# Haydale Graphene Industries Plc

## Annual Report And Accounts

For the year to 30 June 2015

haydale

Graphene is set to change the way we interact with the world around us

# Haydale

Realising graphene commercialisation

## Contents

# Chairman's Statement

*John Knowles, Chairman*

I am very pleased to present the Company's first full year results to 30 June 2015 as a public company. I am also pleased to report that we have had a very successful year in implementing the strategy outlined in the 2014 Annual Report and Accounts. The Haydale team continues to work tirelessly towards making the Group an acknowledged leader with both producers and end users who require product enhancements through using graphene and other advanced nanomaterials. Our commercialisation strategy of engaging in partnerships and collaborations with world renowned and strategically important companies is starting to pay off in gaining early sales particularly of our graphene inks in the Far East and resin and composite products in Europe. The focus will be to establish Haydale as a leader in the emerging graphene market and is already creating opportunities to both license or sell our plasma technology to functionalise graphene and other nanomaterials for producers. Added to this we have also made our first successful acquisition which has given us early access to more customers in our target resin and composite markets.

**Fundraising**

The financial year ended 30 June 2015 was an exciting development phase that has set us on course for significant growth. We have started generating sales and by investing in dedicated centres of excellence we are opening export growth potential. Your Board therefore is mindful of the need for continued discrete and focussed investment to accelerate our progress. This is why we have announced today a conditional placing for £5.6 million, incorporating, subject to clawback, an open offer for £1.0 million ("fundraising"). The open offer will allow all existing shareholders to participate. These funds will be used to continue to grow the composites and ink operations and increase our plasma reactor numbers to allow us to swiftly move into overseas locations and serve our international customers.

I reported last year that a key part of our strategy was to consider suitable acquisitions where these provide access to sales, with complementary products in our target markets of inks/coatings, composites and energy harvesting. This year saw the first acquisition when on 1 November 2014 we acquired EPL Composite Solutions Limited, a specialist design, development and commercialisation house in advanced composite polymer materials. The consideration comprised a mixture of cash and shares and has been a great success, with full integration into the Group. Two business managers have been elevated to directors of the newly named Haydale Composite Solutions Limited ("HCS"), while the Managing Director, Gerry Boyce has joined the senior Haydale team as part of the operating board of Haydale Limited. All of the post-acquisition income reported in this fiscal year is from traditional composite work and in this current year we expect to see sales inroads into graphene and other nanomaterial filled resins and composites. As the business has performed above the level set under the earn out we have agreed a discounted early full and final settlement with the former shareholders. I'm delighted to report that Mr Boyce intends to reinvest £300,000 of his sale proceeds into new shares in Haydale in addition to and separate to the fundraising announced today.

There still remains today a lack of market understanding over the performance of and use of graphene and other new developing 2D nanomaterials, such as Boron Nitride. Having received positive verification of the functionalisation process in February 2014 from the National Physical Laboratory we have particularly sought third party verification of our claims in the performance improvements we can make to, for example, epoxy and polyester resins and carbon fibre structures. Our aim is to use our unique and patented technology to create understanding and acceptance of graphene and other nanomaterials by commercialising them as quickly and effectively as possible.

Our assessment is that the market eagerly awaiting for the first substantive application that capitalises on the outstanding properties of graphene. Our patent has now been approved for grant which is set for 4 November 2015 at the European Patent Office. Other territories are expected to follow are now following. Crucially the patent is for the plasma functionalisation treatment of carbon and other nanomaterials using our specially fitted plasma reactors. They provide the enabling technology which delivers those improvements required for commercialisation. We are well placed in the market where we have access to a multitude of materials, coupled with a large variety of chemical functionalisations. This enables us to deliver the required solution to the end users, and is the Haydale speciality.

As is normal with a new technology, gaining market acceptance is often a long and difficult task and there are many challenges to overcome. We have now set ourselves to meet these barriers to entry that every new materials

# Chairman's Statement continued

replacement offering has. We have increased our technical team, brought on scaled production capability, obtained a quality, consistent supply chain and invested in overseas sales representation to open markets in the Far East and North America. This progress is further outlined in the Strategic Report.

**Financial results**
Income for the year ended 30 June 2015 amounted to £1.48 million (2014: £0.13 million) of which £1.18 million was from HCS. Adjusted EBITDA (EBITDA adjusted for share-based payment charges of £0.26 million (2014: £0.07 million) and loss on disposal of property, plant and equipment £0.02 million (2014: Nil)) was a loss of £2.38 million (2014: £1.97 million). Our cash outflow from operating activities was £2.73 million (2014: £2.11 million) and we invested heavily in our reactor capacity and ink manufacturing capabilities during the year, which totalled £1.18 million (2014: £0.15 million). We ended the year with cash of £2.05 million (2014: £5.68 million).

**Operational highlights**
During the year under review, the operational highlights for the Group can be summarised as follows:

- A collaboration agreement with Swansea University and its centre for printing and coating was announced in July 2014, capitalising on the growing technical and commercial ties of the parties. This was further strengthened in February 2015 with an announcement of a 5 year exclusive pipeline agreement for the commercialisation of research projects. The first being a diagnostic pressure sensor;

- In July 2014 we announced two overseas marketing agreements with focussed agents in the USA with InVentures and the Far East with planarTECH. Since then we have announced the opening of a USA operation in New York State and a sales office in Seoul, South Korea;

- A long term supply agreement was signed with Danish based plasma specialists, Tantec A/S. To date they have supplied six HT60 reactors (for supply of R&D quantities) and in March 2015 an HT200 which, at 8 times the capacity of the HT60, can now deliver commercial quantities. Accordingly, we have delivered on our target of scaling up our process;

- Our ink manufacturing capability was established at the end of December 2014 and with a capability to make over 75kgs per week we are starting to seed the market and receive repeat orders;

- The collaboration with extreme sailing team, Alex Thomson Racing, in February 2015, brings together our composite, energy and ink/coatings capabilities in one project to use the "graphenes" in reducing weight, increasing boat strength, creating barrier films and managing thermal heat issues;

- On marketing and promotion we now have a dedicated and focussed aerospace unit to generate sales and funded research, with immediate success in the recently announced National Aerospace Technology Exploitation Programme "lightning strike" grant award;

- Being selected in February as a FIReStarter 2015 company was proof that globally we are being recognised as a future technology with potential. The 13th Annual event took place between 6–9 October in Park City, Utah, USA where we showcased and presented to a very influential global audience;

- Significantly we won the extensive tender process to supply an HT60 reactor to UK based, Centre of Process and Innovation (CPI), in June 2015. Delivery is expected be in November 2015. The reactor will be a key enabler for CPI customers in the electronics and engineering industries and is expected to complement their state of the art capability for characterisation and formulation of graphene products;

- We have made significant progress with our intellectual property portfolio, announcing in June 2015 the successful application for grant of a patent in China. Crucially we have now received the irreversible decision to grant one of our key process patents through the European Patent Office. This patent is not only for carbon but critically other nanomaterials. Other countries are processing the grant applications; and

- Aside from our collaboration with AMG Mining we have added to the supply chain capability by announcing collaborations with Talga Resources (who have a graphite mine in Sweden) and UK based Versarien plc who, through their subsidiary 2D-Tech, are a producer of graphene nanoplatelets.

**Outlook**
The year's results are consistent with our projections and with market expectations where a significant portion of income has been derived from the HCS acquisition. We expect revenues to grow significant in the current financial year in our global markets. We have good visibility on HCS orders and the current order book underpins HCS's projections for the year to 30 June 2016 and is in excess of the income declared for the 2015 financial year. Additionally, after over a year of sales and marketing effort we now have 10 key accounts in South Korea many of which are significant corporations with, individually, annual sales of many hundreds of millions of US$. Most are now paying for repeat samples in assessing product substitution and, with positive initial results on known programmes, we anticipate the commencement of strong sales growth from this region.

The Far East is also producing additional strong leads in other countries, notably Taiwan, where one specific ink manufacturer is keen to use our product in key applications such as screen printing our ink in producing a series of bio-medical sensors for customers with known demand.

We have also now established ourselves in North America. The aim is to create at least one centre of excellence on the East Coast and take advantage of a fragmented and largely untapped market. At least two of our plasma reactors are under consideration in strategic US locations. Having an R&D reactor will allow us to promote our technological solution to a significant and expectant market as a cost effective way to functionalise graphene and other 2D materials in a controlled and reproducible way. We now have a supply chain and a scalable process to cope with initial demand. These initiatives, together with other development opportunities under consideration, lead the Board to believe that the Group is in a strong position to grow its operations, both at home and overseas, and to deliver its business plan for the benefit of all shareholders. In support of these strategic aims we have, since the year end:

- Announced the opening of a USA presence, with a subsidiary company, Haydale Technologies, Inc. and the intention to introduce initially an R&D reactor into the North American market, based in New York State;

- Agreed strategic collaborations with raw material producers Talga Resources and Versarien plc;

- Agreed to collaborate with two major resins companies, Scott Bader and Huntsman, who will supply respectively dedicated polyester and epoxy resins for HCS to run a series of programs for enhancement of their thermoset products;

- Received the first grant award from NATEP in the aerospace unit, to produce a graphene coating for lightning strike protection. Key consortium members are Airbus, BAE, GKN and Cobham; and

- Received confirmation from the EPO of their decision to grant key functionalisation process patent number EP2649136B relating to carbon and other nanomaterials, which will be formally granted on 4 November 2015.

I would like to thank the staff, the Board, and the Group's external advisers for their hard work over the last year in positioning the Group for significant growth over the coming years.

This will be a very important year for Haydale in our drive for significant sales following the investments made last year in overseas markets, equipment, and personnel. With the financial strength provided by our public listing, coupled with support of a strong Board providing a wealth of experience across a wide skill spectrum, the Group is confident of having a successful year. I look forward to positively reporting on the outcomes of our focus.

**John Knowles**
Chairman

30 October 2015

# Strategic Report

The directors present their Strategic Report for the year ended 30 June 2015.

**PRINCIPAL ACTIVITIES**
Haydale Graphene Industries Plc is the AIM listed company with a number of subsidiaries, the principal ones being Haydale Limited ("Haydale") and Haydale Composite Solutions Limited (("HCS") formerly EPL Composite Solutions Limited). Haydale is the main R&D operation which also sources, handles and processes nanomaterials with a suite of prototyping and analytical equipment, to facilitate the commercial application of, initially, graphene and other carbon materials for customers worldwide.

HCS is a recognised composite R&D and testing house, that spans the whole development cycle. Based in Loughborough, customers include significant corporations such as National Grid, SSE, Eirgrid, Chevron, Anglian Water, Severn Trent Water, Yorkshire Water and 3M.

HCS has developed a reputation for delivering innovative solutions in the commercial applications of advanced polymer composite materials working with global companies over more than 20 years. Its business is focused on a range of market sectors including pipe lining for the oil, gas and water industries, infrastructure for electricity and energy sectors plus the marine and transportation markets. HCS also works with OEMs and end-users to develop and provide composite solutions with demonstrable clear technical, economic and environmental benefits over existing structures currently manufactured in traditional materials such as steel, aluminium, wood or concrete.

**Commercialising Graphene**
Since 2013, the Group's management has been working hard on positioning Haydale as a provider of the solution based enabling technology to commercialise graphene and other nanomaterials. Now strategically well positioned, Haydale can source the most appropriate graphene and other nanomaterials feedstock from suppliers that, in conjunction with its unique proprietary plasma treatment (known as functionalisation), produces a tailored customer focussed solution. This enables the nanoparticles (e.g. graphene) to disperse uniformly in the target material and, most importantly, uniform dispersion is essential in enabling the significant properties of graphene and other nanomaterials to be realised.

Followers of the graphene story will know that it has many vaunted properties (e.g. increasing strength and stiffness, highly conductive, impermeable to gases, to name but a few) but as an inert substance it does not mix readily with other materials. Furthermore, producing a consistent, commercially available single layer of graphene (where 3 million sheets stacked together are only 1 millimetre thick) is proving a significant technical challenge and general observers perceive as not commercially viable currently. Yet almost every day, new possible applications are announced as potential new uses. There has been an amazing amount of hype generated by this material, often arising from passionate researchers excited by its properties. The challenge is how to translate these properties measured in the laboratory into commercial applications, especially as graphene is almost inert. This is where Haydale comes in with its unique plasma functionalisation technology.

Haydale is focussed not on the technically challenging single sheet graphene but stacks of graphene sheets in the range of 5 to 100, generally acknowledged, depending on the stacks of sheets as few layered graphene ("FLGs") or graphene nanoplatelets ("GNPs"). Both FLGs and GNPs are generally produced by a number of manufacturers from organic mined graphite. These materials can be produced by a 'top down' production method, involving the exfoliation of mined graphite to produce flakes. Alternatively, they can be produced by a 'bottom up' method, such as chemical vapour deposition from a carbon source such as methane. The bottom up (synthetic) process generally uses an energy consumptive hot reactor (900 degrees Celsius or more) and with a cost structure that means the material cannot compete on price with the GNPs from mined graphite. Hence the need for the synthetically produced material to find applications that are not competing with the mined organic GNPs.

**Performance Conundrum**
With many different "graphenes" available in the market place today, we believe the buyer can easily get confused where prices can range from \$50 to over \$2,000 per kg. The temptation is to plump for the cheapest available, but more often than not, this is not the best option. Haydale has built up years of experience in evaluating the market place and we know that all materials are different and will vary in performance as well as price. Understanding the price/performance matrix is critical in evaluating the material that suits the application and is economically viable. Moreover we know which supplier can produce scalable, consistent quality product; the key to commercialising this material.

Consequently realising the full benefits of nanomaterials and especially graphene is rarely easy. They need to be optimised for incorporation into the intermediate material or end use application. When you get it right, the results can be spectacular. Our strategy is to get third party verification of the positive effects on existing materials arising from adding our treated graphene and other nanomaterials. We have also started to present these findings at a series of graphene conferences on a world-wide basis as part of the Haydale marketing strategy and now have a regular series of speaking engagements arising from invitations to present.

