Haydale Graphene Industries Plc

Annual Report And Accounts

For the year ended 30 June 2022

Creating Material Change

Company Registration No: 07228939

Contents

Chairs 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 2022 ("FY22").

The Group continued to make positive progress during the year on its journey to delivering sustainable commercial revenues. During H2 FY22 we saw positive sales development, especially within the UK operations, and we anticipate that this momentum will continue into the current financial year.

Summary financials

Commercial revenue for FY22 of £2.90 million (FY21: £2.90 million) remained in line with the prior year which was a robust performance given the exceptional support that we received from our largest customer in FY21. Gross profit marginally reduced to £1.75 million (FY21: £1.98 million) delivering a gross profit margin of 60.0% (FY21: 68.2%) broadly in line with prior year. Other operating income for the year of £0.44 million (FY21: £0.58 million) was lower than the prior year but this reflected the £0.14 million federal support received by our US subsidiary in FY21. Adjusted administrative expenses increased by £0.80 million (16.9%) to £5.52 million (FY21: £4.72 million). Total Administrative Expenses were £7.24 million (FY21: £6.11 million). Loss for the year was £4.81 million (FY22: £3.41 million).

Operational Highlights

The Group made good progress towards its longer-term goals in the year. The priorities of delivery of commercial revenue, focussed investment in our physical and human capacity and development of our technology remains central to our strategy.

During the year we successfully commissioned the new HD-Plas® HT1400 plasma reactor which allows us to manufacture functionalised nanomaterials on an industrial scale. In tandem with bringing that capacity on stream we continued to invest in our technical development and submitted a patent for the use of liquid doping technology which will allow us to extend the scope of the enhancements we can bring to products such as our conductive inks. We looked to further strengthen our teams across all Group sites and invested in sales, marketing, quality and production resource to ensure that we are in a position to scale up our operations safely and effectively.

The principal trading impact on the Group of Covid-19 since early 2020 has been the slowdown in the global aviation sector which has reduced demand for the SiC and the ceramic cutting tools produced by our US facility. In H2 FY22 we saw demand for these products begin to recover, and our finished tools are gaining commercial traction within the North American aerospace and automotive sectors.

Staff

I would like to thank the executive management team who continue to drive the difficult transition from an R&D focused organisation to a sustainable commercial operation. I would also like to thank our staff for their continued resilience and flexibility, and it is through their endeavours that we have been able to make the progress that we have in the year.

Funding

On 12 September 2022, the Company completed an equity placing and open offer raising £5.51 million (gross) and I would like to welcome our new shareholders and to thank our existing shareholders for their continued support, especially so against the backdrop of a more turbulent economic landscape.

Outlook

During the year we made significant investments in both our functionalisation capacity and in the wider team that allows us to deliver sustainable revenues for the Company. With the fundamental building blocks in place, the Board remains confident that the Company will be able to take advantage of the commercial traction it is seeing.

David Banks
Chair
5 October 2022

Strategic Report

The directors present their Strategic Report for the year ended 30 June 2022.

PRINCIPAL ACTIVITIES

Haydale brings together the cutting-edge technology of the patented HDPlas® process with our engineering expertise to functionalise graphene and other nanomaterials. Our technology has the potential to deliver major 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 a world leader in the revolutionary development of plasma functionalisation of advanced performance-enhancing materials and nanomaterials across all industry sectors, providing cutting-edge technological solutions to improve people's life experience'*. Operationally we look to use our extensive knowledge of advanced materials and dispersion to be one of the world's foremost creators of material change, enabling our customers to improve the performance of their products. The directors believe the Company is well placed 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.

Whilst a significant but reducing level of the Group's revenues to date have been generated by our US operation, at the core of our product offering and underpinning the Group's future prospects and value, is Haydale's patented HDPlas® functionalisation process which improves the dispersibility of many nanomaterials. Functionalisation allows Haydale to tailor advanced materials to enhance the properties of our customers' products. The process is cost effective and environmentally friendly and our capacity to produce industrial levels of functionalised nanomaterials underpins our business model. Specifically, we have the engineering expertise to:

- functionalise nanomaterials that are blended with resins, composites and fluids to deliver enhanced electrical, mechanical (strength) and thermal performance;
- formulate proprietary nanomaterial-based inks and coatings for the print and sensor markets, including biomedical, RFID and piezo resistive inks and sensors; and
- compound functionalised nanomaterials into a range of elastomers to enable customers to use nanomaterials in elastomeric products.

At our North American site we also manufacture proprietary silicon carbide ("SiC") fibres and whiskers that strengthen ceramics and produce highly wear resistant ceramic 'blanks' for use in the aerospace and automotive industries and for abrasion resistant coatings.

At the 30 June 2022, the Group has the following operational activities in its five facilities.

Haydale subsidiary	*Location*	*Principal activities*
Haydale Limited	Ammanford, Wales	Specialist functionalisation and main manufacturing facility producing inks, resins, fluids 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 South Korean and other APAC markets.
Haydale Technologies (Thailand) Company Limited ("HTT")	Bangkok, Thailand	Ink and masterbatch development focused on commercial applications with plasma functionalisation facilities. Assists the UK in servicing the APAC region.
Haydale Technologies, Inc. ("HTI") and its wholly owned subsidiary Haydale Ceramic Technologies LLC	Greer, SC, USA	Large installed SiC manufacturing facility with sales office serving the North American Market and developing the European and East Asian markets.

The Group safeguards its nanomaterials business across these sites and the territories in which it operates through the use of patents and trade secret protocols 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. During the year Haydale applied for eight new patents in its own right and one joint patent with Airbus Operations Limited. The patents submitted cover our HDPlas® capability with developments such as liquid dosing, barrel temperature control and the use of a step transformer extending both the range and control of the enhancements that our customers are seeking.

REVENUE MODEL

The Group's revenue model is based on the following strands:

- Sale of functionalised material in powder, masterbatch, fluid or pre-preg format;
- Sale of SiC microfibres and whiskers, ceramic blends and ceramic blanks to the aerospace and automotive cutting tool sector and the coatings industries;
- Sale of own brand and third-party products, such as CeramycGuard™, which clearly align with our product or customer base;
- Sale of plasma reactors with appropriate licencing for use of the patented HDPlas® functionalisation process; and
- Consultancy services with respect to testing the potential enhancements that our product range and engineering acumen may bring to customer applications.

COMMERCIAL OVERVIEW

The financial year ended 30 June 2022 ("FY22") has seen the Group deliver a resilient performance in the year against a turbulent economic backdrop and the directors are pleased to report that the commercial progress accelerated in the second half of the year within the core graphene and other nano particle operations in the UK. Revenue has been impacted by the slower than anticipated recovery from the pandemic at the Group's US operation and this has weighed on the overall financial performance in the Year.

The Group continues to transform itself from a research and development organisation into a manufacturing business focussed on commercialising its portfolio of technology and securing profitable outcomes. In the latter part of the year the Company successfully commissioned a larger plasma reactor that, when fully optimised, will deliver a significant increase in our functionalisation capacity and provide the means to move production to an industrial level.

UK & EUROPE

The UK division made robust progress towards commercialising its proprietary technology in the year. Total sales (excluding reactor sales of £0.40 million in the prior year) increased by £0.46 million (89%) on FY21. Functionalised product sales (goods) increased by 270% over the prior year and project and other consultancy revenues (services) grew by 19% on a like for like basis.

Product Sales & Consultancy Services

Haydale has been working in the energy, heating and power storage sectors for a number of years. Geopolitical events and closer to home severe weather incidents, when set against the backdrop of the UK Government's net zero carbon strategy, have brought an increased urgency to this work. In January 2022 the Company signed an exclusive supply agreement to manufacture a thermal fluid ("Hi-Therm®") for High Tech Systems Limited. Haydale is using its patented plasma functionalisation technology to enhance the thermal conductivity and dispersion of boron nitride in ionised water. Controlled environment tests that maintain a constant heating temperature have shown that the thermodynamic properties of Hi-Therm® deliver up to a 30 per cent energy saving compared with energy required to heat untreated water. Initial sales of Hi-Therm® have been ahead of contractual volumes and whilst the product is still in a development stage, we anticipate that it will represent a significant step forward in the commercialisation of thermally efficient nanomaterials in the energy sector.

Haydale has also been working with Cadent and the Energy Innovation Centre to develop graphene ink-based heaters to generate low power hot water in off-grid situations where customers are left without the means to economically heat water for an extended period of time. The most recent example was Storm Arwen which brought widespread disruption to the UK and resulted in over one million customers losing power. Approximately 40,000 customers were without supply for more than three days and nearly 4,000 customers were off supply for over a week. The aim of this commercial 15 month project with Cadent is to develop an operational Graphene ink-based heater prototype that would provide cost effective and timely relief in these situations.

The graphene inks used in this solution are flexible enough to be printed onto multiple substrates such as metals, plastics, fabrics, and glass. The Company is working to develop this technology into underfloor heating which may be able to offer an energy efficient, cost-effective and easy to install system that can be used to supplement domestic heating systems. Whilst still at an early stage, the prototypes are demonstrating considerable promise as part of an array of solutions that may improve the energy efficiency and reduce the CO2 impact of heating commercial and domestic buildings. In addition to this

Strategic Report continued

application, we are also working with a caravan and motorhome customer with a variation of this heating ink.

Biomedical Inks

We continue to develop our biomedical sensor inks and, in particular, our work during the year with a leader in the glucose monitoring and diabetes management sector on the refining of a bespoke ink has been productive. Haydale's patented plasma functionalisation process allows for the introduction of new chemical substances to the surface of advance materials enabling biomedical inks to have an improved catalytic and electro chemical response. Our tests show that the additions enhance the downstream accuracy of response to analytes and the speed of result. We have collaborated closely with this customer to ensure that the quality control at our Ammanford site meets the stringent requirements for medical products and we are also looking to commence internal tests to validate the shelf life and longer-term efficacy of the product.

Whilst at a less advanced commercial stage, we have worked with a number of other business and academic parties to explore the wider potential for our sensor inks in the field of medical diagnostics. Of particular note in this area is our work with the Wales Kidney Research Unit at Cardiff University to develop a urinary electrochemical microRNA sensor for rapid detection of problems with newly transplanted kidneys. The sensor can potentially accelerate issue detection without the need for an invasive biopsy and potentially opens up a wider and exciting opportunity for the monitoring or detection of other diseases. Haydale was pleased to have directly input into the work of one of the award winners at the Kidney Research UK MedTech Competition earlier this year.

Elastomers and Other Developments

In December 2020 we secured our first sale of our functionalised nano-enhanced rubber masterbatch for use in shoes and the Company continues to progress a number of projects within the leisure footwear and industrial workwear market. Whilst these projects have taken longer than anticipated to move out of the feasibility stage, the work done in this area has been utilised in our collaboration with Vittoria Spa, the leading premium cycle tyre manufacturer, and allowed us to move with speed to prove performance enhancements for functionalised rubber in cycle tyres. We were able to demonstrate substantial improvements in the grip, rolling resistance, puncture resistance and durability of their premium tyres and, in July 2022 we announced that we had received our first order for one tonne of functionalised graphene nanomaterial. Haydale will use its new HT1400 plasma reactor in order to meet Vittoria's production requirements.

The four-year agreement with DLYB[1], which commenced in April 2020, allows them to market Haydale's electrically conductive graphene-enhanced masterbatch in China and Taiwan. The initial stages of the contract were reserved for product validation and although our product has met the initial requirements, further modification and development has been requested by DLYB. Whilst the Company is continuing to develop this product line for use with DLYB and other customers, it is focussing on those products that can deliver commercial returns more rapidly and, as such, at this stage we do not anticipate this contract moving to the commercial phase in the foreseeable future.

Haydale formed part of a dedicated supply chain to deliver a range of advanced wearable technology to British athletes, at the Tokyo games in August 2021. The garments benefited from temperature regulated panels and were designed using Haydale's printed functionalised graphene ink. The Company remains in discussion with a customer who can access the wider market but our focus remains on other graphene ink products that demonstrate a closer commercial potential.

Sale of Plasma Reactors

In April 2021 Haydale partnered with 401 Tech Bridge, Rhode Island, US, to provide a HT200 Plasma Reactor and advanced materials support for their innovation ecosystem. This was the first sale of a plasma reactor since the year-ended June 2019. As noted in the prior year report, each approach is appraised on its merits with the guiding tenet that reactor sales must be demonstrably in the long-term interests of the Company. To this end, the Company has not made any reactor sales in the year under review.

Collaboration with ProMake Limited

On-going cooperation with ProMake (renamed Atomi Limited post year end) continues to progress positively in a number of directions including the previously noted SynerG 3D printing filament, biomedical inks and more recently on developing cleaner, smarter concrete formulations. The Public Health England National Microbiology Framework has not progressed at this time, although work is still underway in this arena it has been impacted by changing UK government priorities.

NORTH AMERICA

Revenue at our US SiC and blanks manufacturing facility continued to be adversely affected by the lingering impact of the Covid 19 pandemic for much of the year. Reported increases in civilian aviation traffic took time to filter down the aerospace supply chain and it was not until the last quarter of FY22 that we started to see some rebound in demand for our blank tools.

During the year we have looked to drive revenue by expanding our product offering to include certain geometries of finished cutting tools. We have contracted with a third-party company who are taking our blanks and completing the final cut, grind and tool preparation to enable Haydale to sell a finished tool. By taking control of end user sales, we have created a direct dialogue

[1] Dalian YiBang Technology Company Limited ('DLYB')

with a number of important aviation customers, and it has also allowed us to extend our sector coverage into the automotive market where we have achieved finished tool sales post year end. We have seen sales of finished tools in both areas post year end and anticipate that, as general demand grows, this will be a key driver for growth within this business unit. We are following a dual distribution strategy to maximise our coverage with a combination of direct to customer sales and indirect sales through well represented distributors and consolidators. During the year we made an agreement with a large US carbide tool distributor to sell our tools in a number of states on the west coast of the country and we are currently in discussions to give non-exclusive rights to distribute our growing range of tools to selected midwest industrial states.

East Asian Sales

In January 2021 Haydale announced an agreement with Qinhuangdao ENO High-Tech Material Development Co., Ltd ("ENO") which allowed it to act as a non-exclusive sales representative for Haydale's ceramic and silicon carbide products in China (including Hong Kong) and Taiwan (the "Territory") for an initial period of two years ending December 2022. Despite the continuing lock downs and other restrictions that are impacting manufacturers and impeding new business development we have seen sales progress in the year although not to the extent anticipated.

During the year Haydale signed a sales representation agreement with Hainan Hongshida Information Technology Co., Ltd., ("Hongshida"). The agreement is for an initial period of two years and allows Hongshida to act as a non-exclusive sales representative for Haydale's ceramic and silicon carbide products in the Territory. First year sales to February 2023 were agreed to be limited and, as expected, we did not receive any orders from Hongshida during the year. Outside of these contracts, Haydale is actively collaborating with a number of other parties that may extend our market penetration in East Asia and may also offer some reciprocal product that will expand our offering in the North American market. We remain of the view that the potential for this business unit's products in East Asia is significant and, whilst results have been less than we would have hoped for to date, we continue to believe that the prognosis is positive.

European Blanks Sales

We continue to make progress with potential European customers and, whilst we remain optimistic that we will secure further sales within this territory, we have recognised that this will take longer than expected and we have therefore adjusted our cost base with our European Sales Manager moving onto a commission basis during H2 FY22.

Product Diversification

As previously noted, the Company has also diversified beyond its traditional product range and agreed exclusive distribution arrangements for the UK market for CeramycGuard™, a one stop solution that can be used in new concrete applications and also renews and restores old or partly decaying concrete in-situ in certain applications as well as preventing water loss. Earlier this year, CeramycGuard™ won the 'Materials Application of the Year' category at the prestigious British Engineering Excellence Awards and was recognised for its ability to significantly extend the surface life of concrete assets and its potential to reduce the anthropogenic impact of cement usage.

Haydale continues to work closely with a number of UK water utilities, other water facility management companies and more general civil engineering contractors who require a solution to concrete degradation. Post year end the Group employed a sales manager to specifically drive sales of CeramycGuard™, and this has led to some early positive results. Whilst there is a substantial wider market for this product, we believe that Drinking Water Inspectorate 31 (Clean Water) accreditation is important to securing sales of this product within the water industry and, despite delays outside of our control, we are working towards results by the end of 2022.

