<hr/>
		7,654	4,981
		<hr/>	<hr/>
<b>TOTAL ASSETS</b>		<b>17,482</b>	<b>15,001</b>
		<hr/> <hr/>	<hr/> <hr/>
<b>LIABILITIES</b>			
<b>Non-current liabilities</b>			
Bank loans	14	640	911
Deferred tax		675	1,234
Pension Obligation		1,120	969
		<hr/>	<hr/>
		2,435	3,114
<b>Current liabilities</b>			
Bank loans	14	256	359
Trade and other payables	13	2,172	2,305
Deferred income		78	253
Corporation tax		-	65
		<hr/>	<hr/>
		2,506	2,982
		<hr/>	<hr/>
<b>TOTAL LIABILITIES</b>		<b>4,941</b>	<b>6,096</b>
		<hr/>	<hr/>
<b>TOTAL NET ASSETS</b>		<b>12,541</b>	<b>8,905</b>
		<hr/> <hr/>	<hr/> <hr/>
<b>EQUITY</b>			
<b>Capital and reserves attributable to equity holders of the parent</b>			
Share capital	12	547	392
Share premium account	12	27,539	18,936
Share-based payment reserve		1,298	1,007
Foreign exchange reserve		(160)	(113)
Retained earnings		(16,683)	(11,317)
		<hr/>	<hr/>
<b>TOTAL EQUITY</b>		<b>12,541</b>	<b>8,905</b>
		<hr/> <hr/>	<hr/> <hr/>

**CONSOLIDATED STATEMENT OF CHANGES IN EQUITY**  
**For the year ended 30 June 2018**

	Share capital	Share premium	Share- based payment reserve	Foreign Exchange Reserve	Retained profits	Other reserves	Total Equity
	£'000	£'000	£'000	£'000	£'000	£'000	£'000
<b>At 1 July 2016</b>	305	11,840	656	(39)	(6,117)	(44)	6,601
Total comprehensive loss for the year	-	-	-	(74)	(4,787)	-	(4,861)
Recognition of share- based payments	-	-	351	-	-	-	351
Issue of ordinary share capital	87	7,253	-	-	-	-	7,340
Repurchase of NCI	-	-	-	-	(413)	44	(369)
Transaction costs in respect of share issues	-	(157)	-	-	-	-	(157)
<b>At 30 June 2017</b>	392	18,936	1,007	(113)	(11,317)	-	8,905
Total Comprehensive loss for the year	-	-	-	(47)	(5,366)	-	(5,413)
Recognition of share- based payments	-	-	291	-	-	-	291
Issue of ordinary share capital	155	9,123	-	-	-	-	9,278
Transaction costs in respect of share issues	-	(520)	-	-	-	-	(520)
<b>At 30 June 2018</b>	547	27,539	1,298	(160)	(16,683)	-	12,541

## CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 30 June 2018

	Year ended 30 June 2018 £'000	Year ended 30 June 2017 £'000
<b>Note</b>		
<b>Cash flow from operating activities</b>		
Loss before taxation	(6,117)	(5,635)
<i>Adjustments for:-</i>		
Amortisation of intangible assets	9      149	157
(Profit)/Loss on disposal of intangible assets	75	-
Capitalised loan costs written off	-	77
Depreciation of property, plant and equipment	10      675	560
(Profit)/Loss on disposal of property, plant and equipment	(60)	-
Share-based payment charge	291	351
Finance costs	95	297
Pension – net interest expense	37	-
	<hr/>	<hr/>
<b>Operating cash flow before working capital changes</b>	(4,855)	(4,193)
	<hr/>	<hr/>
Decrease/(Increase) in inventories	190	(12)
Decrease/(Increase) in trade and other receivables	266	(596)
(Decrease)/Increase in payables and deferred income	159	260
	<hr/>	<hr/>
<b>Cash used in operations</b>	(4,240)	(4,541)
	<hr/>	<hr/>
Income tax received	269	412
	<hr/>	<hr/>
<b>Net cash used in operating activities</b>	(3,971)	(4,129)
	<hr/>	<hr/>
<b>Cash flow used in investing activities</b>		
Purchase of property, plant and equipment	(723)	(415)
Purchase of Intangible Assets	(175)	(245)
Proceeds from disposal of property, plant and equipment	83	-
Acquisition of subsidiary – deferred consideration	(444)	4
Purchase of non-controlling shareholding	-	(413)
	<hr/>	<hr/>
<b>Net cash used in investing activities</b>	(1,259)	(1,069)
	<hr/>	<hr/>
<b>Cash flow used in financing activities</b>		
Finance costs	(95)	(297)
Proceeds from issue of share capital (net of share issue costs)	8,757	6,058
New bank loans raised	-	1,408
Repayments of borrowings	(446)	(2,817)
	<hr/>	<hr/>
<b>Net cash flow from financing activities</b>	8,216	4,352
	<hr/>	<hr/>
Effects of exchange rates changes	15	75
	<hr/>	<hr/>
<b>Net increase / (decrease) in cash and cash equivalents</b>	3,001	(771)
	<hr/>	<hr/>
Cash and cash equivalents at beginning of the financial year	2,091	2,862
	<hr/>	<hr/>
<b>Cash and cash equivalents at end of the financial year</b>	<u>5,092</u>	<u>2,091</u>