**Grant and Project Funding**
With the advent of the Graphene Flagship in Europe making available €100 million a year for 10 years into graphene research, the level of R&D projects has escalated in Europe and now the Far East has reacted with significant research monies being invested in this area. Haydale is not a manufacturer of raw graphene, rather we are a solutions provider focussed on the early adoption and commercialisation of graphene. We have an enabling technology utilising a unique functionalisation process on

nanomaterials, specifically graphene, as a means of delivering improved product performance. We have the capability now to source and use, both organic and synthetically produced flake graphene, and to modify the surface of the graphene with specific chemical functional groups tailored to the requirements of the end user's application. This process is known as functionalisation. Applying the correct functionalisation has two immediate benefits, namely, the promotion of:

- homogeneous dispersion in a solution (i.e. avoiding agglomeration); and
- chemical interaction or bonding with a substrate or matrix.

Functionalisation is carried out through a low temperature plasma process of under 100 degrees Celsius that treats both organic mined fine powder and other synthetically produced nanomaterial powders producing high quality FLGs and GNPs. The process can functionalise with a wide range of chemical groups, where the concentration of chemicals can be tailored to the customer needs. Good dispersion improves the properties and performance of the host material and ensures it delivers to the desired specification.

There continues to be significant government and institutional funding aimed at applications for graphene. We are working and are in discussions with several large multi-national corporations and universities to create "intermediate products" such as conductive inks, epoxy composites and coatings.

The general use of nanoparticles is well accepted in the pharmaceutical, cosmetic and chemical industries. Adopting a new material such as graphene however takes time, requiring sampling, testing and evaluation. Often this is done in conjunction with collaboration partners, primarily end users who are willing to consider new innovative materials in seeking a competitive advantage. Our approach has been to work with the material suppliers and/or the end user to develop intermediate products that the manufacturer can use to improve a product offering. Our market focus is targeted on sectors where we consider early adoption of new innovative materials is commonplace. Often, take up of a new material is hampered by conservatism coupled with the perceived need to invest significant sums in new plant and equipment and discard the existing machinery. We consider that the markets that we have focussed on, namely, composites, inks/coatings and speciality energy harvesting have less inbuilt inertia to change and are early adopters of such new materials. Their processing does not normally require capital equipment change.

Critically our focus is to develop every day applications in non-regulated markets as adoption generally does not need long term testing certification. This approach should enable HCS especially to quickly get GNP-loaded intermediate products into the market.

**OPERATING REVIEW**

In the year under review, and in the four months post year-end, the Company has made significant progress in building its human resources, production and sales capability. The objective has been to underpin the strategic markets we are focussed on to deliver the growth required to move to an operating profit and, as highlighted in the Chairman's Statement, within the past year, Haydale has signed a series of distribution and partnership agreements to help achieve this goal.

**R&D Materials and the supply chain**

Access to the right nanomaterials is crucial to being able to offer the ultimate customer focussed solution. We have an exclusive distribution arrangement and a supply contract with AMG Mining AG ("AMG") for certain of their graphite materials and they have formed the base of our material offering. However we have evaluated and qualified many different suppliers to provide us with a broad range of materials to choose from which will best suit the end users' application. These include Australian based Talga Resources and in the UK, 2D Tech – a subsidiary of UK based Versarien plc. Others are under evaluation to provide the broadest materials base to draw from. All have to be able to demonstrate continuity of supply and consistency of product which are critical components in the supply chain.

**Inks and Coatings**

Having tested the market for some time with a conductive "graphene" based ink, the agreement with the Welsh Centre for Printing and Coating (WCPC), signed in July 2014, has enabled us to now market a commercially available conductive ink currently produced at our Ammanford facility. At our current single shift capacity and pricing we can generate income of over £10,000 per week. In particular the Far East market is receptive to our screen based printable ink. We have now repeat sampled a range of distributors and printers, where the application appears to be specifically suitable for the bio-medical sensor market. WCPC are investigating the exploitation of functionalised graphene, and other carbon nanomaterials developed by Haydale, in areas such as wearable technology, sports apparel, barrier coatings and 3D printing.

**Composites**

The composite market, at over $90bn p.a., is significant and represents one of our most immediate sales opportunities. Through our newly formed collaborations with Huntsman and Scott Bader, two of the world's leading resin manufacturers, we anticipate that their ready formed distribution networks will be the sales channel for the expected resulting next generation of performance resins enhanced with our GNPs. An advanced composite typically consists of 50% long fibre reinforcement and 50% polymer resin. The role of the long fibres is to provide the strength, stiffness and impact resistance in the structure while the polymer resin is to provide environmental resistance and to transfer external loads into the fibres. Traditionally, the polymer resin is usually discounted when determining the strength and stiffness of a composite material, being largely

# Strategic Report continued

seen as the glue that binds the fibres together and gives the material its shape.

We believe that, for the first time, with the advent of Haydale's functionalised GNPs, HCS has the ability to radically change and influence the polymer resin properties by the addition of functionalised graphene. It has been demonstrated that, by adding functionalised graphene and other nanofillers, HCS can dramatically improve the resin properties of mechanical, thermal conductivity, electrical conductivity and physical properties. This offers improved polymer resins and hence the composite.

Adding functionalised graphene will particularly enhance the mechanical properties of the resin including, strength, stiffness, fatigue and impact. This will enable designers to design lighter weight composite structures across a wide range of industries including marine, rail and wind energy. Lighter weight structures means removing some of the reinforcement layers which not only reduces the materials cost but significantly reduces the cost of production as composite production techniques are largely manual.

Assuming that HCS can, for example, treble the stiffness of the resin from 3 GPa (gigapascals) to 10 GPa then we could potentially reduce the weight of a glass fibre reinforced resin structure by as much as 15% with a similar saving in cost. All through the addition of some functionalised nanomaterials at loadings of often 2% or lower. HCS is also involved in adding functionalised graphene into the epoxy adhesive. This will enable designers to design lighter weight structures requiring less adhesives and smaller bonding areas. If adhesives can be improved in one or more of these areas then joints can be designed with thinner adhesive glue lines or smaller bonded areas thereby reducing weight and cost.

We are focussed on further developing our composite offerings and seeking more industrial partners, who can design, develop and commercialise advanced polymer composite materials on a global basis. In a number of instances we have commenced confidential commercial discussions. With the right partners, we believe that the Haydale nanomaterials will show demonstrable clear technical, economic and environmental benefits over existing structures currently manufactured in traditional materials such as steel, aluminium, wood or concrete.

**Energy Harvesting**
We are working on several potential strategic alliances in this complex market. Our team of energy experts have identified a number of specialist sectors for exploitation, where our novel materials and functionalisation can make a difference. One area showing promise is in the super capacitor sector, which requires a rapid delivery of concentrated energy. In the laboratory, we have demonstrated that by adding FLG loaded pastes, we have improved the performance of a super capacitor. We would expect to make significant progress in this sector over the coming year, which is likely to include the work done by target partners in the energy market, including key university knowledge and testing facilities.

**Sales strategy**
Korea has become a key market for us as, over the last 18 months, we have developed at least 10 key customers who are supplying the two dominant electronics giants in South Korea. A number of sales opportunities are therefore being discussed in providing materials that improve thermal and electrical properties of thermoplastic and thermoset based composites. The recent opening of our dedicated sales and marketing office in Seoul is critical in demonstrating commitment to the market and in responding swiftly to customers' requests; for Korea generally moves quickly in bringing products to market.

The North American market is generally untapped and of equal importance to both Europe and the Far East. The imminent despatch of one of our HT60 R&D reactors to our subsidiary, Haydale Technologies Inc. in Buffalo will start to open sales and collaboration opportunities in what we perceive as a fragmented market offering significant sales opportunities. We intend to add reactors into other areas of strategic importance in the USA that opens up more collaboration possibilities.

Europe – The announcement of the European Patent Office's decision to grant us one of our key functionalisation process patents on 4 November 2015 in Europe strengthens our offering in a sizeable market. AMG, our GNP supply partner, is a key channel for European sales and processing of volume related sales from their site in Hauzenberg, Bavaria. Our intention is to establish a Haydale centre of excellence in that region to service mainland Europe's demand for functionalised nano materials. We are looking for AMG to help establish key accounts across Europe especially as they have significant customer reach through sales of their existing graphitic materials.

The sale of one of our HT60 reactors, through a competitive tender process, to the CPI in Sedgefield was achieved before the grant of a patent and was an important step for us is establishing a second UK processing base. The CPI has acknowledged that our reactor has bridged a technology gap in their offering which we consider to be a significant endorsement of our process. The CPI is expected to be ready to receive the reactor in November and we will immediately commission it on site. The aim is to work closely with the CPI and, although they are not a commercial producer, they are targeting customers requiring specific speciality coatings. The expectation is to produce for customers a product ready for commercialisation, and one which will incorporate the use of our technology.

We continue to invest in personnel to capitalise on the increasing momentum achieved over the last year and to exploit our growing technical reputation. Aiming to vigorously pursue our commercialisation strategy, over the next few months we expect to recruit an experienced Commercial Director to drive forward the Group's sales efforts. This is now a real and urgent need for the Group and we have opened discussions with potential candidates.

Our ink expertise is increasing over time and has been enhanced by the grant funded work carried out on bio medical sensors with prestigious partners such as the Fraunhofer Group. We are making significant inroads into the market with an offering aimed at replacing carbon inks and (where possible) metal-based products. Sales traction, especially in the Far East, is looking very promising as our graphene ink is environmentally friendly, recyclable and proven to consistently print to a high standard. Nevertheless, we are mindful that our standard ink offering requires reformulation to meet specific customer needs and our in-house manufacturing capability, backed up by the formulation expertise of the WCPC, enables a rapid response to our customer needs.

**Funded and Private Venture projects**
Sampling of the functionalised materials continues as a means to engage with industrial corporations and manufacturers and to enter collaborations and consortia on dedicated projects. Some of these are grant funded projects while others are important in their own right and hence financed through our own resources. During the year under review, we have secured focussed and important grant funded work from which our future income will be over £450,000. We will continue to seek this important source of funded work especially as the outcome is always to demonstrate a commercial product application.

In parallel with the above we are taking a collaborative research approach to developing added value applications in regulated markets such as aerospace and defence. This is because we are developing products that require a significant long term testing and approvals – typically 10 years for primary aircraft structures approval before they would be specified on an aircraft. Therefore, the proposal is to seek shared funding from the OEMs and grant funding where appropriate to help de-risk the project both technically and financially. An example of this approach has been the announcement by the UK government providing grant aided support to Haydale, Airbus, BAE systems, GKN aerospace, Cobham and SHD to develop graphene enhanced carbon fibre composite materials for lightning strike protection on aircraft. A second example is a discrete internally funded feasibility project on the improvements for lubrication systems in adding HDPlas® GNPs and other carbon particles.

In addition, although relatively small, we have been included in a UK defence contract feasibility study to develop a prototype coating for a novel hydrophone under water system. A positive outcome in this project, which is scheduled for completion in the current financial year, could lead to significant additional work. The defence sector is an area that we consider has important potential for the range of products we are starting to develop.

**Operations and technical**
We now have an established processing and treatment facility in Ammanford capable of processing tonnes of graphene per year exactly to the customers' specification. Haydale has developed a proprietary scalable plasma process on which the European Patent Office will be granting a patent on 4 November 2015. Importantly, this patent offers not only the opportunity to exploit the "graphene" market but other non-carbon based 2D materials. We see this as an area of equal importance to graphene for the future growth of Haydale.

In the year under review, headcount increased from 15 to 32 principally due to the acquisition of EPL. As at the end of October 2015, the staff numbers have increased further to 47 and we anticipate that this will increase to over 60 by the end of 2016. We still rely on consultants for discrete projects, utilising their specialist experience in specific areas and in some cases opening sales avenues.

Space to house the growth in personnel in Ammanford is now being actively considered as a priority. Local rented space is available and we anticipate refurbishing and updating it over the coming months in order to house the new recruits and new functionalisation equipment. In addition, last year, as part of our expansion plans, we rented new space on the same site as our main facility to house our ink manufacturing capabilities.

We now require a property of the same size again to relocate staff and increase the production floor area. There will be cost implications for fit out and infrastructure costs which have been factored into the current year's budget.

One of our key operational challenges is being able to exploit the high numbers of enquiries we receive and focusing our resources on our key target markets of composites, inks and coatings. We are actively looking at adding to our technical, research and development personnel to ensure we convert the high levels of interest into sales potential. Our efforts in this regard are not constrained to only the UK and include lower cost, but highly technical regions such as the Far East.

**Licensing**
While there are no licensing agreements currently in place, licensing remains a key part of our sales strategy for those partners with whom we want to work. In order to exploit our granted process patent there is a need for us to create a number of centres of excellence across our key geographic markets that we control and run. These centres will service and supply the local market with intermediate products (such as inks and resins) and it is anticipated that each centre will operate an HT60 and an HT200 to allow the full suite of R&D and commercial supply to be achieved. Other third party licences are under consideration and, whilst there can be no guarantee at this stage that agreements will be completed, we anticipate that the terms of licensing agreements will be in line with the Board's expectations.

# Strategic Report continued

**Key Performance Indicators ("KPIs")**
The Board consider there are a number of important KPIs which are non-financial, such as: the nature and size of development projects, the ability to convert non-disclosure agreements to development project discussions and commercial contracts. Performance against these non-financial KPIs is in line with the Board's expectations for the year under review.

Important financial KPIs are the cash position and the operating loss of the Group. At 30 June 2015, cash and deposit balances amounted to £2.05 million (2014: £5.68 million) and were in line with budgets. The adjusted EBITDA loss for the year ended 30 June 2015 of £2.38 million (2014: £1.96 million loss) was also in line with the budgeted loss for the year.

The Group has also continued to put in place additional infrastructure to capitalise on the momentum that the business has achieved and to enable the longer term potential of the business to be realised.

**Acquisitions**
In November 2014, the Company acquired the entire issued share capital of EPL Composite Solutions Ltd (subsequently renamed as Haydale Composite Solutions Limited ("HCS")), specialists in the design, development and commercialisation of advanced composite polymer materials both in the UK and overseas ("Acquisition"). Maximum consideration for the Acquisition was £1.19 million, comprising £0.4 million initial in cash payment, with the balance of £0.79 million payable conditional upon the performance of HCS in the period from acquisition to 30 June 2016 ("Contingent Consideration"). Haydale also assumed £0.19 million of HCS directors' loans.