Historic Sales

Historically this division has been dependent on SiC whisker sales to two long term customers and, as previously noted, we saw very different responses to the pandemic from these customers. The business received a commitment from its largest customer to underpin the SiC whisker volume by increasing its short-term order patterns during FY21. This was on the understanding that this would likely see a significant reduction in sales through FY22 and FY23. As expected, during the year we have not made any sales to this customer, but we anticipate that sales will resume in FY23 when their inventory levels are brought into balance. We were pleased to reach a settlement with our second largest historical whisker customer over the contractual dispute which adversely impacted revenue in the prior year. The settlement with the US group, which sells silicon carbide tools and wear resistant solutions, secures revenue in both FY22 and FY23 at which point the five-year contract dated September 2018 will come to an end. In FY22 this customer accounted for £0.58 million/20.1% of total group revenue and we expect a similar level of revenue in FY23.

ASIA PACIFIC

Our operation in Thailand was instrumental in securing the first orders from Vittoria for functionalised graphene powder for use in cycle tyres. As announced in July, Vittoria and Haydale have agreed to investigate the possibility of producing functionalised graphene in Thailand and a Letter of Intent was signed post year end between Haydale and Vittoria's co-owned Thai nanotech subsidiary, Graphene Creations Limited, that will allow the

Strategic Report continued

parties to assess the merits of combining Haydale's technical expertise with Graphene Creations' market access. This assessment is on-going but should reach a conclusion during the current year. Outside of this, Haydale. is actively collaborating with a number of well-known international operations who have shown interest in the potential applications of our product range and the team continues to search for opportunities for the commercialisation of graphene and other nanomaterials into various industries.

Our sales office in South Korea did not meet our expectations this year. The three-year exclusive agreement with iCraft has delivered on the contractual requirement of three tonnes by the end of year two but, subsequent to the year end, we have been informed that it is reviewing its on-going involvement in the nanomaterial sector. We are maintaining a proactive dialogue with iCraft to ensure that it understands its contractual obligations with respect to the final year of the contract. Outside of iCraft, we have started working with a number of new customers and we hope to be able to leverage these opportunities in the current year to improve the financial performance of this sales office.

FOCUSSED R&D INVESTMENT

The HDPlas® functionalisation process continues to be the cornerstone of the Group's offering underpinning its future growth prospects. During the year, good progress has been made with several new and different treatments enabling more tuneable and enhanced offerings to meet customers' requirements. This manipulation enables a much greater range of graphene and other nanomaterial treatments and facilitates potential improvements in dispersion and mechanical strength, electrical conductivity and thermal conductivity. Amongst other developments, Haydale has:

- Developed liquid doping technology that allows for graphene to be dosed with microscopic levels of metals which allows us to markedly enhance the conductivity and resistivity of our next generation functionalised inks This lower level resistivity potentially allows our 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 friendlier application. Existing 'tags' are generally single use and as such are consigned to landfill after use. Haydale functionalised inks are manufactured using a clean process and there is reduced waste to landfill on disposal. Subsequent to the year end this work has directly led to a collaboration with a leading supplier of digital identification solutions who is investing in the RFID of the future; and
- Haydale was awarded funding to develop hydrogen fuel storage tanks by the Advanced Propulsion Centre in 2020 and this work directly led to the signing of a memorandum of understanding with Viritech Limited in September 2021. Haydale has subsequently worked on two projects to deliver advanced hydrogen powertrain solutions for the automotive, aerospace, marine and distributed power industries and we continue to provide consulting engineering support services, including type IV and V pressure vessel design and material science analysis.

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 is defined by long product life cycles, we are focussing on areas such as our biosensor inks and other functionalised inks which can be delivered to market in a shorter time horizon. It remains core to our strategy that we invest for the long term whilst taking advantage of the numerous short-term commercial applications presented by our technology.

GRANT FUNDED PROJECTS

Collaboration on grant funded projects has continued over the last twelve months with the continued emphasis that only projects that have a clear commercial pathway or add significantly to the Group's knowledge bank on applications are undertaken. Whilst we give priority to commercial projects, this does not diminish the importance of grant funded work in support of the R&D investment made by Haydale. Grants received were from either UK or European quasi-governmental bodies and 'promoting the green economy' and 'cleantech' were the overarching themes for the funding awarded in the year. Haydale's involvement in several of these projects relates to its long-standing expertise in a number of fields and amongst other projects awarded in the year, the following commenced:

- *HiBar Film 2* – the project aims to develop the next generation of high barrier films for food packaging using HDPlas® plasma functionalisation through the redesign of multilayer films into 100% recyclable and compostable mono-material solutions for the food industry. Key project deliverables are intended to reduce the environmental impact of packaging plastics and offer more sustainable barrier solutions to combat food waste. We are already seeing commercial spin offs from this work with the South Korean customer, NeoEnpla; and
- *Anti-Counterfeiting technology* – Haydale was awarded a SMARTCymru grant, part-funded by the European Regional Development Fund, to further develop PATit, its anti-counterfeiting technology that uses graphene-enhanced, high-performance conductive inks and proprietary software codes for brand and security protection that is non-copiable and does not require expensive printing processes or electronic chips (NFC/RFID). PATit aims to provide a mass market anti-counterfeiting technology that addresses the current market need for secure low-cost anti-counterfeiting technologies.

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.

During the year the Company successfully completed the European Space Agency ("ESA") demisable fuel storage project and Haydale was encouraged to apply for further ESA funds to develop proof of concept with phase 2 funds being approved at the end of the financial year. Haydale was awarded funding to develop hydrogen fuel storage tanks by the Advanced Propulsion Centre in FY21 and this work has led to commercial projects for the development of type IV and type V hydrogen storage tanks in FY22 with partners such as Viritech Ltd.

INCREASING PRODUCTION CAPACITY AT AMMANFORD

Haydale has consistently increased its capacity to functionalise graphene ahead of the production curve at its Ammanford facility. In May 2021 we ordered a new HT1400 HDPlas® reactor which has the potential to increase our capacity to functionalise nanomaterial up to 90 tonnes per annum depending on factors such as the bulk density of the material and the specific enhancement required. The new reactor was delivered on site in March this year and has been successfully commissioned. Various plasma treatments and nanomaterials are currently being optimised through the reactor and this process will continue through FY23. In addition to the new reactor, Haydale invested to:

- support the production scale-up and ordered ancillary machinery to increase our powder handling capacity; and
- leased a further unit at the Ammanford site and invested in ink handling facilities that will allow the business to meet the stringent quality assurance standards required for the production of bio medical and other functionalised inks.

As noted previously, we believe that the significant capital expenditure which commenced in FY21 and completed through FY22 will allow us to meet our production requirements for the foreseeable future in the UK but we will, where appropriate, look to make further smaller 'add on' investments as production volumes demand in order to lower our cost performance ratio further.

INVESTING IN THE GROUP'S HUMAN CAPITAL

Alongside the investment in physical capacity during the year, the Directors have invested in the human capital across the wider business and have strengthened the teams across all Group sites and across the spectrum of sales, marketing, human resources, quality control and production. Whilst the Group has in the three years to June 2021 secured substantial savings in its administrative costs, some of which were specifically linked to the uncertainty surrounding the length and impact of the Covid-19 pandemic, the Directors saw the need this year to put in place the building blocks that will underpin the Group's growth plans.

To that end, administrative costs have increased during the year and the annualised impact of this investment should see that trend continue into the next financial year. The cost savings achieved over that three year period were secured in a timely manner and likewise the Directors remain prudent when they are increasing the operational cost base of the business in what have become more turbulent and changeable economic times.

FUTURE STRATEGIC DIRECTIONS

The clear priorities remain to commercialise our cutting-edge technology and the progress we have made during the year and the opportunities that we are seeing gives us confidence that we are on a steady path to more widespread adoption of our technology and the benefits, both performance and environmental, that it can bring.

The Directors remain mindful that the economic backdrop remains uncertain and that risks that could impinge on our operations persist. However, the solid progress made in our core business during the year continues to reinforce the Directors' belief that, whilst navigating the new industrial landscape will remain challenging and forward momentum is unlikely to be smooth, the Company is moving 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 and are set out on pages 29 to 62. The financial statements of the Company continue to be prepared in accordance with FRS 101 and are set out on pages 63 to 69.

Statement of Comprehensive Income

In the year under review, the Group's principal areas of income were sales of specialty inks, fluids and graphene enhanced composites and associated consultancy services from the UK and APAC operations and sale of SiC fibres, whiskers, particulate and blanks from the US operation. The Group's revenue for the year ended 30 June 2022 of £2.90 million (FY21: 2.90 million) was consistent with the previous year. Revenue derived from product sales increased by £0.43 million during the year but this was offset by the reduction to reactor sales of £0.40 million (See Note 4 – Segmentation Analysis).

Other operating income, which is principally grant funded projects, was £0.44 million (FY21: £0.58 million). The Group received £0.06 million (FY21: £0.14 million) from US Covid Government Support packages and this is included in Other Operation Income. Excluding US Government support other operating income was comparable with the prior year.

The Group's Gross Profit, which excludes Other Operating Income declined marginally to £1.75 million (FY21: £1.98 million) delivering a Gross Profit margin of 60% (FY21: 68%).

Strategic Report continued

Adjusted Administrative Expenses increased by £0.80 million (17.0%) to £5.52 million (FY21: £4.72 million). Total administrative expenses for the year were £7.24 million (FY21: £6.11 million). During the year the Group took the decision to impair the residual intangible assets relating to its 2015 acquisition of Innophene Co Ltd (now Haydale Technologies Thailand Limited) and the non-cash charge of £0.38 million is included in total administrative expenses.

The Loss from Operations was £5.06 million (FY21: £3.56 million). Finance costs, which include interest payable on the Group's debt, for the year were £0.19 million (FY21: £0.21 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 £1.45 million (FY21: £1.02 million[2]), of which £0.34 million was capitalized (FY21: £0.26 million). During the year the Group claimed R&D tax credits of £0.43 million (FY21: £0.36 million) and it is expected that this claim will be received during the current financial year.

Total comprehensive loss for the year, including the £0.38 million non-cash charge for the impairment of intangible assets, was £4.54 million (FY21: £3.57 million).

The loss per share for the year was £0.01 (FY21: £0.01 loss).

Statement of Financial Position and Cashflows

As at 30 June 2022, net assets amounted to £7.05 million (2021: £6.76 million), including cash balances of £1.19 million (2021: £1.64 million). Other current assets increased to £3.26 million at the year-end (2021: £3.00 million) and this was mainly related to the increase in inventory of £0.11 million at the US facility during the year. Current liabilities reduced to £2.28 million as at 30 June 2022 (2021: £2.78 million) due principally to the reduction in Bank Loans repayable within 12 months.

The Right of Use Asset in respect of its leased premises increased to £2.70 million (FY21: £2.58 million) due to renewed leases in the UK. The Right of Use Liability which is split between Current and Non-Current Liabilities similarly increased to £2.92 million (FY21: £2.74 million). These movements 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.

The Group's US Pension Obligations of £1.36 million (FY21: £1.03 million) has increased in the year due to a combination of negative movements on investments and exchange rate movements.

Net cash outflow from operating activities before working capital movements for the year increased to £3.42 million (FY21: £2.04 million), the principal contributing factors being the Loss before Taxation of £4.81 million (FY21: £3.41 million). Cash used in Operations increased by £1.59 million in the year to £3.17 million (FY21: £1.58 million). The Group received a R&D tax credit inflow of £0.37 million in the year (FY21: £0.39 million). Net cash used in operating activities increased to £2.80 million (FY21 £1.19 million).

Capital expenditure in the year, excluding the IFRS 16 adjustments, was £1.00 million (FY21: £0.22 million).

Capital Structure and Funding

As at 30 June 2022, the Company had 510,335,691 ordinary shares in issue (2021: 425,279,798). No options were exercised into ordinary shares during the year (FY21: none).

The Group repaid borrowings of £0.84 million during the year under review (FY21: £0.22 million), which almost wholly related to the Group's commercial US borrowing facilities which have now been fully repaid.

The Company received the remaining £0.30 million of a £1.1 million UKRI Innovation Loan during the year to support scale up capital expenditure in the UK. The US operation secured a loan through the COVID-19 Economic Injury Disaster Loan scheme of $0.20 million (£0.14 million). The net result was that the Group's total borrowings at the year-end were £1.35 million (2021: £1.73 million), of which £1.18 million was in the UK and the balance in the Group's US subsidiaries. The UKRI Innovation loan has a quarterly liquidity covenant until April 2024. There are no financial covenants extant in respect of the UK bounceback loan of £0.04 million (FY21: £0.05 million) or the Group's US borrowings.

Post Balance Sheet Event

On 12 September 2022, the Company raised £5.51 million (gross) through the placing, open offer and subscription of 275,516,784 new Ordinary Shares at 2.00 pence per share. The funds raised will be principally used to fund the general working capital needs of the business. Following the close of the Open Offer, the Company issued a total of 138,758,392 Warrants to the subscribers of New Ordinary Shares. These warrants are exercisable at a value of 2.00 pence per share in the period to 12 September 2023.

[2] Based on calculations submitted to HMRC for the R&D tax credit.

Key Performance indicators

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

	FY22 (£m)	*FY21 (£m)*
Revenue	2.90	2.90
Gross profit margin	60%	68%
Adjusted operating loss	(3.33)	(2.17)
Cash position	1.19	1.64
Borrowings	1.35	1.73

During the year under review, management also used a sales tracker, a non-financial performance metric to monitor the revenue pipeline of the business. 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 ("s.172") 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.

The Directors have set out the ways in which they look to fulfil their duties in the year at section 3 of the Chair's Corporate Governance Statement on page 15.

PRINCIPAL RISKS AND UNCERTAINTIES

The Board considers that the principal risks and uncertainties facing the Group may be summarised as follows:

General Economic Uncertainty

The Directors accept that there remains a varying degree of economic uncertainty in all of the countries in which it has facilities and in the markets in which it operates. The Directors are provided with detailed projections that model future performance and liquidity of the Group and funding decisions are based on these forecasts.

Health and Safety

Many of the Group's products are advanced materials that 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 and the Thailand facility has ISO 9001 accreditation. A detailed health and safety report is provided to the Board each month and is a standing agenda at scheduled Board meetings.

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, synthetically produced graphene and other nanomaterials into customers' existing products in order to improve the mechanical, thermal or electrical properties of these products.

Notwithstanding the technical merits of the processes developed by the Group, and the 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 realistic timelines for customer engagement, testing 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. The focus on commercial product sales remains an absolute priority, notwithstanding 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 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.

Internal procedures and controls are in place to capture and exploit all generated IP as well as to protect, limit and control disclosure to third parties and partners. 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

Strategic Report continued

enforcement. The Group retains third party professional experts to advise on all matters relating to IP.

Information and Communications Technology ("ICT") Risk

The inability to access data for a period of time either due to systems failures or the unauthorised intervention of malicious parties may severely impact the Group's ability to conduct its day-to-day business, lead to the loss of sensitive information or result in loss of funds in a ransomware attack.

The Group aims to mitigate these threats by maintaining a third-party ICT support agreement with a respected contractor, ensuring industry standard cyber security procedures are followed, setting out clear internal procedures for communicating potential ICT breaches and by providing adequate staff training on the cyber security risk that all users face. In the event that these procedures are inadequate the Group maintains a business continuity plan with our service provider that covers longer term denial of access.

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 allow us to attract and retain key employees.

By order of the Board

David Banks
Chair
5 October 2022

Board of Directors

The Haydale board consists of experienced commercial directors from a range of industries that include engineering, retail, finance and accounting, and technology. Brief biographies of each of the directors are set out below.

David Doidge Richard Banks,
Non-Executive Chair

David Banks started in stockbroking in Birmingham in 1979 with Harris, Allday, Lea and Brooks before moving to London and becoming an Institutional Salesman at Panmure Gordon where he was acclaimed in the Automotive, Engineering, Aerospace and Motor Distributors sectors. He subsequently became a Corporate Broker advising many companies on their Corporate Structure, Strategy, Messaging and Presentations. He also raised the Capital for many of these Companies both at IPO and in Secondary fund raises. David joined Haydale as Non-executive Chair in July 2017 and was appointed as Interim-executive Chair on 5 September 2018 and, following the general meeting on the 12 March 2019, reverted to Non-executive Chair.

