



**RNS**

**For immediate release**

**30 October 2020**

**Haydale Graphene Industries plc**

(‘Haydale’ or the ‘Group’)

**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 2020.

**Operational Highlights:**

- Good progress made on delivering the Group’s commercial strategy and, despite the challenges, have used the Covid-19 pandemic as a catalyst to broaden the scope of our portfolio;
- Multi-year contracts for the sale of functionalised graphene agreed with customers in Korea and China and collaborating with IRPC (Thailand) on the production of anti-bacterial face masks;
- Focused development of our patented HDPlas® process with key achievements including:
  - increase in surface oxygen levels to 28 per cent which allows Haydale potential access to the Graphene Oxide market; and
  - development of next generation functionalised graphene ink with resistivity reduced to <10 ohms;
- Global sales team starting to deliver commercial revenues through cross border sales and technical collaboration with, amongst other successes, recent announcements for Dowty Propellers, IRPC and sales of CeramycShield™ to a UK water company post year end;
- Awarded new UK and EU grants for projects that demonstrate a clear commercial pathway or add significantly to our knowledge base on potential future applications;
- Scaled up production of Silicon Carbide blanks at the US facility to industrial levels, although subsequent demand was severely impacted by the Covid-19 pandemic;
- Concluded a distribution agreement with U-Win for Taiwan and memorandum of understanding with a Sino-UK facilitator for China – the Group is encouraged by the early results of these collaborations which resulted in the sale of SiC microfibres to China post year end; and
- Closure of Taiwan facility and relocation of the production to our other sites with little disruption and minimal incremental cost.

**Summary of Results:**

	<b>Jun-20</b>	<b>Jun-19</b>	
	<b>£'m</b>	<b>£'m</b>	
Revenue	2.95	3.47	-15%
Gross Profit	2.06	1.90	+8%
Gross Profit Margin	70%	55%	+15%
Other Operating Income	0.76	0.79	-4%

Adjusted Admin Expenses <sup>1</sup>	- 5.36	- 6.87	+22%
<b>Adjusted operating loss<sup>1</sup></b>	<b>- 2.54</b>	<b>- 4.18</b>	<b>+39%</b>
Statutory Loss from Trading	- 4.23	- 5.85	+28%
Impairment	-	- 1.78	-
<b>Statutory Loss from Operations</b>	<b>- 4.23</b>	<b>- 7.63</b>	<b>+45%</b>
<b>Statutory Loss Before Taxation</b>	<b>- 4.41</b>	<b>- 7.76</b>	<b>+43%</b>
<b>Statutory Loss After Taxation</b>	<b>- 4.02</b>	<b>- 7.19</b>	<b>+44%</b>
<hr/>			
<b>Cash Outflow from Operations</b>	<b>-3.32</b>	<b>-4.78</b>	<b>+31%</b>
<b>Cash at Year End</b>	<b>0.82</b>	<b>4.69</b>	<b>-83%</b>

## Financial Highlights

- Despite the 15% fall in revenue, the Group increased its gross profit margin by 15% and increased its gross profit by 8% to £2.06 million (FY19: £1.90 million);
- Other operating income in line with prior year and includes £0.2 million from the US Cares Act;
- A further £0.88 million of cost savings achieved and adjusted administrative costs reduced on a like for like basis to £5.99 million<sup>1</sup> (FY19: £6.87 million) and reduced by over £1.72 million in the last two years;
- Reduction in Adjusted operating loss of £1.01 million on a like for like basis to £3.17 million<sup>1</sup> (FY19: £4.18 million); and
- Cash outflow from operations reduced by £1.46 million (31%) to £3.32 million (FY19: £4.78 million).

## Post Period End Highlights:

On 9 September 2020, the Company raised £2.98 million (gross) through the placing and subscription of 85,055,950 new Ordinary Shares at 3.5 pence per share.

## Commenting on the results David Banks, Non-executive Chairman of Haydale, said:

*“The Group has continued to make positive progress on delivering on the strategic objectives that it set in early 2019 and has made significant advances in its drive to commercialise its portfolio. R&D has made some excellent progress in inks and graphene oxide and the global sales team is beginning to reap the commercial rewards of our One Team approach. We have further streamlined our reporting structures and enhanced our operational and technical capacity. Whilst Covid-19 has provided a testing backdrop to these changes and has impacted revenue in the latter part of the year it has by no means defined or diminished the Group’s development in the year”*

**- Ends -**

## For further information:

### Haydale Graphene Industries plc

Keith Broadbent, CEO

Tel: +44 (0) 1269 842 946

Gemma Smith, Global Head of Marketing

[www.haydale.com](http://www.haydale.com)

### Arden Partners plc (Nominated Adviser & Broker)

Paul Shackleton / Ben Cryer

Tel: +44 (0) 20 7614 5900

<sup>1</sup> £0.63 million relating to lease costs has been included in FY20 in depreciation to comply with IFRS 16. No adjustment has been made to the comparative figures. Adjusted administrative expenses would be £5.99 million prior to the adjustment for IFRS 16 and Adjusted Operating Loss £3.17 million on the same basis. The percentage change in the year would be 13% and 24% respectively.

## 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 five sites in the UK, USA and the Far East.

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

***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 Haydale Graphene Industries Plc's ("Haydale", the "Group" or the "Company") full year audited results to 30 June 2020 ("FY20").

During the year the Group has made significant progress in moving from a research and development organisation to one focussed on the delivery of sustainable commercial revenues. Notwithstanding the impact of Covid-19 on revenue in the latter part of the year, the Group has made positive strides in driving profitable sales, developing its operational and technical capacity and controlling its cost base.

### Summary Financials

Commercial revenue for FY20 of £2.95 million (FY19: £3.47 million) showed a disappointing fall on the prior year. This reflects the adverse impact of Covid-19 which has restrained revenues, especially in the US division where demand for our proprietary Silicon Carbide ('SiC') blanks has been significantly affected by subdued demand for global aviation. Despite the fall in revenue, Gross Profit increased marginally to £2.06 million (FY19: £1.90 million). The Gross profit margin of 69.9% (FY19: 54.8%) showed a significant year on year improvement and this was principally due to reduced sales of lower margin SiC into the US fracking industry. Other operating income in the year at £0.76 million (FY19: £0.79 million) is broadly in line with prior year, although it has benefitted from the support offered by the US Cares Act during the latter part of the year.

The focus on reducing costs continued in the year with adjusted Administrative Expenses falling by £0.87 million (12.7%) to £5.99 million (FY19: £6.86 million) on a like-for-like basis. Over the last two reporting periods, the Company has reduced its operating cost base by £1.7 million in total. Non-recurring one off restructuring costs, principally relating to the closure of the Taiwan facility during the year, were £0.06 million (FY19: £0.35 million). Total Trading Admin Expenses are £7.05 million (FY19: £8.53 million).

Total comprehensive loss for the year was £4.23 million (FY19: £7.12 million), including the £0.06 million of restructuring costs (FY19: £2.13 million including an impairment of intangible assets of £1.79 million) the loss from trading activities was £4.23 million (FY19: £5.85 million).

### Operations

Whilst Covid-19 may have overshadowed the past year it has certainly not defined it for the Group. The path towards the goals that were put in place in 2019 has evolved to cope with the Coronavirus pandemic but the priorities of focussed investment in our technology, delivery of commercial revenue and reduction of operating costs remains at the heart of our strategy.

### *Focussed Investment in R&D*

Haydale brings together two state of the art technologies – the patented HDPlas® functionalisation process and an understanding of graphene and other nano materials. The Company has continued to increase the level of surface functionalisation that it can achieve and this is leading to a marked improvement in the enhancements that we can deliver for our customers. For example, during the year the Group has invested in the next generation of functionalised inks delivering reduced resistivity to circa 10 ohms. This development allows for a cost effective and environmentally friendly replacement of silver, copper and aluminium etch in certain elements of the growing radio-frequency identification ('RFID') and near field communication ('NFC') sectors.

### *Commercial Goals*

The focussed investment in R&D is not an end goal but a means through which the Group can deliver sustainable revenue growth. During the year, all of the operating units have made positive progress in commercialising our technology portfolio despite the difficult operating environment. In April we signed a four-year agreement with Unique Aviation Inc/Dalian Yi Bang Science and Technology Co Ltd ("Unique") for the supply of electrically enhanced masterbatch into the Chinese civilian aviation and wind turbine sectors. The work that we are doing in conjunction with Unique in aviation should demonstrate that our electrical masterbatch can offer significant weight savings and application efficiencies without compromising passenger safety and should facilitate the wider rollout of this solution to the global aerospace sector.

### *Group Restructuring and Cost Reductions*

During the year under review we re-evaluated our operating footprint and in January 2020 announced the closure of the Group's loss-making Taiwan facility and the transfer of its operations to our ink development hubs in Ammanford and Bangkok. Subsequently, we concluded a commission agreement with U-Win, a specialist sales organisation, to sell our portfolio of technologies into the biomedical sensor, automotive and other sectors in Taiwan. We have also signed a memorandum of understanding with a Sino-UK facilitator for business development in China. Whilst it is early days, management are encouraged by the progress made by both of these initiatives and believes the reorganisation will have a positive effect on the development of our ink technology and the realisation of commercial revenue in Taiwan and China.

The Group has continued to realign its costs base and during the year it has reduced its overall headcount whilst continuing to invest in its global sales presence. The Group has also realised significant cost savings and, as noted above, like-for-like administrative costs have reduced by £0.87 million, (12.7%) in the year and this has been achieved without impacting the operational effectiveness of the Group.

### *Impact of Covid-19*

Demand for SiC and the SiC blanks that we manufacture at our US facility has been severely impacted by the slowdown in the aviation sector. Whilst this has undoubtedly restrained the Company's progress it has also acted as a catalyst for change in that business unit. The Group has acted decisively to reduce medium term exposure to the aviation sector by embracing new markets for its existing products and by adopting complementary products for new markets and customers. In April the US division signed an agreement to distribute CeramycShield™, a product that renews and restores old or decaying concrete, into the UK water industry. I am pleased to report that subsequent to the year end the Group shipped its first order for the product.

Within the wider business we saw an immediate slowdown when the UK lockdown was introduced in March 2020. The closure of accredited testing facilities and the furlough of staff at our customers meant that a number of projects were postponed or delayed. I am pleased to report that, as the UK moved out of the first wave, those projects and contracts have now generally started and are progressing to the revised plans.

The Group has taken advantage of national Covid-19 schemes and has accessed support from the US Cares Act and the UK Bounceback loan scheme. At no time during the crisis were any of the Group's sites closed and the Company acted and continues to act in accordance with the relevant guidelines in the jurisdictions in which it operates. In the UK, vulnerable employees were allowed to work from home and those employees who were able to work on site operated in accordance with the UK and Welsh Governments Covid-19 safety advice. The Company did access the UK Coronavirus Job Retention Scheme but at the time of this report I am pleased to say that all of our UK employees have returned to work, albeit some on a part time basis.

### **Director Changes**

In November 2019 Haydale welcomed Mark Chapman as the Group's new Chief Financial Officer, who replaced Laura Redman-Thomas, and in June 2020 Theresa Wallis as a new independent Non-Executive Director, who replaced

Roger Humm. I would like to take this opportunity to thank Laura and Roger for their services to the Group, and particularly Roger who had served as a director before the Company's AIM IPO in 2014.

## Outlook

Whilst the business is well placed to benefit from a recovery in the aviation industry, given the uncertainty surrounding this sector the Board believes that it has put in place robust plans to grow the business whilst reducing reliance on individual products or sectors. As part of those plans, on 9 September 2020 the Company completed an equity placing raising £2.8 million (net of expenses) to provide additional working capital to finance operations. This injection of capital provides a solid foundation and allows the Company to focus on the delivery of its strategic goals. I would like to welcome our new shareholders and to thank our existing shareholders for their continued support at this time.

The Board is mindful of the ongoing uncertainty created by Covid-19 but considers that the long-term outlook remains positive and believe that Haydale's proprietary technology and its capacity to functionalise nano and other materials to significantly enhance the properties of host materials continues to deliver confidence in the prospects of the Group.

I would like to thank the executive team who have reacted so positively to the demands of the Covid-19 pandemic and, whilst challenges remain, I am confident in their ability to overcome them. I would also like to thank the staff, our advisors and my fellow non-executive directors for their hard work and dedication during the year.

David Banks  
Chairman  
29 October 2020

## STRATEGIC REPORT

The directors present their Strategic Report for the year-ended 30 June 2020.

Haydale brings together the cutting-edge technology of the patented HDPlas<sup>®</sup> process with our engineering expertise to functionalise graphene and other nanomaterials. Our technology has the potential to deliver benefits across a multitude of sectors helping to increase the technical performance of a wide range of host materials. The Group's vision is to be in the forefront of nano advanced materials and dispersion and to become a world leader in the creation of material change through understanding the potential of those materials.

At the core of our product offering is Haydale's patented HDPlas<sup>®</sup> functionalisation process which tailors advance materials to enhance the quality and performance of our customers' products, through a cost effective and environmentally friendly process. We have the engineering expertise to:

- create nano-material resins and composites to deliver enhanced electrical, mechanical (strength) and thermal performance; and
- formulate proprietary nanomaterial-based inks and coatings for the print and sensor markets, including biomedical and piezo resistive inks and sensors and the PATit anti-counterfeiting eco system.

From our US facility, we manufacture unique, proprietary SiC fibres and whiskers that strengthen ceramics and produce highly wear resistant ceramic 'blanks' for use in the aerospace industry and for abrasion resistant coatings. The Company has not historically functionalised its SiC.

At the year-ended 30 June 2020, the Group has the following operational activities in its five facilities.

<i>Haydale subsidiary</i>	<i>Location</i>	<i>Principal activities</i>
Haydale Limited	Ammanford, Wales	Specialist functionalisation and main manufacturing facility producing inks, resins, and masterbatches to be used in composites and polymers for direct sales to customers and for transfer to other Group sites.

Haydale Composite Solutions Limited (“HCS”)	Loughborough, England	Sales of masterbatch and pre-preg composites, elastomers and other nanomaterials and the provision of advanced consulting and test services to various parties including the EU and UK national institutions via R&D grants.
Haydale Technologies (Korea) Limited (“HTK”)	Seoul, South Korea	Dedicated sales office servicing the fast-moving Korean and other APAC markets.
Haydale Technologies (Thailand) Company Limited (“HTT”)	Bangkok, Thailand	Ink development focused on commercial applications with plasma functionalisation facilities. Services the APAC region.
Haydale Technologies, Inc. (“HTI”) and its wholly owned subsidiary Haydale Ceramic Technologies LLC	Greer, SC, USA	Produces and sells SiC microfibres and whiskers, ceramic blends and ceramic blanks to the cutting tool and coatings industries

The Group safeguards its business across these sites and the territories in which it operates through the use of patents which protect its intellectual property. It holds licences where that intellectual property is for operational reasons with a third party. Haydale currently has a portfolio of patents that are variously recognised in the following territories - US, UK, Europe, China, Japan and Australia. Haydale works closely with its patent advisors, Mewburn Ellis LLP, and maintains a rolling programme of patent applications. At the year-end it had two applications for patents pending.

#### *Consolidation and Commercial Focus*

The financial year-ended 30 June 2020 has been one of consolidation in the wake of the major reorganisation and resetting of commercial priorities which commenced in the second half of FY19. This consolidation has latterly taken place against the backdrop of the Covid-19 pandemic which, whilst restraining revenue, has acted as a further catalyst to deliver on the strategic priorities that the Company set out in 2019.

The Group needed to transform itself from an organisation with a focus on research and development with longer term revenue ambitions to an efficient manufacturing business focussed on commercialising its portfolio of technology and securing profitable outcomes.