HCS's trading in the 8 month period under review was ahead of expectations at both the income and profit levels and, pleasingly, all of HCS's income in the period was non-graphene related – being primarily delivery against an historical order book of advanced composite projects. Most encouraging, HCS's current order book, which will be delivered in the current and next financial years, does include exciting graphene-related composite projects and is in excess of HCS's income for the period ended 30 June 2015.

It is against this strong trading and the benefits anticipated of having Gerry Boyce and his team at HCS integrated fully into the Haydale Group at the earliest opportunity that has led to the Board's decision to enter into an early settlement agreement with the vendors of HCS, of which Gerry Boyce represented 90% ("Vendors"). Accordingly, Haydale has agreed to reduce the Contingent Consideration payable to a maximum of £0.77 million, of which £0.65 million will be payable in cash to the Vendors, (which is expected to be paid following the General Meeting), with the balance due on receipt by HCS of certain of its outstanding debtors.

We are delighted that Gerry Boyce intends to reinvest £0.30 million of his consideration due to him in new ordinary shares in the Company pursuant to the fundraising. We believe this is the strongest possible endorsement of the Group's potential.

**FINANCIAL REVIEW**
The Financial Review should be read in conjunction with the consolidated financial statements of the Group and the notes thereto. The consolidated financial statements are presented under International Financial Reporting Standards as adopted by the European Union and are set out on pages 21 to 45. The financial statements of the Company continue to be prepared in accordance with UK Generally Accepted Accounting Practice and are set out on pages 46 to 50.

**Statement of Comprehensive Income**
In the year under review, the Group primarily focussed on scaling up its functionalisation capacity and enhancing its processes, conditioning the market and its potential customer base on the Group's functionalisation capabilities, developing its routes to market, particularly in the composite and inks markets, enhancing its IP portfolio and identifying and entering collaboration agreements with intermediate customers, all with a view to commencing a sales and marketing push following the Group's admission to AIM in April 2014. Accordingly, income for the year increased more than 10 fold to £1.48 million (2014: £0.13 million), £1.18 million of which was the eight month contribution from HCS. As described elsewhere in this report, the Group's income is derived from both grant funded projects and third party sales. In the year to 30 June 2015, the Group's income generated from grant funded projects totalled £0.83 million (2014: £0.11 million) and arose where a consortium of, often world renowned and strategically important international companies collaborate to develop new products with viable market needs. Both Haydale and HCS are running grant programmes which typically last for 12 to 24 months and the Group secured a further £0.45 million of new projects in the year under review.

R&D expenditure for the year increased to £0.56 million (2014: £0.42 million), with salaries for technicians, lab assistants and scientific personnel, as in 2014, accounting for the majority of the spend. The Group's other administrative costs for the year totalled £3.66 million (2014: £1.42 million), £0.91 million of which related to HCS's administration costs (2014: £nil). The loss from operations of £3.01 million (2014: £2.20 million loss), included non-cash items of £0.63 million (2014: £0.24 million). The loss per share improved marginally to £0.25 (2014: £0.28).

**Statement of Financial Position and Cashflows**
As at 30 June 2015, net assets amounted to £4.29 million (2014: £6.80 million), including cash balances of £2.05 million (2014: £5.68 million). As part of the funding structure for the Acquisition, the Company secured a three year, £0.50 million repayment loan from its bankers. As at the year end, the Group had repaid £0.07 million of the loan.

Net cash outflow from operating activities for the year was £2.73 million (2014: £2.11 million), the principal contributing factor being the operating loss of £3.01 million.

**Capital Structure and Funding**
As at 30 June 2015, the Company had 11,446,446 ordinary shares in issue (2014: 11,247,823), which number is unchanged at the date of this report. In November 2014, pursuant to the Acquisition, Gerry Boyce acquired 198,623 new ordinary shares in the Company. No further shares were issued during the year under review.

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

**PRINCIPAL RISKS AND UNCERTAINTIES**
The Board considers that the principal risks and uncertainties facing the Group may be summarised as follows:

**Acceptance of the Group's Products**
The success of the Group will depend on the market's acceptance of, and attribution of value to, its plasma technology developed by the Group based on converting principally raw, mined graphite and other synthetically produced graphenes into high quality functionalised graphene nanoplatelets, using a dry and low energy process, without using wet chemicals or acids.

Notwithstanding the technical merits of the processes developed by the Group, there can be no guarantee that its targeted customer base for the processes will ultimately purchase the Group's products.

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

The Group recently received notification from the European Patent Office ("EPO") that the EPO will, on 4 November 2015, be granting one of the Company's key patents relating to its plasma functionalisation process as patent number EP2649136B ("European Patent"). Although there is no guarantee, Haydale anticipates that, following this decision to grant, other patent applications made in various other key jurisdictions should also proceed to grant. Haydale already has a corresponding granted patent in China and has visibility on the patent application in Australia, which is allowed and expected to proceed to grant within the next 3–4 months. Divisional patent applications are being pursued in these jurisdictions. Crucially, this European Patent is not limited to graphene or carbonmaterials but also covers all nanoparticles.

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

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

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

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

The Group aims to mitigate this risk by providing well-structured and competitive reward and benefit packages that ensure our ability to attract and retain key employees.

By order of the Board

**Ray Gibbs**
Chief Executive Officer

30 October 2015

# Board of Directors

The Haydale board consists of experienced commercial directors from a range of industries that include engineering, retail, finance and accounting, high technology and the petro-chemical industries. Haydale's contacts at universities assist in providing access to analytical equipment and the use of research students to increase the technical input without adding excess overheads at this high growth stage.

**1 John Knowles BSc Eng (Hons), Chairman**

John Knowles has significant nanotechnology experience. He was formerly chairman of NanoSight Limited (sold to Spectris plc), chairman of the Nanotechnology KTN Advisory Board and a member of UK Government's Nanotechnology Strategy Forum. His 30 years' experience includes 2 years as MD of a Morgan Crucible subsidiary and chairman/director of several successful technology companies including Stratophase Ltd and Michelson Diagnostics Ltd.

**2 Anthony (Tony) Alfredo Belisario B Tech (Hons), Deputy Chairman**

Tony Belisario is a chartered engineer who has spent most of his working life in management of manufacturing businesses using diverse technologies operating in global markets. In addition, Tony also managed businesses backed by private equity and has led an MBO. As well as being part-time deputy chairman of the Company, he also serves on the Council of Brunel University. Tony was part of Haydale Graphene Industries' management team that acquired Haydale Limited in 2010.

**3 Raymond (Ray) John Gibbs FCA BA (Hons), Chief Executive Officer**

Ray Gibbs is a Chartered Accountant, and former Deloitte audit and corporate finance partner for 9 years. He has spent the last 18 years in industry as CFO or commercial director of high technology and fast moving consumer goods businesses both in the quoted and private arenas with sales ranging from £500,000 to £500 million. He was a former CFO of Chemring Group Plc. Ray was part of Haydale Graphene Industries' management team that acquired Haydale Limited in 2010.

**4 Matthew (Matt) Graham Wood FCA BA (Hons), Finance Director**

Matt Wood is a Chartered Accountant and experienced finance director and financial professional with a background in advising growth companies. Since 2006 Matt has worked as a financial and non-executive director with a variety of companies and is currently part-time finance director for Sula Iron & Gold plc and is a non-executive director of Avarae Global Coins plc. Matt is also Managing Director and founder of ONE Advisory Group Ltd, a City-based corporate advisory firm. Matt holds a first class degree in Economics.

**5 Dr Christopher (Chris) John Spacie C.Eng MIMMM, Technical Director**

Chris Spacie is a materials scientist and Chartered Engineer with over 30 years' experience in commercial R&D, process innovation, plant design and manufacturing. He was formerly technical director of Morganite Electrical Carbon Ltd., a division of Morgan Crucible Plc, and is a primary inventor in fields such as fuel cell materials, composites and ballistics.

**6 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 chairman of an automotive technology company, Mechadyne (now part of KolbenschmidtPierburg AG). Graham is a non-executive director of AB Dynamics plc. He was on the AIM advisory committee of the London Stock Exchange for 6 years and has a Master of Arts degree in Modern and Medieval Languages from the University of Cambridge.

**7** **Roger James Humm MBA BSc (Hons) FCA, Non-Executive Director**

Roger Humm is an experienced Commercial and Finance Director with extensive knowledge of high-growth technology companies. He held corporate, financial and senior management roles with Oxford Instruments both in the UK and USA including responsibility for corporate development, intellectual property and establishing a corporate venturing portfolio. More recently he has worked with a number of public and private companies including Ixico plc, NanoSight Limited and Blue Earth Diagnostics Limited. He currently acts as Finance Director at G-Volution plc and Drum Commodities Limited and is a Trustee Director of the Oxford Instruments pension scheme. Roger gained his BSc in microbiology and virology from Warwick University before qualifying as a chartered accountant with Grant Thornton. He has an MBA from the University of Bath.

**8** **Roger Anthony Smith BSc (Hons), Non-Executive Director**

Roger Smith graduated with a degree in physics and has worked in the global oil and gas sector for the past 30 years. He has set up and subsequently sold 2 successful consulting businesses and in doing so has worked with venture capital and private equity houses. He has held the post of commercial director with Bureau Veritas and is currently a Senior Vice President with Petrofac Plc. Roger was part of Haydale Graphene Industries' management team that acquired Haydale Limited in 2010.

# Directors' Report

The directors present their report and the audited financial statements for Haydale Graphene Industries Plc (the "Company") and its subsidiaries (together the "Group") for the year ended 30 June 2015.

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 and the following are covered in the Strategic Report:

- Principal Activities
- Review of the Business and Future Developments
- Key Performance Indicators
- Principal Risks and Uncertainties
- The use of financial instruments and financial risk management objectives and policies (also in note 22 of the financial statements)

**Research and development**
During the year ended 30 June 2015, the Group has invested £0.56 million (2014: £0.42 million) in research and development activities and a review of this expenditure is included in the Strategic Report.

**Dividends**
The directors do not propose the payment of a dividend.

**Substantial Shareholdings**
As at 30 June 2015, the Company had been advised of the following shareholders, other than the directors, with interests of 3% or more in its ordinary share capital:

| Name of Shareholder | Number of Ordinary Shares | % of Share Capital |
|---|---|---|
| Nick John | 462,119 | 4.04 |
| Philip Sommereux | 345,590 | 3.02 |

**Directors**
The directors of the Company during the year ended 30 June 2015 were:

John Knowles
Anthony Belisario
Raymond Gibbs
Dr Christopher Spacie
Matthew Wood
Graham Eves
Roger Smith
Roger Humm

**Directors' Interests in Ordinary Shares**
The Directors who held office at 30 June 2015, had the following interests in Ordinary Shares of the Company:

| Director | Number of Shares at 30 June 2015 | % of Share Capital |
|---|---|---|
| Ray Gibbs | 443,054 | 3.87 |
| Anthony Belisario | 379,050 | 3.31 |
| Roger Smith | 275,955 | 2.41 |
| John Knowles | 136,714 | 1.19 |
| Dr. Christopher Spacie[1] | 35,463 | 0.31 |
| Roger Humm[2] | 28,459 | 0.25 |
| Matthew Wood | 3,571 | 0.03 |

1. Includes 10,854 ordinary shares held by his wife, Susan Spacie.
2. Includes 28,459 ordinary shares held by his wife, Wendy Humm.

Between 30 June 2015 and the date of this report there has been no change in the interests of directors in shares or share options as disclosed in this report.

**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 Events**
There are no events post the balance sheet date that are not disclosed elsewhere in this report.

**Political Donations**
During the year ended 30 June 2015, the Group made no political donations (2014: £nil).

**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.

**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.

By order of the Board

**Ray Gibbs**
Chief Executive Officer

30 October 2015

# Corporate Governance Statement

The Board is accountable to the Company's shareholders for good corporate governance and it is the objective of the Board to attain a good standard of corporate governance by taking into account the requirements of the Corporate Governance Code for Small and Mid-Size Quoted Companies 2013 published by the QCA to the extent that they consider it appropriate having regard to the Company's size, board structure, stage of development and resources.

**Board**
The Board retains full and effective control of the Group. The role of the Board, inter alia, is to provide entrepreneurial leadership of the Company within a framework of prudent and effective controls which enable risks to be managed and assessed, set the Company's strategic aims and ensure that the necessary financial and human resources are in place for the Company to meet its objectives and set the Company's values and standards. The directors are responsible for formulating, reviewing and approving the Company's strategy, budget and major items of capital expenditure. The board includes directors from a range of industries including the engineering, retail, accounting and finance, high technology and the petro chemical industries.

At the date of this report the Board consists of three executive directors, the Chief Executive Officer, the Finance Director and the Chief Technical Officer, and five non-executive directors including the non-executive Chairman and Deputy Chairman. Brief details about the directors are given on pages 10 and 11.

The roles of Chairman and Chief Executive are clearly divided. The Chairman is responsible for overseeing the running of the Board, ensuring that no individual or group dominates the Board's decision making and ensuring that the Non-Executive Directors are properly briefed. The Chief Executive Officer has responsibility for implementing the strategy of the Board and managing the day-to-day business activities of the Group. The non-executive directors bring relevant experience from different backgrounds and receive a fixed fee for their services and reimbursement of reasonable expenses incurred in attending meetings. Of the non-executive directors, John Knowles and Roger Humm are considered by the Board to be independent.

The Company holds regular board meetings. Prior to each board meeting, directors are sent an agenda and Board papers as appropriate for matters to be discussed. Additional information is provided when requested by the Board or individual directors. Corporate Governance issues are discussed at these board meetings. All directors have access to independent professional advice, if required.

During the year ended 30 June 2015, the Company held 11 board meetings, with each member's attendance as follows:

| Director | Number of Meetings Attended |
|---|---|
| John Knowles | 11 |
| Anthony Belisario | 11 |
| Raymond Gibbs | 11 |
| Dr Christopher Spacie | 11 |
| Matthew Wood | 11 |
| Graham Eves | 11 |
| Roger Humm | 11 |
| Roger Smith | 11 |

**Board Committees**
The directors have established an Audit Committee and a Remuneration Committee with formally delegated roles, terms of reference and responsibilities. Each of these committees meet as and when appropriate and at least twice a year. All committee members hold non-executive roles with the Company.