David has significant city experience and has advised companies in the Automotive, Aerospace and Motor Distribution sectors on their corporate structure, strategy messaging and presentation. He has experience of raising capital for growing companies and is responsible for liaison with our major shareholders.

Keith Broadbent;
Chief Executive Officer

Prior to joining Haydale, Keith held a number of senior operational and commercial positions which covered aerospace, defence, automotive, marine and medical sectors. His experience includes significant multi-site responsibilities in both the UK and internationally and he has worked for Princess Yachts International, Sunseeker, TT Electronics and most recently Ultra Electronics. Keith has demonstrated a strong track record in the delivery of budgets, high level customer service and enhancing shareholder value. Keith joined Haydale in July 2017 and was appointed the Group's Chief Executive Officer in March 2019.

Keith holds an MBA from Derby University and this, coupled with his customer contact and manufacturing experience across a number of different sectors encompassing design, supply chain, manufacture, commercial and financial elements of business, are a key skill requirement in the ongoing journey moving Haydale into a market led commercial scale manufacturing organisation putting people at the centre of the enterprise strategy.

Mark Chapman,
Chief Financial Officer

Mark has held a number of CFO and COO roles within international companies operating in the med-tech, beverages and consumer sectors, where he has helped deliver strong improvements in business sustainability and EBITDA growth. Prior to moving into industry, Mark spent 8 years in professional services firms, including 5 years as a corporate financier with Deloitte. Before embarking on his career in finance, Mark was a commissioned officer in the British Army. Mark qualified as a chartered accountant in 1995 and holds a degree in Economics from the University of Birmingham. Mark joined Haydale as CFO in November 2019.

Mark brings experience of working in Board positions in international multi-currency businesses undergoing periods of sustained change. He has a strong foundation in accountancy supplemented by experience in mergers and acquisition, corporate restructuring and raising equity and debt finance.

Graham Dudley Eves MA,
Non-Executive Director

Graham Eves joined GKN plc in 1967 where he spent 13 years operating across multiple overseas jurisdictions including, for the last 5 years, setting up and running a special operation for GKN plc's head office in Switzerland. He returned to the UK in 1980 to work in venture capital and establish his own international business consultancy. His main activities covered advising a range of German, North American and Japanese automotive component/technology suppliers and he co-founded and was chair of an automotive technology company, Mechadyne (now part of Rheinmetall Automotiv AG). Graham was a non-executive director of AB Dynamics plc from flotation until September 2020. He was on the AIM advisory committee of the London Stock Exchange ("LSE") for 6 years and has a Master of Arts degree in Modern and Medieval Languages from the University of Cambridge.

Graham is a Non-Executive Director of Viritech Limited and iVapps (UK) Limited, Chair of Zero E Technologies, Inc. and a director of Zeus Motors, Inc. He has an extensive range of international business contacts and years of experience of negotiating technology licence deals. He is particularly interested in the challenges of growing and structuring small high technology companies so that they can find their places on the world stage.

Theresa Wallis,
Non-Executive Director

Theresa Wallis worked most of her executive career in financial services, moving into technology commercialisation in 2001. She was with the LSE for 13 years, where from 1995 to 2001 she was COO of AIM, having managed the market's development and launch. From 2001 to end 2006 she was a principal executive of ANGLE plc, a venture management and consulting business focusing on the commercialisation of technology. Since 2001 she has held a number of non-executive directorships, including LiDCO Group plc where she was non-executive chair, Veriton Pharma Ltd and the Quoted Companies Alliance. Prior to joining the LSE, she worked for Hambros Bank and then Canadian Imperial Bank of Commerce in London. Theresa has a degree in Zoology from the University of Oxford and a Diploma in Company Direction from the Institute of Directors.

Theresa has a background in business development and technology commercialisation alongside her experience of working with AIM and other companies at a similar stage of development. She brings a range of corporate governance, business development, financial and commercial experience to the Company.

Theresa joined the Board of Haydale in June 2020.

Directors' Report

The directors present their report and the audited financial statements for Haydale Graphene Industries Plc (the "Company"), a public company incorporated and registered in England and Wales with company number 07228939, and its subsidiaries (together the "Group") for the year ended 30 June 2022.

There are a number of items required to be included in the Directors' Report which are covered elsewhere in the annual report. Details of directors' remuneration and share options are given in the Directors' Remuneration Report, details of the use of financial instruments and financial risk management objectives and policies are given in note 22 of the financial statements and the Strategic Report on pages 2 to 10 covers the following matters:

- Review of the Business and Future Developments;
- Key Performance Indicators; and
- Research and Development.

Statement of Directors' Responsibilities in respect of the Annual Report and the Financial Statements

The directors are responsible for preparing the strategic report, the annual report and the financial statements in accordance with applicable law and regulations.

Company law requires the directors to prepare financial statements for each financial year. Under that law, the directors have elected to prepare the Group financial statements in accordance with International Financial Reporting Standards as adopted by the UK (IFRSs) in conformity with the requirements of the Companies Act 2006 and the Company financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards and applicable law). Under company law, the directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the Group and Company and of the profit or loss for the Group for that period. The directors are also required to prepare financial statements in accordance with the rules of the London Stock Exchange for companies trading securities on the AIM market.

In preparing these financial statements, the directors are required to:

– Select suitable accounting policies and then apply them consistently;

– Make judgements and accounting estimates that are reasonable, relevant, reliable and prudent;

– State whether they have been prepared in accordance with IFRSs in conformity with the requirements of the Companies Act 2006;

– For the Parent Company financial statements, state whether applicable UK accounting standards have been followed, subject to any material departures disclosed and explained in the financial statements; and

– Prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Group and the Company will continue in business.

The directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that the financial statements comply with the requirements of the Companies Act 2006. They are also responsible for safeguarding the assets of the Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The directors are responsible for the maintenance and integrity of the Group's website. Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Dividends

The directors do not propose the payment of a dividend (2021: nil).

Directors

The following directors have held office since 1 July 2021 and up to the date of signing the financial statements:

David Banks
Keith Broadbent
Mark Chapman
Graham Eves
Theresa Wallis

Directors' Interests in Ordinary Shares

The directors had the following interests in ordinary shares of the Company at the 30 June 2022 and at the date of this report:

Director	*Number of Shares at 30 June 2022*	*% of Share Capital*	*Number of Shares at 5 October 2022*	*% of Share Capital*
David Banks	3,250,000	0.64	5,000,000	0.64
Keith Broadbent	952,381	0.19	1,952,381	0.25
Mark Chapman	750,000	0.15	750,000	0.10
Graham Eves	142,857	0.03	142,857	0.02
Theresa Wallis	511,904	0.10	1,011,904	0.13

Directors' and Officers' Liability Insurance

Qualifying indemnity insurance cover has been arranged in respect of the personal liabilities which may be incurred by directors and officers of the Group during the course of their service with the Group. This insurance has been in place during the year and on the date of this report.

Post Balance Sheet Event

On 12 September 2022, the Company raised £5.51 million (gross) through the placing, open offer and subscription of 275,516,784 new Ordinary Shares at 2.00 pence per share. Following the close of the Open Offer, the Company issued a total of 138,758,392 Warrants to the subscribers of New Ordinary Shares. These warrants are exercisable at a value of 2.00 pence per share in the period to 12 September 2023.

Foreign Currency, Interest Rate, Credit and Liquidity Risk

The directors do not consider any of these potential risks to pose a significant risk to the Group or its operations over the coming year. See note 22, Financial Instruments, for further details.

Going Concern

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 October 2023. 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. The Directors are also mindful of the impact that the other risks and uncertainties set out on pages 9 to 10 may have on these estimates and in particular the speed of adoption of new technology.

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

Revenue

Various sensitivities have been applied to forecasted revenue including a stress test scenario which reduces forecasted revenue by circa 25 per cent, to the point where the Group would breach its available cash resources in December 2023. With respect to this 'stress test' the Group has greater than 30 per cent of the sensitised revenue within forward orders, contractual or some other form of customer assurance which have a high degree of certainty.

Cost Mitigation

The Directors have included some limited assumptions regarding cost savings that might be achievable if the forecast fails to meet the forecasted or sensitised estimates, and these have been phased in gradually over the 12-month period to October 2023.

Customer Solvency and Contractual Commitments

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 and have taken account of these assessments in our forecasts. Future revenue related to certain contractual commitments haves been heavily discounted given the lack of available data and trading history with the Group.

Directors' Report continued

Summary
Therefore, after due consideration of the forecasts prepared, the sensitivities applied and the Group's current cash resources after the fund raise in September 2022 and the terms of its debt 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), and for this reason the financial statements have been prepared on the going concern basis.

Disclosure of information to auditors
All of the current directors have taken all the steps that they ought to have taken to make themselves aware of any information needed by the Company's auditors for the purposes of their audit and to establish that the auditors are aware of that information. The directors are not aware of any relevant audit information of which the auditors are unaware.

Independent auditors
Following a tender process, Crowe U.K. LLP were appointed as auditors to the Group during the year. The comparative results for FY21 were audited by the Group's previous auditor, Grant Thornton UK LLP. The auditors have expressed their willingness to continue in office and a resolution concerning their reappointment will be proposed at the annual general meeting.

Statement by the Directors
The Directors consider the annual report and accounts, taken as a whole is fair, balanced and understandable and provides the information necessary for shareholders to assess the Company's position and performance, business model and strategy.

By order of the Board

David Banks
Chair
5 October 2022

Chair's Corporate Governance Statement

Overview

As Chair of the Board of Directors of Haydale Graphene Industries Plc ("Haydale", the "Group" or the "Company"), it is my responsibility to ensure that Haydale has both sound corporate governance and an effective Board. This is achieved by maintaining a corporate governance framework that includes regular meetings of the Board and its committees, with informative, relevant and timely information flow. The Board members have extensive experience of managing AIM companies, including knowledge of the AIM Rules and the Market Abuse Regulations. Haydale adopts the Quoted Companies Alliance Corporate Governance Code ("QCA Code") and this report follows its structure and explains how we have applied it. The principal methods of communicating our application of the QCA Code are this Annual Report and through our website, at www.haydale.com.

Below are the Company's explanations of how it has complied with the 10 principles of the QCA Code during the year.

QCA Principles

1. Establish a strategy and business model which promotes long-term value for shareholders

The Board believes the highest medium and long-term value can be delivered to its shareholders by the adoption of the following vision statement for the Company: *To be a world leader in the revolutionary development of plasma functionalisation of advanced performance-enhancing materials and nanomaterials across all industry sectors, providing cutting-edge technological solutions to improve people's life experience.* To achieve this, the Company aims to grow organically and, if necessary, by acquisition, to extend the Group's client base and geographical penetration and use its existing expertise and global reach to generate commercial opportunities in the high growth advanced materials industry. The Group's business model, together with the principal risks and uncertainties facing the Group, are set out in the Strategic Report on pages 2 to 10 of this Annual Report. The Directors intend that the strategy will deliver shareholder returns initially through capital appreciation and eventually through distributions via dividends. The Group's values underpin its approach to growth and are addressed in paragraph 8.

2. Seek to understand and meet shareholder needs and expectations

The Board is committed to maintaining good communication and having constructive dialogue with its shareholders.

The Directors meet shareholders and other investors or potential investors during the year, especially following the announcement of the Annual and Interim Results. The Company also hosts broker and analyst meetings. The website provides contact details for investor relations enquiries and David Banks is the Director appointed as the main point of contact for shareholder liaison.

The Company intends to have close ongoing relationships with its larger private shareholders, institutional shareholders and analysts and for them to have the opportunity to discuss issues and provide feedback at meetings with the Company. The Company receives reports from its corporate registrar and from Argus Vickers to facilitate these relationships. When possible, the whole Board attends the Company's Annual General Meeting ("AGM"), which is regarded as an opportunity to meet, listen and present to shareholders, all of whom are normally encouraged to attend. The Company held its 2021 AGM at its Loughborough facility, and, after a question and answer session, all attendees were offered a guided tour of that facility. The Company also understood that whilst prevailing guidance allowed the AGM to go ahead, it was aware that some members would not want to attend in person and so provision was made for questions to be asked by email as well as submit their votes in advance by proxy. The outcomes of each of the AGM votes are announced following the meeting. If there is a resolution passed at a general meeting with a significant number of votes against, the Board seeks to understand the reason for the result and, where appropriate, takes suitable action.

The Company appointed finnCap as its new broker and nominated advisor is January 2022 and both the new and outgoing broker regularly briefed and kept the Company appraised of market and regulatory developments as they affect the Company and feedback from shareholders and potential investors.

3. Take into account wider stakeholder and social responsibilities and their implications for long-term success

The Board is mindful of its statutory duty under s.172 of the Companies Act and the Directors have acted in a way that they considered, in good faith, to be most likely to promote the success of the Company for the benefit of its stakeholders as a whole, and in doing so, had regard amongst other matters to the:

- Foreseeable or likely consequences of any decision in the long term;
- interests of the Company's employees at each of its five facilities;
- need to foster the Company's business relationships with suppliers, customers and others;
- impact of the Company's operations on the community and the environment; and
- importance of the Company maintaining a reputation for high standards of business conduct.

Chair's Corporate Governance Statement continued

In doing so, the Board recognises the Company is reliant upon the efforts of the employees of the Company and its collaboration partners, suppliers, regulators and other stakeholders whether they are identified under s.172 or not. The Board ensures that there is close oversight and contact with its key resources and relationships and where face to face meetings have been difficult to arrange, the Company has used video conferencing and other modes of communication to maintain its efforts in this regard. The following paragraphs set out how we engage with our stakeholders.

Everyone within the Group is a valued member of the team, and our aim is to help every individual achieve their full potential. We offer equal opportunities regardless of race, gender, gender identity or reassignment, age, disability, religion or sexual orientation. The on-going but much reduced challenges raised by Covid-19 have required the Company to adapt its procedures to comply with national and local guidance in the jurisdictions in which it operates. Health and safety of our team remains a priority, and compliant protocols were maintained at our sites. Where feasible employees had moved to homeworking during the pandemic and those who continue to work from home or have adopted a hybrid solution have access to a videoconference facility. The Company is still of a size where the Executive Directors know all of the team and employees are aware that they are able to contact the senior leadership directly to ask questions on any topic that concerns them.

The Group has continued to invest in staff training to ensure that employees have the skills to meet their responsibilities as part of a modern international operation with specific focus on health and safety related training at the Ammanford site as it prepares for higher material throughput.

The Company prepares a detailed budget annually which takes into account the Group's strategy and its available key resources including staffing, working capital, production capacity and functionalisation capabilities. In depth analysis and reviews inform the development of each business unit's budget and taken together these form the basis of the Company's annual budget, which is submitted to the Board before the start of each financial year. Subsequently, the ongoing review of performance against the budget facilitates an on-going dialogue on the goals, targets and aspirations of the Company and of each of the business units. This two-way communication provides each strategic business unit with the opportunity to raise issues and provide feedback to the Board via the executive members. These feedback processes help to ensure that the Company can respond to new issues and opportunities that arise to further the success of the Group.

The Company has close on-going relationships with a broad range of its stakeholders and, as set out above, provides them with the opportunity to raise issues and provide feedback to the Company. The Company seeks regular feedback from its stakeholders which include employees, industry participants, such as customers, graphene producers, R&D facilities, including universities and academic institutions, whilst simultaneously embracing influential movers within the advanced materials industry who may positively influence perception of the Company. This feedback is generally but not exclusively received through formal performance reviews (employees) and meetings held in the ordinary course of business with other stakeholders such as customers, suppliers and partners. Feedback received is reviewed, considered and, any changes required, are actioned appropriately. The Company communicates with its stakeholders and takes account of their feedback in order to develop products that meet the needs of their customers and that can be supplied reliably, cost effectively and in line with applicable standards.

4. Embed effective risk management, considering both opportunities and threats, throughout the organisation

The Board oversees and reviews the Group's risk management and internal control mechanisms.

During the year the risk register was reviewed by the executive directors in conjunction with other senior managers. The risk register sets out the assessed risks and the key actions and processes to mitigate those risks and the individual or group responsible for ensuring that these are performed.

The review process involves the review and identification of risks, assessment to determine the relative likelihood of them impacting the business and the potential severity of the impact and determination of what needs to be done to minimise their likelihood and/or mitigate their impact. The risk register sets out and categorises these risks and outlines the controls and any further actions required.

