Velocys plc

Annual report and accounts 2018

Contents

	Page
Strategic Report	2–14
Highlights	2
Chairman's statement	4
CEO's report	6
Financial review	7
Corporate social responsibility	9
Key performance indicators (KPIs)	9
Risks and mitigation	10
Governance	15–32
Corporate governance report	15
Directors' report	20
Directors' remuneration report	22
Statement of Directors' responsibilities	26
Independent auditors' report	27
Financial statements	33–78
Consolidated income statement	33
Consolidated statement of comprehensive income	34
Consolidated statement of financial position	35
Consolidated statement of changes in equity	36
Consolidated statement of cash flows	37
Notes to the consolidated financial statements	38
Velocys plc statement of financial position	69
Velocys plc statement of changes in equity	70
Velocys plc statement of cash flows	71
Notes to the financial statements for Velocys plc	72
Directors, secretary and advisers to the Company	IBC

Highlights

- Transformed and focused the management team with the appointment of Henrik Wareborn as the new CEO and Andrew Morris as the new CFO in November 2018 while eliminating the roles of CCO and COO.

- Restructured the rest of the Board with the appointment of Philip Holland and Darran Messem as Non-Executive Directors (post period end) with Philip taking on the role as Senior Independent Director and Darran as Chairman of the Remuneration Committee. Dr Pierre Jungels is announcing his intention to step down as Company Chairman towards the end of this calendar year. Velocys has a well prepared succession plan in place for the Board and further announcements will be made in due course.

- Streamlined and de-risked our two advanced biofuel projects focusing on flow sheet standardisation and synergies and advancing both projects to FEED-ready stage:

- Natchez, Mississippi biorefinery:
  - Completed the Environmental Assessment required under the National Environmental Policy Act.
  - Completed ~1,000 hours of integrated demonstration of wood-chips to fuels with TRI at Durham, North Carolina at a rate of four tonnes per day of dry Southern Yellow Pine wood chips allowing us to demonstrate biofuel yields from representative feedstock and actual syngas composition.
  - Completed final product upgrade pilot run over 12 weeks at Haldor Topsoe in Denmark generating final product samples for further aviation fuel blending studies with our strategic partners this year. Also generated drop-in diesel and blended infrastructure compliant gasoline.
  - Detailed due diligence and value-added engagement by potential strategic partners continues.
  - The project has been further optimised to achieve negative lifecycle carbon emissions and reduce overall environmental impact whilst maintaining 20 million gallons of sustainable aviation fuel and gasoline blendstock production per year from 2024.

- Immingham UK waste to jet fuel biorefinery:
  - Partner funding of £4.5m secured during the year for current stage of the project, which we are developing in collaboration with British Airways and Shell.
  - Project awarded £434k from the UK Department for Transport under the Future Fuels for Flight and Freight Competition (F4C).
  - A 100 acre site secured on the South Humberside for the project with ideal infrastructure for feedstock and utilities supply as well as product off-take.
  - The project has been optimised to produce 15 million gallons per year of sustainable aviation fuel eligible for double credits as an advanced development fuel under RTFO.
  - Engagement with the UK Government to secure sufficient and stable policy support continues for the project to reach financial close.

- Red Rock Biofuels, Oregon biorefinery (RRB):
  - Wood chips to sustainable fuel biorefinery commenced construction. Notice to proceed issued to Velocys. £4.5 million out of a total £9.2m has been received.
  - Post period end amended contract to accelerate delivery of the first of four reactors and first four charges of catalyst, reducing the firm commitment for reactors from six to four but RRB will retain an option to acquire reactors 5 and 6 until the end of 2020 at existing contract price.

- ENVIA, Oklahoma, FT joint venture:
  - Generation of Renewable Identification Numbers (RINs) announced in January 2018, with RINs verified in March 2018 having provided auditable data of the carbon intensity under the approved pathway whilst running two Velocys FT reactors in parallel.
  - Independent verification and confirmation that the reactor leak detected in May 2018 was caused by a fault in the ancillary coolant system and was not a result of any flaw in the core Velocys technology.
  - Plant continued to operate on one reactor until September to prove out resilience of the second FT reactor after ancillary cooling system had been re-designed.
  - In September 2018, the JV partners deemed the technology demonstration had been successfully completed.
  - ENVIA obtained $2.3m insurance settlement in relation to the cooling system damage to the FT reactor in late 2018 and early 2019.
  - Post period end: A successful conclusion of the ENVIA JV with Velocys reaching agreement with the JV partners on rights transfer and payment due to Velocys of £3.26m with £1.66m received on signing agreement and the return of the two FT reactors to Velocys for post-demonstration analysis.