The Audit Committee comprises Roger Humm as chair with Graham Eves and John Knowles. The Audit Committee is responsible for, inter alia, determining and examining matters relating to the financial affairs of the Company including the terms of engagement of the Company's auditors and, in consultation with the auditors, the scope of the audit. It receives and reviews reports from management and the Company's auditors relating to the half yearly and annual accounts and the accounting and the internal control systems in use throughout the group. The Board does not consider it necessary at present to have an internal audit function.

The Remuneration Committee comprises Tony Belisario as chair with Roger Smith and Graham Eves. The Remuneration Committee is responsible for reviewing and making recommendations in respect of directors' remuneration and benefits packages, including share options and the terms of appointment. The remuneration committee will also make recommendations to the board concerning the allocation of share options to employees under the Company's share option schemes.

The board does not currently consider a nominations committee to be necessary and the board as a whole are responsible for board and senior management nominations, but this will be kept under review.

**Shareholder Engagement**
Shareholders have the opportunity to meet members of the Board at the annual general meeting where the Board members are happy to respond to questions. The Board also responds to written queries made by shareholders during the course of the year and may also meet with major shareholders, if so requested.

Directors are required to attend the Annual General Meeting of the Company unless unable to do so for personal reasons or due to pressing commercial commitments. Shareholders are given the opportunity to vote on each separate issue. Proxy voting results are announced at the relevant shareholder meeting.

As well as the standard communications with shareholders, such as regular news releases, updates to the Company's website and at the annual general meeting, in June 2015 (as the Company did in June 2014), the Company hosted an open day at its head office in Ammanford to enable shareholders to meet the directors, view the facilities and have the opportunity to see the Group's operations in practice. The Board was delighted with the response to the open day and welcomed more than 45 shareholders, analysts, advisers and other interested parties to the day.

**Internal Control**
The directors are responsible for establishing and maintaining the Group's system of internal control and reviewing its effectiveness. The system of internal control is designed to manage, rather than eliminate, the risk of failure to achieve business objectives and can only provide reasonable but not absolute assurance against material misstatement or loss.

The main features of the internal control system are as follows:

- Close management of the business by the executive directors. There are clearly delineated approval limits throughout the Group and a well-defined organisational structure. Controls are monitored at the appropriate level;

- Monthly management accounts are prepared and reviewed by the board, including reviewing variances against prior months and against budgets;

- Clear segregation of duties within the Group's finance function help ensure the Group's assets are safeguarded and that proper financial records are maintained; and

- A list of matters is reserved for the approval of the board.

Matt Wood is the Company Secretary (as well as the FD) and is responsible for ensuring that the Company's registers and filings are properly maintained and up to date. Mr Wood is a qualified chartered accountant and is accordingly qualified to hold the role of Company Secretary. At this stage of its development, the Board does not feel it is necessary for the Company to have a full time or external company secretary. This will be kept under review.

The Company has adopted a share dealing code for the Directors and certain employees, which is appropriate for a company whose shares are admitted to trading on AIM (particularly relating to dealing during close periods in accordance with Rule 21 of the AIM Rules) and the Company will take all reasonable steps to ensure compliance by the Directors and any relevant employees.

By order of the Board

**John Knowles**
Chairman

30 October 2015

# Directors' Remuneration Report

**REMUNERATION COMMITTEE**

The Company's remuneration policy is the responsibility of the Remuneration Committee which was established at the time of Admission. The terms of reference of the Remuneration Committee are outlined below and in the Corporate Governance Statement on page 14. The members of the Remuneration Committee are Roger Smith, Graham Eves and Anthony Belisario (Chairman).

The Remuneration Committee is required to meet at least twice per year and is responsible for considering executive remuneration. Executives may be invited to attend to assist the Remuneration Committee but no director or manager of the Company may be involved in any decisions as to their own remuneration.

The terms of reference of the Committee do not encompass decisions to employ or dismiss Executives. The Committee does not have responsibilities for nominations to the Board.

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

Directors' remuneration for the year to 30 June 2015 is set out on page 18.

The Remuneration Committee terms of reference require it to establish remuneration policy on the basis of various outcomes including key amongst which are developing 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 form a significant proportion of the total remuneration package of executives and that such elements be designed to align executives' interests with those 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.

The Company currently has two equity-based incentive schemes in place.

(a) 2013 Share Option Scheme

On 23 May 2013, the Company adopted an EMI share option plan ("2013 Share Option Scheme"). The Company has granted options to executive directors and senior management over a total of 121,500 ordinary shares under the 2013 Share Option Scheme, none of which were granted during the period under review (2014: 40,500 granted). The exercise price under the 2013 Option Scheme is 92.592p per ordinary share. There are no performance conditions attached to the exercise of these options although in the ordinary course (and subject to some exceptions), grantees will be required to remain employed in the Group at the date of exercise. 81,000 of these options became exercisable on 23 May 2014 and the remaining 40,500 become exercisable on 30 September 2016. The options lapse on the earlier of 12 months after death of the grantee, leaving employment with the Group in certain circumstances and on the tenth anniversary of grant.

No further awards under the 2013 Share Option scheme are anticipated.

(b) 2014 Option Scheme

In April 2014, the Company adopted a new share option scheme pursuant to which it may grant both EMI approved options and unapproved options ("2014 Option Scheme"). EMI approved options are subject to individual and overall limits. Potential grantees are employees and officers of the Company and members of the Group.

During the year ended 30 June 2015, a total of 316,240 share options were granted under the 2014 Option Scheme (2014: 562,394 options granted) as follows:

- 130,000 options on 1 November 2014 at an exercise price of 62.25p;
- 60,000 options on 7 November 2014 at an exercise price of 61.50p
- 78,802 options on 18 March 2015 at an exercise price of 134.50p
- 47,438 options on 25 June 2015 at an exercise price of 121.00p

In addition during the year ended 30 June 2015, 65,800 share options with an exercise price of 210.00p lapsed. At 30 June 2015, there were 934,334 unexercised options outstanding.

The 2014 Share Option Scheme sets a limit of 10% of the issued share capital at the time of grant that can be used by the Company for share options. Options granted under this scheme may typically be exercised between the third and fifth anniversaries of grant provided the option holder remains an employee of a member of the Group. In certain circumstances, options may be exercised outside this two year window, for example in the event of death of the option holder or a change of control of the Company. Options can be granted under the scheme within 42 days of release of the annual and interim results and at other times in exceptional circumstances by resolution of the Board. No further options may be issued after the tenth anniversary of the date of adoption of the scheme. It is intended that options shall not be granted with an exercise price lower than the prevailing market value of an ordinary share at the time of grant. There are no individual or company performance targets to be met in order to be able to exercise the options.

**DIRECTORS' INTERESTS IN SHARE OPTIONS**
The interests of directors in share options over Ordinary Shares during the year were as follows:

2013 Share Option Scheme

| Director | Date of Grant | Number of Options | First Exercise Date | Exercise Price | Latest Expiry Date |
|---|---|---|---|---|---|
| Raymond Gibbs | 23 May 2013 | 40,500 | 23 May 2014 | 92.5926p | 23 May 2023 |
| Dr Christopher Spacie | 30 Sept 2013 | 40,500 | 30 Sept 2016 | 92.5926p | 30 Sept 2023 |

2014 Share Option Scheme

| Director | Date of Grant | Number of EMI Options | Number of Unapproved Options | First Exercise Date | Exercise Price | Expiry Date |
|---|---|---|---|---|---|---|
| Raymond Gibbs | 3 April 2014 | 101,190 | 39,408 | 3 April 2017 | 210p | 3 April 2024 |
| | 18 March 2015 | – | 14,275 | 18 March 2018 | 134.5p | 18 March 2025 |
| Dr Christopher Spacie | 3 April 2014 | 75,923 | – | 3 April 2017 | 210p | 3 April 2024 |
| | 18 March 2015 | 11,895 | – | 18 March 2018 | 134.5p | 18 March 2025 |
| Matthew Wood | 3 April 2014 | – | 32,337 | 3 April 2017 | 210p | 3 April 2024 |
| | 18 March 2015 | – | 7,137 | 18 March 2018 | 134.5p | 18 March 2025 |
| John Knowles | 3 April 2014 | – | 28,120 | 3 April 2017 | 210p | 3 April 2024 |
| Antony Belisario | 3 April 2014 | – | 16,872 | 3 April 2017 | 210p | 3 April 2024 |
| Graham Eves | 3 April 2014 | – | 16,872 | 3 April 2017 | 210p | 3 April 2024 |
| Roger Humm | 3 April 2014 | – | 16,872 | 3 April 2017 | 210p | 3 April 2024 |
| Roger Smith | 3 April 2014 | – | 16,872 | 3 April 2017 | 210p | 3 April 2024 |

The mid-market price of the Company's ordinary shares at 30 June 2015 was 115.5p (2014: 122p). During the year to 30 June 2015, the mid-market price ranged from 39p to 150p (2014: 108p to 207.4p).

# Directors' Remuneration Report continued

**DIRECTORS' REMUNERATION**
The aggregate remuneration received by directors who served during the years ended 30 June 2015 and 30 June 2014 was as follows:

| | | | Year ended 30 June 2015 | | | Year ended 30 June 2014 | | |
|---|---|---|---|---|---|---|---|---|
| £'000 | Salary/Fee | Benefits | Total (excl. pension) | Pension | Total (incl. pension) | Total (excl. pension) | Pension | Total (incl. pension) |
| **Executive Directors** | | | | | | | | |
| R. Gibbs | 120 | 3 | 123 | 3 | 126 | 218 | – | 218 |
| C. Spacie | 93 | – | 93 | 4 | 97 | 92 | – | 92 |
| M. Wood | 36 | – | 36 | 1 | 37 | 8 | – | 8 |
| **Non-Executive Directors** | | | | | | | | |
| J. Knowles | 40 | – | 40 | – | 40 | 42 | – | 42 |
| A. Belisario | 27 | – | 27 | – | 27 | 41 | – | 41 |
| G. Eves | 27 | – | 27 | – | 27 | 11 | – | 11 |
| R. Humm | 27 | – | 27 | – | 27 | 26 | – | 26 |
| R. Smith | 27 | – | 27 | – | 27 | 36 | – | 36 |
| R. Newton-Jones | – | – | – | – | – | 10 | – | 10 |
| D. Cheyne | – | – | – | – | – | 10 | – | 10 |
| | 354 | 3 | 357 | 8 | 365 | 494 | – | 494 |

In addition to the amounts shown above, the share-based payment charge for the period was:

| | to 30 June 2015 £'000 | to 30 June 2014 £'000 |
|---|---|---|
| Raymond Gibbs | 46 | 24 |
| Dr Christopher Spacie | 33 | 9 |
| Matthew Wood | 11 | 2 |
| John Knowles | 9 | 1 |
| Anthony Belisario | 6 | 1 |
| Graham Eves | 6 | 1 |
| Roger Humm | 6 | 1 |
| Roger Smith | 6 | 1 |
| | 123 | 40 |

By order of the Board

**Tony Belisario**
Chairman of the Remuneration Committee

30 October 2015

# 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 period. Under that law, the directors have elected to prepare the Group financial statements in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union 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 and prudent;
- State whether they have been prepared in accordance with IFRSs as adopted by the European Union, 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 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.

**Website Publication**
The directors are responsible for ensuring that the annual report and financial statements are made available on a website. Financial statements are published on the Group's website, www.haydale.com, in accordance with the AIM Rules for Companies published by the London Stock Exchange and legislation in the United Kingdom governing the preparation and dissemination of financial statements, which may vary from legislation in other jurisdictions. The maintenance and integrity of the Group's website is the responsibility of the directors. The directors' responsibility also extends to the ongoing integrity of the financial statements contained therein.

**Going Concern**
The directors have prepared and reviewed financial forecasts. After due consideration of these forecasts, current cash resources and the net proceeds of the fundraising agreed today and scheduled to be announced by the Company on 2 November 2015, 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.

By order of the Board

**Matt Wood**
Finance Director and Company Secretary

30 October 2015

# Independent Auditor's Report to the Members of Haydale Graphene Industries Plc

We have audited the financial statements of Haydale Graphene Industries plc for the year ended 30 June 2015 which comprise the Consolidated Statement of Comprehensive Income, Consolidated Statement of Changes in Equity, Consolidated Statement of Financial Position, Consolidated Statement of Cashflows, Parent Company Balance Sheet, and the related notes. The financial reporting framework that has been applied in the preparation of the group financial statements is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union. The financial reporting framework that has been applied in preparation of the parent company financial statements is applicable law and United Kingdom Accounting Standards (United Kingdom Generally Accepted Accounting Practice).

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.

**Respective responsibilities of directors and auditors**
As explained more fully in the statement of directors' responsibilities, the directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit and express an opinion on the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Financial Reporting Council's (FRC's) Ethical Standards for Auditors.

**Scope of the audit of the financial statements**
A description of the scope of an audit of financial statements is provided on the FRC's website at www.frc.org.uk/auditscopeukprivate.

**Opinion on financial statements**
In our opinion:

- the financial statements give a true and fair view of the state of the group's and the parent company's affairs as at 30 June 2015 and of the group's loss for the year then ended;
- the group financial statements have been properly prepared in accordance with IFRSs as adopted by the European Union;
- the parent company's financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice; and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

**Opinion on other matters prescribed by the Companies Act 2006**
In our opinion the information given in the strategic report and directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements.

**Matters on which we are required to report by exception**
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.

**Malcolm Thixton (senior statutory auditor)**
For and on behalf of BDO LLP, statutory auditor
Southampton
30 October 2015

BDO LLP is a limited liability partnership registered in England and Wales (with registered number OC305127).