During the year particular focus was given to the risks associated with the growing cybersecurity risk that all organisations face. As set out below the risk register was considered by the Audit Committee at its meeting in June 2021. The principal risks and uncertainties to the business and steps to mitigate them are set out in the Strategic Report in this Annual Report on pages 9 to 10.

The Board has established appropriate reporting and control mechanisms. The system of internal control is structured around the risks set out in the risk register and is designed to address those risks that the Board considers to be material, to safeguard assets against unauthorised use or disposition and to maintain proper accounting records which produce reliable financial and management information.

Further key features of the Company's internal control system include the following:

- Close management of the business by the executive directors;
- Monthly management accounts information is prepared and reviewed by the Board, including variances against the annual budget, latest expectations and prior year;
- There is a schedule of matters reserved for decision by the Board;
- A clearly defined organisational structure is in place, with clearly delegated authorities, reporting lines and roles;
- Defined levels/limits for authorisation of expenditure and placing of orders and clearly set out authorisation procedures; and
- Quality management systems are implemented and regularly audited by an independent third party. The UK operations are ISO 9001:2015 and ISO 14001:2015 certified and the Thailand facility is ISO 14001:2015

5. Maintain the board as a well-functioning, balanced team led by the Chair

The Board comprises two executive directors and three non-executive directors as follows:

Executives

- Chief Executive Officer: Keith Broadbent;
- Chief Financial Officer: Mark Chapman;

Non-executives

- Non-executive Chair: David Banks;
- Non-executive: Graham Eves; and
- Non-executive: Theresa Wallis.

Biographical details of the Directors can be found here at www.haydale.com or in this Annual Report on page 11.

All the Non-Executive Directors are expected to dedicate at least 24 days per annum to the Company. Mr Broadbent and Mr Chapman are full time. One third of Board are subject to re-election at each AGM.

Board meetings are open and constructive, with every Director participating fully. Senior management are also invited to meet with the Board, providing further insights into the Company's activities and performance. The full Board had 20 regular meetings in the year. Regular board meetings are scheduled in advance, but the Board also meets as and when required. In order to be efficient, the Directors meet formally and informally in person, by videoconference or telephone. Board papers are prepared by the relevant personnel and usually circulated to the Board at least 48 hours before meetings, allowing time for consideration and necessary clarifications before the meetings. Directors are free to seek any further information they consider necessary.

The Non-executive Directors meet without the presence of the Executive Directors during the year, and also maintain ongoing communications with Executives between Board meetings.

Chair's Corporate Governance Statement continued

During the year ended 30 June 2022, the Company held 20 board meetings (FY21: 21), with each member's attendance as follows:

	Number of board meetings attended			
Director	*Scheduled FY22*	*Ad hoc FY22*	*Total FY22*	*Total FY21*
David Banks	7/7	13/13	20/20	21/21
Keith Broadbent	7/7	13/13	20/20	21/21
Graham Eves	7/7	12/13	19/20	20/21
Mark Chapman	7/7	12/13	19/20	21/21
Theresa Wallis	7/7	12/13	19/20	21/21

Attendance at the Company's audit, remuneration and nomination committee meetings during FY22 and the prior year were as follows:

	Number of committee meetings attended					
Committee member	*Audit*		*Remuneration*		*Nominations*	
	FY22	FY21	FY22	FY21	FY22	FY21
David Banks	5/5	4/4	3/3	2/2	–	–
Graham Eves	5/5	4/4	3/3	2/2	–	–
Theresa Wallis	5/5	4/4	3/3	2/2	–	–

Terms of reference for each of the Board's Committees are published on the Group's website, The Company believes that the Committees have the necessary skills and knowledge to discharge their duties effectively.

6. Ensure that between them the Directors have the necessary up-to-date experience, skills and capabilities

The Company believes that the Directors have an appropriate breadth and depth of skills, knowledge and experience to fulfil their roles, reflecting a broad range of personal, commercial and professional skills across geographies and relevant sectors and experience of public markets. Details of the Directors' experience and areas of expertise and the relevant skills each Director brings to the Board are outlined on page 11 of this Annual Report and on the Company's website.

In addition to their general board responsibilities, Non-executive Directors are encouraged to be involved in site visits and meetings, in line with their individual areas of expertise.

The Company has employed the services of ONE Advisory Limited to provide Company Secretarial and MAR compliance services. Matt Wood, a director of ONE Advisory Limited, is Haydale's Company Secretary.

If required, the Directors are entitled to take independent professional advice at the Company's expense in accordance with the relevant Board agreed procedure.

In addition, the Company is a member of the QCA and as such all the directors have access to briefings issued by the QCA and also access briefings, updates and events offered by other professional advisory firms.

Following the Company's equity fundraising completed in September 2022, the Board announced its intention to appoint an additional non-executive director to the Board in due course and, as at the date of this annual report, this process remains ongoing.

7. Evaluate board performance based on clear and relevant objectives, seeking continuous improvement

The Chair performs a continuous assessment of the individual and collective performance of the Board in an informal and collegiate way through dialogue and meetings. The Chair is also leading a more formal evaluation exercise through a structured questionnaire. At the year end, the Non-Executive Directors had completed the questionnaire and it is anticipated the formal process will be concluded in the current financial year.

Board succession planning is one of the responsibilities of the Nomination Committee as set out with regard to Principle 9 on page 19. Below the main Board, the CEO seeks board approval for his recommendations on senior management appointments and changes to the subsidiary boards.

8. Promote a corporate culture that is based on ethical values and behaviours

The Board recognises that its decisions regarding strategy and risk will impact the corporate culture of the Company as a whole and that this will impact the performance of the Company. The Board is very aware that the tone and culture set by the Board will greatly impact all aspects of the Company as a whole and the way that employees behave.

Our culture acts as the glue that binds our staff around the world together. Underpinning the Haydale culture is the need for teamwork and we expect all employees to:

- Be an active member of the team ensuring that support and cooperation is given to other members to assist them in achievement of Company objectives.
- Work proactively with colleagues to give a professional and speedy service to clients/customers.
- Coordinate activities with other colleagues to ensure the smooth running of the business and excellent customer service.
- Participate in the creation of a stable and cohesive team within the Company and assist all staff to maximise their contributions to the business.
- Be adaptable and flexible in respect of work undertaken as and when the needs of the business dictate.

The Company is working towards the goal of a "one team" shared culture that supports an open and respectful dialogue with employees, clients and other stakeholders, and is underpinned by sound ethical values and behaviours. These values are reinforced at the regular team and site performance reviews and also at inter-site meetings which, amongst other areas, cover sales, marketing, technical and health and safety matters.

The Company completed its first employee survey during the year and all employees were invited to complete a confidential online questionnaire which covered amongst other matters job satisfaction, culture and engagement. The results of the survey together with actions for improvement in areas where the results demonstrated room for improvement were presented to the Board.

The Company also introduced an internal newsletter which is prepared by an editorial team from across the Group. 'Material Matters' is published quarterly and provides an informative update on developments across our facilities including key business developments, a profile of new members of the team and a focus on a selected facility.

In April 2022 the Company hosted a strategy and team building event for the leadership team from across all of the Group sites. The gathering took place in Wales and was the first time, due to the pandemic, that many of the new members of the team had met in person. The event consolidated the work on Mission and Value statements that had taken place by videoconference earlier and allowed time for the attendees to further discuss the corporate culture of the Company. The non-executive Directors joined those attending at a team building session on the final day of the event.

The Company has implemented a quality system based on the rigorous standards of BS EN ISO 9001 and 14001 and adherence to this Quality System is mandatory throughout the Company. All employees are encouraged to take responsibility for the quality of their own workmanship and to work with their colleagues towards maintaining our ISO standards.

To ensure we meet the high standards that we set ourselves employees are normally formally appraised each year and clear personal objectives are set out within personal development plans. Individual training needs are defined by these reviews and this training is combined with wider department and group training initiatives.

The Board attaches great importance to the health and safety of its employees and stakeholders who handle or use the Group's products. Health and safety is a standing item on the Board's agenda, with reports reviewed by the board at each scheduled board meeting. The Company's Health and Safety policy and the respective site Health and Safety plans are enforced rigorously.

9. Maintain governance structures and processes that are fit for purpose and support good decision-making by the board

The Board is committed to, and ultimately responsible for, high standards of corporate governance, and has chosen to adopt the QCA Corporate Governance Code. We review our corporate governance arrangements regularly and expect to evolve these over time, in

Chair's Corporate Governance Statement continued

line with the Company's growth. The Board delegates responsibilities to committees and individuals as it sees fit, with the Chair being responsible for the effectiveness of the Board, and the Executive Directors being accountable for the management of the Company's business and primary contact with stakeholders.

The Chair is responsible for the leadership of the Board and ensuring its effectiveness in all aspects of its role. He is also responsible for creating the right Board dynamic and for ensuring that all important matters receive adequate time and attention at Board meetings. He is also the director appointed as the main point of contact for shareholder liaison. The CEO is responsible for the day-to-day running of the business as well as developing corporate strategy while the Non-Executive Directors are tasked with, for example, constructively challenging the decisions and recommendations of executive management and satisfying themselves that the systems of business risk management and internal financial controls are appropriate.

The Board has adopted appropriate delegations of authority which sets out matters which are reserved to the Board as summarised below:

- The Group's strategy and vision
- Determining management's performance
- Board membership and membership of subsidiary boards
- Approval of major capital expenditure
- Financial reporting, risk management and internal controls
- Contracts, including potential acquisitions or investments in new projects or products
- Corporate governance
- Approval of annual budgets
- Approval of annual and interim reports
- Approval of changes in equity or debt funding
- Dividend recommendations and policy

The Board delegates certain duties and, where applicable, authority, to the following three board Committees to assist in meeting its business objectives whilst ensuring a sound system of internal control and risk management. The Committees meet independently of Board meetings.

Audit Committee

The Audit Committee has three members, Theresa Wallis (Chair), Graham Eves and David Banks. The CFO, CEO and external auditors normally attend meetings by invitation. The Audit Committee is responsible for assisting the Board in fulfilling its financial and risk responsibilities. The Audit Committee oversees financial reporting, risk management and internal control, advises the Board on the appointment and removal of the external auditor and discusses the nature, scope and results of the audit with the auditors. The Audit Committee reviews the extent of non-audit services provided by the auditors and reviews with them their independence and objectivity. The Audit Committee plans to meet not less than three times in each financial year.

During the year the Committee met five times. The Committee met in November 2021 to consider the draft report and accounts for the year ended 30 June 2021, including the key judgements and estimates including revenue recognition, going concern, carrying value of intangible assets, and valuation of the defined benefit pension scheme as well as the independence of the auditors and their fees. The Committee reviewed the feedback from the auditors (Grant Thornton (UK) LLP) as set out in their draft Audit Status Update to the Board at the first meeting. The Committee met in December 2021 to further review certain aspects of the audit work performed and to review the draft annual report and financial statements, which it subsequently recommended to the Board for approval.

The third meeting of the Committee was held in February 2022 to consider the draft interim results and receive updates on the risk register and the Group's internal control mechanisms.

The fourth meeting of the committee was held in March 2022 to review the audit tenders submitted by various parties and to meet, by videoconference, Crowe UK LLP.

The fifth meeting of the Committee was held in June 2022. The meeting considered the terms of engagement between the Company and Crowe UK LLP who would be taking over as the Company's financial auditors, as well as the audit plan for the Group. At this meeting the Company also reviewed the Group's risk register.

The Group's previous auditors attended the November 2021 meeting, and the new auditors attended the June 2022 meeting. During these meetings, a discussion took place between the Audit Committee and the auditors without management being present.

Remuneration Committee
The Remuneration Committee has three members, David Banks (Chair), Graham Eves and Theresa Wallis. The members are all non-executive Directors. Other members of the Board may attend the Committee's meetings at the request of the Committee Chair.

The remit of the Committee is primarily to ensure that the executive directors are provided with appropriate remuneration packages. The Committee reviews the performance of the Executive Directors and considers matters relating to their terms of employment and remuneration, including short term bonus and long-term incentives. The Remuneration Committee also considers the granting of share options pursuant to the Company's share option scheme. The Remuneration Committee plans to meet at least twice a year and will meet on other occasions as and when required.

The Committee met twice during the year.

The Directors' Remuneration Report is on pages 22 to 23.

Nomination Committee
The Nomination Committee has responsibility for evaluating the structure, size and composition of the Board in order to ensure a suitable balance of experience, knowledge, skills and independence, as well as for recommending to the Board the appointment of Executive and Non-Executive Directors. The Committees' Terms of Reference may be found on the Company's website.

The Nomination Committee has three members, Graham Eves (Chair), David Banks and Theresa Wallis. The Committee did not meet during the year.

As with many small companies, due to financial constraints and limited human resources, internal opportunities for succession to board director roles are circumscribed. As noted in the 2020 Annual Report and Accounts, the Committee made two important appointments in the year ended June 2020 and, during the year, as planned, has continued to promote a period of stability before looking to evaluate any further Board developments that might be required.

10. Communicate how the company is governed and is performing by maintaining a dialogue with shareholders and other relevant stakeholders
As stated in relation to Principle 2, the Board is committed to maintaining effective communication and having constructive dialogue with its shareholders. We communicate through our Interim and Annual Reports along with Regulatory News Service announcements. We also use the Company's website for both financial and general news relevant to shareholders. The Company's AGM results are available to view on the Company's website and all resolutions tabled at the Company's 2021 AGM passed comfortably.

The Company keeps in mind the proportions of direct, nominee and institutional shareholders, and distributes communications accordingly.

The latest corporate documents (including Annual Reports and Notices of AGMs) can be found on the Company's website.

Investors also have access to the latest information about the Group which is set out on the Company's website at www.haydale.com. The Company uses electronic communications with shareholders, where possible, to maximise efficiency.

A summary of the work carried out by the Audit and Nomination committees during the year is set out in section 9 above. The Directors' Remuneration Report is on pages 22 to 23 .

By order of the Board on 5 October 2022

David Banks
Chair

Directors' Remuneration Report

REMUNERATION COMMITTEE

The Company's remuneration policy for executive directors is the responsibility of the Remuneration Committee. The terms of reference of the Remuneration Committee are outlined below and, in the Chair's Corporate Governance Statement on page 21. The members of the Remuneration Committee during the year under review were David Banks (Chair), Graham Eves and Theresa Wallis. The provisions of the 2006 Companies Act in respect of the Directors' Remuneration Report have been applied to this report.

Under the terms of reference of the Remuneration Committee, the remuneration of the Company's non-executive directors (including the chair of the Board, if a non-executive) is a matter for the Board.

Directors' remuneration for the year to 30 June 2022 is set out on page 23.

The Remuneration Committee terms of reference require it to determine remuneration packages needed to attract, retain and motivate executives of the quality required (but to avoid paying more than is necessary for this purpose) and to ensure that performance related elements of remuneration are designed to support alignment with the long-term interests of shareholders and to give such executives incentives to perform at the highest levels.

Equity Based Incentive Schemes

The Remuneration Committee believes that equity-based incentive schemes provide a strong incentive for retaining and attracting high calibre individuals.

On 13 January 2020, the Company adopted a new EMI share option scheme ("EMI Scheme") and on 8 July 2020 the Company adopted a Stock Appreciation Rights Plan ("SAR Scheme") for the Group's wholly owned US subsidiary, Haydale Technologies Inc. The EMI Scheme and the SAR Scheme are designed to align the interests of the Directors and other employees with those of shareholders, as set out below.

On 20 January 2022, under the EMI Scheme, the Company granted a total of 1,900,000 options ("EMI Options") to the Company's executive directors and a further 1,500,000 EMI Options were granted to directors of UK subsidiaries. The EMI Options granted in January 2022 have an exercise price of 6.25p and their vesting is subject to, amongst other conditions, certain performance criteria linked to the share price of the Company being met in the period to September 2025.

At the 30 June 2022, the Company had granted a total of 20,900,000 EMI Options to the Company's executive directors and 6,500,000 EMI Options and 3,000,000 options under the SAR Scheme ("SAR Options") to the directors of subsidiaries of the Company. The EMI Options and the SAR Options (together the "Options") granted since January 2020 have an exercise price of between 2.25p to 6.25p per Ordinary Share and can only be exercised between the third and tenth anniversary of Grant ("Exercise Period"). Full details of the principal conditions and performance requirements of the grants made can be found on the Company's website at www.haydale.com.