Under this broad theme, the Directors identified the following goals that would promote short term benefit whilst creating a sustainable long-term business model:

- Scale up blanks production at the US facility to commercial levels and ensure that the FY19 investment in the blanks machinery increased the Group’s revenue and facilitated a move up the value chain for that operating division;
- Focussed R&D Investment on the technology that would support Haydale’s commercial proposition and show a pathway to enhancing our core commercial offering;
- Priority in identifying and investing resource in grant funded projects where there is a clear commercial potential realisable in defined time scales;
- Embedding the structures, process and teams set up in FY19 to drive sales and maximise revenue;
- Increasing the manufacturing and functionalisation capability at Ammanford and commencing the process of planning for the medium-term expansion of production capacity to meet anticipated volume demands; and
- Realigning and reducing the Group’s cost base to ensure that it supports the operational priorities of the business – cost control as a necessity and cost reduction where prudent.

#### *Scale Up of Blanks Production*

Revenue at the Group’s US SiC manufacturing facility lagged our initial expectations in the first half of FY20 as the business was subject to the issues that were widely reported during 2019 in the US aerospace and petrochemical sectors. Despite the on-going sector issues, we did see demand increase in the latter part of calendar 2019 and early 2020 and strong traction with customers that had pre-approved the blanks gave us the confidence to move the facility to a double shift pattern in February 2020.

From March 2020, Covid-19 had a significant impact on forecast revenues at this division and we saw a marked slowdown in demand for SiC and blanks as the global aviation industry was grounded by the pandemic. Against a backdrop of industry predictions of a possibility of long-lasting impact on the civil aviation sector, the Directors took

defensive measures to mitigate the immediate revenue impact and put in place plans that will lead towards a reduced reliance on the US civilian aviation sector going forward.

Specifically, the business received a commitment from a long-standing customer to underpin the SiC whisker volume by maintaining its short-term order patterns during the current year despite the general economic uncertainty. Whilst it is likely that this will result in reduced orders in the year-ending June 2022, this support should offer the business valuable time to deliver on the initiatives detailed below. In addition, the US business accessed funds through the US Cares Act which afforded short term support whilst the impact of the Covid-19 pandemic was assessed. Subsequent to this support ending, the division had to reluctantly reduce its workforce and, in July 2020, circa one third of the production team was made redundant at that facility.

The Directors have also taken steps to address the US division's over-reliance on the US civil aviation sector by looking outside of the US for blanks and other cutting tools customers. The Company has contracted with an experienced European agent for the marketing and sale of SiC blanks into parts of the European market and other contiguous markets. Initial samples have been provided to a manufacturer and we are awaiting test results. In the UK specifically, we have established ties with an engineering tooling supplier for the distribution of SiC blanks and subsequent to the year-end they have informed us that they have distributed our blanks to their customers for field trials.

As previously announced, we have been looking to enter the wider carbide tooling market with cost effective lower grade SiC blanks that would serve the automotive and other cutting tool markets. We have been collaborating with an Asian supplier to develop these blank tools and subsequent to the year-end have successfully completed initial tests. We are now looking to commission field trials with tooling customers in the US whilst simultaneously addressing with our supply partner operational challenges involved in scaling production to required commercial levels.

The Company has also diversified from the aviation and cutting tools sector and has looked to take advantage of the enhanced properties that SiC microfibres can deliver for coatings. In July 2020, Haydale was appointed the exclusive UK distributor to the UK water infrastructure market for US based Zirconia Inc for CeramycShield™, a one stop solution that renews and restores old or partly decaying concrete in-situ in certain applications. This product is an advanced Ceramic Surface Treatment technology in a new class of inorganic ceramic polymers, that uses Haydale's SiC microfibre as part of the reinforcement. Haydale is working closely with a UK water utility company and other water facility management companies and is pleased to announce that post year-end it shipped its first order of the product. We believe there is good potential that this cutting-edge solution could be very important to the UK water industry as it seeks to meet its obligations under the new AMP-7 five-year plan which started in 2020 and we are looking to further extend its uses by securing DW31 (Clean Water) accreditation in the current financial year.

#### *Focused R&D investment: Progress on Plasma functionalisation*

The HDPlas® functionalisation process continues to be the cornerstone of the Group's offering and good progress has been made with several new and different treatments enabling more tuneable and enhanced offerings to meet customers' requirements. This enables a much greater range of graphene and other nanomaterial treatments and facilitates potential improvements in dispersal and mechanical strength, electrical conductivity and thermal conductivity. The loaded matrix can and is being added to commercial applications such as pre-preg, compounded into polymers or elastomers, or sold as masterbatch in many ongoing programmes supported by technical datasheets that have been verified by accredited third party testing facilities. We highlight the following step change improvements in the year which have been achieved at the Ammanford and Bangkok centres of excellence. These developments demonstrate the capabilities of Haydale's unique offering:

- An increase in the surface oxygen levels from 20% up to 28%, a level which allows Haydale potential access to the graphene oxide ("GO") market and indirectly elements of the electronics sector. Existing GO is typically manufactured by stripping graphite with hazardous chemicals such as sulphuric acid and leaves a toxic bi-product whereas Haydale's GO production is a clean powder in/powder out process;
- Development of next generation functionalised inks with resistivity reduced to circa 10 ohms. This lower level resistivity potentially allows graphene functionalised inks to replace silver, copper and aluminium etch in certain metal antenna elements of the growing RFID and NFC sectors and provides a cost effective and environmentally friendly application. Existing 'tags' are generally single use and as such are consigned to landfill after use whilst Haydale functionalised inks are manufactured using a clean process and there is reduced waste to landfill on disposal;
- Further to previous work with the English Institute of Sport, Haydale has developed inks to surface coat fabrics and other garment substrates to create anti-microbial and anti-bacterial applications. The resulting fabrics are washable and can be sterilised using UV light without damaging the core properties of the fabric; and

- Further refinement of a range of graphene-enhanced prepreg materials for lightning-strike protection, utilising functionalised nanomaterials to improve the electrical conductivity of aerospace and other resins and polymers. Developed through the NATEP sponsored GraCELS 2 project, the materials developed potentially replaces the copper mesh in various parts of structures including commercial aircraft which can reduce the unloaded weight of an airliner cost effectively with clear environmental benefits. These applications also extend to other markets such as UAVs (drones), commercial and military aviation, wind generation and other sectors where risk of damage from lightning strikes exists.

The core thread running through our continued investment in R&D is the focus on creating and maintaining technological advantage where we see a clear commercial pathway. Whilst the gestation period for some of these developments, such as lightning strike protection on commercial aircraft, is governed by the long product life cycle of the end user and high safety thresholds that need to be validated, other developments such as the adoption of inks to surface coat fabric can be delivered to market in a much shorter time horizon. It remains core to our business model that we invest for the long term whilst taking advantage of the numerous short-term commercial opportunities presented by the commercial adoption of our technology.

#### *Grant Funded Projects*

Collaboration on grant funded projects has continued over the last twelve months with the emphasis that only projects that have a clear commercial pathway or add significantly to the Group's knowledge bank on applications with commercial potential in defined time scales will be undertaken. This rigorous criterion has reduced the number of projects that Haydale has accepted in the year but this has not diminished the importance of this work in support of the R&D investment made by Haydale. In FY20 all grant projects were funded from UK or European quasi-governmental bodies such as Innovate UK or NATEP. Amongst other projects awarded in the year, Haydale commenced the following:

- *HiBarFilm* – is a novel packaging design based on coatings for compostable-recyclable high barrier packaging film with potential applications across food packaging and other consumer products. Current food contact films require multi-layer structures to achieve the barrier performance needed but these structures make them difficult to recycle. HiBar is looking to replace these multi-layer structures with a functionalised single layer that could provide the necessary barrier protection whilst allowing for widespread recycling of these single use films. The project is in collaboration with Bangor University, Parkside Flexibles and Dunbia, the leading meat processor.
- *Affinity* - Analysis of functionalised nanomaterial interactions with polymers to better understand how functionalisation imparts specific functional groups to the nanomaterial surface for improved compatibility with the host polymer. The project is a collaboration between Haydale, the National Physical Laboratory and the Science and Technology Facilities Council and will be important in understanding and further enhancing the level and consistency of our functionalisation process and in allowing quick and efficient selection of improved chemistries to optimise the performance of our current portfolio.

This structured approach to development is facilitating the internal learning experience and creating potential products to fit with the organic growth momentum at the centre of our strategic drive.

#### *Globalisation of the Strategic Business Units*

The realignment of the strategic business units and the establishment of a global sales team in the year ended June 2019 created the opportunity for greater cross-selling of products. As noted above, subsequent to the year-end we shipped the first order for CeramycShield™ to a UK water company. The initial contact with Zirconia Inc was made by our US division whilst the introduction of the product to the UK water utility was facilitated by our UK sales and innovation team. They have collaborated through initial workshop trials, technical updates and commercial negotiations to the point where a field asset has been identified for application and the UK technical team will attend that trial.

We further strengthened the sales team in this year with the addition of UK expertise in both the inks and composites sectors. Despite the challenging environment the enlarged team is delivering some excellent business wins and we would highlight the following:

- A four-year exclusive distribution agreement with Unique to market Haydale's electrically conductive masterbatch in the Chinese market. The parties will work towards completion of initial testing, securing the requisite licences and final certifications from the relevant authorities before the contract is expected to move to the commercial phase in early 2021. Subject to successful trials, the agreement stipulates minimum annual revenue thresholds which commence at US\$300,000 for the calendar year 2021 and increase annually thereafter.



- In March 2020 Haydale announced that its graphene nanoplatelets were to be incorporated into cosmetic face sheets manufactured by iCraft, a South Korean company. The face mask sheets utilise the thermal and electrical conductivity of graphene to help the skin absorb its contents through bioelectric currents. Subsequent to the year-end, a three-year supply contract was agreed for one metric tonne of functionalised graphene nanoplatelets in the first year, two metric tonnes in the second year, and three metric tonnes in the final year. This is an exclusive agreement for the mask application within the APAC region, excluding Thailand, and represents the largest contract by volume that Haydale has signed for functionalised nanomaterial.
- Shortly after the end of the financial year in early July 2020, the Company announced that it had signed an agreement with IRPC (a Thailand based subsidiary of PTT Global Chemical Public Company Limited) to develop a graphene and functionalised acetylene black conductive inks for RFID, NFC and related applications. The screen-printing inks are to be developed as a collaboration between our Ammanford and Bangkok teams based on initial development work completed at the UK site.

These wins are supported by a strong pipeline of profitable and exciting opportunities and a number of these were listed in our announcement of 9 September 2020. Subsequent to the year-end, the cross selling of group products has continued with the commencement of blanks trials with an EMEA cutting tools end user, sales of SiC whiskers to customers in APAC and the sale of functionalised inks produced at the Ammanford site for the manufacture of anti-microbial masks by IRPC. As announced on 15 September 2020, Haydale has signed contracts for the provision of services to Dowty Propellers which will see the Company assist Dowty in examining the feasibility of various material technologies pertinent to Dowty's future product development. The projects will involve the incorporation of graphene, SiC microfibres and other nano scale materials into applications that may include erosion resistant coatings and functionalised inks for non-invasive strain sensing.

As noted, inter-site cooperation on technology, new product development and sales has created exciting and profitable opportunities for the Group. This collaboration has increased the need for all units to contribute both technically, operationally and financially to the Group. Notwithstanding the previous investment in the Taiwan operation, the Directors could see no realistic prospect of that business unit moving into profitability in the medium term. The Board therefore took the decision during the year to close the Taiwan facility and move production to the Group's Bangkok and Ammanford sites. Haydale moved decisively to fill the gap created by the closure of this facility and recently signed a distribution agreement with U-Win, a specialist materials and technology focused sales organisation, who have a mandate to sell Haydale's specialist inks and composites into biomedical sensor, automotive and sports equipment manufacturers in Taiwan. Management are pleased with the early progress of this arrangement and the collaboration between U-Win and the teams at Ammanford and in Bangkok. Within the wider APAC region, Haydale has established a memorandum of understanding with a Sino-UK facilitator for business development purposes in China. Whilst it is still early days, we are seeing encouraging interest in the region for our PATit anti-counterfeiting product and, subsequent to the year-end, we received two orders for SiC microfibres from customers introduced by this intermediary.

It is perhaps the shift in marketing that concisely sums up how the Group has embedded the one company ethos to support the drive to commercialise the technology portfolio. The focus of the marketing team has successfully pivoted to trade marketing to support product sales and this move was reinforced during the year when the Haydale website was overhauled and business units in the US and APAC were incorporated to ensure that we had one website supporting the global outlook. The website is not only a window into the Group but an integrated part of the sales process and has product descriptions and the latest technical data specifications available for download.

To underpin the One Company philosophy, in January 2020, Haydale adopted a new EMI share option scheme in the UK to incentivise and retain existing employees and to help recruit new members of the team. Subsequent to the year-end, this scheme was rolled out in the form of a Stock Appreciation Rights plan to our US division and it remains our intention that this will eventually cover most of the wider Haydale team.

#### *Increasing Production Capacity at Ammanford*

Haydale has over the last few years gradually increased its capacity to functionalise graphene at its Ammanford facility and in FY18 it successfully introduced an HT200 plasma reactor which offered seven times the capacity of the smaller HT60 reactors. This investment ahead of the production curve is now allowing Haydale to meet the demands of its commercial commitments and in particular will support the manufacturing requirements of the new iCraft cosmetic face sheet supply agreement. To support this increased demand, the Group has approved plans to invest circa £0.05 million in a new gas delivery and piping system to reduce our production changeover times, enhance output consistency and to further improve on our exacting health and safety standards.

Whilst we have a number of options to further increase our functionalisation capacity utilising our existing reactor capabilities in the current year, we anticipate the need to invest in larger capacity reactors in the medium term.

Collaboration with our key OEM on plans to design the next generation of HDPlas® reactors has continued during the year and no significant technical challenges are foreseen at this time to the introduction of larger capacity plasma reactors when they are required.

#### *Realigning and reducing the Group's cost base*

During the year, the Directors have continued to realign the cost base to ensure that the Group focuses resources on achieving its strategic goals. As the Group has reorganised its operations and streamlined its reporting lines, it has achieved both a more efficient and effective operating structure and delivered significant cost savings. The process that started last year has continued during the current year and adjusted administrative expenses have reduced by a further £0.87 million (FY19: £0.85 million reduction on FY18) in the year and we anticipate that costs will reduce further as a result of the annualised impact of reductions made this year and further savings that we anticipate can be realised in the year-ending June 2021.

The main savings have been achieved in the following areas:

- Realignment and reduction in the workforce with the principal savings being achieved by streamlining reporting lines. Overall headcount has reduced by circa one third in the last two years whilst the business has increased its investment in sales resource and commercial support functions;
- Closure of the loss-making Taiwan facility and relocation of the production to the Bangkok and Ammanford sites with minimal loss of revenue or customers; and
- Cost reductions across all areas of the business including reducing travel expenses, professional fees and consulting costs and making numerous smaller and, in themselves, non-material adjustments which taken together have contributed to controlling spend.

The savings secured have been achieved in a timely but not hurried timeframe and the Company has focussed first on operational efficiency and then on achieving that in the most cost-effective manner. This approach has ensured that, despite the savings achieved, Haydale is now operating in a more flexible, responsive and productive manner that supports a can-do culture across the business units.

#### ***FUTURE STRATEGIC DIRECTIONS***

FY20 was a year of consolidation in the wake of the reorganisation and resetting of priorities in the second half of FY19. This consolidation has, from March 2020, been in the shadow of the Covid-19 pandemic which has depressed demand, subdued our revenue expectations and obliged the Directors to revisit the priorities set in 2019.

As detailed above, the direction of travel of the Group has not altered and it remains our fundamental priority to commercialise our exciting cutting-edge technology portfolio. Within this overarching goal we have had to refine our operational strategy to ensure that we meet the challenges of the pandemic. The Directors remain mindful that we are in uncertain times, and that the longer-term impact of Covid-19 either directly on sectors such as aerospace and indirectly on the sports and leisure, automotive and other industries may have as yet unforeseen effects on the Group's development. However, the efforts of the Haydale team and the progress made during the year continue to reinforce the Directors' belief that, whilst navigating the challenges ahead will be demanding, it is in the knowledge that the Company is moving purposely in the right direction.