# Consolidated statement of comprehensive income

**for the year ended 30 June 2015**

| | Note | Year ended 30 June 2015 £'000 | 2014 £'000 |
|---|---|---|---|
| **REVENUE** | 4 | **644** | 19 |
| Other income | | **831** | 110 |
| **TOTAL INCOME** | | **1,475** | 129 |
| Administrative expenses | | | |
| Costs of admission to AIM | | **–** | (424) |
| Research and development expenditure | | **(559)** | (416) |
| Share based payment expense | | **(258)** | (67) |
| Other administrative expenses | | **(3,663)** | (1,424) |
| | | **(4,480)** | (2,331) |
| **LOSS FROM OPERATIONS** | | **(3,005)** | (2,202) |
| Finance costs | | **(24)** | (14) |
| **LOSS BEFORE TAXATION** | 5 | **(3,029)** | (2,216) |
| Taxation | 7 | **140** | 71 |
| **LOSS FOR THE YEAR/TOTAL COMPREHENSIVE LOSS ATTRIBUTABLE TO OWNERS OF THE PARENT** | | **(2,889)** | (2,145) |
| Loss per share attributable to owners of the Parent | | | |
| Basic (£) | 8 | **(0.25)** | (0.28) |
| Diluted (£) | 8 | **(0.25)** | (0.28) |

# Consolidated statement of financial position

**as at 30 June 2015**

| | Note | **30 June 2015 £'000** | 30 June 2014 £'000 |
|---|---|---|---|
| **ASSETS** | | | |
| **Non-current assets** | | | |
| Goodwill | 9 | **685** | 51 |
| Intangible assets | 9 | **775** | 554 |
| Property, plant and equipment | 10 | **1,576** | 527 |
| Investments | 11 | **117** | – |
| | | **3,153** | 1,132 |
| **Current assets** | | | |
| Inventories | 12 | **283** | 22 |
| Trade receivables | 13 | **257** | 8 |
| Other receivables | 14 | **277** | 244 |
| Corporation tax | | **129** | 63 |
| Cash and bank balances | | **2,049** | 5,677 |
| | | **2,995** | 6,014 |
| **TOTAL ASSETS** | | **6,148** | 7,146 |
| **LIABILITIES** | | | |
| **Non-current liabilities** | | | |
| Provision for contingent consideration | 26 | **260** | – |
| Bank loans | 19 | **270** | – |
| | | **530** | – |
| **Current liabilities** | | | |
| Provision for contingent consideration | 26 | **510** | – |
| Bank loans | 19 | **162** | – |
| Trade and other payables | 18 | **619** | 300 |
| Deferred income | 20 | **26** | 46 |
| Corporation tax | | **8** | – |
| | | **1,325** | 346 |
| **TOTAL LIABILITIES** | | **1,855** | 346 |
| **TOTAL NET ASSETS** | | **4,293** | 6,800 |
| **EQUITY** | | | |
| **Capital and reserves attributable to equity holders of the parent** | | | |
| Share capital | 15 | **229** | 225 |
| Share premium account | 15 | **6,254** | 6,134 |
| Share-based payment reserve | 16 | **329** | 71 |
| Retained (deficit)/profits | 17 | **(2,519)** | 370 |
| **TOTAL EQUITY** | | **4,293** | 6,800 |

The financial statements on pages 21 to 45 were approved and authorised for issue by the Board of directors on 30 October 2015 and signed on its behalf by:

**Company Registration No. 07228939**

**Ray Gibbs**
Chief Executive Officer

**Matt Wood**
Finance Director

# Consolidated statement of changes in equity

**for the year ended 30 June 2015**

| | Share capital £'000 | Share premium £'000 | Share-based payment reserve £'000 | Retained profits £'000 | Total £'000 |
|---|---|---|---|---|---|
| **At 1 July 2013** | 1 | 3,214 | 4 | (2,227) | 992 |
| Total comprehensive loss for the year | – | – | – | (2,145) | (2,145) |
| Recognition of share-based payments | – | – | 67 | – | 67 |
| Issue of ordinary share capital | 66 | 8,443 | – | – | 8,509 |
| Transaction costs in respect of share issues | – | (623) | – | – | (623) |
| Bonus issue of £0.02 ordinary shares | 158 | (158) | – | – | – |
| Reduction in share premium | – | (4,742) | – | 4,742 | – |
| **At 30 June 2014** | 225 | 6,134 | 71 | 370 | 6,800 |
| Total comprehensive loss for the year | – | – | – | (2,889) | (2,889) |
| Recognition of share-based payments | – | – | 258 | – | 258 |
| Issue of ordinary share capital | 4 | 120 | – | – | 124 |
| **At 30 June 2015** | **229** | **6,254** | **329** | **(2,519)** | **4,293** |

# Consolidated statement of cash flows

**for the year ended 30 June 2015**

| | Note | Year ended 30 June 2015 £'000 | 2014 £'000 |
|---|---|---|---|
| **Cash flow from operating activities** | | | |
| Loss before taxation | | **(3,029)** | (2,216) |
| Adjustments for: | | | |
| Amortisation of intangible assets | | **64** | 36 |
| Depreciation of property, plant and equipment | | **288** | 137 |
| Loss on disposal of property, plant and equipment | | **19** | – |
| Share-based payment charge | | **258** | 67 |
| Finance costs | | **24** | 14 |
| **Operating cash flow before working capital changes** | | **(2,376)** | (1,962) |
| Increase in inventories | | **(98)** | (2) |
| Increase in trade and other receivables | | **(126)** | (165) |
| Decrease in payables and deferred income | | **(210)** | (51) |
| **Cash used in operations** | | **(434)** | (218) |
| Income tax received | | **76** | 72 |
| **Net cash flow from operating activities** | | **(2,734)** | (2,108) |
| **Cash flow used in investing activities** | | | |
| Purchase of property, plant and equipment | | **(1,182)** | (147) |
| Proceeds from disposal of property, plant and equipment | | **–** | 2 |
| Finance costs | | **(24)** | (5) |
| Acquisition of subsidiary | 26 | **(244)** | – |
| **Net cash flow in investing activities** | | **(1,450)** | (150) |
| **Cash flow used in financing activities** | | | |
| Proceeds from issue of share capital | | **124** | 8,425 |
| Share issue costs | | **–** | (623) |
| New bank loans raised | | **500** | – |
| Repayments of borrowings | | **(68)** | – |
| Issue of convertible debt | | **–** | 79 |
| **Net cash flow from financing activities** | | **556** | 7,881 |
| **Net (decrease)/increase in cash and cash equivalents** | | **(3,628)** | 5,623 |
| Cash and cash equivalents at beginning of the financial year | | **5,677** | 54 |
| **Cash and cash equivalents at end of the financial year** | | **2,049** | 5,677 |

# Notes to the consolidated financial statements

**for the year ended 30 June 2015**

**1 Accounting policies**

Basis of preparation

The Group consolidated financial statements have been prepared in accordance with International Financial Reporting Standards, International Accounting Standards and Interpretations (collectively "IFRSs") as adopted by the European Union ('Adopted IFRSs') and with those parts of the Companies Act 2006 applicable to companies preparing their financial statements under IFRSs.

The individual financial statements of Haydale Graphene Industries PLC are shown on pages 46 to 50.

Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company made up to the reporting date. The Company controls an investee if all three of the following elements are present: power over the investee, exposure to variable returns over the investee, and the ability of the investee to use its power to affect the variable returns. Control is reassessed whenever facts and circumstances indicate that there may be a change in any of these elements of control. All intra-group transactions, balances, income and expenditure are eliminated on consolidation. Business combinations that took place prior to 1 July 2012, the effective date of transition to IFRS, have not been restated as permitted by IFRS1 "First-time Adoption of International Financial Reporting". 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 acquiree, plus any costs directly attributable to the business combination. 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.

The results of Haydale Composite Solutions Limited since 1 November 2014, the date of acquisition, have been included within the Consolidated Statement of Comprehensive Income. This eight month period forms part of an extended fifteen month accounting period for that entity, whose accounting reference date was extended to 30 June 2015 to align with the rest of the Group.

Going concern

The Group consolidated financial statements are prepared on a going concern basis which the Directors believe continues to be appropriate. The Group meets its day-to-day working capital requirements through existing cash resources which at 30 June 2015, amounts to £2,049,000. The Directors have prepared cash flow projections for the period ending no less than 12 months from the date of their approval of these financial statements. On the basis of those projections, which take into account the net proceeds of the fundraising approved today and scheduled to be announced on 2 November 2015 and current cash resources, the Directors believe that the Group will be able to continue to trade for the foreseeable future.

# Notes to the consolidated financial statements
**for the year ended 30 June 2015**
# continued

**2 Future accounting developments**
The following amendments to standards and IFRIC interpretation have been adopted and are effective for the current year:

IFRS 2 Share-based payment – Annual Improvements to IFRSs 2010-2012 Cycle

IFRS 10 Consolidated Financial Statements (Amendments – Investment Entities)

IFRS 11 Joint arrangements

IFRS 12 Disclosure of interests in other entities

IAS 32 Financial Instruments: Presentation (Amendments – Offsetting)

IAS 36 Impairment of Assets (Amendments – Recoverable Amount Disclosures)

The adoption of these pronouncements has not impacted the classification or measurement of the Group's assets and liabilities.

**New standards and interpretations not applied**
IASB and IFRIC have issued the following relevant standards and interpretations with an effective date for periods commencing after 1 July 2015:

| Title | Implementation | Anticipated effect on the Group |
|---|---|---|
| IFRS 3 – Business Combinations (Annual Improvements to IFRSs 2010–2012 Cycle – Accounting for contingent consideration) | 1 February 2015 | No significant impact |
| IFRS 3 – Business Combinations (Annual Improvements to IFRSs 2011–2013 Cycle – Scope exceptions for joint ventures) | 1 February 2015 | No significant impact |
| IFRS 7 – Financial Instruments: Disclosures (Annual Improvements to IFRSs 2012–2014 Cycle – Servicing contracts and applicability of offsetting amendments in condensed interim financial statements) | 1 January 2016 | No significant impact |
| IFRS 10 – Consolidated Financial Statements (Amendments – Sale or Contribution of Assets) | 1 January 2016 | No significant impact |
| IFRS 13 – Fair Value Measurement (Annual Improvements to IFRSs 2010–2012 Cycle – short-term receivables and payables) | 1 February 2015 | No significant impact |
| IFRS 15 – Revenue from Contracts with Customers (yet to be endorsed by the EU) | 1 January 2018 | No significant impact |
| IAS 16 – Property, Plant and Equipment (Amendments – Acceptable Methods of Depreciation) | 1 January 2016 | No significant impact |
| IAS 24 – Related Party Disclosures (Annual Improvements to IFRSs 2010–2012 Cycle – entities providing key management personnel services) | 1 February 2015 | No significant impact |
| IAS 38 – Annual Improvements to IFRSs 2010–2012 Cycle | 1 February 2015 | No significant impact |
| IFRS 11 – Accounting for Acquisitions of Interests in Joint Operations: Amendments to principles | 1 January 2016 | No significant impact |

**3 Summary of significant accounting policies**
**(a) Critical accounting estimates and judgements**
The preparation of financial information in conformity with IFRS requires the use of certain critical accounting estimates. It also requires the directors of the Haydale Graphene Industries PLC Group (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.

*Share-based payment*
The critical accounting estimates, assumptions and judgements underpinning the valuation of share options are disclosed in note 16.

*Impairment*
*(i) Impairment of financial assets*
All financial assets are assessed at the end of each reporting period as to whether there is any objective evidence of impairment as a result of one or more events having an impact on the estimated future cash flows of the asset.

An impairment loss in respect of loans and receivables financial assets is recognised in profit or loss and is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows, discounted at the financial asset's original effective interest rate.

In a subsequent period, if the amount of the impairment loss decreases and the decrease can be related objectively to an event occurring after the impairment was recognised, the previously recognised impairment loss is reversed through profit or loss to the extent that the carrying amount of the asset at the date the impairment is reversed does not exceed what the amortised cost would have been had the impairment not been recognised.

*(ii) Impairment of non-financial assets*
The carrying values of assets, other than those to which IAS 36 – 'Impairment of Assets' does not apply, are reviewed at the end of each reporting period for impairment regardless of whether there is an indication that the assets might be impaired. 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. Goodwill is tested for impairment annually regardless of whether there are any indicators.

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.

*Contingent consideration*
Determining the value of contingent consideration recognised as part of the acquisition of subsidiaries requires assumptions to determine the expected performance of the acquired business and the amount of contingent consideration that will therefore become payable. Initial estimates of expected performance are made by the directors and form a key component of the financial due diligence that takes place prior to completion. Subsequent measurement of contingent consideration is based on the directors' appraisal of the acquired business' performance in the post-acquisition period with any required adjustments to the amount payable recognised in the Consolidated Income Statement as required under IFRS 3.

**3 Summary of significant accounting policies** continued
**(b) 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; and

v) the availability of adequate technical, financial and other resources to complete the asset under development.

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

Capitalised development expenditure is amortised on a straight-line basis over a period of 20 years when the products or services are ready for sale or use. 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, including customer relationships, are amortised through the Consolidated Statement of Comprehensive Income on a straight-line basis over their estimated economic lives of between three and ten years.

**(c) Revenue and interest income**
*(i) Goods*
Revenue represents sales to external customers at invoiced amounts less value added tax or local taxes on sales. Revenue is recognised when the risks and rewards of owning the goods has passed to the customer which is generally on delivery.

*(ii) Services*
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 stage of completion is determined based on the proportion of contract costs incurred compared to total estimated contract costs.

*(iii) Interest income*
Interest income is recognised as finance income on an accruals basis using the effective interest rate method.

**(d) Financial instruments**
Financial instruments are recognised in the statements of financial position when the Group has become a party to the contractual provisions of the instruments.

Financial instruments are classified as liabilities or equity in accordance with the substance of the contractual arrangement. Interest, dividends, gains and losses relating to a financial instrument classified as a liability are reported as an expense or income. Distributions to holders of financial instruments classified as equity are charged directly to equity.

Financial instruments are offset when the Group has a legally enforceable right to offset and intends to settle either on a net basis or to realise the asset and settle the liability simultaneously.

**3 Summary of significant accounting policies** continued
A financial instrument is recognised initially, at its fair value plus, in the case of a financial instrument not at fair value through profit or loss, transaction costs that are directly attributable to the acquisition or issue of the financial instrument.

The accounting policy for financial instruments recognised in the statements of financial position are disclosed in the individual policy statement associated with each item.

Financial assets are derecognised when the contractual rights to receive cash flows from the financial assets have expired or have been transferred and the Group has transferred substantially all the risks and rewards of ownership.

*(i) Financial assets*
On initial recognition, financial assets are classified as either financial assets at fair value through profit or loss, held-to-maturity investments, loans and receivables financial assets, or available-for-sale financial assets, as appropriate.

*• Loans and receivables*
Trade receivables and other receivables that have fixed or determinable payments that are not quoted in an active market are classified as loans and receivables financial assets. Loans and receivables financial assets are measured at amortised cost using the effective interest method, less any impairment loss. Interest income is recognised by applying the effective interest rate, except for short-term receivables when the recognition of interest would be immaterial.