The proportion of the Options granted that are capable of vesting are dependent on certain performance conditions being met, with such performance being directly linked to the Company's share price. Should the Company's closing mid-market share price not meet the performance conditions set then a specified percent of the grant shall lapse. At the year ended 30 June 2022, 11,400,00 Options granted to the executive directors of the Company and 3,000,000 EMI Options granted to the directors of subsidiaries of the Company have met the performance thresholds specified and become exercisable as from 13 January 2023. At the year ended 30 June 2022, 1,800,000 SAR Options granted to a director of a subsidiary of the Company have met the performance thresholds specified and become exercisable as from 8 July 2023.

The Remuneration Committee and the Board as a whole are expected to grant equity-based incentives during the current financial year to continue to attract, incentivise and retain its employees.

DIRECTORS' INTERESTS IN SHARE OPTIONS

The interests of directors of the Company in options over ordinary shares during the year were as follows:

Director	*Number of 2020 EMI Options*	*Date of Grant*	*First Exercise Date*	*Exercise Price*	*Expiry Date*
Keith Broadbent	12,000,000	13 January 2020	13 January 2023	2.25p	12 January 2030
	1,200,000	20 January 2022	20 January 2025	6.25p	19 January 2032
Mark Chapman	7,000,000	13 January 2020	13 January 2023	2.25p	12 January 2030
	700,000	20 January 2022	20 January 2025	6.25p	19 January 2032

No options were exercised by the directors during the year under review.

The mid-market closing price of the Company's ordinary shares at 30 June 2022 was 5.20p (2021: 8.34p). During the year to 30 June 2022, the mid-market closing price ranged from 3.81p to 9.40p (2021: 2.90p to 8.34p).

DIRECTORS' CONTRACTS

The executive directors have service contracts with the period of notice being six months. The non-executive directors have a letter of engagement which provides for a one month notice period.

DIRECTORS' REMUNERATION

The aggregate remuneration received by directors who served during the years ended 30 June 2022 and 30 June 2021 was as follows:

				Year Ended June 2022			*Year Ended June 2021*		
£'000	*Salary/Fee*	*Bonus*	*Benefits*	*Total exc. pension*	*Pension*	*Total inc. pension*	*Total exc. pension*	*Pension*	*Total inc. pension*
Executive Directors									
K Broadbent	211	50	12	273	24	297	253	24	277
M Chapman	115	15	12	142	12	154	131	12	143
Non-Executive Directors									
D Banks	51	–	–	51	–	51	51	–	51
G Eves	28	–	–	28	–	28	28	–	28
T Wallis	28	–	–	28	–	28	28	–	28
	433	65	24	522	36	558	491	36	527

Bonuses are disclosed in the year for which they have been awarded. Bonuses for FY21 of £50,000 for Keith Broadbent and £15,000 for Mark Chapman are included in Total exc. pension.

By order of the Board

David Banks
Chair
5 October 2022

Independent auditor's report to the members of Haydale Graphene Industries Plc

Opinion

We have audited the financial statements of Haydale Graphene Industries plc (the "Parent Company") and its subsidiaries (the "Group") for the year ended 30 June 2022, which comprise:

- the Group income statement and statement of comprehensive income for the year ended 30 June 2022;
- the Group and parent company statements of financial position as at 30 June 2022;
- the Group statement of cash flows for the year then ended;
- the Group and parent company statements of changes in equity for the year then ended; and
- the notes to the financial statements, including significant accounting policies.

The financial reporting framework that has been applied in the preparation of the Group financial statements is applicable law and UK adopted International Accounting Standards. The financial reporting framework that has been applied in the preparation of the Parent Company financial statements is applicable law and United Kingdom Accounting Standards, including Financial Reporting Standard 101 'Reduced Disclosure Framework' (United Kingdom Generally Accepted Accounting Practice).

In our opinion:

- the financial statements give a true and fair view of the state of the Group's and of the Parent Company's affairs as at 30 June 2022 and of the Group's loss for the period then ended;
- the Group financial statements have been properly prepared in accordance with UK adopted International Accounting Standards;
- the Parent Company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the Group in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the director's use of the going concern basis of accounting in the preparation of the financial statements is appropriate. Our evaluation of the directors' assessment of the entity's ability to continue to adopt the going concern basis of accounting included obtaining details of the cash raised post year end, evidence of the sales pipeline, and understanding the directors' assessment of potential measures that could be taken to conserve cash should this be required.

Based on the work we have performed, we have not identified any material uncertainties relating to events or conditions that, individually or collectively, may cast significant doubt on the entity's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

Our responsibilities and the responsibilities of the directors with respect to going concern are described in the relevant sections of this report.

Overview of our audit approach

MATERIALITY

In planning and performing our audit we applied the concept of materiality. An item is considered material if it could reasonably be expected to change the economic decisions of a user of the financial statements. We used the concept of materiality to both focus our testing and to evaluate the impact of misstatements identified.

Based on our professional judgement, we determined overall materiality for the Group financial statements as a whole to be £240,000 based on 5% of the Group loss before tax. The material set for the Parent Company was £170,000.

We use a different level of materiality ('performance materiality') to determine the extent of our testing for the audit of the financial statements. Performance materiality is set based on the audit materiality as adjusted for the judgements made as to the entity risk and our evaluation of the specific risk of each audit area having regard to the internal control environment. The performance materiality for the Group financial statements was set at £168,000 and for the Parent Company £119,000.

Where considered appropriate performance materiality may be reduced to a lower level, such as, for related party transactions and directors' remuneration.

We agreed with the Audit Committee to report to it all identified errors in excess of £12,000. Errors below that threshold would also be reported to it if, in our opinion as auditor, disclosure was required on qualitative grounds.

Overview of the scope of our audit

Full scope audit were performed for Haydale Graphene Industries Plc, Haydale Limited, Haydale Composite Solutions Limited and Haydale Ceramic Technologies LLC. Agreed upon procedures were performed for Haydale Technologies Thailand Limited and Haydale Technologies Incorporated LLC. The other group entities were subject to analytical review procedures.

Scope	*% coverage Revenue*	*% coverage Net Assets*	*% coverage Loss before tax*
Full scope	92	98	97
Agreed upon procedures	5	1	2
Analytical review	3	1	1

All audit work was performed by the same team at Crowe U.K. LLP.

Key Audit Matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified. These matters included those which had the greatest effect on: the overall audit strategy, the allocation of resources in the audit; and directing the efforts of the engagement team. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Independent auditor's report to the members of Haydale Graphene Industries Plc continued

This is not a complete list of all risks identified by our audit.

Key Audit Matter	*How the scope of our audit addressed the key audit matter*
Valuation of goodwill in respect of Haydale Ceramic Technologies LLC (see note 10) We considered the risk that the goodwill in relation to Haydale Ceramic Technologies LLC was impaired given the losses incurred in the cash generating unit in the year.	We obtained the directors' impairment assessment and performed the following procedures: • Used a valuation specialist to develop our own estimate of the discount rate; • Discussion with management to understand the budgets and growth plans for the business; • Obtaining the sales pipeline and evidence of orders received post year end to support the revenue assumption for the coming financial year; and • Reviewing the completeness of disclosure including that given in relation to the sensitivity analysis.
Revenue recognition (note 4) We considered the risk that revenue was misstated through including sales that do not meet the revenue recognition criteria	We performed the following procedures: • Testing a sample of revenue items during the year to cash receipt; • Testing the cut off of revenue by agreeing a sample of items around the year end to support evidence; and • Discussing one specific contract with management and following up on post year end developments to support the revenue recognised.
Parent company investments (parent company note 6) During the year and impairment charge of £259,000 was recognised. We considered the risk that there were further impairments that should be recognised.	We considered the directors' assessment of the impairment of investments alongside our consideration of the carrying value of the associated goodwill. Our procedures included: • Used a valuation specialist to develop our own estimate of the discount rate; • Discussion with management to understand the budgets and growth plans for the business; and • Obtaining the sales pipeline and evidence of orders received post year end to support the revenue assumption for the coming financial year.

Other information

The directors are responsible for the other information contained within the annual report. The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. Our opinion on the financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon.

Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

Opinion on other matter prescribed by the Companies Act 2006

In our opinion based on the work undertaken in the course of our audit

- the information given in the strategic report and the directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements; and
- the directors' report and strategic report have been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception

In light of the knowledge and understanding of the group and the parent company and their environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or the directors' report.

We have nothing to report in respect of the following matters where the Companies Act 2006 requires us to report to you if, in our opinion:

- adequate accounting records have not been kept by the parent company, or returns adequate for our audit have not been received from branches not visited by us; or
- the parent company financial statements are not in agreement with the accounting records and returns; or
- certain disclosures of directors' remuneration specified by law are not made; or
- we have not received all the information and explanations we require for our audit.

Responsibilities of the directors for the financial statements

As explained more fully in the directors' responsibilities statement set out on page 12, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the directors are responsible for assessing the group's and parent company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the group or the parent company or to cease operations, or have no realistic alternative but to do so.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs (UK) will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

Irregularities, including fraud, are instances of non-compliance with laws and regulations. We design procedures in line with our responsibilities, outlined above, to detect material misstatements in respect of irregularities, including fraud. The extent to which our procedures are capable of detecting irregularities, including fraud is detailed below:

- Understanding the principal legal and regulatory frameworks relevant to the Group, these included the requirements of the Companies Act 2006, laws relating to taxation and health and safety;
- Making enquiries of management, and other personnel, regarding their knowledge of any actual, suspected or alleged fraud;
- Performing substantive audit procedures in areas of significant audit risk, including revenue recognition;
- Performed specific testing on journal transaction with a focus on those journals which, in our opinion, displayed higher risk characteristics; and
- Considering accounting estimates, both individually and in aggregate, and reporting to the Audit Committee our view of the judgements made by management.

Independent auditor's report to the members of Haydale Graphene Industries Plc continued

A further description of our responsibilities is available on the Financial Reporting Council's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditor's report.

Use of our report

This report is made solely to the company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the company and the company's members as a body, for our audit work, for this report, or for the opinions we have formed.

Matthew Stallabrass
(Senior Statutory Auditor)
for and on behalf of
Crowe U.K. LLP
Statutory Auditor
London
5 October 2022

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

For the year ended 30 June 2022

	Note	**Year ended 30 June 2022 £'000**	Year ended 30 June 2021 £'000
REVENUE	4	**2,901**	2,903
Cost of sales		**(1,156)**	(924)
Gross profit		**1,745**	1,979
Other operating income	5	**442**	575
Adjusted Administrative expenses		**(5,520)**	(4,724)
Adjusted operating loss		**(3,333)**	(2,170)
Adjusting administrative items:			
Share based payment expense		**(39)**	(119)
Depreciation and amortisation		**(1,308)**	(1,271)
Impairment		**(375)**	–
		(1,722)	(1,390)
Total trading administrative expenses		**(7,242)**	(6,114)
LOSS FROM OPERATIONS		**(5,055)**	(3,560)
Total administrative expenses		**(7,242)**	(6,114)
LOSS FROM OPERATIONS		**(5,055)**	(3,560)
Finance costs		**(187)**	(211)
LOSS BEFORE TAXATION	6	**(5,242)**	(3,771)
Taxation	8	**433**	363
LOSS FOR THE YEAR FROM CONTINUING OPERATIONS		**(4,809)**	(3,408)
Other comprehensive income:			
Items that may be reclassified to profit or loss:			
Exchange differences on translation of foreign operations		**374**	(368)
Items that will not be reclassified to profit or loss:			
Remeasurements of defined benefit pension schemes		**(109)**	208
TOTAL COMPREHENSIVE LOSS FOR THE YEAR FROM CONTINUING OPERATIONS		**(4,544)**	(3,568)
Loss for the year attributable to:			
Owners of the parent		**(4,809)**	(3,408)
Total comprehensive loss attributable to:			
Owners of the parent		**(4,544)**	(3,568)
Loss per share attributable to owners of the Parent			
Basic (£)	9	**(0.01)**	(0.01)
Diluted (£)	9	**(0.01)**	(0.01)

The notes from pages 33 to 62 form part of these financial statements.

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

As at 30 June 2022

Company Registration No. 07228939

	Note	30 June 2022 £'000	30 June 2021 £'000
ASSETS			
Non-current assets			
Goodwill	10	**1,131**	1,341
Intangible assets	10	**1,312**	1,174
Property, plant and equipment	11	**7,579**	6,622
		10,022	9,137
Current assets			
Inventories	12	**1,515**	1,328
Trade receivables	13	**667**	715
Other receivables	14	**646**	595
Corporation tax	14	**427**	364
Cash and bank balances		**1,186**	1,644
		4,441	4,646
TOTAL ASSETS		**14,463**	13,783
LIABILITIES			
Non-current liabilities			
Bank loans	20	**1,341**	844
Pension Obligation	26	**1,356**	1,026
Other payables	19	**2,440**	2,370
		5,137	4,240
Current liabilities			
Bank loans	20	**11**	885
Trade and other payables	19	**2,199**	1,719
Deferred income	15	**68**	180
		2,278	2,784
TOTAL LIABILITIES		**7,415**	7,024
TOTAL NET ASSETS		**7,048**	6,759
EQUITY			
Capital and reserves attributable to equity holders of the parent			
Share capital	16	**10,207**	8,505
Share premium account	16	**31,912**	28,820
Share-based payment reserve		**244**	250
Foreign exchange reserve		**(12)**	(386)
Retained losses		**(35,303)**	(30,430)
TOTAL EQUITY		**7,048**	6,759

The financial statements on pages 29 to 62 were approved and authorised for issue by the Board of directors on 5 October 2022 and signed on its behalf by:

David Banks
Chair

Keith Broadbent
Chief Executive Officer

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

For the year ended 30 June 2022

	Share capital £'000	Share premium £'000	Share-based payment reserve £'000	Foreign exchange reserve £'000	Retained losses £'000	Total equity £'000
At 1 July 2020	6,804	27,764	131	(18)	(27,230)	7,451
Comprehensive Loss for the year						
Loss for the year	–	–	–	–	(3,408)	(3,408)
Other comprehensive loss	–	–	–	(368)	208	(160)
Total Comprehensive loss	6,804	27,764	131	(386)	(30,430)	3,883
Contributions by and distributions to owners						
Recognition of share-based payments	–	–	119	–	–	119
Issue of ordinary share capital	1,701	1,276	–	–	–	2,977
Transaction costs in respect of share issues	–	(220)	–	–	–	(220)
At 30 June 2021	8,505	28,820	250	(386)	(30,430)	6,759
Comprehensive Loss for the year						
Loss for the year	–	–	–	–	(4,809)	(4,809)
Other comprehensive loss	–	–	–	374	(109)	265
Total comprehensive loss	8,505	28,820	250	(12)	(35,348)	2,215
Contributions by and distributions to owners						
Recognition of share-based payments	–	–	39	–	–	39
Share based payment charges – lapsed options	–	–	(45)	–	45	–
Issue of ordinary share capital	1,702	3,401	–	–	–	5,103
Transaction costs in respect of share issues	–	(309)	–	–	–	(309)
At 30 June 2022	**10,207**	**31,912**	**244**	**(12)**	**(35,303)**	**7,048**

CONSOLIDATED STATEMENT OF CASH FLOWS

For the year ended 30 June 2022

	Note	**Year ended 30 June 2022 £' 000**	Year ended 30 June 2021 £' 000
Cash flow from operating activities			
Loss after taxation		**(4,809)**	(3,408)
Adjustments for:			
Amortisation and impairment of intangible assets	10	**607**	176
Depreciation of property, plant and equipment	11	**1,076**	1,096
Profit on disposal of plant and equipment and F&F		**8**	78
Share-based payment charge	17	**39**	119
Finance costs		**188**	211
Pension – (employer contribution)/net interest expense	26	**(92)**	47
Taxation		**(433)**	(363)
Operating cash flow before working capital changes		**(3,416)**	(2,044)
(Increase)/decrease in inventories		**(187)**	384
(Increase) in trade and other receivables		**(4)**	(90)
Increase in payables and deferred income		**435**	174
Cash used in operations		**(3,172)**	(1,576)
Income tax received		**371**	383
Net cash used in operating activities		**(2,801)**	(1,193)
Cash flow used in investing activities			
Purchase of plant and equipment		**(996)**	(220)
Purchase of Intangible Assets		**(340)**	(260)
Net cash used in investing activities		**(1,336)**	(480)
Cash flow used in financing activities			
Finance costs		**(63)**	(95)
Finance costs – right of use asset		**(125)**	(116)
Payment of lease liability		**(548)**	(591)
Proceeds from issue of share capital	16	**5,103**	2,977
Share capital issues costs allocated against share premium	16	**(309)**	(220)
New bank loans raised	29	**454**	800
Repayments of borrowings	29	**(842)**	(219)
Net cash flow from financing activities		**3,670**	2,536
Effects of exchange rates changes		**9**	(42)
Net (decrease)/increase in cash and cash equivalents		**(458)**	821
Cash and cash equivalents at beginning of the financial year		**1,644**	823
Cash and cash equivalents at end of the financial year		**1,186**	1,644

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
For the year ended 30 June 2022

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 as adopted by the UK (collectively "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 2022 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 from 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 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 October 2023. 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. The Directors are also mindful of the impact that the other risks and uncertainties set out on pages 9 to 10 may have on these estimates and in particular the speed of adoption of new technology.