#### ***FINANCIAL REVIEW***

The Financial Review should be read in conjunction with the consolidated financial statements of the Group and the notes thereto. The consolidated financial statements are presented under International Financial Reporting Standards as adopted by the European Union.

##### **Statement of Comprehensive Income**

In the year under review, the Group's three principal areas of income were sale of SiC fibres, whiskers and blanks; Specialty Inks; and graphene enhanced composites. There is a further category of grant funded income which is included in Other Operating Income and will be discussed separately.

The Group's revenue for the year-ended 30 June 2020 of £2.95 million (FY19: 3.47 million), showed an overall decrease of £0.52 million on that of the prior year. This reduction reflected a fall in the Advanced Materials and

RPC&I<sup>2</sup> business units of £0.45 million and £0.08 million respectively which was only partially offset by a £0.01 million increase in APAC sales. Other operating income, which is principally grant funded projects, at £0.76 million (FY19: £0.79 million) is broadly in line with prior year, but has benefitted from the support offered by the US Cares Act during the latter part of FY20.

Notwithstanding the fall in Revenue, the Group's Gross Profit, which excludes Other Operating Income, increased marginally to £2.06 million (FY19: £1.9 million) delivering a Gross Profit margin of 70% (FY19: 55%). The increase in margin was principally due to the reduced level of sales of SiC ceramic blends into the US fracking industry.

The focus on reducing costs continued in the year and adjusted Administrative Expenses fell by £0.87 million 12.7% to £5.99 million (FY19: £6.87 million) on a like for like basis, ignoring the impact of IFRS 16 on the presentation of the results. The adoption of IFRS 16 reduced adjusted Administrative Expenses by £0.63 million to £5.36 million and increased the charge for Depreciation and Amortisation by the same amount. In line with the transitional reliefs available, no adjustments have been made to the prior year figures. Over the last two reporting periods the Company has reduced its operating cost base by £1.72 million. Adjusted administrative expenses exclude non-cash items such as share based payment charges, depreciation and amortisation as well as one-off restructuring and impairment costs and, as such, gives visibility of the ongoing cash impact of our operating cost base. Total administrative expenses for the year were £7.05 million (FY19: £8.53 million).

The Group continued to direct resource to research and development with the focus for that investment on products and process that could develop into sustainable and profitable revenue streams. R&D spend for the year was £1.42 million (FY19: £1.84 million<sup>3</sup>), of which £0.25 million was capitalised (FY19: £0.27 million). During the year the Group claimed R&D tax credits of £0.39 million (FY19: £0.44 million) and it is expected that this claim will be received during the current year.

Total comprehensive loss for the year was £4.23 million (FY19: £7.12 million), including the £0.06 million of restructuring costs (FY19: £2.13 million including an impairment of intangible assets of £1.79 million), the loss from trading activities for FY20 was £4.23 million (FY19: £5.85 million). There is no impairment of intangible assets in the year.

The loss per share for the year reduced to £0.01 (FY19: £0.06 loss).

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

As at 30 June 2020, net assets amounted to £7.45 million (2019: £11.25 million), including cash balances of £0.82 million (2019: £4.69 million). Other current assets increased to £3.32 million at the year-end (2019: £3.13 million) and this was mainly related to the increase in inventory of £0.53 million at the US facility during the year. We anticipate reducing inventory levels over the next 12 – 18 months. Current liabilities reduced to £2.92 million as at 30 June 2020 (2019: £3.12 million) due principally to the reduction in loan balances.

Tangible Fixed Assets and non current liabilities were impacted by the adoption of IFRS 16 and the Group recognised a Right of Use Asset in respect of its leased premises of £1.59 million and a Right of Use Liability of £1.65 million. These were non cash items and did not impact the cash outflow in the year. The Company will amortise these balances over the remaining life of the leases which varies across the sites.

Net cash outflow from operating activities before working capital movements for the year reduced to £2.58 million (2019: £4.59 million), the principal contributing factors being the adjusted operating loss of £4.02 million (2019: £7.19 million). Capital expenditure in the year, excluding the IFRS 16 adjustments set out below, of £0.04 million (FY19: £1.2 million) was significantly less than the prior year when the Group invested in the US blanks production equipment. The Group received a R&D tax credit inflow of £0.85 million in FY20 (FY19: £0.08 million), which included repayments for the R&D claims made in both FY18 and FY19.

#### *Capital Structure and Funding*

As at 30 June 2020, the Company had 340,223,848 ordinary shares in issue (2019: 317,723,848). In November 2019, the Company issued 22,500,000 new ordinary shares in connection with an equity subscription at 2 pence per ordinary share which raised £0.45 million (before expenses). No options were exercised into ordinary shares during the year (FY19: none).

The Group repaid borrowings of £0.84 million during the year under review (FY19: £0.50 million), of which £0.58 million related to the full repayment of the £0.75 million loan secured from the Development Bank of Wales in December 2019 and the remainder related to the Group's US borrowing facilities which are secured on the Group's

---

2 Resins, Polymers, Composites & Inks

3 The method of calculating R&D spend has been changed during the year to align with the calculations submitted to HMRC for the R&D tax credit.

US based tangible assets. The Company received £0.05 million under the UK Government's Bounceback loan scheme on 2 June 2020. The Group's \$900,000 working capital facility, which is included in Bank Loans, is secured on the inventory and trade receivables of the US business and was fully utilised at the year-end (2019: fully utilised). The net result was that Group's total borrowings at the year-end were £1.25 million (2019: £1.96 million), of which £0.05 million was in the UK and the balance held by the Group's US subsidiaries. There were no financial covenants extant in respect of either the Group's UK or US borrowings.

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.

#### *Post Balance Sheet Event*

Subsequent to the year-end and in recognition of the general uncertainty created by Covid-19, the Company looked to improve its immediately available liquidity through an issue of new equity shares. On 9 September 2020, the Company raised £2.98 million (gross) through the placing and subscription of 85,055,950 new Ordinary Shares at 3.5 pence per share. The funds raised through the fundraising are being used predominantly as working capital to finance the operations of the Group.

#### *Key Performance indicators*

The Group has historically reported financial metrics such as revenues, gross profit margin, adjusted operating loss, cash position and other metrics as its key performance indicators and these are set out below.

	<b>FY20 (£m)</b>	<b>FY19 (£m)</b>
Revenue	2.95	3.47
Gross profit margin	70%	55%
Adjusted operating loss <sup>4</sup>	(3.17)	(4.18)
Cash position	0.82	4.69
Borrowings	1.25	1.96

Due to the impact of Covid-19 in the second half of the year some of the Group's KPIs were lower than targeted in particular Revenue.

During the year under review, management has also adopted a key non-financial performance metric to monitor the revenue pipeline of the Group and the business units. The sales tracker monitors the number of accredited leads and assigns a probability of revenue realisation to those leads.

### **SECTION 172(1) STATEMENT**

The Directors acknowledge their duty under s.172 of the Companies Act 2006 and consider that they have both individually and together acted in the way that, in good faith, would be most likely to promote the success of the Company for the benefit of its members as a whole, having regard to the matters set out in s.172.

### **PRINCIPAL RISKS AND UNCERTAINTIES**

The Board has ultimate responsibility for risk management throughout the Group and determines the nature and extent of risk that the Company is willing to take to achieve its objectives. The Board considers that the principal risks and uncertainties facing the Group may be summarised as follows:

#### *Impact of Covid-19*

The Covid-19 pandemic has adversely affected Group revenues during the latter part of the year under review. The Directors accept that there remains a varying degree of uncertainty in all of the countries in which it has facilities and in the markets in which it operates. The potential impact of Covid-19 on the future performance and liquidity of the Group has been considered.

As reported in the Post Balance Sheet Event above, the Group raised further capital after the year-end and it continues to monitor its future funding needs to ensure that it remains a viable operation.

---

<sup>4</sup> Adjusted Operating Loss of £3.17 million is on a like for like basis and includes the £0.63 million of rental costs which in line with IFRS 16 has been included within depreciation in the consolidated statement of comprehensive income.

### *Health and Safety*

Many of the Group's products of advanced materials are nano in size and, although there is little actual evidence of any health risks associated with the handling of the Group's products, there is a theoretical risk that the Group's products could be a danger to health if an individual is exposed to and/or inhales/ingests some of the Group's products. The Group takes health and safety very seriously and manages the potential health and safety risk by regular staff training, well maintained facilities and restricting activities to only certain qualified individuals. The UK facilities are ISO 9001 and ISO 14001 accredited.

Covid-19 has added a further health and safety risk during the current year. The Group has carried out risk assessments at each of its facilities and continues to monitor these assessments and the procedures that are in place against the latest national, regional and state guidance in the jurisdictions in which it operates. Special attention has been paid to vulnerable workers and those that are required to shield to protect other members of their household and the Group has embraced video and other technology to ensure that it communicates and monitors the physical and mental wellbeing of colleagues working from home.

### *Client Concentration Risk*

The Company's two largest customers accounted for 49% of revenue in the year (FY19: 50%) and any breakdown in these relationships could damage the business. Notwithstanding that the Company has contracts with or long term commitments from its larger customers it worked hard during challenging trading conditions to maintain good relations with its key customers.

The Company is anticipating that as its customer base expands it will naturally reduce the reliance on any one single customer although it acknowledges that it will take time to reduce its reliance on these two key customers to fully mitigate the current exposure.

### *Acceptance of the Group's Products*

The success of the Group will depend on the market's acceptance of, and attribution of value to, advanced materials technology developed by the Group based on successfully mixing and dispersing raw, mined graphite and other synthetically produced graphenes into customers' existing products in order to improve the mechanical, thermal or electrical properties of the customers' existing products.

Notwithstanding the technical merits of the processes developed by the Group, and the extensive market and product research carried out by management to assess the likelihood of acceptance of the Group's products, there can be no guarantee that its targeted customer base for the processes will ultimately purchase the Group's products.

### *Speed of product adoption*

While the Group makes every effort to establish sensible timelines for customer engagement and purchasing of Haydale's products, there are often unforeseen delays (by both parties) in forecasting the commencement of sales. There may be regulatory hurdles to overcome and end-customer risk aversion in accepting a new nanomaterial enhanced product. Additionally, a change of senior management or a corporate event such as a merger can cause revisions in customer requirements and potentially cessation of product development. The improvement in focus and direction has been a recent change to ensure commercial product sales are an absolute priority not withstanding that the timing and adoption of Haydale's newly developed product lines remains difficult to predict.

### *Intellectual Property Risk*

The Group's success will depend in part on its ability to maintain adequate protection of its IP portfolio, covering its manufacturing process, additional processes, products and applications, including in relation to the development of specific functionalisation of graphene and other types of carbon-based nanomaterials for use in particular applications. The IP on which the Group's business is based is a combination of granted patents, patent applications and confidential know-how.

The Group aims to mitigate any risk that any of the Group's patents will not be held valid if challenged, or that third parties will claim rights in, or ownership of, the patents and other proprietary rights held by the Group through general vigilance, regular international IP searches as well as monitoring activities and regulations for developments in copyright/intellectual property law and enforcement. The Group retains third party professional experts to assist.

### *Growth Risk*

Expansion of the business of the Group may place additional demands on the Group's management administrative and technological resources and marketing capabilities and may require additional capital expenditure. The Group monitors the additional demands on resources on a regular basis and strengthens resources as necessary. If the Group is unable to manage any such expansion effectively, then this may adversely impact the business, development, financial condition, results of operations, prospects, profits, cash flow and reputation of the Group.

### *Competition Risk*

The Group's current and potential competitors include companies and academic institutions, many of whom have significantly greater financial resources than the Group and management regularly reviews the competitive landscape. There can be no assurance that competitors will not succeed in developing products that are more effective or economic than any developed by the Group or which would render the Group's products non-competitive or obsolete.

### *Dependence on Key Personnel*

The Group's business, development and prospects are dependent upon the continued services and performance of its Directors and other key executives. The experience of the Group's personnel helps provide the Group with a competitive advantage. The Directors believe that the loss of services of any existing key executives, for any reason, or failure to attract and retain necessary additional personnel, could adversely impact on the business, development, financial condition, results of operations and prospects of the Group.

The Group aims to mitigate this risk by providing well-structured and competitive reward and benefit packages that ensure our ability to attract and retain key employees. The EMI scheme introduced in January 2020 demonstrates the Directors' commitment to incentivising and rewarding its employees.

### *The impact of the UK leaving the European Union*

The UK entering the transition period with the EU on the 1 January 2020 has not had a material impact on the Group's performance in the current reporting period. However, in light of the uncertain progress on agreeing a future trading arrangement, as the country exits the transition period on the 31 December 2020 it is likely that the Company will have to manage some uncertainty in the following areas:

- Materials: any hindrance to the ability of the Group to import graphene and export its products, together with fluctuations in the value of Sterling, may have an impact on the Group's operations.
- Regulations: the Group is subject to the relevant regulations, including materials handling, within the jurisdictions that it operates, which include the EU. Any material adverse changes to the requirement for UK based business to adopt additional regulations as a result of Brexit may have a detrimental effect on the Group's operations.
- Grant income: the Group has previously benefitted from EU grant funds, The Group is seeking to replace EU grant funds with additional grant awards from Innovate UK or other UK national or regional assembly bodies that support inward investment, innovation and research and development work.

By order of the Board  
David Banks  
Chairman  
29 October 2020

## **CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME** **For the year ended 30 June 2020**

		Year ended 30 June 2020 £'000	Year ended 30 June 2019 £'000
	Note		
<b>REVENUE</b>	4	2,947	3,467
Cost of sales		(885)	(1,567)
<b>Gross profit</b>		2,062	1,900
Other operating income	5	756	785
Adjusted Administrative expenses		(5,357)	(6,865)
<b>Adjusted operating loss</b>		(2,539)	(4,180)
Adjusting administrative items:			
Share based payment income/(expense)		11	(200)
Restructuring costs	6	(63)	(350)
Depreciation and amortisation		(1,640)	(1,118)
		(1,692)	(1,668)
Total trading administrative expenses		(7,049)	(8,533)
<b>LOSS FROM TRADING</b>		(4,231)	(5,848)
Impairment	10	-	(1,784)
Total administrative expenses		(7,049)	(10,317)
<b>LOSS FROM OPERATIONS</b>		(4,231)	(7,632)
Finance costs		(176)	(123)
<b>LOSS BEFORE TAXATION</b>	6	(4,407)	(7,755)
Taxation	8	391	570
<b>LOSS FOR THE YEAR FROM CONTINUING OPERATIONS</b>		(4,016)	(7,185)
<b>Other comprehensive income:</b>			
<i>Items that may be reclassified to profit or loss:</i>			
Exchange differences on translation of foreign operations		82	60
<i>Items that will not be reclassified to profit or loss:</i>			
Remeasurements of defined benefit pension schemes		(291)	2
<b>TOTAL COMPREHENSIVE LOSS FOR THE YEAR FROM CONTINUING OPERATIONS</b>		(4,225)	(7,123)
<b>Loss for the year attributable to:</b>			
Owners of the parent		(4,016)	(7,185)
<b>Total comprehensive loss attributable to:</b>			
Owners of the parent		(4,225)	(7,123)
Loss per share attributable to owners of the Parent			
Basic (£)	9	(0.01)	(0.06)
Diluted (£)	9	(0.01)	(0.06)

The notes form part of these financial statements.

## CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As at 30 June 2020

	Note	30 June 2020 £'000	30 June 2019 £'000
<b>ASSETS</b>			
<b>Non-current assets</b>			
Goodwill	10	1,454	1,453
Intangible assets	10	1,145	1,024
Property, plant and equipment	11	6,407	5,556
		<u>9,006</u>	<u>8,033</u>
<b>Current assets</b>			
Inventories	12	1,712	1,182
Trade receivables	13	886	637
Other receivables	14	334	472
Corporation tax	14	384	836
Cash and bank balances		823	4,688
		<u>4,139</u>	<u>7,815</u>
<b>TOTAL ASSETS</b>		<u><u>13,145</u></u>	<u><u>15,848</u></u>
<b>LIABILITIES</b>			
<b>Non-current liabilities</b>			
Bank loans	20	304	388
Pension Obligation	26	1,435	1,085
Other payables	19	1,031	-
		<u>2,770</u>	<u>1,473</u>
<b>Current liabilities</b>			
Bank loans	20	944	1,568
Trade and other payables	19	1,906	1,347
Deferred income	15	74	209
		<u>2,924</u>	<u>3,124</u>
<b>TOTAL LIABILITIES</b>		<u><u>5,694</u></u>	<u><u>4,597</u></u>
<b>TOTAL NET ASSETS</b>		<u><u>7,451</u></u>	<u><u>11,251</u></u>
<b>EQUITY</b>			
<b>Capital and reserves attributable to equity holders of the parent</b>			
Share capital	16	6,804	6,354
Share premium account	16	27,764	27,764
Share-based payment reserve		131	828
Foreign exchange reserve		(18)	(100)
Retained losses		(27,230)	(23,595)
<b>TOTAL EQUITY</b>		<u><u>7,451</u></u>	<u><u>11,251</u></u>

**CONSOLIDATED STATEMENT OF CHANGES IN EQUITY**  
**For the year ended 30 June 2020**



	Share capital £'000	Share premium £'000	Share- based payment reserve £'000	Foreign Exchange Reserve £'000	Retained losses £'000	Total Equity £'000
<b>At 1 July 2018</b>	547	27,539	1,298	(160)	(16,683)	12,541
<b>Comprehensive Loss for the year</b>						
Loss for the year	-	-	-	-	(7,185)	(7,185)
Other comprehensive loss	-	-	-	60	2	62
<b>Total Comprehensive loss</b>	547	27,539	1,298	(100)	(23,866)	5,418
<b>Contributions by and distributions to owners</b>						
Recognition of share-based payments	-	-	200	-	-	200
Share based payment charges – lapsed and cancelled options	-	-	(670)	-	670	-
Issue of ordinary share capital	5,807	225	-	-	-	6,032
Transaction costs in respect of share issues	-	-	-	-	(399)	(399)
<b>At 30 June 2019</b>	6,354	27,764	828	(100)	(23,595)	11,251
<b>Comprehensive Loss for the year</b>						
Loss for the year	-	-	-	-	(4,016)	(4,016)
Other comprehensive loss	-	-	-	82	(291)	(209)
<b>Total comprehensive loss</b>	6,354	27,764	828	(18)	(27,902)	7,026
<b>Contributions by and distributions to owners</b>						
Recognition of share-based payments	-	-	(11)	-	-	(11)
Share based payment charges – lapsed options	-	-	(686)	-	686	-
Issue of ordinary share capital	450	-	-	-	-	450
Transaction costs in respect of share issues	-	-	-	-	(14)	(14)
<b>At 30 June 2020</b>	6,804	27,764	131	(18)	(27,230)	7,451

## CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 30 June 2020

		Year ended 30 June 2020 £'000	Year ended 30 June 2019 £'000
Note			
<b>Cash flow from operating activities</b>			
	Loss before taxation	(4,016)	(7,185)
	<i>Adjustments for:-</i>		
	Amortisation of intangible assets	10 129	2,007
	Depreciation of property, plant and equipment	11 1,511	895
	Loss on disposal of property, plant and equipment	-	16
	Share-based payment charge	17 (11)	200
	Pension plan contributions	-	(118)
	Finance costs	176	123
	Pension – net interest expense	26 24	42
	Taxation	(391)	(570)
	<b>Operating cash flow before working capital changes</b>	<b>(2,578)</b>	<b>(4,590)</b>
	(Increase) in inventories	(531)	(401)
	(Increase)/decrease in trade and other receivables	(111)	200
	(Decrease)/increase in payables and deferred income	(104)	13
	<b>Cash used in operations</b>	<b>(3,324)</b>	<b>(4,778)</b>
	Income tax received	847	76
	<b>Net cash used in operating activities</b>	<b>(2,477)</b>	<b>(4,702)</b>
<b>Cash flow used in investing activities</b>			
	Purchase of property, plant and equipment	(44)	(1,205)
	Purchase of Intangible Assets	(251)	(267)
	<b>Net cash used in investing activities</b>	<b>(295)</b>	<b>(1,472)</b>
<b>Cash flow used in financing activities</b>			
	Finance costs	(94)	(123)
	Finance costs – right of use asset	(82)	-
	Payment of lease liability	(631)	-
	Proceeds from issue of share capital	16 450	5,634
	New bank loans raised	29 50	750
	Repayments of borrowings	29 (835)	(500)
	<b>Net cash flow from financing activities</b>	<b>(1,142)</b>	<b>5,761</b>
	Effects of exchange rates changes	49	9
	<b>Net (decrease) in cash and cash equivalents</b>	<b>(3,865)</b>	<b>(404)</b>
	Cash and cash equivalents at beginning of the financial year	4,688	5,092
	<b>Cash and cash equivalents at end of the financial year</b>	<b>823</b>	<b>4,688</b>

## NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

For the year ended 30 June 2020

## **1. Accounting policies**

### **Basis of preparation**

The Group consolidated financial statements have been prepared in accordance with International Financial Reporting Standards, International Accounting Standards and Interpretations (collectively “IFRSs”) as adopted by the European Union (‘Adopted IFRSs’) and with the requirements of the Companies Act 2006.

The Group’s financial statements have been prepared under the historical cost convention.

The consolidated financial statements are presented in sterling amounts.

Amounts are rounded to the nearest thousands, unless otherwise stated.

Under Section 479A of the Companies Act 2006, exemptions from an audit of the accounts for the financial year ended 30 June 2020 have been taken by Haydale Limited (04790862) and Haydale Composite Solutions Limited (02675462). As required, the Company guarantees all outstanding liabilities to which the subsidiary companies listed above are subject at the end of the financial year, until they are satisfied in full and the guarantee is enforceable against the parent undertaking by any person to whom the subsidiary companies listed above is liable in respect of those liabilities.

### **Basis of consolidation**

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company made up to the reporting date. The Company controls an investee if all three of the following elements are present: power over the investee, exposure to variable returns over the investee, and the ability of the investee to use its power to affect the variable returns. Control is reassessed whenever facts and circumstances indicate that there may be a change in any of these elements of control. All intra-group transactions, balances, income and expenditure are eliminated on consolidation. The consolidated financial statements have been prepared using the acquisition method of accounting.

Under the acquisition method, the results of the subsidiaries acquired or disposed of are included from the date of acquisition or up to the date of disposal. At the date of acquisition, the fair values of the subsidiaries’ net assets are determined, and these values are reflected in the Consolidated Financial Information. The cost of acquisitions is measured at the aggregate of the fair values, at the date of exchange, of assets given, liabilities incurred or assumed, and equity instruments issued by the Haydale Graphene Industries Group in exchange for control of the acquisition. Any excess of the purchase consideration of the business combination over the fair value of the identifiable assets and liabilities acquired is recognised as goodwill. Goodwill, if any, is not amortised, but reviewed for impairment at least annually. If the consideration is less than the fair value of assets and liabilities acquired, the difference is recognised directly in the statement of comprehensive income. Acquisition-related costs are expensed as incurred.

### **Going concern**

The Group consolidated financial statements are prepared on a going concern basis which the Directors believe continues to be appropriate.

The Directors have prepared and reviewed detailed financial forecasts of the Group and, in particular, considered the cash flow requirements for the period from the date of approval of these financial statements to the end of December 2021. These forecasts sit within the Group’s latest estimate and within the longer term financial plan, both of which have been updated on a regular basis as our understanding of the potential impact of the Covid-19 pandemic has deepened. The Directors are also mindful of the impact that the other risks and uncertainties set out in the Strategic Report may have on these estimates and in particular the speed of adoption of new technology during these uncertain times.

As part of this review the Directors have considered several scenarios based on various revenue, cost and funding sensitivities.

### *Revenue*

The underlying methodology has been to split the forecast revenue into two groups. The first group consists of revenue streams which are underpinned by contracts or some other form of customer guarantee or commitment and therefore have a high certainty of delivery. The second group consists of all other revenue lines. For this second tranche, in October 2020, we have assessed the potential value and the likelihood of

delivery of each revenue line based on management's latest information and this has given us a weighted average unconfirmed revenue estimate by month to December 2021. We have then applied further general sensitivities to that estimate to assess the margin of error that would need to exist in those estimates before the Group would have a requirement to raise further funds.

#### *Working Capital Facilities*

The Directors have also stress tested the forecasts to assess the likely impact if existing working capital facilities were either not, or not fully renewed during the period under review. The non-renewal of existing facilities reduces the general sensitivity level on unconfirmed revenue streams to circa 55% of managements estimates before the forecast shows a cash negative position.

#### *Cost Mitigation*

The Directors have not included any assumptions regarding cost savings that might be achievable if the forecast fails to meet the sensitised estimates. Whilst the Directors do believe that there would be scope for further cost reductions these have not been factored into their assessment of going concern..

#### *Customer Solvency*

As part of this review the Directors have assessed the solvency of key customers and their ability to deliver on their contractual or other commitments on the basis of publicly available information.

#### *Summary*

Therefore, after due consideration of the forecasts prepared and the sensitivities applied, the Group's current cash resources and its borrowing facilities the directors consider that the Company and the Group have adequate financial resources to continue in operational existence for the foreseeable future (being a period of at least 12 months from the date of this report),

## **2. Changes in accounting policies**

IFRS 16 is the only new standard impacting the Group that has been adopted in the annual financial statements during the year, and which has given rise to changes in the Group accounting policies.

IFRS 16 'Leases' replaces IAS 17 'Leases' along with three Interpretations (IFRIC 4 'Determining whether an Arrangement contains a Lease', SIC 15 'Operating Leases-Incentives' and SIC 27 'Evaluating the Substance of Transactions Involving the Legal Form of a Lease')

The adoption of this new Standard has resulted in the Group recognising a right-of-use-asset and related lease liability in connection with all former operating leases except for those identified as low-value or having a remaining lease term of less than 12 months from the date of initial application.

The new Standard has been applied using the modified retrospective approach, recognising a right of use asset at the date of initial application for leases previously classified as an operating lease at an amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payment relating to that lease recognised in the statement of financial position immediately before the date of initial application..

For contracts in place at the date of initial application, the Group has elected to apply the definition of a lease from IAS 17 and IFRIC 4 and has not applied IFRS 16 to arrangements that were previously not identified as lease under IAS 17 and IFRIC 4.

The Group has elected not to include initial direct costs in the measurement of the right-of-use asset for operating leases in existence at the date of initial application of IFRS 16, being 1 July 2019. At this date, the Group has also elected to measure the right-of-use assets at an amount equal to the lease liability adjusted for any prepaid or accrued lease payments that existed at the date of transition.

Instead of performing an impairment review on the right-of-use assets at the date of initial application, the Group relied on its historic assessment as to whether leases were onerous immediately before the date of initial application of IFRS 16.

On transition, for leases previously accounted for as operating leases with a remaining lease term of less than 12 months and for leases of low-value assets the Group has applied the optional exemptions to not recognise right-of-use assets but to account for the lease expense on a straight line basis over the remaining lease term.

On transition to IFRS 16 the incremental borrowing rate applied to lease liabilities recognised under IFRS 16 was based on the average borrowing rate for each relevant country and was between 4% and 6.25%.

The following is a reconciliation of the financial statements line items from IAS 17 to IFRS 16 at 1 July 2019:

	Carrying amount at 30 June 2019 £'000	Remeasurement £'000	IFRS 16 carrying amount at 1 July 2019 £'000
Property, plant and equipment	5,556	2,207	7,763
Lease liabilities	-	(2,207)	(2,207)
	5,556	-	5,556

  

	£'000
Operating lease commitments at 30 June 2019 as disclosed under IAS 17 in the Group's consolidated financial statements	1,244
Discounted using the incremental borrowing rate at 1 July 2019	1,017
Recognised exemption for leases of low-value assets	(4)
Recognition exemption for leases with less than 12 months of lease term at transition	(50)
Lease liabilities recognised at 1 July 2019	2,207

### 3. Summary of significant accounting policies

#### (a) Intangible assets

##### *Research and development expenditure*

Research expenditure is recognised as an expense when it is incurred.

Development expenditure is recognised as an expense except that costs incurred on development projects are capitalised as intangible assets to the extent that such expenditure is expected to generate future economic benefits. Development expenditure is capitalised if, and only if an entity within the Group can demonstrate all of the following:-

- i) its ability to measure reliably the expenditure attributable to the asset under development;
- ii) the product or process is technically and commercially feasible;
- iii) its future economic benefits are probable;
- iv) its ability to use or sell the developed asset;
- v) the availability of adequate technical, financial and other resources to complete the asset under development; and
- vi) its intention to use or sell the developed asset.

Capitalised development expenditure is measured at cost less accumulated amortisation and impairment losses, if any. Development expenditure initially recognised as an expense will not be restated as an asset in a subsequent period.

Historic capitalised development expenditure is amortised on a straight-line basis over a period of up to 20 years when the products or services are ready for sale or use. The maximum 20 years amortisation period is based on European Patents being 20 years from the date of filing of the application, under Article 60 of the European Patent Convention, and, although the Group now has patents granted in other jurisdictions, the Directors believe that 20 years is appropriate. New projects will be reviewed on completion, to determine the useful economic life. In the event that it is no longer probable that the expected future economic benefits will be recovered, the development expenditure is written down to its recoverable amount. Amortisation is included within administrative expenses.

##### *Acquired intangible assets*

An intangible resource acquired with a subsidiary undertaking is recognised as an intangible asset if it is separable from the acquired business or arises from contractual or legal rights, is expected to generate future economic benefits and its fair value can be measured reliably. Acquired intangible assets (excluding development expenditure which is in line with the above policy), including customer relationships, are amortised through the Consolidated Statement of Comprehensive Income on a straight-line basis over their estimated economic lives of between three and ten years.

## Goodwill

Business combination are accounted for by applying the purchase method. The cost of a business combination is a fair value of the consideration given, liabilities incurred or assumed and of equity instrument issued. Where control is achieved in stages the cost is a consideration at the date of each transaction.

Contingent consideration is initially recognised at estimated amount where the consideration is probable and can be measured reliably. Where (i) the contingent consideration is not considered probable or cannot be reliably measured but subsequently becomes probable or (ii) contingent consideration previously measured is adjusted, the amounts are recognised as an adjustment to the cost of the business combination if the remeasurement occurs within a year of the transaction and relates to information that was available at the point of acquisition. Otherwise, any remeasurements of contingent consideration is reflected in the statement of comprehensive income.

On acquisition of a business, fair values are attributed to the identifiable assets, liabilities and contingent liabilities unless the fair value cannot be measured reliably, in which case the value is incorporated in goodwill. Where the fair value of contingent liabilities cannot be reliably measured they are disclosed on the same basis as other contingent liabilities.

Goodwill recognised represent the excess of the fair value and directly attributable costs of the purchase consideration over the fair value to the Group's interest in the identifiable net assets, liabilities and contingent liabilities acquired.

### (b) **Impairment of goodwill and other non-financial assets**

The carrying value of goodwill, and the cash-generating unit to which it relates, is reviewed at the end of each reporting period for impairment regardless of whether there is an indication that the asset may be impaired. Other non-financial assets are considered for indicators of impairment at each reporting date and full impairment reviews carried out if indicators of impairment exist. Impairment is measured by comparing the carrying values of the assets with their recoverable amounts. The recoverable amount of the assets is the higher of the assets' fair value less costs to sell and their value-in-use, which is measured by reference to discounted future cash flow. An impairment loss is recognised in administrative expenses within the Statement of Comprehensive Income immediately it is identified.