## **NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

**For the year ended 30 June 2018**

### **1. General information**

Haydale Graphene Industries Plc (the “Company”) and its subsidiaries (together the “Group”) are focussed on enabling technology for the commercialisation of graphene and other nanomaterials. The Company is a public limited company which is listed on the AIM Market of the London Stock Exchange plc and is incorporated and registered in England and Wales. The Company’s registered office is Clos Fferws, Parc Hendre, Capel Hendre, Ammanford, Carmarthenshire, SA18 3BL.

### **2. Group Annual Report and Statutory Accounts**

The financial information of the Group set out above does not constitute “statutory accounts” for the purposes of Section 435 of the Companies Act 2006. The financial information for the year ended 30 June 2018 has been extracted from the Group’s audited financial statements which were approved by the Board of directors on 17 September 2018 and will be delivered to the Registrar of Companies for England and Wales in due course. The report of the auditor on these financial statements is unqualified, did not include any references to any matters to which the auditors drew attention by way of emphasis without qualifying their report and did not contain a statement under Section 498 (2) or Section 498 (3) of the Companies Act 2006.

### **3. Basis of preparation**

Whilst the financial information included in this preliminary announcement has been prepared in accordance with the recognition and measurement criteria of International Financial Reporting Standards (‘IFRSs’) as adopted by the European Union, this announcement does not itself contain sufficient information to comply with those IFRSs. This financial information has been prepared in accordance with the accounting policies set out in the 30 June 2018 report and financial statements.

### **4. Going concern**

The Group’s 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 30 June 2018, amounts to £5.092 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, and current cash resources, the Directors believe that the Group will be able to continue to trade for the foreseeable future.

### **5. Segment analysis**

IFRS 8 requires operating segments to be identified on the basis of internal reports about components of the Group that are regularly reviewed by the chief operating decision maker (which takes the form of the board of directors of Haydale Graphene Industries Plc) as defined in IFRS 8, in order to allocate resources to the segment and to assess its performance.

For management purposes, the Group is organised into the following reportable segments:

- Resins, Polymers and Composites (known as RPC) ; and
- Advanced Materials (including SiC and Inks) (known as AMAT)

These strategic business units were created on 1 July 2017, prior to this date management did not distinguish between different operating segments.

#### **Geographical information**

All revenues of the Group are derived from its principal activity, the sale and distribution of nano-technology and silicon carbide products or the delivery of research projects into those nano materials. The Group’s revenue from external customers by geographical location are detailed below.



	<b>2018</b>	<b>2017</b>
	<b>£'000</b>	<b>£'000</b>
<b>By destination</b>		
United Kingdom	238	265
Europe	516	952
United States of America	532	131
China	448	11
Thailand	199	73
South Korea	93	14
Japan	1,299	1,545
Rest of the World	78	13
	<u>3,403</u>	<u>3,004</u>

During 2018, 38% (2017: 51%) of the Group's revenue depended on a single customer. During 2018, 10% (2017: 12%) of the Group's revenue depended on a second single customer.

Revenue within Europe was predominantly split between Germany (6%) and Ireland (5%) (2017: Germany 19%, and Ireland 10%), as a proportion of total group turnover for the year.