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

Revenue
Various sensitivities have been applied to forecasted revenue including a stress test scenario which reduces forecasted revenue by circa 25 per cent, to the point where the Group would breach its available cash resources at in December 2023. With respect to this 'stress test' the Group has greater than 30 per cent of that sensitised revenue within forward orders, contractual or some other form of customer assurance which have a high degree of certainty.

Cost Mitigation
The Directors have included some limited assumptions regarding cost savings that might be achievable if the forecast fails to meet the forecasted or sensitised estimates, and these have been phased in gradually over the 12-month period to October 2023.

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 both publicly available information and taken account of these assessments in our forecasts. Future revenue related to certain contractual commitments have been heavily discounted given the lack of available data and trading history with the Group.

1. Accounting policies (continued)

Summary

Therefore, after due consideration of the forecasts prepared, the sensitivities applied and the Group's current cash resources after the fund raise in September 2022 and the terms of its debt 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), and for this reason the financial statements have been prepared on the going concern basis.

2. Changes in accounting policies

There are no change of accounting policies during the year.

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 UK 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 ten years.

Goodwill

Business combinations 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 represents 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 (including Reactor sales)

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.

3. Summary of significant accounting policies (continued)

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 note 22.

ii) 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.

iii) 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

US Plant and machinery	Time in use
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 Statement of Comprehensive Income 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 tax credits are recognised in income tax within the Statement of Comprehensive Income, in the period in which they relate.

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.

3. Summary of significant accounting policies (continued)

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 17 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, 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

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 reduced for payment made and increased for interest. It is remeasured to reflect any reassessment or modification, or if there are changes in substance to the 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.

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 (estimate)
In determining the pension valuation movement and the defined benefit obligation of the Group's 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 (judgement)
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 longer term projections reviewed by the Board. 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.

3. Summary of significant accounting policies (continued)

Useful economic lives of tangible and intangible assets (judgement)

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.

p) Alternative Performance Measures

Disclosure has been adjusted in the Statement of Comprehensive Income. Adjusted Administrative expenses have excluded Share based payment charges, impairment charges and depreciation as these are non-cash items. We believe removing these balances better reflects the performance of the Group and provides more meaningful information to the user of the Financial Statements.

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 the 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 regions:

- UK & Europe (focussing on functionalisation of nano materials, high performance ink & master batches, elastomers and the composites market in Europe);
- North America (focussing on SiC & blank products for tooling); and
- Asia Pacific (focusing on sales to the Asian markets)

2022

	UK & Europe £'000	North America £'000	Asia Pacific £'000	Adjustments, Central & Eliminations £'000	Consolidated £'000
REVENUE	984	1,673	244	–	2,901
Cost of sales	(356)	(670)	(130)	–	(1,156)
Gross profit	628	1,003	114	–	1,745
Other operating income	373	69	–	–	442
Adjusted administrative expenses	(1,977)	(1,648)	(525)	(1,370)	(5,520)
Adjusted operating loss	(976)	(576)	(411)	(1,370)	(3,333)
Administrative expenses					
Share based payment expense	(20)	(4)	23	(38)	(39)
Depreciation & amortisation	(474)	(629)	(74)	(131)	(1,308)
Impairment	–	–	(23)	(352)	(375)
	(494)	(633)	(74)	(521)	(1,722)
Total administrative expenses	(2,471)	(2,281)	(599)	(1,891)	(7,242)
OPERATING LOSS	(1,470)	(1,209)	(485)	(1,891)	(5,055)
Finance costs					(187)
LOSS BEFORE TAXATION					(5,242)
Taxation					433
LOSS AFTER TAXATION					(4,809)
Additions to non-current assets	1,533	72	36	–	1,641
Segment assets	4,159	7,225	341	2,738	14,463
Segment liabilities	(2,386)	(4,486)	(114)	(429)	(7,415)

2021

	UK & Europe £'000	North America £'000	Asia Pacific £'000	Adjustments, Central & Eliminations £'000	Consolidated £'000
REVENUE	923	1,679	301	–	2,903
Cost of sales	(311)	(379)	(234)	–	(924)
Gross profit	612	1,300	67	–	1,979
Other operating income	427	148	–	–	575
Adjusted administrative expenses	(1,725)	(1,328)	(404)	(1,267)	(4,724)
Adjusted operating loss	(686)	120	(337)	(1,267)	(2,170)
Administrative expenses					
Share based payment expense	(38)	(30)	(3)	(48)	(119)
Depreciation & Amortisation	(376)	(679)	(67)	(149)	(1,271)
	(414)	(709)	(70)	(197)	(1,390)
Total administrative expenses	(2,139)	(2,037)	(474)	(1,464)	(6,114)
OPERATING LOSS	(1,100)	(589)	(407)	(1,464)	(3,560)
Finance costs					(211)
LOSS BEFORE TAXATION					(3,771)
Taxation					363
LOSS AFTER TAXATION					(3,408)
Additions to non-current assets	473	1,667	17	–	2,157
Segment assets	3,473	7,398	404	2,508	13,783
Segment liabilities	(1,727)	(4,697)	(194)	(406)	(7,024)

Geographical information

All revenues of the Group are derived from its principal activities as set out on page 2. The Group's revenue from external customers by geographical location are detailed below.

	2022 £'000	2021 £'000
By destination		
United Kingdom	**769**	370
Europe	**685**	104
United States of America	**1,051**	739
China	**127**	135
Thailand	**158**	136
South Korea	**86**	165
Japan	**–**	1,207
Rest of the World	**25**	47
	2,901	2,903

During 2022, £0.73 million (25%) (2021: £1.2 million (42%)) of the Group's revenue depended on a single customer. During 2022 £0.58 million (20%) (2021: £0.41 million (14%)) of the Group's revenue depended on a second single customer.

4. Segment analysis (continued)

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 £2.46 million (85%) of the Group's revenue (2021: £2.43 million or 84% (including Reactor sales)) and revenue from services was £0.31 million (11%) (2021: £0.34 million or 12%).

Dis-aggregation of revenues

The split of revenue by type:

	2022 £'000	2021 £'000
Services	**306**	338
Reactor sales (Goods)	**–**	403
Reactor rental	**134**	134
Goods	**2,461**	2,028
	2,901	2,903

2022

	UK & Europe £'000	**North America £'000**	**Asia Pacific £'000**	**TOTAL £'000**
Services	275	–	31	306
Reactor rental	134	–	–	134
Goods	575	1,673	213	2,461
	984	**1,673**	**244**	**2,901**

2021

	UK & Europe £'000	**North America £'000**	**Asia Pacific £'000**	**TOTAL £'000**
Services	231	–	107	338
Reactor sales (Goods)	403	–	–	403
Reactor rental	134	–	–	134
Goods	155	1,679	194	2,028
	923	1,679	301	2,903

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

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

Non-current asset additions

	2022 £'000	2021 £'000
By destination		
United Kingdom	**1,533**	473
United States of America	**72**	1,667
Thailand	**36**	17
	1,641	2,157

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

	2022 £'000	2021 £'000
By destination		
United Kingdom	**2,732**	3,271
United States of America	**7,240**	5,749
Thailand	**49**	116
South Korea	**1**	1
	10,022	9,137

5. Other Operating Income

	2022 £'000	2021 £'000
Grant Income	**373**	427
Federal Support Schemes	**69**	148
	442	575

There are no unfulfilled conditions attached to the above income.

6. Loss before taxation

Loss before taxation is arrived at after charging:

	2022 £'000	2021 £'000
Amortisation of intangibles	**232**	176
Impairment of intangibles	**375**	–
Depreciation of property, plant and equipment	**1,076**	1,096
Foreign Exchange	**58**	(44)
Operating lease rental : plant and machinery	**1**	1

The service fees of the Group's auditor, Crowe U.K. LLP (2021 – Grant Thornton UK LLP), are analysed below:

	2022 £'000	2021 £'000
Fees payable to the Company's auditor for the audit of the Group's financial statements	**56**	72
Fees payable to the Company's auditor and its associates for other services:		
Taxation related compliance services	**–**	12
	56	84

7. Employees

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

	2022 No.	2021 No.
Administration	26	22
Research, development and production	34	32
	60	54

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

	2022 £'000	2021 £'000
Wages and salaries	2,958	2,509
Social security costs	269	271
Defined contribution pension costs	193	172
Defined benefit pension costs	8	47
Share-based payment expense	39	119
	3,467	3,118

Directors' remuneration

	2022 £'000	2021 £'000
Short-term employee benefits and fees	522	491
Post-retirement benefits	36	36
	558	527

The total amount payable to the highest paid director in respect of emoluments was £273,000 (2021: £253,000), excluding pension costs of £24,000 (2021: £24,000). Further details on Directors Remuneration can be found in the Directors' Remuneration Report on page 23.

8. Income tax

	2022 £'000	2021 £'000
Current tax credit		
Total income tax credits:		
– for the financial year	427	363
– under provision in the previous financial year	6	–
Total Current Tax	433	363

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:

	2022 £'000	2021 £'000
Loss for the year	**(4,809)**	(3,408)
Income tax credit	**(433)**	(363)
Loss before income taxes	**(5,242)**	(3,771)
Tax using the Group's domestic tax rates of 19% (2020 – 19%)	**996**	717
Expenses not deductible for tax purposes	**(906)**	(215)
Income not taxable	**1,017**	458
Different tax rates applied in overseas jurisdictions	**(53)**	(2)
R&D enhancement	**396**	340
R&D costs capitalised		
Surrender for R&D tax credit	**(519)**	(446)
Adjustment for over provision in comparative year	**10**	–
Movement in unrecognised losses carried forward	**(515)**	(472)
Amounts not recognised	**26**	(8)
Non Qualifying assets	**(19)**	(9)
Total tax credit	**433**	363

Changes in tax rates and factors affecting the future tax charge
The main rate of corporation tax for UK companies is currently 19%.

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 £24.994 million (2021: £23.68 million) including £4.12 million (2021: £4.12 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:

	2022 £'000	2021 £'000
Loss after tax attributable to owners of Haydale Graphene Industries Plc	**(4,809)**	(3,408)
Weighted average number of shares:		
– Basic and Diluted	**483,770,289**	408,967,698
Loss per share:		
Basic (£) and Diluted (£)	**(0.01)**	(0.01)

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 2022, there were 48,710,000 (2021: 39,734,928) options and warrants outstanding as detailed in note 17. All of the options are potentially dilutive.

Post year end 275,516,784 of new Ordinary Shares were issued on 13 September 2022, these Ordinary Shares are dilutive. There were also 138,758,392 Warrants issued on 13 September 2022 and these Warrants are potentially dilutive.

10. Intangible assets

	Customer Relationships £'000	Development expenditure £'000	Goodwill £'000	Total £'000
Cost				
At 1 July 2020	1,154	2,066	2,088	5,308
Additions	–	260	–	260
FX translation	(133)	(7)	(113)	(253)
At 1 July 2021	1,021	2,319	1,975	5,315
Additions	–	340	–	340
FX translation	137	2	142	281
At 30 June 2022	**1,158**	**2,661**	**2,117**	**5,936**
Accumulated amortisation				
At 1 July 2020	633	1,442	634	2,709
Charge for the period	87	89	–	176
FX translation	(83)	(2)	–	(85)
At 1 July 2021	637	1,529	634	2,800
Charge for the year	87	145	–	232
Impairment	–	23	352	375
FX translation	85	1	–	86
At 30 June 2022	**809**	**1,698**	**986**	**3,493**
Net book value				
At 30 June 2022	**349**	**963**	**1,131**	**2,443**
At 30 June 2021	384	790	1,341	2,515
At 30 June 2020	521	624	1,454	2,599

All of the above Development expenditure is currently in use.

Goodwill

Goodwill arose 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 Ltd ("HTT")). Goodwill arose on the acquisition of ACM (now Haydale Composite Technology LLC ("HCT") on 13 October 2016 of £1,102,620.

Customer Relationships

The Customer relationships intangible asset arose on the fair value of assets on the acquisition of HCT on 13 October 2016 amounting to £868,676.

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 nano enhanced products within Haydale Limited, Haydale Composite Solutions Limited ("HCS") and HTT.

Development expenditure of £340,000 was capitalised during the year in accordance with IAS 38 in connection with the Group's expenditure with the development of nano enhanced products (including inks, epoxy resins, elastomers and composites), where the Directors believe that future economic benefit is probable (2021: £260,000). Capitalised development expenditure is not amortised until the products or services are ready for sale or use.

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 Haydale, HCT and HTT, the Group is operating a number of different CGUs and therefore Haydale and ACM goodwill has been considered against the future forecast trading outcomes of HCT, Haydale 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:

	2022 %	2021 %	**2022 £'000**	2021 £'000
Haydale	**10%**	10%	**24**	24
HCT	**12%**	12%	**1,107**	975
HTT	**10%**	10%	**–**	341

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. Discount rates are estimated 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 ("WACC) of 12% (FY21: 12%)% , have been used to discount projected cash flows.

The impairment calculations for the current year have been derived from the longer term forecasts (the "Forecasts") that have been approved by the Board.

The HCT model assumes that its turnover is in line with the Forecasts and then reduces to 2% growth in perpetuity. The growth rates used are based on management's internally estimated growth forecasts which are predicated on a recovery in the aerospace industry during FY23 and beyond. This anticipated rebound would lead to a recovery in the whisker sales and allow for growth in blank and finished tool sales at this facility such that by June 2023 the CGU had at least recovered to its pre pandemic trading position. Further information on this trading unit is given in the strategic report on page 2 under the subheading 'North America'.

As part of the impairment sensitivity analysis we reviewed several performance assumptions which involved either reducing forecast revenue or increasing the WACC to a point where the carrying value of the assets were equal to the HCT discounted cashflows. Of these scenarios 1) using the Groups WACC of 12%, revenue was equal to FY23 budgeted revenue with revenues increasing by 20% over the two year period ending June 2025 and increasing by 2% per annum thereafter: and 2) increased the WACC to 14% and keeping all other factors constant increased the revenue growth in the two year period ending June 25 from 20% to 30%. In both sensitivities margins were maintained at historic levels. The carrying value of the HCT CGU is £7.5 million which consists of Goodwill, Customer Relations, PPE and Right of Use Assets.

Due to uncertainty over the timings of the recovery in revenue at HTT the Directors have impaired the intangible assets of HTT in the year.

Following this review, the Directors have determined that apart from the impairment in relation to HTT there is no impairment charge which should be recognised against the intangible assets of the Group.