- 2018 Financial results:
  - Revenue of £0.7m (2017: £0.8m).
  - Operating loss of £18.6m, before exceptional items of £10.1m (2017: £21.4m before exceptional items of £29.7m).
  - Cash* at the year-end £7.0m (31 December 2017: £2.1m).
  - Fundraises of approximately £18.4m (before expenses) in January 2018 and £6m (before expenses) in July 2018.
  - Impairment of £0.8m of the ENVIA investment in associate and an impairment of the ENVIA loan note of £10.1m.

- The Company confirms that it has adopted the QCA Corporate Governance Code, which highlights its continued focus on good governance and maintaining a high degree of trust and transparency with its shareholders and other stakeholders.

* Defined as cash and cash equivalents.

Henrik Wareborn, CEO of Velocys, said:

"Velocys is now in the possession of our two full-scale commercial FT micro-channel reactors with a combined cumulative runtime of more than 5,000 hours from the recently concluded ENVIA technology demonstration in Oklahoma. These two reactors have operated under a wide range of conditions with a relatively challenging feedstock. We have collected a vast amount of performance data from this demonstration allowing us now to further optimise for resilience, volume and product quality directly benefiting our two full-scale renewable fuels projects under development in Natchez, Mississippi and Immingham, UK as well as our first licensee; Red Rock Biofuels in Oregon.

Furthermore, we have conducted extensive post-operative analysis on the reactors and catalyst from ENVIA at our technology centre in Ohio allowing us to demonstrate to partners, such as strategic investors and insurers, the robustness of the Velocys technology offering. This also contributes greatly to the de-risking of the Mississippi and Immingham projects and supports a broad range of project finance approaches.

Red Rock Biofuels broke ground in June 2018. In February 2019 we agreed to accelerate deliveries of Velocys FT reactors and catalyst which included one reactor and 4 charges of catalyst delivered from inventory and the remaining 3 reactors are now in the process of being manufactured and delivered during the balance of 2019.

Velocys is within reach to offer a tangible solution to support decarbonisation of air travel, a critical sector supporting the global economy with very stringent fuel criteria and few alternatives to hydrocarbon fuels. The aviation sector needs renewable fuels which meet the complex standards of fossil fuels for engine safety and performance reasons. I believe Velocys is well positioned to create significant shareholder value already in 2019 from our unique position at the cutting edge of fossil-free aviation.

I would like to thank all my colleagues at Velocys for their continued commitment and relentless efforts during the intensive phase of technology demonstration and project development during 2018.

I would also like to take this opportunity to thank Dr Pierre Jungels for his continued support to me and the team during the changes that were made to the senior management of the Company and the Board in the last quarter of 2018 as well as for his significant contribution to the Company over the last thirteen years."

Chairman's statement

Introduction

Velocys is now an advanced biofuels company. This transition was completed thanks to the technical proof point reached upon completion of the commercial scale demonstration runs of our two Velocys Fischer-Tropsch (FT) reactors at ENVIA, together with the strong commercial progress at both the Immingham, UK waste to jet fuel plant and the Natchez Mississippi biorefinery projects, significant fundraising in support of the above and an overall strengthening of the Executive team as well as the Board.

The ENVIA plant in Oklahoma has shown that Velocys' micro-channel FT reactors and catalysts work well in a range of conditions, inside the operating envelope, and generate high quality renewable fuels with low carbon intensity evidenced by the award of D3 RIN credits.

Velocys will now leverage all the learnings and experience from running full cycle commercial operations at ENVIA into the two commercial scale biorefinery projects in Natchez and Immingham in collaboration with our financial and technology partners.

The demand for sustainable jet fuel could not be more obvious. Velocys is in a unique position to offer a de-risked, scalable and executable solution to convert solid waste feedstocks into sustainable jet fuel with a minimal carbon intensity both in the US and in the UK subject to continued shareholder and strategic partner support.

Management and Board

In November 2018, we were delighted to welcome Henrik Wareborn as Velocys' new CEO and Executive Director. Henrik's expertise includes capital markets advisory, commodities trading, fund raising and commodity finance from Goldman Sachs, BP Plc and Natixis SA. Henrik holds an MBA from INSEAD and a BA in economics from the Stockholm School of Economics. The Board considers that his skill set and experience and his knowledge, background and approach, are exactly what is demanded as Velocys moves into the financing and commercialisation of both the project in Mississippi and the UK waste to jet fuel project in Immingham.