In respect of assets other than goodwill, and when there is a change in the estimates used to determine the recoverable amount, a subsequent increase in the recoverable amount of an asset is treated as a reversal of the previous impairment loss and is recognised to the extent of the carrying amount of the asset that would have been determined (net of amortisation and depreciation) had no impairment loss been recognised. The reversal is recognised in profit or loss immediately.

### (c) **Revenue**

To determine whether to recognise revenue, the Group follows a five step process:

1. Identifying the contract with a customer
2. Identifying the performance obligations
3. Determining the transaction price
4. Allocating the transaction price to the performance obligations
5. Recognising revenue when/as performance obligation(s) are satisfied.

Revenue arises mainly as:

#### (i) *Goods*

Revenue represents sales to external customers at invoiced amounts less value added tax or local taxes on sales. Revenue is recognised at the point where control is considered to pass to the customer typically on delivery or customer acceptance, and all performance obligations have been fulfilled. In all instances the transaction price is agreed with the customer prior to transfer of goods on a stand-alone basis.

#### (ii) *Services*

Engineering design and research revenue is recognised on the percentage of completion method unless the outcome of the contract cannot be reliably determined, in which case contract revenue is only

recognised to the extent of contract costs incurred that are recoverable. Foreseeable losses, if any, are provided for in full as and when it can be reasonably ascertained that the contract will result in a loss.

The group recognises revenue over time based upon the percentage of completion input method, whereby the stage of completion is determined based on the proportion of contract costs incurred compared to total estimated costs. In all cases, the total transaction price for a contract is allocated amongst the various performance obligations based on their relative stand-alone prices.

At each reporting period, receivables are recognised for revenues yet to be invoiced or settled to the extent that it is highly probable that there will not be a significant reversal of the amounts accrued in the future.

Where invoices are raised to the client in excess of the value of the consideration recognised as revenue based on the stage of completion, deferred income balances are recorded that represent unfulfilled performance obligations. These performance obligations are expected to be fulfilled within a year of the reporting date.

**(d) Financial instruments**

*(i) Financial assets*

Financial assets and financial liabilities are recognised in the group balance sheet when the group becomes a party to the contractual provisions of the instrument. Financial assets are classified as either fair value through profit or loss, fair value through other comprehensive income, or amortised cost. Classification and subsequent re-measurement depends on the group's business model for managing the financial asset and its cash flow characteristics. The Group has financial assets in the categories of amortised cost only. The Group does not have financial assets at fair value through other comprehensive income or fair value through profit or loss. Detailed disclosures are set out in notes 22.

*Amortised cost*

These assets arise principally from the provision of goods and services to customers (such as loans and trade receivables), but also incorporate other types of financial assets where the objective is to hold these assets in order to collect contractual cash flows and the contractual cash flows are solely payments of principal and interest. They are initially recognised at fair value once the Group's right to consideration is unconditional and are subsequently carried at amortised cost using the effective interest rate method, less provision for impairment.

Impairment provisions for trade receivables are recognised based on the simplified approach within IFRS 9 using the lifetime expected credit losses. During this process, the probability of the non-payment of trade receivables is assessed. This probability is then multiplied by the amount of the expected loss arising from default to determine the lifetime expected credit loss for the trade receivables. For trade receivables, such provisions are recorded in a separate provision account with the loss being recognised in the income statement. On confirmation that the trade receivable will not be collectable, the gross carrying value of the asset is written off against the associated provision.

Impairment provisions for other receivables are recognised based on a forward-looking expected credit loss model. The methodology used to determine the amount of the provision is based on whether at each reporting date, there has been a significant increase in credit risk since initial recognition of the financial asset. For those financial assets where the credit risk has not increased significantly since initial recognition, twelve month expected credit losses along with gross interest income are recognised. For those for which credit risk has increased significantly, lifetime expected credit losses along with the gross interest income are recognised. For those that are determined to be credit impaired, lifetime expected credit losses along with interest income on a net basis are recognised.

*(ii) Financial liabilities:*

Financial liabilities are comprised of trade and other payables, borrowings and other short-term monetary liabilities, which are recognised at amortised cost.

Trade payables, other payables and other short-term monetary liabilities, are initially recognised at fair value and subsequently carried at amortised cost using the effective interest method.

Borrowings are recognised initially at fair value, net of transaction costs incurred. Borrowings are subsequently carried at amortised cost; any difference between the proceeds (net of transaction costs) and the redemption value is recognised in the income statement over the period of the borrowings using the effective interest method.

Fees paid on the establishment of loan facilities are recognised as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In this case, the fee is deferred until the draw-down occurs. To the extent there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalised as a pre-payment for liquidity services and amortised over the period of the facility to which it relates.

**(e) Property, plant and equipment**

Property, plant and equipment are stated at cost less accumulated depreciation and impairment losses, if any. The cost of an item of property, plant and equipment initially recognised includes its purchase price and any cost that is directly attributable to bringing the asset to the location and condition necessary for it to be capable of operating in the manner intended by management.

Depreciation is calculated under the straight-line method to write off the depreciable amount of the assets over their estimated useful lives. The principal annual rates used for this purpose are:-

Leasehold improvements	10-20% per annum straight line
Plant and machinery	15-33% per annum straight line
Furniture and fittings	20-33% per annum straight line
Motor vehicles	33% per annum straight line

The depreciation method, useful lives and residual values are reviewed, and adjusted if appropriate, at the end of each reporting period to ensure that the amounts, method and periods of depreciation are consistent with previous estimates and the expected pattern of consumption of the future economic benefits embodied in the items of the property, plant and equipment.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when the cost is incurred and it is probable that the future economic benefits associated with the asset will flow to the Group and the cost of the asset can be measured reliably. The carrying amount of parts that are replaced is derecognised. The costs of the day-to-day servicing of property, plant and equipment are recognised in profit or loss as incurred. Cost also comprises the initial estimate of dismantling and removing the asset and restoring the site on which it is located for which the Group is obligated to incur when the asset is acquired, if applicable.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. The gain or loss on retirement or disposal is determined as the difference between any sales proceeds and the carrying amounts of the asset and is recognised in the income statement within administrative expenses.

**(f) Income taxes**

The charge for taxation is based on the loss for the period and takes into account deferred taxation.

Current tax is measured at amounts expected to be paid using the tax rates and laws that have been enacted by the balance sheet date. The substantively enacted rate has been used for deferred tax balances, which are recognised in respect of all timing differences that have been originated but not reversed by the reporting date, except that the recognition of deferred tax assets is limited to the extent that the Company anticipates making sufficient taxable profits in the future to absorb the reversal of the underlying timing differences.

The Group receives research and development tax credits for the work it performs in the field of nano-technology. Using the SME and large company schemes, these credits generate cash reimbursement in exchange for the sacrifice of applicable losses, such receipts are recognised in income tax within the Statement of Comprehensive Income.

**(g) Cash and cash equivalents**



Cash and cash equivalents comprise cash in hand, bank balances, deposits with financial institutions and short-term, highly liquid investments that are readily convertible to known amounts of cash, are subject to an insignificant risk of changes in value and have maturities of 3 months or less from inception.

**(h) Inventories**

Inventories are recorded at the lower of cost and net realisable value. Cost represents materials, direct labour, other direct costs and related production overheads, and is determined on the First-In-First-Out (FIFO) method. Net realisable value is based on estimated selling price, less further costs expected to be incurred to completion and disposal. Provision is made for slow-moving, obsolete and defective inventories where appropriate.

The value of inventories used in the fulfilment of commercial or developmental programmes are charged to cost of sales in the Statement of Comprehensive Income on an accruals basis.

**(i) Employee benefits**

*(i) Short-term benefits*

Wages, salaries, paid annual leave and sick leave, bonuses and non-monetary benefits are accrued in the period in which the associated services are rendered by employees of the Group.

*(ii) Defined contribution plans*

The Group's contributions to defined contribution plans are recognised in profit or loss in the period to which they relate. Once the contributions have been paid, the Group has no further liability in respect of the defined contribution plans.

*(iii) Defined Benefit Pension plans*

The Group accounts for its defined benefit pension scheme such that the net pension scheme position is reported on the balance sheet with actuarial gains and losses being recognised directly in equity through the statement of comprehensive income. A number of key assumptions have been made in calculating the fair value of the Group's defined benefit pension scheme which affect the balance sheet position and the group's reserves and income statement. Refer to note 26 of the notes to the consolidated accounts for a summary of the main assumptions and sensitivities. Actual outcomes may differ materially from the assumptions used and may result in volatility in the net pension scheme position.

**(j) Provisions**

Provisions are recognised when the Group has a present or constructive obligation as a result of past events, when it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and when a reliable estimate of the amount can be made. Provisions are reviewed at the end of each financial reporting period and adjusted to reflect the current best estimate. Where the effect of the time value of money is material, the provision is the present value of the estimated expenditure required to settle the obligation.

**(k) Government grants**

Revenue grants are accounted for under the accruals model, with grants being recognised within Other operating income on a systematic basis over the period in which the group recognised the related costs for which the grant is intended to compensate. Grants received in advance of the income being recognised in the Statement of Comprehensive Income are included in grant creditors.

When grant income is received for capital expenditure, it is held as deferred income on the balance sheet and released on a straight line basis over the useful economic life of the asset to which it relates. All income relating to government grants is included as 'Other operating income' within the Statement of Comprehensive Income.

**(l) Share-based payment arrangements**

Equity-settled share-based payments to employees and others providing similar services are measured at the fair value of the equity instruments at the grant date. Details regarding the determination of the fair value of equity-settled share-based transactions are set out in note 16 to the Consolidated Financial Statements.

The fair value determined at the grant date of the equity-settled share-based payments is expensed on a straight-line basis over the vesting period, based on the Group's estimate of the number of equity instruments that will

eventually vest, with a corresponding increase in equity. At the end of each reporting period, the Group revises its estimate of the number of equity instruments expected to vest. The impact of the revision of the original estimates, if any, is recognised in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to other reserves.

**(m) Leases**

**Leased assets**

As mentioned above, the Group has applied IFRS 16 using the modified retrospective approach and therefore comparative information has not been restated. This means comparative information is still reported under IAS 17 and IRFIC 4.

Accounting policy applicable from 1<sup>st</sup> July 2019

For any new contract entered into on or after 1 July 2019, the Group considers whether a contract is, or contains a lease. A lease is defined as ‘a contract, that conveys the right to use an asset for a period of time in exchange for consideration’. To apply this definition the Group assesses whether the contract meets all three key criteria which are whether;

- The contract contains an identified asset, which is either explicitly identified in the contract or implicitly specified by being identified at the time the asset is made available to the Group.
- The Group has the right to obtain substantially all of the economic benefits from use of the identified asset throughout the period of use, considering its rights within the defined scope of the contract.
- The Group has the right to direct the use of the identified asset throughout the period of use. The Group assesses whether it has the right to direct ‘how and for what purpose’ the asset is used throughout the period of use.

Measurement and recognition of lease as a lessee

At lease commencement date, the Group recognises a right-of-use asset and a lease liability on the balance sheet. The right-of-use asset is measured at cost, which is made up of the initial measurement of the lease liability, any initial direct costs incurred by the Group, an estimate of any costs to dismantle and remove the asset at the end of the lease, and any lease payment made in advance of the lease commencement date (net of any incentives received).

The Group depreciates the right-of-use assets on a straight line basis from the lease commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. The Group also assesses the right-of-use asset for impairment when such indicators exist.

At the commencement date, the Group measures the lease liability at the present value of the lease payment unpaid at that date, discounted using the interest rate implicit in the lease if that rate is readily available or the Group’s incremental borrowing rate.

Lease payments included in the measurement of the lease liability are made up of fixed payments, variable payments based on an index or rate, amounts expected to be payable under a residual value guarantee and payments arising from options reasonably certain to be exercised.

Subsequent to initial measurement, the liability will be reducing for payment made and increased for interest. It is remeasured to reflect any reassessment or modification, or if there are changes in in-substance fixed payments.

When the lease liability is remeasured, the corresponding adjustment is reflected in the right-of-use asset, or profit and loss if the right-of-use asset is already reduced to zero.

Measurement and recognition of lease as a lessor

The Group leases out elements of plant and machinery. The Group has classified these leases as operating leases. The Group is not required to make any adjustments on transition to IFRS 16 for leases in which it acts as a lessor.

The Group has applied IFRS 15 Revenue from Contracts with customers to allocate consideration in the contract to each lease and non-lease components.

Comparative period

Operating lease payments are recognised as an expense on a straight line basis over the lease term, except where another systematic basis is more representative of the time pattern in which economic benefit from the leased asset are consumed.

**(n) Transactions and balances in foreign currencies**

Transactions in foreign currencies are converted into the respective functional currencies on initial recognition, using the exchange rates approximating those ruling at the transaction dates. Monetary assets and liabilities at the end of the reporting period are translated at the rates ruling as of that date. Non-monetary assets and liabilities are translated using exchange rates that existed when the values were determined. All exchange differences are recognised in profit or loss.

Overseas operations which have a functional currency different to the group presentation currency have been translated using the monthly average exchange rate for consolidation into the statement of comprehensive income. The amounts included in the group statement of financial position, have been translated at the exchange rate ruling at the statement date. All resulting exchange differences are reported in other comprehensive income.

**(o) Critical accounting estimates and judgements**

The preparation of financial information in conformity with IFRSs requires the use of certain critical accounting estimates. It also requires the directors of the Group to exercise their judgement in the process of applying the accounting policies which are detailed below. These judgements are continually evaluated by the directors and management and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

The key estimates and underlying assumptions concerning the future and other key sources of estimation uncertainty at the statement of financial position date, that have a significant risk of causing material adjustment to the carrying amounts of assets and liabilities within the next financial period are reviewed on an ongoing basis. Revision to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

*Defined Benefit Pension Scheme*

In determining the pension valuation movement and the defined benefit obligation of the groups pension scheme, a number of assumptions are used in order to produce a valuation, which is sensitive to changes in the assumptions. These assumptions include an appropriate discount rate, the levels of salary increases, price inflations and mortality rates. Further details are included in note 26, including sensitivity analysis.

*Impairment of non-financial assets*

The carrying value of goodwill, and the cash generating units (CGUs) to which it relates, is assessed annually for impairment through comparing the recoverable amount to the CGU's carrying value. The value in use calculations require estimates in relation to uncertain items, including management's expectations of future revenue growth, operating costs, profit margins, operating cashflows and the discount rate applied.

Future cash flows used in the value in use calculations are based on our latest five-year financial plans. Expectations about future growth reflect expectations of growth in the markets applicable to the group. The future cashflows are discounted using a pre-tax discount rate that reflects current market assessments of the time value of money. The discount rate used is adjusted for the specific risk to the group, including the countries to which cash flows will be generated. Further details are included in note 10, including sensitivity analysis.

*Useful economic lives of tangible and intangible assets*

The annual depreciation charge for tangible assets is sensitive to change in the estimated useful economic lives and residual values of the assets. The useful economic lives and residual values are re-assessed annually. They are amended where necessary to reflect current estimates, based on technological advancement, future investments, economic utilisation and the physical condition of the assets. See note 11 for the carrying amounts of the property plant and equipment, and the depreciation accounting policy for the useful economic lives for each class of assets.