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
Cost						
At 1 July 2020	2,842	7,735	542	31	32	11,182
Additions	1,677	198	22	–	–	1,897
Disposals	(108)	(225)	(11)			(344)
Transfer	–	29	–		(29)	–
FX translation	(207)	(514)	(53)	(2)	(3)	(779)
At 1 July 2021	4,204	7,223	500	29	–	11,956
Additions	422	851	28	–	–	1,301
FX translation	429	592	38	4	–	1,063
Disposals	(125)	(15)	–	–	–	(140)
Transfer	–	–	–	–	–	–
At 30 June 2022	**4,930**	**8,651**	**566**	**33**	**–**	**14,180**
Accumulated depreciation						
At 1 July 2020	994	3,450	311	20	–	4,775
Charge for the year	598	444	48	6	–	1,096
Disposal	(32)	(226)	(8)	–		(266)
FX translation	(122)	(118)	(32)	1		(271)
At 1 July 2021	1,438	3,550	319	27	–	5,334
Charge for the year	559	468	47	2	–	1,076
FX Translation	124	174	22	4	–	324
Disposals	(125)	(8)	–	–	–	(133)
At 30 June 2022	**1,996**	**4,184**	**388**	**33**	**–**	**6,601**
Net book value						
At 30 June 2022	**2,934**	**4,467**	**178**	**–**	**–**	**7,579**
At 30 June 2021	2,766	3,673	181	2	–	6,622
At 30 June 2020	1,848	4,285	231	11	32	6,407

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

	30 June 2022 £'000	30 June 2021 £'000
Leasehold and leasehold improvements cost	**4,182**	3,576
Leasehold and leasehold improvements depreciation	**(1,486)**	(993)
Leasehold and leasehold improvement NBV	**2,696**	2,583

12. Inventories

	2022 £'000	2021 £'000
Raw materials	**286**	167
Work in progress	**554**	261
Finished goods	**675**	900
	1,515	1,328

The total value of inventories recognised in cost of sales during the year was £1,028,486 (2021: £915,580). 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

	2022 £'000	2021 £'000
Trade receivables	**667**	715

14. Other receivables

	2022 £'000	2021 £'000
Other receivables	**236**	299
Prepayments and accrued income	**364**	227
Lease Asset	**46**	69
	646	595

	2022 £'000	2021 £'000
Corporation tax	**427**	364

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. All income will be recognised within one year.

	2022 £'000	2021 £'000
Commercial Deferred Income	**68**	180

As at 30 June 2022, deferred income of £52,055 (2021: £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. The remaining deferred income relates to grant income which will be recognised in the profit and loss within a year.

16. Share capital and share premium

	Number of shares No.	**Share capital £'000**	**Share premium £'000**	**Total £'000**
At 1 July 2020	340,223,848	6,804	27,764	34,568
Issue of £0.02 ordinary shares	85,055,950	1,701	1,056	2,757
At 30 June 2021	425,279,798	8,505	28,820	37,325
Issue of £0.02 ordinary shares	85,055,893	1,702	3,092	4,794
At 30 June 2022	**510,335,691**	**10,207**	**31,912**	**42,119**

On 20 September 2021, the Company issued 85,055,893 new ordinary shares of 2p each.

Issue costs amounting to £309,000 have been charged to the share premium account during the year (2021: £220,000).

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 Group.

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 three years from the date of grant.

The exercise price of the 2022 EMI options granted on 20 January 2022 was 6.25p per Ordinary Share (being a 12.6 % premium to the closing mid–market price of the Company's Ordinary Shares on 20 January 2022). The options vest 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:

	Number of options No.	**2022 WAEP Pence**	Number of options No.	2021 WAEP Pence
Balance at beginning of year	**39,734,928**	**2.39**	34,181,185	23.00
Granted	**11,835,000**	**6.25**	7,100,000	2.25
Lapsed	**(3,872,768)**	**3.10**	(1,500,000)	2.25
Forfeited	**(12,160)**	**175.81**	(46,257)	154.70
Balance at end of year	**47,685,000**	**2.25**	39,734,928	2.39

At 30 June 2022, there were options outstanding over 47,710,000 un-issued ordinary shares, equivalent to 9% of the issued share capital as follows:

	Number of shares	**Exercise price**	**Earliest exercise date**	**Latest exercise date**
Unapproved scheme				
8 July 2020	5,000,000	2.25p	8 July 2023	8 July 2030
20 January 2022	4,750,000	6.25p	19 January 2025	19 January 2032
Approved EMI scheme				
13 January 2020	30,850,000	2.25p	13 January 2023	13 January 2030
20 January 2022	7,085,000	6.25p	19 January 2025	19 January 2032
	47,685,000			

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

	Type of award	**Number of shares**	**Share price at date of grant (p)**	**Fair value per option (p)**	**Award life (years)**	**Risk free rate (%)**	**Expected volatility rate (%)**	**Performance conditions**
8 July 2020	Unapproved	5,000,000	3.65	0.63	10	0.50	80.5	See below
13 January 2020	EMI	30,850,000	1.88	1.56	10	0.50	80.5	See below
20 January 2022	Unapproved	4,750,000	5.50	1.13	10	0.50	63.6	See below
20 January 2022	EMI	7,085,000	5.50	1.13	10	0.50	63.6	See below
		47,685,000						

January & July 2020 Performance Conditions

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 vesting.

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 vesting.

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 vesting.

January 2022 Performance Conditions

Should the Company's closing mid-market share price reach and remain at or above £0.10 for at least 15 consecutive trading days, commencing after the grant date and ending on or before 30 September 2023, 30% of share options are capable of exercise.

Should the Company's closing mid-market share price reach and remain at or above £0.15 for at least 15 consecutive trading days, commencing after the grant date and ending on or before 30 September 2024, 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 £0.20 for at least 15 consecutive trading days, commencing after the grant date and ending on or before 30 September 2025, the final 40% of share options are capable of exercise.

The weighted average remaining contractual life of share options outstanding at 30 June 2022 is 8 years (2021: 8.5 years). The charge for the year for share-based payment amounted to £0.03 million (2021: £0.12 million).

Warrants

	Number of warrants No.	**2022 Weighted average exercise price Pence**	Number of warrants No.	2021 Weighted average exercise price Pence
Balance at beginning of year	**67,398**	**208.00**	67,398	208.00
Lapsed	**(67,398)**	**208.00**	–	–
Granted	**1,000,000**	**8.00**	–	–
Balance at end of year	**1,000,000**	**8.00**	67,398	208.00

None of the warrants outstanding at 30 June 2022 are to employees. Warrants granted during the year have a share price performance condition of £0.16 for 15 consecutive working days on or before 30th September 2023 (The opening warrants did not have performance conditions). 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 2022 is 1.25 years (2021: 0.04 years). The charge for the year for warrant payment amounted to £8,881 (2021: £7,258).

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, less any costs associated with the issuance of the shares, 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 Losses

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 the translation differences arising from the translation of the overseas subsidiary results into pound sterling.

19. Trade and other payables

		Current Liabilities		Non-Current Liabilities
	2022	2021	**2022**	2021
	£'000	£'000	**£'000**	£'000
Trade payables	**1,178**	677	**–**	–
Tax and social security	**57**	101	**–**	–
Lease liability	**480**	365	**2,440**	2,370
Accruals and other creditors	**484**	576	**–**	–
	2,199	1,719	**2,440**	2,370

20. Bank loans

	2022	2021
	£'000	£'000
Bank loans	**1,352**	1,729
The borrowings are repayable as follows:-		
– within one year	**11**	885
– in the second year	**15**	9
– in the third year and above	**1,326**	835
	1,352	1,729

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.

	2022	2021
Average interest rates paid	**6.3%**	3.2%

In October 2016, a five year bank loan of $1,720,000 (equivalent to approximately £1.4 million at the time) was drawn by HTI, the Company's US holding company, secured on the fixed assets of HTI and its newly acquired operating subsidiary, HCT. This loan carried an interest rate of 4% and was repayable in equal instalments. HTI also had a working capital facility of up to $900,000 which was secured on a combination of the fixed assets, inventory and trade receivables of the US business. The rate of interest of this was fixed at 5.25%. Both the above loans were repaid during the year.

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 had a repayment holiday and did not accrue interest during the first 12 months. Following the initial 12 months, interest has been charged at 2.5% p.a. and the loan and interest are repayable in equal instalments over the remaining period.

In March 2021, HCS secured a five year loan of £1,100,000 from Innovate Loans UK Limited. At the year end the Company had fully drawn down this facility. The loan has a repayment holiday until March 2024 and is fully repayable by March 2026. Interest will be charged at 7.4% p.a. for the period of the loan. For the initial 36 months interest will be paid at 3.7% p.a. and for the final 24 months interest with be paid at 10.7% p.a. There are no penalties for early repayment.

During the year, the US operation secured a loan through the COVID-19 Economic Injury Disaster Loan scheme of $200,000. The loan is for a period of 30 year with a fixed interest rate of 3.75% and deferred repayments for the first two years. At the year end the balance on the loan was £164,000.

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 Directors of the Company is set out below in aggregate for each of the categories specified in IAS 24 'Related Party Disclosures'.

	2022 **£'000**	2021 £'000
Short-term employee benefits and fees	**522**	491
Social security costs	**61**	65
Post-retirement benefits	**37**	36
	620	592

Other transactions – Group and parent company

Fees totalling £12,352 (2021: £15,856) were paid to Evesco International Business for support during the September 2021 fund raise. Mr G Eves served as a director of the company during the year and is a director of Evesco International Business Services. At 30 June 2022, the balance owed to Evesco International Business Services was £Nil (2021: £Nil).

Other transactions – Group

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

	2022 **£'000**	2021 £'000
Services Received		
QM Holdings	**175**	402

QM Holdings is owned by Thomas Quantrille and Marvin Murrell who are officers of HCT. QM Holdings owned the HCT facilities and leased these to the Company. QM Holdings sold the property during the year and following the sale the rental is no longer deemed a related party transaction. During the year an amount of £174,914 was paid to QM Holdings in respect of property rent (2021: £401,870). The balance outstanding to QM Holdings at the year-end was £Nil (2021: £28,971).

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

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:

	United States Dollar £'000	Euro £'000	Total £'000
2022			
Financial assets	**5**	**211**	**216**
Financial liabilities	**44**	**73**	**117**
2021			
Financial assets	287	52	339
Financial liabilities	4	370	374

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:

Effects on loss after taxation/equity	2022 Increase/ (decrease) £'000	2021 Increase/ (decrease) £'000
United States Dollar:		
– strengthened by 10%	**(4)**	31
– weakened by 10%	**4**	(26)
Euro:		
– strengthened by 10%	**14**	(45)
– weakened by 10%	**(12)**	29

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 minimal risk to capital. Any surplus funds will be placed with licensed financial institutions to generate interest income.

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.

b) 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:

	2022 £'000	2021 £'000
United Kingdom	**298**	9
Europe	**29**	9
North America	**280**	360
Rest of the world	**60**	337
	667	715

Maturity analysis

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

	2022 £'000	2021 £'000
Not past due	**604**	677
Past due:		
– less than 3 months	**29**	38
– between 3 and 6 months	**14**	–
– more than 6 months	**20**	–
Gross amount	**667**	715

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. Impairment provision is not material and therefore has not been recognised in either the current or prior year.

Trade receivables that are past due but not impaired

The Board believes that no further impairment allowance is necessary in respect of these trade receivables.

22. Financial instruments (continued)

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:

2022	**Under 1 Yr £'000**	**1 to 2 Yrs £'000**	**3+ Yrs £'000**	**Total £'000**
Trade payables	1,178	–	–	1,178
Secured bank loan	–	–	1,141	1,141
Unsecured bank loan	11	15	185	211
Lease liability	480	461	1,979	2,920
Total	1,669	476	3,305	5,450

2021	Under 1 Yr £'000	1 to 2 Yrs £'000	3+ Yrs £'000	Total £'000
Trade payables	677	–	–	677
Secured bank loan	876	–	803	1,679
Unsecured bank loan	9	9	32	50
Lease liability	365	359	2,011	2,735
Total	1,927	368	2,846	5,141

c) 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.

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

	2022 £'000	2021 £'000
Financial assets		
Trade receivables	**667**	715
Other receivables	**282**	368
Cash and bank balances	**1,186**	1,644
Financial Assets (at amortised cost)	**2,135**	2,727
Financial liabilities		
Bank loans	**1,352**	1,729
Trade payables	**1,178**	677
Lease Liability	**2,920**	2,735
Financial Liabilities (at amortised cost)	**5,450**	5,141

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

e) 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:

	2022 £'000	2021 £'000
Authorised by the directors for	**52**	317

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:

	2022 Land and buildings £'000	**2022 Plant and machinery £'000**	2021 Land and buildings £'000	2021 Plant and machinery £'000
– within one year	**–**	**1**	–	1
– within two to five years	**–**	**2**	–	2
Aggregate amounts payable	**–**	**3**	–	3

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

	2022 Land and buildings £'000	**2022 Plant and machinery £'000**	2021 Land and buildings £'000	2021 Plant and machinery £'000
Operating lease expense	**–**	**1**	–	1

Within the minimum lease payments for plant and machinery is the cost relating to 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 and frozen in February 2009 for all participants.

Contributions of £92,000 were made to the scheme during the year ended 30 June 2022 (2021: Nil).

Included in the loss before tax during the year:

	2022 £'000	2021 £'000
Net Interest Expense	**9**	47

Included in other comprehensive income during the year:

	2022 £'000	2021 £'000
Actuarial loss/(gain) from demographic assumptions	**113**	(208)

26. Defined Benefit Pension Scheme (continued)

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

	2022 £'000	2021 £'000
Accumulated benefit obligation	**(4,076)**	(3,834)
Projected Benefit obligation	**(4,076)**	(3,834)
Plan assets at fair value	**2,720**	2,808
Funded Status	**(1,356)**	(1,026)
Accrued Pension Cost	**(1,356)**	(1,026)

Net amount recognised in the Consolidated Statement of Financial Position as of 30 June, consisted of the following:

	2022 £'000	2021 £'000
Non-current Liabilities	**(1,356)**	(1,026)

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 2022:

Discount rate for periodic benefit costs	3.25%
Discount rate for benefit obligations	3.25%
Rate of increase in compensation levels	3.50%
Investment return rate	3.00%

Mortality Assumptions are as follows:

Longevity at retirement age (current & future pensioners)	**2022**	2021
– Males	**20.5 years**	20.4 years
– Females	**22.4 years**	22.3 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 2022, by asset category were as follows:

Description	Total Carrying Amount £'000	Assets/ Liabilities Measured at Fair Value £'000	Fair Value Measurements at 30 June 2022 using Level 1 Inputs £'000	Level 2 Inputs £'000
Cash	160	160	160	–
Corporate Equities	1,450	1,450	1,450	–
Fixed Income:				
US Government	14	14	–	14
Corporate debt	1,003	1,003	–	1,003
Mutual Funds	93	93	93	–
	2,720	2,720	1,703	1,017

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 2022, were as follows:

	2022 £,000	2021 £,000
Opening Balance	**2,808**	2,840
Contributions	**92**	–
Distributions	**(269)**	(217)
Earnings	**–**	47
Net realised (loss)/gain	**(271)**	449
Foreign exchange gain/(loss)	**360**	(311)
Balance at Year End	**2,720**	2,808

Cash Flows

The Company expects benefits paid for the next five fiscal years and the five years thereafter as follows:

	2022 £,000	2021 £,000
2022	**280**	247
2023	**279**	245
2024	**284**	250
2025	**283**	249
2026	**283**	249
Thereafter	**1,442**	1,270
	2,850	2,510

The company's pension plan asset allocations by asset category were as follows as of 30 June 2022:

Asset Category	
Cash	6%
Equity Mutual Funds	53%
Fixed Income	38%
Other	3%

26. Defined Benefit Pension Scheme (continued)

Plan Obligations

	2022	2021
	£,000	£,000
Benefit Obligation at 01 July	**3,834**	4,275
Foreign exchange movement	**518**	(452)
Interest cost	**106**	109
Actuarial gain/(loss)	**(113)**	120
Benefits paid	**(269)**	(218)
Benefit Obligation at 30 June	**4,076**	3,834
Fair Value of Plan Assets at 01 July	**2,808**	2,840
Foreign Exchange movement	**360**	(311)
Actual Return on plan assets	**(271)**	449
Interest Income	**–**	47
Employer contributions	**92**	–
Benefits paid	**(269)**	(217)
Fair Value of Plan Assets at 30 June	**2,720**	2,808
Funded Status at 30 June	**(1,356)**	(1,026)

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:

	Reasonably	**Defined Benefit Obligation (£'000)**	
Actuarial Assumption	**Possible Change**	**Increase**	**Decrease**
Discount Rate	(+/- 0.25%)	(110)	115
Mortality Rate	(+/-1.00%)	15	(15)

HCT 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 2022, were £92,000 (2021: £47,000).

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.

There was no movement on the deferred tax account in the year and the balance at the year end is £Nil (2021 – £nil).