All amounts shown as other income within the Statement of Comprehensive Income are generated within and from the United Kingdom. These amounts include income earned as part of a number of grant funded projects and a government grant which is being released over a period of 5 years. The residual amount is reflected in deferred income.

Revenue from goods was £2.48 million or 73% (2017: £2.09 million or 70%) and revenue from services was £0.80 million or 24% (2017: £0.69 million or 23%).

The split of revenue by type was as follows:

	<b>2018</b>	<b>2017</b>
	<b>£'000</b>	<b>£'000</b>
Services	836	691
Reactors	89	225
Goods	2,478	2,088
	<u>3,403</u>	<u>3,004</u>

	<b>RPC</b>	<b>AMAT</b>	<b>TOTAL</b>
	<b>£'000</b>	<b>£'000</b>	<b>£'000</b>
Services	809	27	836
Reactors	-	89	89
Goods	209	2,269	2,478
	<u>1,018</u>	<u>2,385</u>	<u>3,403</u>

## 6. Loss before taxation

Loss before taxation is arrived at after charging:

	<b>2018</b>	<b>2017</b>
	<b>£'000</b>	<b>£'000</b>
Research and development:		
- current period's expenditure	878	908
- amortisation of capitalised expenditure	-	77
- amortisation of other intangibles	149	157
Loss on disposal of intangibles – Note 10	75	-
Depreciation of property, plant and equipment	675	560
Profit on disposal of property, plant and equipment	(9)	-
Foreign Exchange	(33)	(20)
Operating lease rentals:		

- land and buildings	572	447
- plant and machinery	6	7
	<u>578</u>	<u>454</u>

## 7. Income tax

<b>Current tax credit</b>	<b>2018</b>	<b>2017</b>
	<b>£'000</b>	<b>£'000</b>
Total income tax credits:		
- for the financial year	399	280
- under provision in the previous financial year	63	33
<b>Total Current Tax</b>	<u>462</u>	<u>313</u>
<b>Deferred tax credit</b>		
Origination and reversal of temporary differences	388	204
Recognition of previously unrecognised deferred tax assets	-	366
	<u>388</u>	<u>570</u>
	<u>850</u>	<u>883</u>

The reason for the difference between the actual tax charge for the year and the standard rate of corporation tax in the United Kingdom applied to the losses for the year are as follows:

	<b>2018</b>	<b>2017</b>
	<b>£'000</b>	<b>£'000</b>
Loss for the year	(5,267)	(4,752)
Income tax credit	(850)	(883)
	<u>(6,117)</u>	<u>(5,635)</u>
Loss before income taxes	(6,117)	(5,635)
Tax using the Group's domestic tax rates of 19% (2017 – 19.75%)	1,162	1,113
Expenses not deductible for tax purposes	(274)	(251)
Different tax rates applied in overseas jurisdictions	26	53
R&D enhancement	234	285
R&D costs capitalised	36	-
Surrender for R&D tax credit	(15)	(94)
Adjustment for under/(over) provision in previous periods	63	33
Movement in unrecognised losses carried forward	(747)	-
Movement in unrecognised fixed asset temporary differences	(23)	-
Deferred tax: Origination and reversal of temporary differences	388	(622)
Recognition of previously unrecognised deferred tax assets	-	366
<b>Total tax credit</b>	<u>850</u>	<u>883</u>

### *Changes in tax rates and factors affecting the future tax charge*

The main rate of corporation tax for UK companies reduced from 20% to 19% from 1 April 2017. The Finance Bill 2016, which was substantively enacted in September 2016, announced a further reduction to the main rate of corporation tax. The rate will reduce to 17% from 1 April 2020.

The main rate of corporate tax in the U.S reduced from 34% to 21% effective from 1 January 2018 as part of the U.S tax reforms. This has reduced the deferred tax liability attributable to the group's subsidiaries based in South Carolina.

The Group has tax losses that are available indefinitely for offset against future taxable profits of the companies approximately amounting to £15,780,000 (2017: £12,629,000) and £3,843,000 (2017: £4,946,000) of fixed asset timing differences. The group currently expects to be able to utilise its US tax losses in the foreseeable future and a deferred tax asset has been recognised in respect of these tax losses accordingly.