#### 4. 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 is Chief Executive Officer and Chief Financial Officer) 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, Composites & Inks (focussing on the composites market in Europe (known as RPC&I);
- Advanced Materials (focussing on SiC & blank products for tooling) (known as AMAT); and
- Asia-Pacific (focusing on Ink sales to the Asian markets) (known as APAC)

#### 2020

	Resins, Polymers Composites & Inks £'000	Advanced Materials £'000	Asia- Pacific £'000	Adjustments, Central & Eliminations £'000	Consolidated £'000
<b>REVENUE</b>	357	2,169	421	-	2,947
Cost of sales	(119)	(517)	(249)	-	(885)
<b>Gross profit</b>	238	1,652	172	-	2,062
Other operating income	550	206	-	-	756
Adjusted administrative expenses	(1,689)	(1,687)	(587)	(1,394)	(5,357)
Adjusted operating loss	(901)	171	(415)	(1,394)	(2,539)
Administrative expenses					
Share based payment expense	6	(8)	13	-	11
Depreciation & amortisation	(411)	(868)	(229)	(132)	(1,640)
Restructuring costs	-	-	(63)	-	(63)
	(405)	(876)	(279)	(132)	(1,692)
Total administrative expenses	(2,094)	(2,563)	(866)	(1,526)	(7,049)
<b>OPERATING LOSS</b>	(1,306)	(705)	(694)	(1,526)	(4,231)
Finance costs					(176)
<b>LOSS BEFORE TAXATION</b>					(4,407)
Taxation					391
<b>LOSS AFTER TAXATION</b>					(4,016)
Additions to non-current assets	40	-	4	-	44
Segment assets	2,486	7,573	567	2,519	13,145
Segment liabilities	(698)	(4,173)	(239)	(584)	(5,694)

#### Exceptional Items

Exceptional items	2020 £'000	2019 £'000
Impairment of goodwill	-	634
Impairment of customer relationships	-	142
Impairment of development expenditure	-	1,008
	-	1,784

During the comparative year, the Group impaired intangible assets by £1.78 million in respect of Haydale Composite Solutions Limited.

## **2019**

	<b>Resins, Polymers Composites &amp; Inks £'000</b>	<b>Advanced Materials £'000</b>	<b>Asia- Pacific £'000</b>	<b>Adjustments, Central &amp; Eliminations £'000</b>	<b>Consolidated £'000</b>
<b>REVENUE</b>	441	2,619	407	-	3,467
Cost of sales	(244)	(1,128)	(195)	-	(1,567)
<b>Gross profit</b>	197	1,491	212	-	1,900
Other operating income	766	-	19	-	785
Adjusted administrative expenses	(1,488)	(2,523)	(1,003)	(1,851)	(6,865)
Adjusted operating loss	(525)	(1,032)	(772)	(1,851)	(4,180)
Administrative expenses					
Share based payment expense	(40)	(14)	(20)	(126)	(200)
Depreciation & Amortisation	(366)	(339)	(72)	(341)	(1,118)
Restructuring costs	-	-	-	(350)	(350)
Impairment	(1,784)	-	-	-	(1,784)
	(2,190)	(353)	(92)	(817)	(3,452)
	(3,678)	(2,876)	(1,095)	(2,668)	(10,317)
<b>OPERATING LOSS</b>	(2,715)	(1,385)	(864)	(2,668)	(7,632)
Finance costs					(123)
<b>LOSS BEFORE TAXATION</b>					(7,755)
Taxation					570
<b>LOSS AFTER TAXATION</b>					(7,185)
Additions to non-current assets	241	885	79	-	1,205
Segment assets	2,177	7,765	613	5,293	15,848
Segment liabilities	(405)	(2,828)	(216)	(1,148)	(4,597)

## **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>2020 £'000</b>	<b>2019 £'000</b>
<b>By destination</b>		
United Kingdom	278	328
Europe	378	657
United States of America	597	632
China	2	3
Thailand	345	239
South Korea	198	414
Japan	1,113	1,133
Rest of the World	36	61
	2,947	3,467

During 2020, £1.1 million (37%) (2019: £1.13 million (33%)) of the Group's revenue depended on a single customer. During 2020 £0.35 million (12%) (2019: £0.58 million (17%)) of the Group's revenue depended on a second single customer.

Revenue as a proportion of total group turnover for the year within Europe was predominantly to Germany £0.38 million (13%) (2019: Germany £0.58 million (17%)).

All amounts shown as other operating income within the Statement of Comprehensive Income are generated within and from the United Kingdom, EU and the US. These amounts include income earned as part of a number of grant funded projects in the United Kingdom and EU and a government grant in the US.

Revenue from goods was £2.45 million (83%) of the Group's revenue (2019: £2.98 million or 86%) and revenue from services was £0.4 million (14%) (2019: £0.34 million or 10%).

#### Dis-aggregation of revenues

The split of revenue by type:

	<b>2020</b>	<b>2019</b>
	<b>£'000</b>	<b>£'000</b>
Services	406	342
Reactor sales	-	77
Reactor rental	89	69
Goods	2,452	2,979
	<u>2,947</u>	<u>3,467</u>

<b>2020</b>	<b>RPC&amp;I</b>	<b>AMAT</b>	<b>APAC</b>	<b>TOTAL</b>
	<b>£'000</b>	<b>£'000</b>	<b>£'000</b>	<b>£'000</b>
Services	104	-	302	406
Reactor rental	89	-	-	89
Goods	164	2,169	119	2,452
	<u>357</u>	<u>2,169</u>	<u>421</u>	<u>2,947</u>
	<u><u>357</u></u>	<u><u>2,169</u></u>	<u><u>421</u></u>	<u><u>2,947</u></u>
<b>2019</b>	<b>RPC&amp;I</b>	<b>AMAT</b>	<b>APAC</b>	<b>TOTAL</b>
	<b>£'000</b>	<b>£'000</b>	<b>£'000</b>	<b>£'000</b>
Services	184	-	158	342
Reactor sales	-	-	77	77
Reactor rental	69	-	-	69
Goods	188	2,619	172	2,979
	<u>441</u>	<u>2,619</u>	<u>407</u>	<u>3,467</u>
	<u><u>441</u></u>	<u><u>2,619</u></u>	<u><u>407</u></u>	<u><u>3,467</u></u>

Services and reactor rental revenues are recognised over time, whereas goods and reactor sales are recognised at a point in time.

The group acquired the following non-current assets during the year, split by geographical location as detailed below:

#### Non-current asset additions

	2020 £'000	2019 £'000
<b>By destination</b>		
United Kingdom	40	241
United States of America	-	885
Thailand	4	14
Taiwan	-	65
	<u>44</u>	<u>1,205</u>

The carrying value of the group's non-current assets split by geographical location are detailed below:

	2020 £'000	2019 £'000
<b>By destination</b>		
United Kingdom	3,564	3,387
United States of America	5,257	4,344
Thailand	184	148
South Korea	1	1
Taiwan	-	153
	<u>9,006</u>	<u>8,033</u>

#### 5. Other Operating Income

	2020 £'000	2019 £'000
Grant Income	550	785
Federal Support Schemes	206	-
	<u>756</u>	<u>785</u>

There are no unfulfilled conditions attached to the above income.

#### 6. Loss before taxation

Loss before taxation is arrived at after charging:

	2020 £'000	2019 £'000
Impairment of intangibles – Note 10	-	1,785
Amortisation of other intangibles	129	222
Restructuring costs	63	350
Depreciation of property, plant and equipment	1,511	867
Loss/ (profit) on disposal of property, plant and equipment	-	16
Foreign Exchange	(9)	(24)
Operating lease rentals:		
- land and buildings	-	614
- plant and machinery	2	6
	<u></u>	<u></u>

The service fees of the Group's auditor, Grant Thornton UK LLP and BDO LLP for the comparative period, are analysed below:

	2020 £'000	2019 £'000
Fees payable to the Company's auditor for the audit of the Group's financial statements	67	27

Fees payable to the Company's auditor and its associates for other services:

- Audit of the company's subsidiaries	-	50
- Taxation related compliance services	40	18
- Other non-audit services	-	7
	<u>107</u>	<u>102</u>

All service fees for the current year relate to Grant Thornton UK LLP and service for 2019 relate BDO LLP.

## 7. Employees

The average number of employees during the year, including executive directors, was:

	<b>2020 No.</b>	<b>2019 No.</b>
Administration	23	25
Research, development and production	40	54
	<u>63</u>	<u>79</u>

Staff costs for all employees, including executive directors, consist of:

	<b>2020 £'000</b>	<b>2019 £'000</b>
Wages and salaries	3,243	4,140
Social security costs	287	339
Defined contribution pension costs	170	120
Defined benefit pension costs	24	42
Share-based payment (income)/expense	(11)	200
	<u>3,713</u>	<u>4,841</u>

Directors remuneration

	<b>2020 £'000</b>	<b>2019 £'000</b>
Short-term employee benefits and fees	484	495
Post-retirement benefits	25	16
	<u>509</u>	<u>511</u>

The total amount payable to the highest paid director in respect of emoluments was £252,000 (2019: £189,000), including pension costs of £20,000 (2019: £8,000).

## 8. Income tax

<b>Current tax credit</b>	<b>2020 £'000</b>	<b>2019 £'000</b>
Total income tax credits:		
- for the financial year	384	442
- under provision in the previous financial year	7	-
<b>Total Current Tax</b>	<u>391</u>	<u>442</u>



**Deferred tax credit**

Origination and reversal of temporary differences	-	128
Recognition of previously unrecognised deferred tax assets	-	-
	-	128
	391	570

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>2020</b> <b>£'000</b>	<b>2019</b> <b>£'000</b>
Loss for the year	(4,016)	(7,185)
Income tax credit	(391)	(570)
Loss before income taxes	(4,407)	(7,755)
Tax using the Group's domestic tax rates of 19% (2019 – 19%)	837	1,474
Expenses not deductible for tax purposes	(143)	(409)
Different tax rates applied in overseas jurisdictions	24	17
R&D enhancement	259	275
R&D costs capitalised	45	43
Surrender for R&D tax credit	(109)	(44)
Adjustment for over provision in comparative year	7	-
Movement in unrecognised losses carried forward	(492)	(681)
Movement in unrecognised fixed asset temporary differences	(37)	(233)
Deferred tax: Origination and reversal of temporary differences	-	128
Total tax credit	391	570

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

The main rate of corporation tax for UK companies is currently 19%. In the Spring Budget 2020, the Government announced that from 1 April 2020 the corporation tax rate would remain at 19% (rather than reducing to 17%, as previously enacted). This new law was substantively enacted on 17 March 2020.

The Group has tax losses that are available indefinitely for the UK and a maximum of 20 years for the US to be offset against future taxable profits of the companies approximately amounting to £23.96 million (2019: £21.85 million) and £4.16 million (2019: £4.53 million) of fixed asset timing differences. No tax losses are expected to expire within the next 15 years. 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 up to the value of the timing difference of fixed assets and therefore no overall deferred tax asset has been created.

**9. Loss per share**

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

	<b>2020</b> <b>£'000</b>	<b>2019</b> <b>£'000</b>
Loss after tax attributable to owners of Haydale Graphene Industries Plc	(4,016)	(7,185)

Weighted average number of shares:		
- Basic and Diluted	331,162,204	115,060,850
	<u>                    </u>	<u>                    </u>
Loss per share:		
Basic (£) and Diluted (£)	(0.01)	(0.06)
	<u>                    </u>	<u>                    </u>

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 2020, there were 34,248,583 (2019: 2,632,199) options and warrants outstanding as detailed in note 17.

All of the above options are potentially dilutive.

## 10. 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 2018	1,154	1,548	2,087	4,789
Additions	-	267	-	267
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
At 1 July 2019	1,154	1,815	2,087	5,056
Additions	-	250	1	251
FX translation	-	1	-	1
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
At 30 June 2020	1,154	2,066	2,088	5,308
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
<b>Accumulated amortisation</b>				
At 1 July 2018	288	284	-	572
Charge for the period	115	107	-	222
Impairment	143	1,008	634	1,785
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
At 1 July 2019	546	1,399	634	2,579
Charge for the year	87	42	-	129
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
FX translation	-	1	-	1
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
At 30 June 2020	633	1,442	634	2,709
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
<b>Net book value</b>				
At 30 June 2020	521	624	1,454	2,599
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
At 30 June 2019	608	416	1,453	2,477
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>
At 30 June 2018	866	1,264	2,087	4,217
	<u>                    </u>	<u>                    </u>	<u>                    </u>	<u>                    </u>

All of the above Development expenditure is currently in use.

### Goodwill

Goodwill arose on the acquisition of EPL Composite Solutions Ltd (now Haydale Composite Solutions Limited "HCS") on 1 November 2014 (£634,000), on the acquisition of Haydale Ltd on 21 May 2010 (£24,000). On the 9 September 2016, goodwill of £327,151 arose on the acquisition of Innophene Co. Ltd (now Haydale Technologies Thailand ("HTT")). Goodwill arose on the acquisition of HCT (formerly ACM) on the 13<sup>TH</sup> October 2016 of £1,102,620.

During the comparative year, the decision was taken to impair the carrying value of intangible assets held by Haydale Composite Solutions Limited by £634,000.

### Customer Relationships

The Customer relationships intangible asset arose on the fair value of assets on the acquisition of EPL Composite Solutions Ltd (now HCS) on 1 November 2014. Additions to the assets were brought in through the acquisition of HCT (formerly ACM) on the 13 October 2016 amounting to £868,676.

During the comparative year the Customer Relationships in HCS were impaired to nil.

### Development costs

Development costs brought forward are made up of three areas. The first relates to the fair value of assets on the acquisition of Haydale Ltd on 21 May 2010 for development of nano-technology projects, where it is anticipated that the costs will be recovered through future commercial activity. The second relates to capitalised patent costs that were acquired as part of the acquisition of Innophene Co Ltd. (now HTT) in 2015. The third relates to the development of graphene enhanced epoxy resins within Haydale Limited, HCS and HTT.

Development expenditure of £251,000 was capitalised during the year in accordance with IAS 38 in connection with the Group's expenditure with the development of graphene enhanced products (including inks and epoxy resins), where the Directors believe that future economic benefit is probable (2019: £267,000). Capitalised development expenditure is not amortised until the products or services are ready for sale or use.

Due to uncertainty relating to the timings of significant growth in HCS the Development Expenditure relating to enhanced epoxy resin were impaired to nil during the comparative year.

### Amortisation

Capitalised development costs are amortised over the estimated useful life of between 5 and 20 years. The amortisation charge is recognised in administrative expenses.

The Customer relationships intangible is amortised over the estimated useful life of 10 years. The amortisation charge is recognised in administrative expenses.

### Goodwill impairment

Goodwill acquired in a business combination is allocated at acquisition to the CGUs that are expected to benefit from that business combination. Following the acquisitions of HCS, HCT and HTT, the Group is operating a number of different CGUs and therefore HCS and ACM goodwill has been considered against the future forecast trading outcomes of HCT, HCS and HTT as separate CGU's.

An analysis of the pre-tax discount rates used and the goodwill balance as at the year-end by principal CGU's is shown below:

	2020 %	2019 %	2020 £'000	2019 £'000
Haydale Composite Solutions	10%	10%	-	-
Haydale	n/a	n/a	23	23
Haydale Ceramic Technologies LLC (HCT)	12%	12%	1,103	1,103
Haydale Technologies (Thailand)	10%	10%	327	327

The Group tests goodwill at least annually for impairment or more frequently if there are indications that goodwill might be impaired.

The recoverable amounts of the CGUs are determined from value-in-use calculations. The key assumptions for the value-in-use are those regarding the discount rates, the growth rates and expected changes to cash flows during the period for which management have detailed plans. The Directors estimate discount rates using pre-tax rates that reflect current market assessments of the time value of money and the risks specific to the CGUs.

Pre-tax discount rates, derived from the Group's post-tax weighted average cost of capital of 12% (2019: 12%), have been used to discount projected cash flows.

During the comparative year, due to the uncertainty and timing of HCS income, the Directors followed IAS 36 guidance and impaired the intangible assets relating to the CGU (see above).

The impairment calculations for the current year have been derived from the five year forecasts that have been reviewed by the Board.