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

	Asset 2022 £'000	**Liability 2022 £'000**	**Net 2022 £'000**	**(Charged)/ credited to profit or loss 2022 £'000**
Employee pension liabilities	**285**	**–**	**285**	**70**
Available losses	**515**	**–**	**515**	**21**
Business combination	**–**	**(800)**	**(800)**	**(91)**
Net tax assets/(liabilities)	**800**	**(800)**	**–**	**–**

	Asset 2021 £'000	Liability 2021 £'000	Net 2021 £'000	(Charged)/ credited to profit or loss 2021 £'000
Employee pension liabilities	215	–	215	(86)
Available losses	494	–	494	(142)
Business combinations	–	(709)	(709)	228
Net tax assets/(liabilities)	709	(709)	–	–

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

	2022 £'000
Accelerated capital allowances	**(49)**
Unused tax losses	**24,994**
	24,945

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 13 September 2022, the Company raised £5.51 million (gross) through the placing, open offer and subscription of 275,516,784 new Ordinary Shares at 2.00 pence per share. The funds raised will be used to fund the general working capital needs of the business. Following the close of the Open Offer, the Company will issue a total of 138,758,392 Warrants to the subscribers of New Ordinary Shares. These warrants are exercisable at a value of 2.00 pence per share in the period to 12 September 2023.

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 2020	1,335	1,561	2,896
Interest accruing in period	3	15	18
New loans in year	800	–	800
Loan repayments in year	–	(219)	(219)
Lease Liability transaction to IFRS 16	1,647	–	1,647
Lease Liability repayments in year	–	(561)	(561)
Effect of foreign exchange	–	(117)	(117)
Loans classified as non-current at 30 June 2020 becoming current during year.	(263)	263	–
Lease Liability classified as non-current at 30 June 2020 becoming current during year.	(308)	308	–
At 30th June 2021	**3,214**	**1,250**	**4,464**
Interest accruing in period	**108**	**16**	**124**
New loan in year	**454**	**–**	**454**
Loan repayments in year	**–**	**(842)**	**(842)**
Lease Liability addition	**260**	**–**	**260**
Lease Liability repayments in year	**–**	**(548)**	**(548)**
Effect of foreign exchange	**348**	**12**	**360**
Loans classified as non-current at 30 June 2021 becoming current during year.	**43**	**(43)**	**–**
Lease Liability classified as non-current at 1 July 2021 becoming current during year	**(646)**	**646**	**–**
At 30th June 2022	**3,781**	**491**	**4,272**

PARENT COMPANY BALANCE SHEET
As at 30 June 2022

Company Registration No. 07228939

PARENT COMPANY REPORT

	Note	2022 £'000	2021 £'000
Fixed assets			
Property, plant and equipment		**17**	27
Investments	6	**1,238**	1,497
		1,255	1,524
Current assets			
Debtors – within one year	7	**278**	176
Debtors – after more than one year	7	**7,097**	6,217
Cash at bank and in hand		**695**	283
		8,070	6,676
Creditors: amounts falling due within one year	8	**(429)**	(408)
NET CURRENT ASSETS		**7,641**	6,268
TOTAL ASSETS LESS CURRENT LIABILITIES		**8,896**	7,792
Creditors: amounts falling due after more than one year		**–**	–
NET ASSETS		**8,896**	7,792
Capital and reserves			
Called up share capital	9	**10,207**	8,505
Share premium account	9	**31,912**	28,820
Profit and loss account		**(33,223)**	(29,533)
SHAREHOLDER'S FUNDS		**8,896**	7,792

As permitted by section 408 of the Companies Act 2006, the Company's profit and loss account has not been included in these financial statements. The loss of the Company for the year ended 30 June 2022 was £3,728,000 (2021: £1,533,000).

The financial statements on pages 65 to 69 were approved and authorised for issue by the Board of directors on 5 October 2022 and signed on its behalf by:

David Banks
Chair

Keith Broadbent
Chief Executive Officer

COMPANY STATEMENT OF CHANGES IN EQUITY
For the year ended 30 June 2022

	Share capital £'000	Share Premium £'000	Profit and loss account £'000	Total Equity £'000
At 1 July 2020	6,804	27,764	(28,104)	6,464
Comprehensive Income for the year				
Loss for the year	–	–	(1,533)	(1,533)
Contributions by and distributions to owners				
Recognition of share-based payments	–	–	104	104
Issue of ordinary share capital, net of transaction costs	1,701	1,276	–	2,977
Share issue costs	–	(220)	–	(220)
At 30 June 2021 and 1 July 2021	8,505	28,820	(29,533)	7,792
Comprehensive Income for the year				
Loss for the year	–	–	(3,728)	(3,728)
Contributions by and distributions to owners				
Recognition of share-based payments	–	–	38	38
Issue of ordinary share capital	1,702	3,401	–	5,103
Share issue costs	–	(309)	–	(309)
At 30 June 2022	**10,207**	**31,912**	**(33,223)**	**8,896**

NOTES TO THE PARENT COMPANY BALANCE SHEET

For the year ended 30 June 2022

1. Basis of preparation

The parent company financial statements of Haydale Graphene Industries Plc, a public company incorporated and registered in England and Wales under the Companies Act 2016 with company number 07228939 which is limited by shares, have been prepared in accordance with Financial Reporting Standard 101 Reduced Disclosure Framework. The principal accounting policies adopted in the preparation of the financial statements are set out below. The policies have been consistently applied to the years presented, unless otherwise stated.

The financial statements have been prepared on a historical cost basis. The presentation currency used is sterling and amounts have been presented in round ("£000's").

Disclosure exemptions adopted

In preparing these financial statements the company has taken advantage of all disclosure exemptions conferred by FRS101. Therefore these financial statements do not include:

- certain comparative information as otherwise required by IFRS;
- certain disclosures regarding the company's capital;
- a statement of cash flows;
- the effect of future accounting standards not yet adopted;
- the disclosure of the remuneration of key management personnel; and
- disclosure of related party transactions with other wholly owned members of the group headed by Haydale Graphene Industries Plc.

In addition, all in accordance with FRS 101, further disclosure exemptions have been adopted because equivalent disclosures are included in the consolidated financial statements of Haydale Graphene Industries Plc. These financial statements do not include certain disclosures in respect of:

- Share based payments;
- Business combinations; and
- Financial Instruments

2. Accounting policies

With the exception of the adoption of IFRS 16 discussed further below, the following accounting policies have been applied consistently in dealing with items which are considered material to the company's financial statements:

Investment in subsidiary undertakings

Where the company has control over an investee, it is classified as a subsidiary. The company controls an investee if all three of the following elements are present: power over the investee, exposure to variable returns from the investee, and the ability of the investor to use its power to affect those variable returns. Control is reassessed whenever facts and circumstances indicate that there may be a change in any of these elements of control.

Investments in subsidiary undertakings where the company has control are stated at cost less any provision for impairment.

Financial assets

Impairment of financial assets

The Company assesses at each balance sheet date whether a financial asset or group of financial assets is impaired.

Assets carried at amortised cost

These assets arise principally from the provision of services and advancing of monies to the company's subsidiaries, 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 plus transaction costs that are directly attributable to their acquisition or issue, and are subsequently carried at amortised cost using the effective interest rate method, less provision for impairment.

2. Accounting policies (continued)

The Company's financial assets measured at amortised cost comprise intercompany receivables, trade and other receivables and cash and cash equivalents in the consolidated statement of financial position.

The intercompany receivables are interest-free loans that are repayable on demand. In applying IFRS 9 to these balances, the company assesses the ability of the debtor subsidiary to repay the loan on demand at each reporting date. A loan is considered to be in default where there is evidence that the borrower has insufficient liquid assets to repay the loan on demand. This is assessed with reference to key liquidity and solvency ratios. Where the borrowing subsidiary has sufficient liquid assets to repay the loan immediately, meaning the risk of default is very low, the loan is considered to be in Stage 1 of the expected credit loss model, meaning that there is deemed to have been no significant increase in credit risk. However, should the borrowing subsidiary not have sufficient liquid assets to repay the loan on demand, the loan is considered to be at Stage 3 of the expected credit loss model and credit impaired. Where a loan is deemed to be credit impaired, an expected credit loss provision is recognised based on a 'repay over time' approach applying a discounted cashflow analysis.

Cash and cash equivalents includes cash in hand for the purpose of the statement of cash flows - bank overdrafts. Bank overdrafts are shown within loans and borrowings in current liabilities.

Share-based payments

When the company grants options over equity instruments directly to the employees of a subsidiary undertaking, the effect of the share-based payment is capitalised as part of the investment in the subsidiary as a capital contribution, with a corresponding increase in equity.

Depreciation

Depreciation is provided to write off cost, less estimated residual values, of all tangible fixed assets, evenly over their expected useful lives. It is calculated at the following rates:

Furniture and fittings	33% per annum straight line
Computer equipment	33% per annum straight line

Impairment

The need for any fixed asset impairment write-down is assessed by comparison of the carrying value of the asset against the higher of realisable value and value in use.

Taxation

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

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.

Foreign Currency

Foreign currency transactions are translated at the rates ruling when they occurred. Foreign currency monetary assets and liabilities are translated at the rate of exchange ruling at the balance sheet date. Any differences are taken to the profit and loss account.

Critical accounting judgements and estimation uncertainty

The preparation of the financial statements requires management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the accompanying disclosures, and the disclosure of contingent liabilities, at the end of the reporting period. However, uncertainty about these assumptions and estimates could result in outcomes that require a material adjustment to the carrying amount of the assets or liabilities affected in future periods.

The key sources of estimation uncertainty that have a significant effect on the amounts recognised in the financial statements include estimation, where applicable, for items relating to revenue recognition and impairment of receivables.

Impairment of Investments

The company considers the impairment of investments on an annual basis. An estimate of the values of investments is calculated on a discounted cash flow basis. Our 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 Board approved longer term projections. 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 impairment of investments has been considered under note 10 of the consolidated financial statements.

Impairment of debtors

The company applies the expected credit loss model under IFRS 9 in assessing the impairment of receivables. As intercompany receivables are repayable on demand, the debtor is considered to be in default if they would be unable to repay the balance at the reporting date. In such circumstances, the receivables are impaired to the extent that the debtor company is not considered able to repay the receivable if it were to be recalled at the balance sheet date. Where a loan is deemed to be credit impaired, an expected credit loss provision is recognised based on a 'repay over time' approach applying a discounted cashflow analysis.

3. Audit Fees

The audit fees of the parent company have been disclosed within note 6 of the consolidated financial statements, which form part of these financial statements.

4. Employees

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

	2022	2021
	No.	No.
Administration	**10**	9

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

	2022	2021
	£' 000	£' 000
Wages and Salaries	**723**	642
Social Security Costs	**91**	79
Pension Costs	**62**	53
Share based payment (income)/expense	**38**	48
	914	822

5. Directors' remuneration

In respect of directors' remuneration, the disclosures required by Schedule 5 to the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 are included in the detailed disclosures in the audited Group accounts in Note 7, which are ascribed as forming part of these financial statements.

6. Fixed asset investments

	Investment
	£'000
Cost	
At 1 July 2021	1,497
Impairment provision	(259)
At 30 June 2022	**1,238**

The impairment reviews have been carried out on the same basis as those applied to goodwill and intangibles of the Group (see note 10 in the Group accounts for further detail).

6. Fixed asset investments (continued)

The undertakings in which the company's interest at the period end is 20% or more are as follows:

Name of subsidiary company	Country of incorporation or registration	Proportion of ordinary share capital held	Nature of business
Haydale Ltd	England & Wales	100%	R&D, sales and distribution
Haydale Composite Solutions Limited	England & Wales	100%	R&D, sales and distribution
Haydale Composites Ltd	England & Wales	100%	Dormant
EPL Composites Limited	England & Wales	100%	Dormant
Haydale Technologies Korea Co., Ltd	South Korea	100%	Sales and distribution
Haydale Technologies Incorporated LLC	North America	100%	Holding Company
Haydale Technologies Thailand Ltd	Thailand	100%	R&D, sales and distribution
Haydale Ceramic Technologies LLC	North America	100%	Sales and distribution

Haydale Composites Ltd & EPL Composite Limited are exempt from audit in accordance with the Companies Act 2006, as a result of them remaining dormant throughout the current and previous financial years. Haydale Technologies Korea Co., Ltd is also exempt from audit.

Subsidiary	Registered office
Haydale Ltd	Clos Fferws, Parc Hendre, Capel Hendre, Ammanford, Carmarthenshire, SA18 3BL
Haydale Composites Ltd	Clos Fferws, Parc Hendre, Capel Hendre, Ammanford, Carmarthenshire, SA18 3BL
EPL Composites Ltd	Clos Fferws, Parc Hendre, Capel Hendre, Ammanford, Carmarthenshire, SA18 3BL
Haydale Composite Solutions Limited	Unit 10 Charnwood Business Park, North Road, Loughborough, Leicestershire, LE11 1QJ
Haydale Technologies Korea Co., Ltd	16F, Gangnam Bldg. 396, Seocho-daero, Seocho-gu, Seoul 137-857, South Korea
Haydale Technologies Thailand Ltd	Room 510 – 515, Tower D, 5th Floor, Thailand Science Park Phahon Yothin Road, Luang District, Pathum Thani Province, 12120, Thailand
Haydale Technologies Incorporated LLC	1446 South Buncombe Road, Greer, South Carolina. 29651, USA
Haydale Ceramic Technologies LLC	1446 South Buncombe Road, Greer, South Carolina. 29651, USA

7. Debtors

	2022 £' 000 < 1 yr	**2022 £' 000 > 1 yr**	2021 £' 000 < 1 yr	2021 £' 000 > 1 yr
Amounts owed by group companies	**–**	**7,097**	–	6,217
Corporation tax	**76**	**–**	76	–
Other debtors	**188**	**–**	91	–
Prepayments and accrued income	**14**	**–**	9	–
	278	**7,097**	176	6,217

During the year an impairment provision of £909,000 (2021: Nil) was recognised in relation to Haydale Technologies Thailand Limited and Haydale Technologies Korea Co Ltd Intercompany balances.

Loans to subsidiary organisations are denominated in their local currency in line with IAS21, for consolidation purposes these loans are classified as part of the net investment in the subsidiary and foreign exchange movements on these balances are recorded through the Other Comprehensive Income.

Amounts owed by group companies are in foreign currencies, predominantly in USD. A 1% movement in the exchange rate would result in a gain of £0.07m or a loss of £0.07m.

8. Creditors: amounts falling due within one year

	2022 £'000	2021 £'000
Trade creditors	**152**	19
Other creditors including tax and social security	**89**	46
Accruals and deferred income	**188**	343
	429	408

9. Share capital and share premium

	Number of shares No.	Share capital £'000	Share premium £'000	Total £'000
At 1 July 2021	425,279,798	8,505	28,820	37,325
Issue of £0.02 ordinary shares	85,055,893	1,702	3,092	4,794
At 30 June 2022	**510,335,691**	**10,207**	**31,912**	**42,119**

The Company issued 85,055,893 new ordinary shares of 2p each in September 2021. There were £309,000 issue costs associated with the new ordinary share issue.

10. Ultimate controlling party

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

11. Related party transactions

The Company is exempt from disclosing transactions with wholly owned subsidiaries within the Group. Other related party transactions are included within those given in note 21 of the consolidated financial statements.

Corporate Directory

Company Number	07228939
Directors	David Doidge Richard Banks Keith Broadbent Mark Chapman Graham Dudley Eves Theresa Anne Wallis
Secretary	Matt Wood
Investor Relations	investor.relations@haydale.com
Head Office and Registered Office	Clos Fferws, Parc Hendre, Capel Hendre, Ammanford, Carmarthenshire, Wales, SA18 3BL
Website	www.haydale.com
E-mail	info@haydale.com
Telephone	+44 (0)1269 842946
Advisers	
Independent Auditor	Crowe U.K. LLP 55 Ludgate Hill, London, EC4M 7JW
Nominated Advisor and broker	finnCap One Bartholomew Close, London, EC1A 7BL
Registrars	Share Registrars Limited 3 The Millennium Centre, Crosby Way, Farnham, Surrey, GU9 7XX
Solicitors	Field Fisher LLP Riverbank House, 2 Swan Lane, London EC4R 3TT
Intellectual Property Solicitors	Mewburn Ellis LLP 33 Gutter Lane, London, EC2V 8AS

www.haydale.com

Haydale Graphene Industries Plc

Clos Fferws, Parc Hendre,
Capel Hendre, Ammanford,
Carmarthenshire, SA18 3BL

T: +44 (0)1269 842946
F: +44 (0)1269 831062