## 8. Loss per share

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

	<b>2018</b> <b>£'000</b>	<b>2017</b> <b>£'000</b>
Loss after tax attributable to owners of Haydale Graphene Industries Plc	(5,413)	(4,862)
Weighted average number of shares:		
- Basic and Diluted	24,744,693	17,232,137
Loss per share:		
Basic (£) and Diluted (£)	(0.22)	(0.28)

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. At 30 June 2018, there were 3,619,940 (2017: 1,634,856) options and warrants outstanding.

## 9. Intangible assets

	<b>Customer Relationships £'000</b>	<b>Development expenditure £'000</b>	<b>Goodwill £'000</b>	<b>Total £'000</b>
<b>Cost</b>				
At 1 July 2016	285	1,129	685	2,099
Additions	-	244	-	244
Additions from acquisitions	869	55	1,429	2,353
	<hr/>	<hr/>	<hr/>	<hr/>
At 1 July 2017	1,154	1,428	2,114	4,696
Additions	-	175	-	175
Disposals		(55)	(27)	(82)
	<hr/>	<hr/>	<hr/>	<hr/>
At 30 June 2018	1,154	1,548	2,087	4,789
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>
<b>Accumulated amortisation</b>				
At 1 July 2016	58	215	-	273
Charge for the period	115	42	-	157
	<hr/>	<hr/>	<hr/>	<hr/>
At 1 July 2017	173	257	-	430
Charge for the year	115	34	-	149
Disposals	-	(7)	-	(7)
	<hr/>	<hr/>	<hr/>	<hr/>
At 30 June 2018	288	284	-	572
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>
<b>Net book value</b>				
At 30 June 2018	866	1,264	2,087	4,217
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>
At 30 June 2017	981	1,171	2,114	4,266
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>
At 30 June 2016	227	914	685	1,826
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>

## 10. Property, plant and equipment

	Leasehold improvements £'000	Plant and machinery £'000	Fixtures and fittings £'000	Motor vehicles £'000	Assets under construction £,000	Total £'000
<b>Cost</b>						
At 1 July 2016	492	2,171	97	2	15	2,777
Additions	17	290	34	-	74	415
Additions from acquisitions	11	3,544	283	32	-	3,870
FX on additions from acqn's	(1)	(210)	(16)	-	-	(227)
Transfers	-	15	-	-	(15)	-
At 1 July 2017	519	5,810	398	34	74	6,835
Additions	65	217	76	-	365	723
FX translation	(1)	(30)	21	(1)	-	(11)
Disposals	-	(124)	(3)	(2)	-	(129)
Transfers	-	98	-	-	(98)	-
At 30 June 2018	583	5,971	492	31	341	7,418
<b>Accumulated depreciation</b>						
At 1 July 2016	136	991	72	2	-	1,201
Charge for the year	47	467	41	5	-	560
At 1 July 2017	183	1,458	113	7	-	1,761
Charge for the year	57	562	50	6	-	675
FX Translation	-	(1)	27	-	-	26
Disposals	-	(100)	(3)	(2)	-	(105)
At 30 June 2018	240	1,919	187	11	-	2,357
<b>Net book value</b>						
At 30 June 2018	343	4,052	305	20	341	5,061
At 30 June 2017	336	4,352	285	27	74	5,074
At 30 June 2016	356	1,180	25	-	15	1,576

## 11. Inventories

	2018 £'000	2017 £'000
Raw materials	291	274
Work in progress	271	296
Finished goods	460	642
	1,022	1,212

The total value of inventories recognised in cost of sales during the year was £924,091 (2017: £252,394)

Raw materials and finished goods comprise functionalised carbon, chemicals and associated raw materials. Work in progress comprises recoverable costs on long-term contracts.

## 12. Share capital and share premium

	Number of shares No.	Share capital £'000	Share premium £'000	Total £'000
At 1 July 2016	15,236,946	305	11,840	12,145
Issue of £0.02 ordinary shares	4,360,767	87	7,096	7,183
At 30 June 2017	19,597,713	392	18,936	19,328
Issue of £0.02 ordinary shares	7,731,060	155	8,603	8,758
At 30 June 2018	27,328,773	547	27,539	28,086

In October 2017, 7,731,060 shares of 2p each were issued in connection with the Company's £9.3 million placing and open offer. Issue costs amounting to £520,342 (2017: £157,360) have been charged to the share premium account in the year.