*(ii) Financial liabilities*
All financial liabilities are recognised initially at fair value plus directly attributable transaction costs and subsequently measured at amortised cost using the effective interest method other than those categorised as fair value through profit or loss.

A financial liability is derecognised when the obligation under the liability is discharged, cancelled or expires.

*(iii) Equity instruments*
Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new shares or options are shown in equity as a deduction, net of tax, from proceeds.

Dividends on ordinary shares are recognised as liabilities when approved for appropriation.

**(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. Depreciation of an asset does not cease when the asset becomes idle or is retired from active use unless the asset is fully depreciated. The principal annual rates used for this purpose are:

| | |
|---|---|
| Leasehold improvements | 10% per annum straight line |
| Plant and machinery | 20–33% per annum straight line |
| Furniture and fittings | 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.

# Notes to the consolidated financial statements

for the year ended 30 June 2015

# continued

**3 Summary of significant accounting policies** continued
An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. The gain or loss on retirement or disposal is determined as the difference between any sales proceeds and the carrying amounts of the asset and is recognised in the income statement within "other income/(expenses)".

**(f) Income taxes**
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 or substantively enacted by the balance sheet date. Deferred tax balances 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 scheme, these credits generate cash reimbursement in exchange for the sacrifice of applicable losses, such receipts are recognised in income tax within the Statement of Comprehensive Income.

**(g) Cash and cash equivalents**
Cash and cash equivalents comprise cash in hand, bank balances, deposits with financial institutions and short-term, highly liquid investments that are readily convertible to known amounts of cash, are subject to an insignificant risk of changes in value and have maturities of 3 months of 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 is included within administrative expenses in the Statement of Comprehensive Income.

**(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.

**(j) Provisions, contingent liabilities and contingent assets**
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**
Government grants are not recognised until there is a reasonable assurance that the Group will comply with the conditions attaching to them and that the grants will be received. Government grants are treated as deferred income and released to the income statement on the later of the achievement of the relevant performance criteria, or their receipt. 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 income' within the Statement of Comprehensive Income.

**3 Summary of significant accounting policies** continued

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

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

The fair value determined at the grant date of the equity-settled share-based payments is expensed on a straight-line basis over the vesting period, based on the Group's estimate of the number of equity instruments that will eventually vest, with a corresponding increase in equity. At the end of each reporting period, the Group revises its estimate of the number of equity instruments expected to vest. The impact of the revision of the original estimates, if any, is recognised in profit or loss such that the cumulative expense reflects the revised estimate, with a corresponding adjustment to other reserves.

**(m) Leases**

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

**(n) Non–current assets held for sale**

Non–current assets classified as held for sale are measured at the lower of carrying amount and fair value less costs to sell. Non–current assets are classified as held for sale if their carrying amount will be recovered through a sale transaction rather than through continuing use.

**(o) 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.

**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 takes the form of the board of directors of Haydale Graphene Industries PLC) as defined in IFRS 8, in order to allocate resources to the segment and to assess its performance.

The directors of the Group consider the principal activity of the Group to be the sale and distribution of specialist research and development materials in the field of nano-technology, and therefore consider this currently to be the sole operating and reportable segment. Overseas sales relate to the fulfilment of sales generated outside the UK but actioned within the UK.

Geographical information

All revenues of the Group are derived from its principal activity, the sale and distribution of nano-technology products or the delivery of research projects into those same materials. All assets are located within the United Kingdom and all losses are generated in that territory. The Group's revenue from external customers by geographical location are detailed below.

| | **2015 £'000** | 2014 £'000 |
|---|---|---|
| **By destination** | | |
| United Kingdom | **409** | 8 |
| Europe | **222** | 2 |
| North America | **11** | 7 |
| Rest of the World | **2** | 2 |
| | **644** | 19 |

During 2015, 32% of the Group's revenue depended on a single customer. During 2015, 25% of the Group's revenue depended on a second single customer.

Revenue within Europe was predominantly in Ireland (93%).

All amounts shown as other income within the Statement of Comprehensive Income are generated within and from the United Kingdom.

Revenue from goods was £56,000 or 9% and revenue from services was £588,000 or 91%.

# Notes to the consolidated financial statements

**for the year ended 30 June 2015**

# continued

### 5 Loss before taxation

Loss before taxation is arrived at after charging:

| | 2015 £'000 | 2014 £'000 |
|---|---|---|
| Research and development: | | |
| – current period's expenditure | **524** | 380 |
| – amortisation of capitalised expenditure | **35** | 36 |
| Depreciation of property, plant and equipment | **288** | 137 |
| Loss on disposal of property, plant and equipment | **19** | – |
| Operating lease rentals: | | |
| – land and buildings | **93** | 34 |
| – plant and machinery | **17** | 1 |

The fees of the Group's auditor, BDO LLP, for services provided are analysed below:

| | 2015 £'000 | 2014 £'000 |
|---|---|---|
| Fees payable to the Company's auditor for the audit of the Group's financial statements | **41** | 35 |
| Fees payable to the Company's auditor for other services: | | |
| – Audit related assurance services | **–** | 3 |
| – Taxation related compliance services | **52** | 64 |
| – Other non-audit services | **2** | 116 |
| | **95** | 218 |

### 6 Employees

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

| | 2015 No. | 2014 No. |
|---|---|---|
| Administration | **8** | 4 |
| Research, development and production | **18** | 6 |
| | **26** | 10 |

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

| | 2015 £'000 | 2014 £'000 |
|---|---|---|
| Wages and salaries | **985** | 667 |
| Social security costs | **104** | 74 |
| Pension costs | **18** | – |
| Share based payment expense | **258** | 67 |
| | **1,365** | 808 |

An analysis of the remuneration of the directors is detailed within the Directors' Remuneration Report on pages 16 to 18. The total amount payable to the highest paid director in respect of emoluments was £126,000 (2014: £218,000), including pension costs of £3,000 (2014: £nil).

### 7 Income tax

| | 2015 £'000 | 2014 £'000 |
|---|---|---|
| Total income tax credits: | | |
| – for the financial year | **128** | 66 |
| – under provision in the previous financial year | **12** | 5 |
| | **140** | 71 |

A reconciliation of income tax expense applicable to the loss before taxation at the statutory tax rate to the income tax release at the effective tax rate of the Group is as follows:

| | 2015 £'000 | 2014 £'000 |
|---|---|---|
| Loss before taxation | **(3,029)** | (2,216) |
| Tax at the applicable statutory tax rates of 20% (2014 - 20%) | **606** | 443 |
| Tax effects of: | | |
| – non-deductible expenses | **(70)** | (114) |
| – capital allowances and other short term differences not recognised for tax purposes | **61** | 7 |
| – R&D enhancement | **107** | 59 |
| – Surrender for R&D tax credit | **(49)** | (40) |
| – Unrealised tax losses carried forward | **(527)** | (289) |
| – Adjustment to tax credit in respect of previous years | **12** | 5 |
| Income tax release for the financial year | **140** | 71 |

The Group has tax losses that are available indefinitely for offset against future taxable profits of the companies amounting to £6,214,000 and £838,000 of fixed asset timing differences. The full utilisation of these losses in the foreseeable future is uncertain as they are liabilities offset by the asset and therefore no deferred tax asset has been recognised.

The deferred tax not recognised in the Group statement of financial position is as follows:

| | 2015 £'000 | 2014 £'000 |
|---|---|---|
| Unrecognised deferred tax asset at the start of the year | **631** | 346 |
| Tax losses unrecognised in the year | **527** | 285 |
| Unrecognised deferred tax asset at the end of the year | **1,158** | 631 |

### 8 Loss per share

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

| | 2015 £'000 | 2014 £'000 |
|---|---|---|
| Loss after tax attributable to owners of the Haydale Graphene Industries PLC Group | **(2,889)** | (2,145) |
| Weighted average number of shares: | | |
| – Basic and Diluted | **11,376,248** | 7,755,175 |
| Loss per share: | | |
| – Basic (£) and Diluted (£) | **(0.25)** | (0.28) |

The loss attributable to ordinary shareholders and weighted average number of ordinary shares for the purpose of calculating the diluted earnings per ordinary share are identical to those used for basic earnings per share. This is because the exercise of share options would have the effect of reducing the loss per ordinary share and is therefore not dilutive under the terms of IAS 33. At 30 June 2015, there were 1,321,655 (2014: 961,215) options and warrants outstanding as detailed in note 16.

## 9 Intangible assets

| | Customer Relationships £'000 | Development expenditure £'000 | Goodwill £'000 | Total £'000 |
|---|---|---|---|---|
| **Cost** | | | | |
| At 1 July 2013 | – | 700 | 51 | 751 |
| Additions | – | – | – | – |
| At 1 July 2014 | – | 700 | 51 | 751 |
| Additions | 285 | – | 634 | 919 |
| At 30 June 2015 | 285 | 700 | 685 | 1,670 |
| **Accumulated amortisation** | | | | |
| At 1 July 2013 | – | 110 | – | 110 |
| Charge for the period | – | 36 | – | 36 |
| At 1 July 2014 | – | 146 | – | 146 |
| Charge for the year | 29 | 35 | – | 64 |
| At 30 June 2015 | 29 | 181 | – | 210 |
| **Net book value** | | | | |
| At 30 June 2015 | 256 | 519 | 685 | 1,460 |
| At 30 June 2014 | – | 554 | 51 | 605 |
| At 30 June 2013 | – | 590 | 51 | 641 |

Goodwill
Goodwill arose on the acquisition of EPL Composite Solutions Ltd (now Haydale Composite Solutions Limited "HCS") on 1 November 2014 (£634,000), Haydale Ltd on 21 May 2010 (£24,000) and of the trade and assets of Intelligent Nano Technology Ltd (£27,000) on 12 May 2010.

Customer Relationships
The Customer relationships intangible asset arose on the fair value of assets on the acquisition of EPL Composite Solutions Ltd (now Haydale Composite Solutions Limited) on 1 November 2014.

Development costs
Development costs arose on 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.

Amortisation
Capitalised development costs are amortised over the estimated useful life of 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 cash generating units ("CGUs") that are expected to benefit from that business combination. Following the acquisition of HCS, the Group is operating two CGU's and therefore HCS goodwill has been considered against the future forecast trading outcomes of HCS as a CGU. The remaining goodwill in the Group prior to the acquisition of HCS is immaterial and has not been tested for impairment. 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:

| | 2015 % | 2014 % | 2015 £'000 | 2014 £'000 |
|---|---|---|---|---|
| Haydale Composite Solutions | 12% | – | 634 | – |
| Haydale Graphene Industries | 12% | 10% | 51 | 51 |

**9 Intangible assets** continued

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

Pre-tax discount rates, derived from the Group's post-tax weighted average cost of capital of 12% (2014: 10%), and have been used to discount projected cash flows.

The calculation has used the HCS's Board-approved forecast figures for the next year. HCS's forecasts assume that the turnover of the Group companies will grow by 2% per annum across the course of the five year forecasts and by 2% per annum beyond five years. The growth rates used are based on management's internally estimated growth forecasts for the market, together with the expected market share of HCS within those markets. The Group applies sensitivities to the projections to determine whether there is sufficient head-room in positive cashflows to support the carrying value of the underlying assets of the CGU's.

Following this review, the Directors have determined that there is no impairment charge which should be recognised against the intangible assets of the Group, nor has any such impairment been required to be recognised in any of the periods covered by this report.

**Sensitivity to changes in assumptions**

Management believes that no reasonable potential change in any of the above key assumptions would cause the carrying value of any unit to exceed its recoverable amount.

**10 Property, plant and equipment**

| | Leasehold improvements £'000 | Plant and machinery £'000 | Fixtures and fittings £'000 | Motor vehicles £'000 | Total £'000 |
|---|---|---|---|---|---|
| **Cost** | | | | | |
| At 1 July 2013 | 173 | 500 | 43 | 2 | 718 |
| Additions | 25 | 107 | 15 | – | 147 |
| Disposals | – | (2) | (2) | – | (4) |
| At 1 July 2014 | 198 | 605 | 56 | 2 | 861 |
| Acquired on acquisition of subsidiary | – | 174 | – | – | 174 |
| Additions | 61 | 1,086 | 35 | – | 1,182 |
| Disposals | – | (35) | – | – | (35) |
| At 30 June 2015 | 259 | 1,830 | 91 | 2 | 2,182 |
| **Accumulated depreciation** | | | | | |
| At 1 July 2013 | 20 | 158 | 21 | – | 199 |
| Charge for the year | 19 | 104 | 13 | 1 | 137 |
| Disposals | – | (1) | (1) | – | (2) |
| At 1 July 2014 | 39 | 261 | 33 | 1 | 334 |
| Charge for the year | 24 | 241 | 22 | 1 | 288 |
| Disposals | – | (16) | – | – | (16) |
| At 30 June 2015 | 63 | 486 | 55 | 2 | 606 |
| **Net book value** | | | | | |
| At 30 June 2015 | 196 | 1,344 | 36 | – | 1,576 |
| At 30 June 2014 | 159 | 344 | 23 | 1 | 527 |
| At 30 June 2013 | 153 | 342 | 22 | 2 | 519 |

Included within plant and machinery are assets under construction totalling £192,000 (2014: £nil).

# Notes to the consolidated financial statements

**for the year ended 30 June 2015**

# continued

### 11 Investments

| | **2015 £'000** | 2014 £'000 |
|---|---|---|
| Available-for-sale investments | **117** | – |

The Group holds 117,263 non-voting £1 preference shares in Arago Technology Limited. This company is not accounted for on an equity basis as the Group does not have the power to participate in the company's operating and financial policies, evidenced by the lack of any direct or indirect involvement at board level and the non-voting nature of the investment held.