In addition, we were pleased that Andrew Morris, who had been a Non-Executive Director and Chairman of the Company's Audit and Risk Committee since June 2017, accepted the position as Velocys' full time Chief Financial Officer, remaining on the Board as an Executive Director. Andrew has considerable experience in the power and renewable energy, energy from waste and biofuels sectors, and has significant involvement in financing and business development for AIM companies, SMEs and private equity backed organisations. Andrew's appointment as Velocys' Chief Financial Officer has assisted the Board significantly in managing the Company's finances.

We were also pleased to announce the appointment of two new independent Non-Executive Directors to the Board with effect 1 January 2019. Philip Holland and Darran Messem both have significant experience in industries, companies and projects with direct relevance to Velocys. Philip has been appointed as a member of the Audit & Risk, and Remuneration and Nomination Committees, and has also been appointed as Senior Independent Director, and Darran has been appointed as Chairman of the Remuneration Committee, and as a member of the Audit & Risk and Nomination Committees. The Board has already been able to benefit from their respective contributions in the relatively short time since their appointments.

David Pummell and Paul Schubert resigned as Directors in December 2018 and John Tunison stepped down as interim Chief Financial Officer in September 2018. On behalf of the Board I thank them all for their contributions to the Company.

On behalf of the Board, I want to express our deep gratitude to Julian West who stepped down from the Board as a Non-Executive Director in February 2018 after several years of dedicated service to Velocys as Senior NED.

In line with recent Corporate Governance linked to the tenure of Chairmen, I am announcing that, since I have served as Chairman of Velocys from 2006, I plan to step down as Company Chairman towards the end of this calendar year. Velocys has a well prepared succession plan in place for the Board and further announcements will be made in due course after appropriate due diligence and shareholder consultations.

Fundraising

In January 2018, approximately £18.4m (before expenses) was raised through a Placing and Open Offer, principally to help fund the development of our Mississippi biorefinery project, and to secure strategic investment into it. We included an open offer element in this fundraising round to enable all eligible shareholders an opportunity to participate. Our existing major shareholders again demonstrated their considerable support, but at the same time we were pleased by our ability to extend our shareholder base.

We completed a further fundraise of £6m (before expenses) in July 2018, primarily through the support of existing shareholders, who we thank for their continued support. Net proceeds of the Placing were used predominantly to: (i) strengthen the Company's balance sheet; (ii) fund our portion of the pre-Front End Engineering Design ("FEED") development costs for the Immingham UK waste to jet fuel project; (iii) allow us to complete our commercial scale reactor demonstration run at ENVIA; and (iv) support the process for on-boarding one or more strategic investors to provide development funding for our biorefinery projects.

In November 2018, we served conversion notices to the holders of the £9 million nominal convertible loan notes which had been issued on 1 June 2017, converting these plus accrued interest into an aggregate of 20,100,000 new ordinary shares at a conversion price of £0.50 per share.

The Board recognises that additional funding is required to reach final close for both our biorefinery projects. Further details are given in the Financial review and note 2.

Outlook

Velocys has transformed from its research and development (R&D) focus to providing a solution for supplying advanced biofuels at commercial scale using abundant feedstocks causing no land-use change.

The Velocys team in Harwell (UK), Ohio and Texas (US) has driven this pivot into advanced biofuels with an unyielding commitment to quality, safety and excellence. Our biorefinery technology integration is designed to perform over many years at high yields in order to offer a sound return to investors and a significant decarbonisation impact.

The next phase of the business during 2019 will be to conclude all pre-Front End Engineering Design (FEED) for our two projects and reach final agreements with our strategic partners on the funding of the two-phase FEED to allow both projects to reach Financial Close during 2020.

Dr. Pierre Jungels, CBE
Chairman
14 May 2019

CEO's report

2018 was the year investors grasped the full opportunity of decarbonisation. After many years of chronic oversupply and low prices, the European Emissions Allowance market sprung back to life. The EUA credits were among the best performing financial assets in the world in 2018, as the imperative need of decarbonisation finally started to dawn on corporate risk managers as well as financial investors.