The HCT model assumes that its turnover will grow at 15% in the current financial year, 45% in year two, 50% in year three and below 10% in years four and five and then reducing to 2% in perpetuity. The growth rates used are based on management's internally estimated growth forecasts which take into account blank sales and the adoption of the UK products and technology into the US market.

The HTT model assumes that its turnover will grow at 25% in the current financial year, 10% in year 2 to 5, reducing to 2% into perpetuity. The growth rates used are based on management's internally estimated growth forecasts which take into account current and future product commercialisation.

Following this review, the Directors have determined there is no impairment charge which should be recognised against the intangible assets of the Group for the year ended 20 June 2020.

#### Sensitivity to changes in assumptions

Management has completed sensitivity analysis on the impairment model which requires revenue to decrease by £13 million over a 5 year period to result in a material impairment. No reasonable change in the discount rate would cause an impairment.

### 11. Property, plant and equipment

	Leasehold and 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 2018	583	5,941	511	30	341	7,406
Additions	48	267	12	-	878	1,205
FX translation	4	179	20	-	-	203
Disposals	-	-	(21)	-	-	(21)
Transfers	-	1,188	-	-	(1,188)	-
At 1 July 2019	635	7,575	522	30	31	8,793
Transition to IFRS 16	2,207	-	-	-	-	2,207
	2,842	7,575	522	30	31	11,000
Additions	-	34	10	-	-	44
FX translation	-	126	10	1	1	138
At 30 June 2020	2,842	7,735	542	31	32	11,182
<b>Accumulated depreciation</b>						
At 1 July 2018	240	1,906	189	10	-	2,345
Charge for the year	68	732	61	6	-	867
FX translation	1	24	5	(1)	-	29
Disposals	-	-	(4)	-	-	(4)
At 1 July 2019	309	2,662	251	15	-	3,237
Charge for the year	684	765	56	6	-	1,511
FX Translation	1	23	4	(1)	-	27
At 30 June 2020	994	3,450	311	20	-	4,775
<b>Net book value</b>						

At 30 June 2020	<u>1,848</u>	<u>4,285</u>	<u>231</u>	<u>11</u>	<u>32</u>	<u>6,407</u>
At 30 June 2019	<u>326</u>	<u>4,913</u>	<u>271</u>	<u>15</u>	<u>31</u>	<u>5,556</u>
At 30 June 2018	<u>343</u>	<u>4,035</u>	<u>322</u>	<u>20</u>	<u>341</u>	<u>5,061</u>

Including in the net carrying amount of Property, plant and equipment are right-of-use assets as follows:

	<b>30 June 2020</b> <b>£'000</b>
Leasehold and leasehold improvements cost	2,207
Leasehold and leasehold improvements depreciation	<u>(613)</u>
Leasehold and leasehold improvement NBV	<u>1,594</u>

## 12. Inventories

	<b>2020</b> <b>£'000</b>	<b>2019</b> <b>£'000</b>
Raw materials	242	116
Work in progress	125	96
Finished goods	1,345	970
	<u>1,712</u>	<u>1,182</u>

The total value of inventories recognised in cost of sales during the year was £885,471 (2019: £725,986).

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

## 13. Trade receivables

	<b>2020</b> <b>£'000</b>	<b>2019</b> <b>£'000</b>
Trade receivables	886	637

## 14. Other receivables

	<b>2020</b> <b>£'000</b>	<b>2019</b> <b>£'000</b>
Other receivables	137	158
Prepayments and accrued income	197	133
Grants receivable	-	181
	<u>334</u>	<u>472</u>

	<b>2020</b> <b>£'000</b>	<b>2019</b> <b>£'000</b>
Corporation tax	384	836

## 15. Deferred income

Deferred income is recognised for both capital and revenue grants from governments and other funding parties and released as income in accordance with the relevant conditions of the grant concerned.

	2020 £'000	2019 £'000
Grants	-	178
Commercial Deferred Income	74	31
	<u>74</u>	<u>209</u>

#### *Commercial Deferred Income*

As at 30 June 2020, deferred income of £30,769 (2019: £30,769) arose in relation to the rental of a reactor, which had been invoiced during the year for a full year's rental charge. The charge is being released over the course of the year.

### 16. Share capital and share premium

	Number of shares No.	Share capital £'000	Share premium £'000	Total £'000
At 1 July 2018	27,328,773	547	27,539	28,086
Issue of £0.02 ordinary shares	290,395,075	5,807	225	6,032
At 30 June 2019	317,723,848	6,354	27,764	34,118
Issue of £0.02 ordinary shares	22,500,000	450	-	450
At 30 June 2020	<u>340,223,848</u>	<u>6,804</u>	<u>27,764</u>	<u>34,568</u>

During the year, the Company issued 22,500,000 new ordinary shares of 2p each.

Issue costs amounting to £14,000 have been charged to the profit and loss account during the year (2019: £399,000).

### 17. Share-based payment transactions

#### **Options**

The Company operates both an approved EMI share option scheme and an unapproved share option scheme for the benefit of employees and directors of the Company. The exercise price of the unapproved options is equal to the mid-market price of the shares on the date of grant. The exercise price of the 2020 EMI options granted on 13 January 2020 was 2.25p per Ordinary Share (being a 19.7 % premium to the closing mid-market price of the Company's Ordinary Shares on 10 January 2020, the last trading day before the grant). The options vest either one year or three years from the date of grant. The options are accounted for as equity settled share based payment transactions. The following table which illustrates the number and weighted average exercise prices (WAEP) of, and movements in, share options during the year:

	2020		2019	
	Number of options No.	WAEP Pence	Number of options No.	WAEP Pence
Balance at beginning of year	2,504,691	62	3,242,801	63
Granted	34,100,000	0.02	-	-
Lapsed	(1,591,960)	1.13	-	-
Forfeited	(831,546)	1.13	(738,100)	67
Balance at end of year	<u>34,181,185</u>	<u>0.23</u>	<u>2,504,691</u>	<u>62</u>

At 30 June 2020, there were options outstanding over 34,181,185 un-issued ordinary shares, equivalent to 10% of the issued share capital as follows:

	<i>Number of shares</i>	<i>Exercise price</i>	<i>Earliest exercise date</i>	<i>Latest exercise date</i>
<b>Unapproved scheme</b>				
19 May 2016	4,665	171.50p	19 May 2019	19 May 2026
14 October 2016	6,759	198.14p	14 October 2019	14 October 2026
26 June 2017	32,984	178.50p	27 June 2020	27 June 2027
15 December 2017	36,777	125.50p	15 December 2020	15 December 2027
<b>Approved EMI scheme</b>				
13 January 2020	34,100,000	2.25p	13 January 2023	13 January 2030
	<u>34,181,185</u>			

The estimated fair value was calculated by applying a Black-Scholes option pricing model.

	<i>Type of award</i>	<i>Number of shares</i>	<i>Share price at date of grant (p)</i>	<i>Fair value per option (p)</i>	<i>Award life (years)</i>	<i>Risk free rate (%)</i>	<i>Expected volatility rate (%)</i>	<i>Performance conditions</i>
19 May 2016	Unapproved	4,665	172	101	10	0.62	51	None
14 October 2016	Unapproved	6,759	198	113	10	0.50	49	None
26 June 2017	Unapproved	32,984	179	179	10	0.50	34	None
15 December 2017	Unapproved	36,777	126	55	10	0.50	51	None
13 January 2020	EMI	34,100,000	1.88	0.01	10	0.50	96	See below
		<u>34,181,185</u>						

Should the Company's closing mid-market share price reach and remain at or above £0.04 for at least 15 consecutive trading days, commencing after the grant date and ending on or before 30 September 2021, 30% of share options are capable of exercise.

Should the Company's closing mid-market share price reach and remain at or above £0.08 for at least 15 consecutive trading days, commencing after the grant date and ending on or before 30 September 2022, an additional 30% of share options are capable of exercise.

Should the Company's closing mid-market share price reach and remain at or above £0.16 for at least 15 consecutive trading days, commencing after the grant date and ending on or before 30 September 2023, the final 40% of share options are capable of exercise.

The weighted average remaining contractual life of share options outstanding at 30 June 2020 is 9.5 years (2019: 8.1 years). The charge for the year for share-based payment amounted to £0.1 million (2019: £0.2 million).

## Warrants

	<i>Number of warrants No.</i>	<i>2020 Weighted average exercise price Pence</i>	<i>Number of warrants No.</i>	<i>2019 Weighted average exercise price Pence</i>
Balance at beginning of year	107,398	0.02	385,719	193
Lapsed	(40,000)	0.02	(278,321)	187
Balance at end of year	<u>67,398</u>	<u>0.02</u>	<u>107,398</u>	<u>208</u>

No warrants were issued during the year under review. None of the warrants outstanding at 30 June 2020 are to employees or have performance conditions attached. The same pricing model was used for calculating the cost of warrants to the Group as was used for calculating the cost of the options to the Group.

The weighted average remaining contractual life of warrants outstanding at 30 June 2020 is 0.72 years (2019: 1.33 years). The charge for the year for share-based payment amounted to £11,410 (2019: £48,254).

## 18. Reserves

### Share capital

The share capital represents the nominal value of the equity shares in issue.

### 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 passed 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 earnings

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

### Foreign Exchange

The foreign exchange reserve comprises of translation differences arising from the translation of the overseas subsidiary results into pound sterling.

## 19. Trade and other payables

	<b>Current Liabilities</b>		<b>Non-Current Liabilities</b>	
	<b>2020</b>	<b>2019</b>	<b>2020</b>	<b>2019</b>
	<b>£'000</b>	<b>£'000</b>	<b>£'000</b>	<b>£'000</b>
<b>Current Liabilities</b>				
Trade payables	410	473	-	-
Tax and social security	181	57	-	-
Lease liability	617	-	1,031	-
Accruals and other creditors	698	817	-	-
	<b>1,906</b>	<b>1,347</b>	<b>1,031</b>	<b>-</b>

A working capital bank facility in the US has been reclassified from Other Creditors to Bank Loans.

## 20. Bank loans

	<b>2020</b>	<b>2019</b>
	<b>£'000</b>	<b>£'000</b>
Bank loans	1,248	1,956
The borrowings are repayable as follows:-		
- within one year	944	1,568
- in the second year	265	267
- in the third to fifth years inclusive	39	121
	<b>1,248</b>	<b>1,956</b>



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

	<b>2020</b>	<b>2019</b>
	<b>%</b>	<b>%</b>
Average interest rates paid	7.9	6.1

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, secured on the fixed assets of HTI and its newly acquired operating subsidiary, Advanced Composite Materials (now HCT). 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.

In January 2019, a 15 month loan of £750,000 was taken out with the Development Bank of Wales. The loan had an interest at a rate of 11% per annum and was repayable in 12 equal monthly instalments with the final repayment being paid in March 2020.

In June 2020, as part of the Government Bounce Back Loan scheme, HCS entered into a six year loan agreement with Natwest for £50,000. The loan has a payment holiday and does not accrue interest during the first 12 month. Following the initial 12 months interest will be charged at 2.5% p.a. and is repaid in equal instalments over the remaining period.

## 21. Related party disclosures

Balances and transactions between Haydale Graphene Industries Plc and its subsidiaries are eliminated on consolidation and are not disclosed in this note. Balances and transactions between the Group and other related parties are disclosed below.

### Remuneration of directors and key management personnel

The remuneration of the senior Executive Management Committee members, who are the key management personnel of the Group, is set out below in aggregate for each of the categories specified in IAS 24 'Related Party Disclosures'.

	<b>2020</b>	<b>2019</b>
	<b>£'000</b>	<b>£'000</b>
Short-term employee benefits and fees	484	495
Social security costs	50	55
Post-retirement benefits	25	16
	<hr/>	<hr/>
	559	566
	<hr/> <hr/>	<hr/> <hr/>

### Other transactions – Group and parent company

During the comparative year £18,519 was paid to ONE Advisory Ltd for financial, administration, compliance and support services, a company of which Mr M Wood, who served as a director of the Company until 20 December 2018. At 30 June 2019, the balance owed to ONE Advisory Ltd was £694.

Fees totalling Nil (2019: £49,323) were paid to the ATL Consulting Ltd, a company of which Mr R Smith, who served as a director of the Company until 31 January 2019, is a director, for business development consultancy. At 30 June 2020, the balance owed to ATL Consulting Ltd was Nil (2019: Nil).

Fees totalling £6,332 (2019: £14,233) were paid to the AVI Partners, a company based in Jersey of which Mr R Smith who served as a director of the Company until 31 January 2019 for business development consultancy. At 30 June 2020, the balance owed to AVI Partners was Nil (2019: £Nil).

Fees totalling £13,500 (2019: Nil) were paid to the Evesco International Business Services of which Mr G Eves who served as a director of the company during the year for support for the share issue during the year. At 30 June 2020, the balance owed to Evesco International Business Services was Nil (2019: £Nil).

### Other transactions - Group

Other related party transactions during the year under review are shown in the table below:

	<b>2020</b>	<b>2019</b>
	<b>£'000</b>	<b>£'000</b>
<i>Services Received</i>		
PlanarTech	-	99
QM Holdings	468	443

During the year an amount of £467,741 was paid to QM Holdings in respect of property rent (2019: £443,003). QM Holdings is owned by Tom Quantrille and Marvin Murrell who are officers of HCT, a wholly owned subsidiary of the Group. The balance outstanding to QM Holdings at the year-end was £40,163 (2019: £36,697).

During the previous year, Haydale Limited procured business development services from PlanarTech, a company of which P Frantz, a director of Haydale Technologies Thailand Ltd, a subsidiary of the Company, is a director. The value of services provided by PlanarTech in the year was Nil (2019: £99,476). The balance outstanding to PlanarTech at the year-end was Nil (2019: Nil).

## 22. Financial instruments

The Group's activities are exposed to a variety of market risk (including foreign currency risk and interest rate risk), credit risk and liquidity risk. The Group's overall financial risk management policy focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's financial performance.

### (a) Financial risk management policies

The Group's policies in respect of the major areas of treasury activity are as follows:

#### (i) Market risk

##### (i) Foreign currency risk

The Group is exposed to foreign currency risk on transactions and balances that are denominated in currencies other than Pounds Sterling. The currencies giving rise to this risk are primarily the United States Dollar and the Euro. Foreign currency risk is monitored closely on an ongoing basis to ensure that the net exposure is at an acceptable level. The Group maintains the ability to provide a natural hedge wherever possible by matching the cash inflows (revenue stream) and cash outflows used for purposes such as operational expenditure in the respective currencies.

The carrying amounts of the Group's foreign currency denominated monetary assets and liabilities at the end of each reporting period were as follows:

	<b>United States</b>		
	<b>Dollar</b>	<b>Euro</b>	<b>Total</b>
	<b>£'000</b>	<b>£'000</b>	<b>£'000</b>
<b>2020</b>			
Financial assets	952	47	999
Financial liabilities	111	1	112
<b>2019</b>			
Financial assets	804	145	949
Financial liabilities	175	-	175

#### *Foreign currency sensitivity analysis*

The following table details the sensitivity analysis to possible changes in the relative values of foreign currencies to which the Group is exposed as at the end of the respective financial periods, with all other variables held constant:

	2020 Increase/ (decrease) £'000	2019 Increase/ (decrease) £'000
<b>Effects on loss after taxation / equity</b>		
United States Dollar:		
- strengthened by 10%	93	54
- weakened by 10%	(76)	(44)
Euro:		
- strengthened by 10%	6	16
- weakened by 10%	(5)	(13)

(ii) *Interest rate risk*

The Group's exposure to interest rate risk arises mainly from interest-bearing financial assets. The Group's policy is to obtain the most favourable interest rates available, while ensuring no risk to capital. Any surplus funds will be placed with licensed financial institutions to generate interest income. The current loan and credit facilities maintain a fixed rate of interest.

*Interest rate risk sensitivity analysis*

A 100 basis points strengthening or weakening of the interest rate as at the end of each financial period would have an immaterial impact on loss after taxation and / or net assets. This assumes that all other variables remain constant.