### 12 Inventories

| | **2015 £'000** | 2014 £'000 |
|---|---|---|
| Raw materials | **42** | 5 |
| Work in progress | **229** | – |
| Finished goods | **12** | 17 |
| | **283** | 22 |

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

### 13 Trade receivables

| | **2015 £'000** | 2014 £'000 |
|---|---|---|
| Trade receivables | **257** | 9 |
| Allowance for impairment losses | **–** | (1) |
| | **257** | 8 |

### 14 Other receivables

| | **2015 £'000** | 2014 £'000 |
|---|---|---|
| Other receivables | **166** | 167 |
| Prepayments and accrued income | **111** | 77 |
| | **277** | 244 |

### 15 Share capital and share premium

| | Number of shares No. | Share capital £'000 | Share premium £'000 | Total £'000 |
|---|---|---|---|---|
| At 1 July 2013 | 74,617 | 1 | 3,214 | 3,215 |
| Issue of £0.02 ordinary shares | 3,257,206 | 66 | 8,443 | 8,509 |
| Transaction costs in respect of share issues | – | – | (623) | (623) |
| Bonus issue of £0.02 ordinary shares | 7,916,000 | 158 | (158) | – |
| Reduction in share premium | – | – | (4,742) | (4,742) |
| At 30 June 2014 and 1 July 2014 | 11,247,823 | 225 | 6,134 | 6,359 |
| Issue of £0.02 ordinary shares | 198,623 | 4 | 120 | 124 |
| At 30 June 2015 | 11,446,446 | 229 | 6,254 | 6,483 |

On 1 November 2014, 198,623 £0.02 ordinary shares were issued at a price of £0.6225 per share following the acquisition of EPL Composite Solutions Ltd (now Haydale Composite Solutions Ltd), whereby the company repaid the directors' loans of the acquired entity.

Issue costs amounting to £nil (2014: £623,000) have been charged to the share premium account in the year.

**16 Share-based payment transactions**

The Company operates both an approved EMI share option scheme for the benefit of all employees and an unapproved share option scheme for directors of the Company. The exercise price of the options is equal to the estimated market price of the shares on the date of grant. The options vest either one year or three years from the date of grant. The options are accounted for as equity settled share based payment transactions.

The following table which illustrates the number and weighted average exercise prices (WAEP) of, and movements in share options during the year, has been adjusted to reflect the 80-for-1 bonus share issue made on 20 March 2014:

| | Number of options and warrants No. | 2015 Weighted average exercise price Pence | Number of options and warrants No. | 2014 Weighted average exercise price Pence |
|---|---|---|---|---|
| Balance at beginning of year | 683,894 | 189 | 81,000 | 93 |
| Granted | 316,240 | 89 | 602,894 | 202 |
| Lapsed | (65,800) | 210 | – | – |
| Balance at end of year | 934,334 | 154 | 683,894 | 189 |

At 30 June 2015, there were options outstanding over 934,334 un-issued ordinary shares, equivalent to 8.2% of the issued share capital as follows:

| | Number of shares | Exercise price | Earliest exercise date | Performance criteria | Latest exercise date |
|---|---|---|---|---|---|
| **Approved EMI scheme** | | | | | |
| 23 May 2013 | 81,000 | 93.00p | 23 May 2014 | – | 23 May 2023 |
| 30 September 2013 | 40,500 | 93.00p | 30 September 2016 | – | 30 September 2023 |
| 03 April 2014 | 329,241 | 210.00p | 03 April 2017 | – | 03 April 2024 |
| 1 November 2014 | 130,000 | 62.25p | 1 November 2017 | Share price > 160p | 1 November 2024 |
| 7 November 2014 | 60,000 | 61.50p | 7 November 2017 | Share price > 160p | 7 November 2024 |
| 18 March 2015 | 57,390 | 134.50p | 18 March 2018 | – | 18 March 2025 |
| 25 June 2015 | 47,438 | 121.00p | 25 June 2018 | – | 25 June 2025 |
| **Unapproved schemes** | | | | | |
| 03 April 2014 | 167,353 | 210.00p | 03 April 2017 | – | 03 April 2024 |
| 18 March 2015 | 21,412 | 134.50p | 18 March 2018 | – | 18 March 2025 |
| | 934,334 | | | | |

The exercise prices for options granted prior to 03 April 2014 have been adjusted to reflect the 80-for-1 bonus issue made on that date.

The estimated fair value was calculated by applying a Black-Scholes option pricing model. Prior to flotation, in the absence of a liquid market for the share capital of the group the expected volatility of its share price was difficult to calculate. Therefore the directors have considered the expected volatility used by listed entities in similar operating environments to calculate the expected volatility, namely category 2 data from the value hierarchy. The Directors continue to consider this expected volatility to be appropriate and use this in the calculation of the fair value of options granted in the year. The fair value charge is then spread evenly over the expected vesting period.

**16 Share-based payment transactions** continued

| | Type of award | Number of shares | Exercise price (p) | Share price at date of grant (p) | Fair value per option (p) | Award life (years) | Risk free rate (%) | Expected volatility rate (%) | Performance Conditions |
|---|---|---|---|---|---|---|---|---|---|
| 23 May 2013 | EMI | 81,000 | 93 | 93 | 53 | 10 | 1.75 | 30 | None |
| 30 September 2013 | EMI | 40,500 | 93 | 93 | 54 | 10 | 1.75 | 30 | None |
| 03 April 2014 | EMI | 329,241 | 210 | 210 | 94 | 10 | 1.75 | 30 | None |
| 03 April 2014 | Unapproved | 167,353 | 210 | 210 | 94 | 10 | 1.75 | 30 | None |
| 1 November 2014 | EMI | 130,000 | 62 | 62 | 38 | 10 | 1.75 | 50 | Share price > 160p* |
| 7 November 2014 | EMI | 60,000 | 62 | 62 | 38 | 10 | 1.75 | 50 | Share price > 160p* |
| 18 March 2015 | EMI | 57,390 | 135 | 135 | 82 | 10 | 1.75 | 50 | None |
| 18 March 2015 | Unapproved | 21,412 | 135 | 135 | 82 | 10 | 1.75 | 50 | None |
| 25 June 2015 | EMI | 47,438 | 121 | 121 | 74 | 10 | 1.75 | 50 | None |
| | | 934,334 | | | | | | | |

*Share price >160p. These performance conditions are for share options issued to Employees only; there are no performance conditions for share options issued to Directors.

121,500 options were exercisable as at 30 June 2015 (2014: 81,000).

The model inputs for share options granted in the year were:

| | 1 November 2014 | 7 November 2014 | 18 March 2015 | 25 June 2015 |
|---|---|---|---|---|
| Share prices at grant date | 62p | 62p | 135p | 121p |
| Exercise prices | 62p | 62p | 135p | 121p |
| Expected volatility | 50% | 50% | 50% | 50% |
| Contractual life | 10 years | 10 years | 10 years | 10 years |

- No dividends are anticipated in the life of model, consistent with the Directors' view that the Group's model is to generate value through capital growth rather than the payment of dividends; and
- A risk-free interest rate of 1.75 per cent equating to the prevailing UK Gilts rate at grant date that most closely matches the expected term of the grant.

The weighted average remaining contractual life of share options outstanding at 30 June 2015 is 8.9 years (2014: 9.6 years). The charge for the year for share-based payment amounted to £194,000 (2014: £67,000).

**Warrants**

| | Number of options and warrants No. | 2015 Weighted average exercise price Pence | Number of options and warrants No. | 2014 Weighted average exercise price Pence |
|---|---|---|---|---|
| Balance at beginning of year | 277,321 | 187 | – | – |
| Granted | 110,000 | 172 | 277,321 | 187 |
| Lapsed | – | – | – | – |
| Balance at end of year | 387,321 | 183 | 277,321 | 187 |

**16 Share-based payment transactions** continued
The same pricing model is used for calculating the cost of warrants to the Group. The model inputs for each of the warrant issues were:

| | 1 July 2014 | 25 February 2015 |
|---|---|---|
| Share prices at grant date | 94p | 41p |
| Exercise prices | 94p | 41p |
| Expected volatility | 50% | 50% |
| Contractual life | 4 years | 5 years |

The weighted average remaining contractual life of share options outstanding at 30 June 2015 is 3.6 years (2014: 4.8 years). The charge for the year for share-based payment amounted to £65,000 (2014: £nil).

**17 Reserves**
Share capital
The share capital represents the nominal value of the equity shares in issue.

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

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

Retained profits and 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.

**18 Trade and other payables**

| | **2015 £'000** | 2014 £'000 |
|---|---|---|
| Trade payables | **273** | 175 |
| Tax and social security | **81** | 36 |
| Accruals and other creditors | **265** | 89 |
| | **619** | 300 |

**19 Bank loans**

| | **2015 £'000** | 2014 £'000 |
|---|---|---|
| Bank loans | **432** | – |
| The borrowings are repayable as follows: | | |
| – within one year | **162** | – |
| – in the second year | **162** | – |
| – in the third to fifth years inclusive | **108** | – |
| | **432** | – |

# Notes to the consolidated financial statements
for the year ended 30 June 2015
# continued

**19 Bank loans** continued
All borrowings are denominated in pounds sterling. The directors consider that there is no material difference between the fair value and carrying value of the group's borrowings.

| | 2015 % | 2014 % |
|---|---|---|
| Average interest rates paid | **2** | – |

The bank loan of £500,000 was drawn during the year and securitised by cash deposits. The loan accrues interest at 1.5% above the Bank of England base rate and is repayable in equal instalments over four years.

**20 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.

| | 2015 £'000 | 2014 £'000 |
|---|---|---|
| Grants | **26** | 46 |

In the year ended 30 June 2015, Haydale Limited received a business innovation grant totalling £33,000, which is being credited to the statement of comprehensive income in line with the depreciation of the associated acquired machinery.

In 2014, the deferred income balance of £46,000 related to a development grant received in 2013 totalling £114,480. The revised criterion for this grant was the creation of seven (originally fifteen) new full-time equivalent employment positions, the achievement of which was completed during the year ended 30 June 2015.

**21 Related party disclosures**
Balances and transactions between Haydale Graphene Industries PLC and its subsidiaries are eliminated on consolidation and are not disclosed in this note. Balances and transactions between the Group and other related parties are disclosed below.

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

| | 2015 £'000 | 2014 £'000 |
|---|---|---|
| Short-term employee benefits and fees | **357** | 494 |
| Social security costs | **39** | 54 |
| Share-based payments | **123** | 40 |
| Post-retirement benefits | **8** | – |
| | **527** | 588 |

In addition to the above, G Eves earned fees through his company, Evesco International Business totalling £17,000 (2014: £159,000) for corporate finance consultancy. At 30 June 2015, the balance owed to Evesco International Business was £6,000 (2014: £5,000).

Fees totalling £109,000 (2014: £50,000) were paid to ONE Advisory Ltd for financial direction and support services, a company of which M Wood is a director. At 30 June 2015, the balance owed to ONE Advisory Ltd was £9,000 (2014: £3,000).

**21 Related party disclosures** continued

**Other transactions**

Other related party transactions during the period are shown in the table below:

| | **2015 £'000** | 2014 £'000 |
|---|---|---|
| D Gibbs – consultancy services | **9** | 20 |

D Gibbs, son of R J Gibbs, a director of the Company, provided consultancy services to Haydale Limited, prior to joining as an employee.

The balances outstanding to related parties at each year end were as follows:

| | **2015 £** | 2014 £ |
|---|---|---|
| D Gibbs – consultancy services | **–** | 2 |

## 22 Financial instruments

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

### (a) Financial risk management policies

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

**(i) Market risk**

***(i) Foreign currency risk***

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

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

| | United States Dollar £'000 | Euro £'000 | Total £'000 |
|---|---|---|---|
| **2015** | | | |
| Financial assets | 16 | 132 | 148 |
| Financial liabilities | 2 | – | 2 |
| **2014** | | | |
| Financial assets | – | – | – |
| Financial liabilities | 12 | 1 | 13 |

# Notes to the consolidated financial statements

**for the year ended 30 June 2015**

# continued

**22 Financial instruments** continued

*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:

| | 2015 Increase/ (decrease) £'000 | 2014 Increase/ (decrease) £'000 |
|---|---|---|
| **Effects on loss after taxation/equity** | | |
| United States Dollar: | | |
| – strengthened by 10% | **2** | 1 |
| – weakened by 10% | **(1)** | (2) |
| Euro: | | |
| – strengthened by 10% | **14** | – |
| – weakened by 10% | **(12)** | – |

*(ii) Interest rate risk*

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

*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 equity. This assumes that all other variables remain constant.

**(ii) Credit risk**

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

The Group establishes an allowance for impairment that represents its estimate of incurred 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 have been incurred 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:

| | **2015 £'000** | 2014 £'000 |
|---|---|---|
| United Kingdom | **186** | 5 |
| Europe | **67** | – |
| North America | **4** | 4 |
| Allowance for impairment losses | **–** | (1) |
| | **257** | 8 |

**22 Financial instruments** continued

Ageing analysis

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

| | 2015 £'000 | 2014 £'000 |
|---|---|---|
| Not past due | **98** | 4 |
| Past due: | | |
| – less than 3 months | **122** | – |
| – between 3 and 6 months | **37** | 4 |
| – more than 6 months | **–** | 1 |
| Gross amount | **257** | 9 |

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.

*Trade receivables that are past due but not impaired*

The Haydale Graphene Industries Group believes that no impairment allowance is necessary in respect of these trade receivables. They are substantially companies with good collection track record and no recent history of default.

**(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 19.

Ageing analysis

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

| | 2015 £'000 | 2014 £'000 |
|---|---|---|
| Due: | | |
| – within one year | **1,217** | 264 |
| – within one to two years | **426** | – |
| – within two to five years | **109** | – |
| Gross amount | **1,752** | 264 |

**(b) Capital risk management**

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

# Notes to the consolidated financial statements
for the year ended 30 June 2015
# continued

**22 Financial instruments** continued
**(c) Classification of financial instruments**

| | 2015 £'000 | 2014 £'000 |
|---|---|---|
| **Financial assets** | | |
| Investments | **117** | – |
| Trade receivables | **257** | 8 |
| Other receivables | **166** | 167 |
| Cash and bank balances | **2,049** | 5,677 |
| | **2,589** | 5,852 |
| **Financial liabilities (at amortised cost)** | | |
| Bank loans | **432** | – |
| Trade payables | **273** | 175 |
| Accruals and other creditors | **265** | 89 |
| Provision for contingent consideration | **770** | – |
| | **1,740** | 264 |

**(d) Fair value of financial instruments**
All financial assets and liabilities approximate their fair values due to the relatively short-term nature of the financial instruments.

The Group has no financial assets or liabilities carried at fair values at the end of each reporting date, with the exception of the contingent consideration.