## 13. Trade and other payables

	2018 £'000	2017 £'000
Trade payables	687	380
Tax and social security	73	80
Accruals and other creditors	1,412	1,845
	<u>2,172</u>	<u>2,305</u>

## 14. Bank loans

	2018 £'000	2017 £'000
Bank loans	<u>896</u>	<u>1,270</u>
The borrowings are repayable as follows:-		
- within one year	256	359
- in the second year	267	261
- in the third to fifth years inclusive	373	650
	<u>896</u>	<u>1,270</u>

The Group's borrowings are denominated in US dollars. The directors consider that there is no material difference between the fair value and carrying value of the Group's borrowings.

	2018 %	2017 %
Average interest rates paid	<u>4</u>	<u>4</u>

In December 2014 a three year bank loan of £500,000 was drawn by the Company and securitised by cash deposits. The loan accrued interest at 1.5% above the Bank of England base rate and was repayable in equal monthly instalments. The loan was fully repaid in February 2018.

In October 2016, a five year bank loan of \$1,720,000 (equivalent to approximately £1.4 million at the time) was drawn by Haydale Technologies Inc (“HTI”), the Company’s US holding company subsidiary, secured on the fixed assets of HTI and its newly acquired operating subsidiary, Advanced Composite Materials. This loan carries an interest rate of 4% and is repayable in equal instalments. In addition to this HTI has secured a working capital line of credit with a rate fixed at 5.25% on the remaining balance.

## 15. Operating lease arrangements

The amounts of minimum lease payments under non-cancellable operating leases are as follows:

	<b>2018</b>	<b>2018</b>	<b>2017</b>	<b>2017</b>
	<b>Land and</b>	<b>Plant and</b>	<b>Land and</b>	<b>Plant and</b>
	<b>buildings</b>	<b>machinery</b>	<b>buildings</b>	<b>machinery</b>
	<b>£’000</b>	<b>£’000</b>	<b>£’000</b>	<b>£’000</b>
- within one year	573	7	547	7
- within two to five years	976	8	1,423	3
- later than 5 years	177	-	-	-
	<u>1,726</u>	<u>15</u>	<u>1,970</u>	<u>10</u>
Aggregate amounts payable				

Payments recognised as an expense under these operating leases were as follows:

	<b>2018</b>	<b>2018</b>	<b>2017</b>	<b>2017</b>
	<b>Land and</b>	<b>Plant and</b>	<b>Land and</b>	<b>Plant and</b>
	<b>buildings</b>	<b>machinery</b>	<b>buildings</b>	<b>machinery</b>
	<b>£’000</b>	<b>£’000</b>	<b>£’000</b>	<b>£’000</b>
Operating lease expense	<u>572</u>	<u>6</u>	<u>447</u>	<u>7</u>

A significant proportion of the lease arrangements relate to the premises from which HTI and HCT operate in South Carolina, USA totalling £1.11 million (2017: £1.56 million). The lease expires on 31 December 2020. Other leases pertain to the office and unit contracts for the two UK facilities of in aggregate £0.1 million (2017: £0.22 million). Of the £0.22 million, certain leases are cancellable with three months’ notice and others have break clauses 10 months after the date of these accounts.

During the current year a new lease agreement has been entered into, in respect of offices at Harwell, Oxfordshire. The lease expires in March 2028. The estimated committed costs are £0.36 million (2016: nil).

The facility in Thailand is leased and, at the date of these results, will expire in 16 months. The cost is £0.03 million (2017: £0.09 million),

Within the minimum lease payments for plant and machinery is the cost relating the general office equipment.

## 16. Post Balance Sheet Events

From 1 July 2018, the Group changed its internal reporting system to set up a third profit-centric strategic business units (“SBUs”) known as “RPC”, “AMAT” & “APAC”. For the current financial year and beyond, the Group intends to report sales and profits under these three SBUs.

Since 30 June 2018, there has been the following changes to the Board of directors of the Company:

- The appointment of David Banks as Interim Executive Chairman in September 2018;
- The appointment of Keith Broadbent as the Group’s Chief Operating Officer and a member of the Board in September 2018;

- The appointment of Roger Humm as Senior Independent Non-executive Director in September 2018;  
and
- The appointment of Ray Gibbs as President, Business Development, in September 2018, having previously held the position of the Group's Chief Executive Officer.