(ii) **Credit risk**

The Group's exposure to credit risk, or the risk of third parties defaulting, arises mainly from trade and other receivables. The Group manages its exposure to credit risk by the application of credit approvals, credit limits and monitoring procedures on an ongoing basis. For other financial assets (including cash and bank equivalents), the Group minimises credit risk by dealing exclusively with high credit rating financial institutions.

The Group establishes an allowance for impairment that represents its expected credit losses in respect of the trade and other receivables as appropriate. The main components of this allowance are a specific loss component that relates to individually significant exposures, and a collective loss component established for groups of similar assets in respect of losses that are expected but not yet identified. Impairment is estimated by management based on prior experience, current market and third party intelligence while considering the current economic environment.

**Credit risk concentration profile**

To date, modest sales have meant that the credit risk profile of the Group has tended to focus on a handful of customers only. As such, no meaningful analysis can be drawn from the customer profile of the receivables outstanding at each period end under review.

**Exposure to credit risk**

As the Group does not hold any collateral, the maximum exposure to credit risk is represented by the carrying amount of the financial assets at the end of each financial period.

The exposure of credit risk for trade receivables by geographical region as at the year-end is as follows:

	2020 £'000	2019 £'000
United Kingdom	28	106
Europe	181	71
North America	115	119
Rest of the world	562	341

886	637
-----	-----

### **Maturity analysis**

The ageing analysis of the Group's trade receivables as at the year-end is as follows:

	<b>2020</b> <b>£'000</b>	<b>2019</b> <b>£'000</b>
Not past due	834	604
Past due:		
- less than 3 months	41	31
- between 3 and 6 months	11	2
Gross amount	886	637

At the end of each financial period, trade receivables that are individually impaired were those in significant financial difficulties and have defaulted on payments. These receivables are not secured by any collateral or credit enhancement.

Collective impairment allowances, are determined based on estimated irrecoverable amount from the sale of goods and services, determined by reference to past default experience. No impairment provision has been recognised in either the current or prior year.

#### *Trade receivables that are past due but not impaired*

The Group believes that no impairment allowance is necessary in respect of these trade receivables. They are substantially companies with good collection track record and no recent history of default, further this also applies to any trade receivables held at year end which are not past due.

### **(iii) Liquidity risk**

Liquidity risk is the risk that the Group will not be able to meet its financial obligations as they fall due. The Group exposure to liquidity risk arises primarily from mismatches of the maturity of financial assets and liabilities.

The Group maintains a level of cash and cash equivalents and bank facilities deemed adequate by management to ensure as far as possible, that it will have sufficient liquidity to meet its liabilities when they fall due.

All of the financial liabilities of the Group are due within one year, with the exception of certain long-term bank loans – see note 20.

### **Maturity analysis**

The ageing analysis of the Group's non-derivative financial liabilities as at the year-end is as follows:

<b>2020</b>	<b>Under 1 Yr</b> <b>£'000</b>	<b>1 to 2 Yrs</b> <b>£'000</b>	<b>2 to 5 Yrs</b> <b>£'000</b>	<b>Total</b> <b>£'000</b>
Trade payables	410	-	-	410
Secured bank loan	943	255	-	1,198
Unsecured bank loan	1	9	40	50
Lease liability	617	617	414	1,648
Total	1,971	881	454	3,306

<b>2019</b>	<b>Under 1 Yr £'000</b>	<b>1 to 2 Yrs £'000</b>	<b>2 to 5 Yrs £'000</b>	<b>Total £'000</b>
Trade payables	473	-	-	473
Secured bank loan	1,568	267	121	1,956
<b>Total</b>	<b>2,041</b>	<b>267</b>	<b>121</b>	<b>2,429</b>

**(b) Capital risk management**

The Group defines capital as the total equity of the Group. The Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital. In order to maintain or adjust the capital structure, Haydale Graphene Industries PLC may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt. Haydale Graphene Industries PLC ensures that the distributions to shareholders do not exceed working capital requirements.

**(c) Classification of financial instruments (at amortised cost and fair value)**

	<b>2020 £'000</b>	<b>2019 £'000</b>
<b>Financial assets</b>		
Trade receivables	886	637
Other receivables	334	158
Cash and bank balances	823	4,688
<b>Financial Assets (at amortised cost)</b>	<b>2,043</b>	<b>5,483</b>
<b>Financial liabilities</b>		
Bank loans	1,248	1,956
Trade payables	410	473
Right-of-Use Lease Liability	1,648	-
Accruals and other creditors	698	817
<b>Financial Liabilities (at amortised cost)</b>	<b>4,004</b>	<b>3,246</b>

There is no difference between the fair value and book value for the assets and liabilities.

**(d) Fair value of financial instruments**

The Group has no financial assets or liabilities carried at fair values at the end of each reporting date.

**23. Capital commitments**

The Group had the following capital commitments in the respective years:

	<b>2020 £'000</b>	<b>2019 £'000</b>
Authorised by the Directors but not contracted for	50	17

**24. Ultimate controlling party**

The Directors do not consider any one shareholder, individually or acting in consort with others, to have ultimate control of the Group.

**25. Lease arrangements**

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

	<b>2020</b>	<b>2020</b>	<b>2019</b>	<b>2019</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	-	1	624	4
- within two to five years	-	3	473	4
- later than 5 years	-	-	139	-
	<hr/>	<hr/>	<hr/>	<hr/>
Aggregate amounts payable	-	4	1,236	8
	<hr/>	<hr/>	<hr/>	<hr/>

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

	<b>2020</b>	<b>2020</b>	<b>2019</b>	<b>2019</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	-	1	614	6

As at 1 July 2020 the Group has applied IFRS 16 using the modified retrospective approach and therefore comparative information has not been restated. This means comparative information is still reported under IAS 17 and IRFIC 4. The implementation of IFRS 16 has resulted in the leases in relation to Land and Building being recognised under IFRS 16 and not as operational leases.

A significant proportion of the lease arrangements in the comparative year relate to the premises from which HTI and HCT operate in South Carolina, USA totalling £0.45 million. Other leases pertain to the office and unit contracts for the three UK facilities of in aggregate £0.16 million. Of the £0.16 million, certain leases are cancellable with three months' notice.

The facility in Thailand is leased. The cost is £0.01 million.

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

## 26. Defined Benefit Pension Scheme

HCT operated a defined benefit pension scheme. The scheme was closed in November 2006 for any new participants.

Contributions of Nil were made to the scheme during the year ended 30 June 2020 (2019: £118,220). No contributions are expected to be made during the year ended 30 June 2021.

Included in the loss before tax during the year:

	<b>2020</b>	<b>2019</b>
	<b>(£'000)</b>	<b>(£'000)</b>
Net Interest Expense	24	42
	<hr/>	<hr/>

Included in other comprehensive income during the year:

	<b>2020</b>	<b>2019</b>
	<b>(£'000)</b>	<b>(£'000)</b>
Actuarial loss / (gain) from demographic assumptions	292	(2)

The following table sets forth the pension plan's funded status as of 30 June:

<b>2020</b>	<b>2019</b>
-------------	-------------

	(£'000)	(£'000)
Accumulated benefit obligation	(4,275)	(3,960)
Projected Benefit obligation	(4,275)	(3,960)
Plan assets at fair value	2,840	2,875
Funded Status	<u>(1,435)</u>	<u>(1,085)</u>
Accrued Pension Cost	<u>(1,435)</u>	<u>(1,085)</u>

Net amount recognised in the consolidated balance sheet as of 30 June, consisted of the following:

	2020 (£'000)	2019 (£'000)
Non-current Liabilities	<u>(1,435)</u>	<u>(1,085)</u>

The discount rate is based on the yield curve of government bonds in the applicable region adjusted with a credit spread of one of the two highest ratings given by a recognized ratings agency. Future cash outflows of the plans are then related with the yield curve. The average is the discount rate. The weighted average assumptions used to develop the actuarial present value of benefit obligations and net periodic benefit costs for the pension plan are as follows for the year ended 30 June 2020:

Discount rate for periodic benefit costs	3.00%
Discount rate for benefit obligations	3.00%
Rate of increase in compensation levels	0.00%
Investment return rate	3.00%

Mortality Assumptions are as follows:

<b>Longevity at retirement age (current &amp; future pensioners)</b>	<b>2020</b>	<b>2019</b>
- Males	22.57 years	23.80 years
- Females	25.00 years	25.90 years

#### Plan Assets

Pension assets are managed by an outside investment manager and are rebalanced periodically. The Company establishes policies and strategies and regularly monitors performance of the assets, including the selection of investment managers, setting long-term strategic targets, and monitoring asset allocations. Target allocation ranges are guidelines, not limitations, subject to variation from time-to-time or as circumstances warrant, and occasionally, the Company may approve allocations above or below a target range.

The pension plan's investment strategy with respect to pension assets is to invest the assets in accordance with ERISA and fiduciary standards. The long-term primary objective for the pension plan assets are to protect the assets from erosion of purchasing power and to provide a reasonable amount of long-term growth of capital, without undue exposure to risk. Currently, the strategic targets are 45% for equity securities, 50% for debt securities, and no more than 5% for other categories.

The fair value of the Company's pension plan assets valued at 30 June 2020, by asset category were as follows:

Description	Total Carrying Amount £,000	Assets/Liabilities Measured at Fair Value £,000	Fair Value Measurements at 30 June 2020 using	
			Level 1 Inputs £,000	Level 2 Inputs £,000
Cash	137	137	137	-
Corporate Equities	1,554	1,554	1,554	-
Fixed Income:				

US Government	56	56	-	56
Municipal	6	6	-	6
Corporate debt	988	988	-	988
Mutual Funds	99	99	99	-
	<b>2,840</b>	<b>2,840</b>	<b>1,790</b>	<b>1,050</b>

All corporate equities are quoted securities.

The changes in the fair value of the Company's pension plan assets for the year ending 30 June 2020, were as follows:

	<b>2020</b>	<b>2019</b>
	<b>£,000</b>	<b>£,000</b>
<b>Opening Balance</b>	2,875	2,710
Contributions	-	118
Distributions	(245)	(245)
Earnings	177	63
Net realised gain	20	189
Administrative expenses	(66)	(75)
Foreign exchange gain/(loss)	79	115
<b>Balance at Year End</b>	<b>2,840</b>	<b>2,875</b>

#### Cash Flows

For current financial year, the Company expects contributions to be nil. The Company expects benefits paid for the next five fiscal years and the five years thereafter as follows:

	<b>2020</b>	<b>2019</b>
	<b>£,000</b>	<b>£,000</b>
2020	266	268
2021	274	277
2022	272	274
2023	276	276
2024	275	274
Thereafter	1,411	1,389
	<b>2,774</b>	<b>2,758</b>

The company's pension plan asset allocations by asset category were as follows as of 30 June 2020:

<u><b>Asset Category</b></u>	
Cash	4.8%
Equity Mutual Funds	54.7%
Fixed Income	37%
Other	3.5%

#### Plan Obligations

	<b>2020</b>	<b>2019</b>
	<b>£'000</b>	<b>£'000</b>
<b>Benefit Obligation at 01 July 2019</b>	3,960	3,830
Foreign exchange movement	114	155
Interest cost	136	152
Actuarial loss	310	68
Benefits paid	(245)	(245)
<b>Benefit Obligation at 30 June 2020</b>	<b>4,275</b>	<b>3,960</b>
<b>Fair Value of Plan Assets at 01 July 2019</b>	2,875	2,710
Foreign Exchange movement	79	115
Actual Return on plan assets	19	69
Interest Income	112	108



Employer contributions	-	118
Benefits paid	(245)	(245)
<b>Fair Value of Plan Assets at 30 June 2020</b>	<b>2,840</b>	<b>2,875</b>
<b>Funded Status at 30 June 2020</b>	<b><u>(1,435)</u></b>	<b><u>(1,085)</u></b>

Defined benefit obligation – sensitivity analysis.

The impact to the value of the defined benefit obligation of a reasonably possible change to one actuarial assumption, holding all other assumption constant, is presented in the table below:

Actuarial Assumption	Reasonably Possible Change	Defined Benefit Obligation (£'000)	
		Increase	Decrease
Discount Rate	(+/- 0.25%)	(103)	108
Mortality Rate	(+/-1.00%)	13	(14)

HCT (formerly ACM) also has a defined contribution plan under Section 401(k) of the Internal Revenue Code which provides for voluntary participation. All employees who have completed one hour of service are eligible to participate in this plan beginning the first pay period of the month following the date an hour of service is first performed. Participants may contribute on a pre-tax basis from 1% to 60%, in 1% increments, of their annual base salary. Company contributions under the plan are required to be equal to 100% of that portion of participant contributions which do not exceed 6% of the participant's annual base compensation rate. Participants are immediately vested in their voluntary contributions plus actual earnings and Company contributions. The Company contributions for the year ended 30 June 2020, were £24,000 (2019: £58,009).

## 27. Taxes

Deferred tax is calculated in full on temporary differences under the liability method. Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset realised, based on tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

The movement on the deferred tax account is as shown below:

	2020 £'000	2019 £'000
At 1 July 2019	-	(125)
Recognised in profit and loss:		
Tax expense	7	128
Recognised in other comprehensive income:		
Actuarial gain on defined benefit pension schemes	-	-
Movement due to changes in exchange rates	(7)	(3)
At 30 June 2020	-	-

Deferred tax assets have been recognised in respect of tax losses and other temporary differences giving rise to deferred tax assets where the Directors believe it is probable that these assets will be recovered.

Detail of the deferred tax liability, amounts recognised in profit and loss and amounts recognised in other comprehensive income are as follows:

	Asset	Liability	Net	(Charged)/ credited to profit or loss
	2020	2020	2020	2020
	£'000	£'000	£'000	£'000
Employee pension liabilities	301	-	301	73
Available losses	636	-	636	(30)
Business combinations	-	(937)	(937)	(43)
Net tax assets/(liabilities)	937	(937)	-	-

	Asset	Liability	Net	(Charged)/ credited to profit or loss
	2019	2019	2019	2019
	£'000	£'000	£'000	£'000
Employee pension liabilities	228	-	228	(16)
Available losses	666	-	666	328
Business combinations	-	(894)	(894)	(184)
Net tax assets/(liabilities)	894	(894)	-	128

A deferred tax asset has not been recognised for the following:

	2020 £'000
Accelerated capital allowances	(63)
Unused tax losses	3,637
	<u>3,574</u>

The unused tax losses can be carried forward indefinitely in the UK and up to a maximum of 20 years in the US.

## 28. Post Balance Sheet Event

On 9 September 2020 the Group successfully raised £2.98 million of new funds before costs via a placing of new ordinary shares in the Company with existing and new investors.

## 29. Reconciliation of liability movement as a result of financing activities

	Non-current Loans and borrowings £'000	Current loans and borrowings £'000	Total £'000
At 1st July 2018	640	256	896
Interest accruing in period	88	35	123
New loans in year	-	750	750

Loan repayments in year	-	(500)	(500)
Working Capital Facility	-	709	709
Effect of foreign exchange	(16)	(6)	(22)
Loans classified as non-current at 30 June 2018 becoming current during year.	(324)	324	-

---

At 30th June 2019	388	1,568	1,956
-------------------	-----	-------	-------

Interest accruing in period	14	30	44
New loan in year	-	50	50
Loan repayments in year	-	(835)	(835)
Lease Liability transition to IFRS 16	1,648	559	2,207
Lease Liability repayments in year	-	(559)	(559)
Effect of foreign exchange	9	24	33

Loans classified as non-current at 30 June 2019 becoming current during year.	(107)	107	-
---	-------	-----	---

Lease Liability classified as non-current at 1 July 2019 becoming current during year	(617)	617	-
---	-------	-----	---

---

At 30th June 2020	1,335	1,561	2,896
-------------------	-------	-------	-------

---