**23 Capital commitments**
The Group had the following capital commitments in the respective years:

| | 2015 £'000 | 2014 £'000 |
|---|---|---|
| Contracted but not provided for | **125** | 9 |

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

| | 2015 Land and buildings £'000 | 2015 Plant and machinery £'000 | 2014 Land and buildings £'000 | 2014 Plant and machinery £'000 |
|---|---|---|---|---|
| Operating leases which expire: | | | | |
| – within one year | 9 | 16 | 9 | 9 |
| – within two to five years | 55 | 2 | | |
| Aggregate amounts payable | 64 | 18 | 9 | 9 |

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

| | 2015 Land and buildings £'000 | 2015 Plant and machinery £'000 | 2014 Land and buildings £'000 | 2014 Plant and machinery £'000 |
|---|---|---|---|---|
| Operating lease expense | 93 | 17 | 34 | 1 |

## 26 Acquisition

On 1 November 2014, the Company reached agreement to acquire the entire issued share capital of EPL Composites Solutions Ltd (now Haydale Composite Solutions Ltd) for a maximum consideration of £1,193,000 comprising £400,000 cash with up to £793,000 payable in either cash and/or shares in the Company based on earnings targets to 30 June 2016. In addition, immediately following the acquisition, the Company reimbursed director's loans of EPL totalling £188,000. Direct acquisition costs amounting to £143,000 have been written off to the consolidated statement of comprehensive income.

The fair values of EPL are detailed below:

| | £'000 |
|---|---|
| **ASSETS** | |
| Intangible assets | 285 |
| Property, plant and equipment | 174 |
| Inventories | 163 |
| Trade and other receivables | 274 |
| Cash and bank balances | 163 |
| **TOTAL ASSETS** | 1,059 |
| **LIABILITIES** | |
| Trade and other payables | 509 |
| Corporation tax | 7 |
| **TOTAL LIABILITIES** | 516 |
| **NET ASSETS ACQUIRED** | 543 |
| **Consideration** | |
| Cash consideration | 407 |
| Contingent consideration discounted to present value | 770 |
| | 1,177 |
| **Goodwill on acquisition** | 634 |
| **Effect within consolidated statement of cashflows:** | |
| Cash consideration | 407 |
| Less: cash and bank balances acquired | (163) |
| | 244 |

Other than the intangible assets, there were no differences between book values and fair values on acquisition. The carrying value of Goodwill is based on the highly skilled assembled workforce of HCS.

Since the acquisition date, Haydale Composite Solutions Limited has contributed £1,181,000 to group total income and £133,000 to group profit. If the acquisition had occurred on 1 July 2014, total group income for the year would have been £1,889,000 and group loss for the year would have been £2,935,000.

Haydale has agreed to reduce the Contingent Consideration payable to a maximum of £0.77 million, of which £0.65 million will be payable in cash to the Vendors, (which is expected to be paid following the General Meeting), with the balance due on receipt by HCS of certain of its outstanding debtors.

Therefore there are no uncertainties relating to the amount or timing of the payment of contingent consideration, at the signing date of these accounts. It is also the opinion of the Directors that there were no uncertainties with regard to the contingent consideration at year end.

# Parent Company Balance sheet

**as at 30 June 2015**

| | Note | **2015 £'000** | 2014 £'000 |
|---|---|---|---|
| **Fixed assets** | | | |
| Tangible fixed assets | 5 | **–** | – |
| Investments | 6 | **2,005** | 759 |
| | | **2,005** | 759 |
| **Current assets** | | | |
| Debtors – within one year | 7 | **538** | 266 |
| – after more than one year | 7 | **4,783** | 2,250 |
| Cash at bank and in hand | | **1,798** | 5,650 |
| | | **7,119** | 8,166 |
| Creditors: amounts falling due within one year | 8 | **(833)** | (154) |
| **NET CURRENT ASSETS** | | **6,286** | 8,012 |
| **TOTAL ASSETS LESS CURRENT LIABILITIES** | | **8,291** | 8,771 |
| Creditors: amounts falling due after more than one year | 9 | **(530)** | – |
| **NET ASSETS** | | **7,761** | 8,771 |
| **Capital and reserves** | | | |
| Called up share capital | 10 | **229** | 225 |
| Share premium account | 10 | **6,254** | 6,134 |
| Profit and loss account | 11 | **1,278** | 2,412 |
| **SHAREHOLDER'S FUNDS** | | **7,761** | 8,771 |

The financial statements on pages 46 to 50 were approved and authorised for issue by the Board of directors on 30 October 2015 and signed on its behalf by:

**Ray Gibbs**
Chief Executive Officer

**Matt Wood**
Finance Director

**Company Registration No. 07228939**

# Notes to the Parent Company Balance sheet

**for the year ended 30 June 2015**

**1 Basis of preparation**
Haydale Graphene Industries PLC's parent company balance sheet has been prepared under the historical cost convention and in accordance with UK Generally Accepted Accounting Practice ('UK GAAP').

As permitted by FRS1 'Cash Flow Statements', no cash flow statement for the Company has been included on the grounds that the Group includes the Company in its own published consolidated financial statements. The Company has taken advantage of the exemption in FRS 8 'Related Party Disclosures' not to disclose related party transactions with wholly-owned subsidiaries.

**2 Accounting policies**
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
Investments in subsidiary undertakings where the Company has control are stated at cost less any provision for impairment. Control is achieved where the Company has the power to govern the financial and operating policies of an investee entity so as to obtain benefits from its activities.

Share-based payments
In accordance with FRS20, 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 |

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.

Research and development
Expenditure on pure and applied research is charged to the profit and loss account in the year in which it is incurred.

Development costs are also charged to the profit and loss account in the year of expenditure, unless individual projects satisfy all of the following criteria:

- The project is clearly defined and related expenditure is separately identifiable;
- The project is technically feasible and commercially viable;
- Current and future costs are expected to be exceeded by future sales; and
- Adequate resources exist for the project to be completed.

In such circumstances the costs are carried forward and amortised over a period not exceeding 20 years commencing in the year the Company starts to benefit from the expenditure.

Taxation
The charge for taxation is based on the loss for the year 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 or substantively enacted by the balance sheet date.

Deferred tax balances are recognised in respect of all timing differences that have been originated but not reversed by the balance sheet 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. Deferred tax balances are not discounted.

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.

# Notes to the Parent Company Balance sheet
**for the year ended 30 June 2015**
# continued

**3 Loss attributable to members of the Parent Company**
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 dealt with in the financial statements of the Parent Company for the year ended 30 June 2015 was £1,205,000 (2014: £1,283,000).

**4 Directors' remuneration**
The only employees of the Company are the directors. 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 section of the Directors' Remuneration Report on pages 16 to 18, which are ascribed as forming part of these financial statements.

**5 Tangible fixed assets**

| | Fixtures and fittings £'000 |
|---|---|
| **Cost** | |
| At 1 July 2014 and 30 June 2015 | 3 |
| **Accumulated depreciation** | |
| At 1 July 2014 and 30 June 2015 | 3 |
| **Net book value** | |
| At 30 June 2014 and 30 June 2015 | – |

**6 Fixed asset investments**

| | Investment in subsidiary undertakings £'000 | Capital contribution £'000 | Total £'000 |
|---|---|---|---|
| **Cost** | | | |
| At 1 July 2014 | 729 | 30 | 759 |
| Additions | 1,175 | 69 | 1,246 |
| At 30 June 2015 | 1,904 | 99 | 2,005 |

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 (formerly EPL Composite Solutions Ltd) | England & Wales | 100% | R&D, sales and distribution |
| Nano Hex (Sales) Ltd | England & Wales | 100% | Sales and distribution |
| Haydale Resins Ltd | England & Wales | 100% | Dormant |
| Haydale Composites Ltd | England & Wales | 100% | Dormant |
| Nano Hex Ltd | England & Wales | 100% | Dormant |
| Intelligent Nano Technology Ltd | England & Wales | 100% | Dormant |

## 7 Debtors

| | 2015 £'000 | 2014 £'000 |
|---|---|---|
| Amounts owed by group companies | **5,049** | 2,282 |
| Corporation tax | **129** | 63 |
| Other debtors | **97** | 129 |
| Prepayments and accrued income | **46** | 42 |
| | **5,321** | 2,516 |

Of the amounts owed by group companies, £4,783,000 (2014: £2,250,000) is due after more than one year. All other balances within debtors are due within one year.

## 8 Creditors: amounts falling due within one year

| | 2015 £'000 | 2014 £'000 |
|---|---|---|
| Bank loan | **162** | – |
| Trade creditors | **75** | 72 |
| Other creditors including tax and social security | **13** | 21 |
| Accruals and deferred income | **73** | 61 |
| Provision for contingent consideration | **510** | – |
| | **833** | 154 |

The bank loan is securitised by an equal balance held on deposit and accrues interest at 1.5% above the Bank of England base rate.

## 9 Creditors: amounts falling due after more than one year

| | 2015 £'000 | 2014 £'000 |
|---|---|---|
| Bank loan | **270** | – |
| Provision for contingent consideration | **260** | – |

The bank loan is securitised by an equal balance held on deposit and accrues interest at 1.5% above the Bank of England base rate.

## 10 Share capital and share premium

| | Number of shares No. | Share capital £'000 | Share premium £'000 | Total £'000 |
|---|---|---|---|---|
| At 1 July 2014 | 11,247,823 | 225 | 6,134 | 6,359 |
| Issue of £0.02 ordinary shares | 198,623 | 4 | 120 | 124 |
| At 30 June 2015 | 11,446,446 | 229 | 6,254 | 6,483 |

On 1 November 2014, 198,623 £0.02 ordinary shares were issued at a price of £0.6225 per share following the acquisition of EPL Composite Solutions Ltd (now Haydale Composite Solutions Limited), whereby the company repaid the directors' loans of the acquired entity.

Issue costs amounting to £nil (2014: £623,000) have been charged to the share premium account in the year.

Details of the Company's share options schemes can be found in note 16 to the Group accounts on pages 37 to 39.

# Notes to the Parent Company Balance sheet
**for the year ended 30 June 2015**
# continued

**11 Reconciliation of movements in reserves and shareholders' funds**

| | Share capital £'000 | Share premium £'000 | Profit and loss account £'000 | Total £'000 |
|---|---|---|---|---|
| At 1 July 2013 | 1 | 3,214 | (1,077) | 2,138 |
| Issue of £0.02 ordinary shares | 66 | 8,443 | – | 8,509 |
| Transaction costs in respect of share issues | – | (623) | – | (623) |
| Bonus issue of £0.02 ordinary shares | 158 | (158) | – | – |
| Loss for the year | – | – | (1,324) | (1,324) |
| Reduction in share premium | – | (4,742) | 4,742 | – |
| Share-based payment | – | – | 71 | 71 |
| At 30 June 2014 and 1 July 2014 | 225 | 6,134 | 2,412 | 8,771 |
| Issue of £0.02 ordinary shares | 4 | 120 | – | 124 |
| Loss for the year | – | – | (1,392) | (1,392) |
| Share-based payment | – | – | 258 | 258 |
| At 30 June 2015 | 229 | 6,254 | 1,278 | 7,761 |

On 20 March 2014, the Company effected a bonus issue of 80 new ordinary shares for each 1 ordinary share held. Also on that date the Company effected a reduction in the share premium of £4,742,000.

**12 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.

# Glossary

| *Term* | *Definition* |
|---|---|
| AIM | The Alternative Investment Market of the London Stock Exchange |
| AIM Rules | The AIM Rules for Companies published by the London Stock Exchange |
| Board | the board of directors of the Company |
| Company | Haydale Graphene Industries Plc |
| graphene | graphene is a flat monolayer (a 2D material) of carbon atoms, arranged in a hexagonal pattern (a honeycomb crystal lattice). The term graphene is generally accepted to apply to materials up to ten layers thick |
| GNPs or graphene nanoplatelets | Short stacks of platelet shaped graphene sheets |
| graphite | an allotrope of carbon with an order structure of atoms in a regular hexagonal 2D array (graphene) weakly bonded with adjacent layers to produce an anisotropic material; can be either naturally occurring or artificially generated |
| Group | The Company and its subsidiaries |
| nanomaterials | A material or particle where one of the three dimensions is in the nanometer range ($10^{-9}$m), but typically less than 100 nanometers |
| Nanometer | Unit of length equal to one billionth of a meter ($10^{-9}$m) |
| Ordinary Shares | Ordinary shares of 2p each in the capital of the Company |
| QCA | The Quoted Companies Alliance |

# Corporate directory

## Company

| | |
|---|---|
| **Company Number** | 7228939 |
| **Directors** | John Knowles<br>Anthony Alfredo Belisario<br>Raymond John Gibbs<br>Dr Christopher John Spacie<br>Matthew Graham Wood<br>Graham Dudley Eves<br>Roger James Humm<br>Roger Anthony Smith |
| **Secretary** | Matt Wood |
| **Investor Relations Contact** | Trevor Phillips<br>trevor.phillips@haydale.com |
| **Head Office and Registered Office** | Clos Fferws, Parc Hendre, Capel Hendre,<br>Ammanford, Carmarthenshire, Wales, SA18 3BL |
| **Website** | www.haydale.com |
| **E-mail** | info@haydale.com |
| **Telephone** | +44 (0)1269 842946 |

## Advisers

| | |
|---|---|
| **Independent Auditor** | BDO LLP<br>Arcadia House, Maritime Walk, Ocean Village, Southampton, SO14 3TL |
| **Nominated Advisor** | Cairn Financial Advisers LLP<br>61 Cheapside, London, EC2V 6AX |
| **Broker** | Cantor Fitzgerald Europe<br>One Churchill Place, 20th Floor, Canary Wharf , London, E14 5RB |
| **Financial Public Relations** | Hermes Financial Public Relations Limited<br>5 Cornfield Terrace, Eastbourne, East Sussex, BN21 4NN |
| **Registrars** | Share Registrars Limited<br>Suite E, First Floor, 9 Lion and Lamb Yard, Farnham, Surrey, GU9 7LL |
| **Solicitors** | Field Fisher Waterhouse LLP<br>Riverbank House, 2 Swan Lane, London EC4R 3TT |
| **Intellectual Property Solicitors** | Mewburn Ellis LLP<br>33 Gutter Lane, London, EC2V 8AS |

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