Velocys is on the cusp of providing a scalable decarbonisation solution for the challenging sector of high energy density renewable fuels such as sustainable jet fuel for aviation, road diesel for heavy goods transport, and marine fuels for the global shipping industry.

Our two biorefinery projects under development in Immingham, UK and Natchez, US will each process over 300 thousand tonnes of dry solid waste feedstock per year (from municipal/ commercial & industrial waste and forest residues respectively), converting them into 60-80 million litres of renewable fuels per year with a carbon intensity between zero and 30% of that of comparable fossil fuels.

The pathway from gasification of solid waste feedstocks, through synthesis gas clean-up and Velocys' Fischer Tropsch synthesis into FT liquids for final upgrading to ultra clean fuels is compatible with existing infrastructure and using well proven upgrading technology. The Velocys FT reactors completed a commercial scale production run in Oklahoma during the year, producing in total 1.6 million litres of fuels, which means that all components of our biorefinery technology integration in Immingham and Natchez have now been demonstrated and financed at commercial scale.

If global policymakers are serious about the Paris Agreement targets, a rising price on carbon is inevitable. The limited capacity in the atmosphere to store more CO_2 without adverse effects is the ultimate scarce resource and will be priced accordingly. The economics of our US biorefinery project benefit from strong policy support, especially in California via the Low Carbon Fuel Standard incentivising decarbonisation of road and aviation fuels. Likewise, our UK biorefinery project benefits from the new Renewable Transport Fuel Certificates for development fuels, awarding double credits for advanced sustainable aviation fuels from waste feedstocks.

During the year, we undertook a rigorous evaluation of a range of suitable sites for our Immingham UK project which concluded in the announcement of the site in November. The site scored very high on all our criteria such as feedstock supply, rail, road, port and pipeline access as well as its location in the "Energy Estuary" of the South Humberside with a wealth of highly skilled workers in this field. We have commenced the planning and permitting process with a public consultation opening shortly.

The Natchez, MS biorefinery project completed planning, permitting and pre-FEED engineering successfully and is currently under due dilligence by strategic partners invited to the formal funding process for the final FEED stage.

The two projects have benefitted from the application of a standardised technical flow sheet as far as possible given the slightly different nature of the feedstock and other local conditions. The volume of dry feedstock, liquid products produced and expected returns are therefore now very similar for both projects thanks to the similar level of aggregate policy support afforded to each project.

We are grateful for all the strategic and technical support we have received during the year from British Airways and Shell as we work to prove this new sustainable pathway for scalable advanced biofuels which do not induce land use change.

We are also pleased to be supporting Red Rock Biofuels (RRB) as technology licensors for their biorefinery project in Oregon converting woody biomass to sustainable jet fuel and diesel. RRB announced FID in early 2018 and gave Velocys notice to proceed to deliver four FT reactors and four charges of catalyst for their project to be delivered in 2019. Velocys has provided a site-licence to RRB to operate up to six Velocys FT reactors at the site and we offer engineering services for the FT island including commissioning and start-up services in due course.

It was also very satisfying to instigate the repurposing of the ENVIA plant into a Renewable Natural Gas (RNG) plant as recently announced, post-period. For this purpose, one of our JV partners has acquired a number of assets from ENVIA for a payment of $4.15 million to Velocys and the two Velocys FT reactors have been transferred back to Velocys upon the completed demonstration run at that site. In return, Velocys has agreed to lift its liens on all ENVIA assets. Velocys will also receive any surplus cash from ENVIA post decommissioning as well as any potential additional payments from the sale of remaining assets from ENVIA not required for the RNG repurposing.

Velocys takes the safety and well-being of its employees very seriously and has created a passionate and holistic culture of safety, health and environmental responsibility that extends from the CEO to all employees. Each employee is encouraged to actively participate in and take responsibility for their own safety and health by participating in Job Safety Analyses (JSA), Process Hazard Analyses (PHA), and Design and Process Failure Mode and Effects Analyses (DFMEA/PFMEA) with the goal to proactively prevent incidents. To this end, Velocys has only had one lost-time accident since September 2000, which occurred in July 2018. In 2018, two near misses were reported and investigated and one more near miss occurred in early 2019.

I want to conclude by thanking our shareholders, employees and public sector stakeholders for all the determined support during these years of research and product development required to launch such a transformational technology in support of the global cause of decarbonising aviation and heavy duty land and sea transports.

Henrik Wareborn
Chief Executive Officer
14 May 2019

Financial review

Revenues

Velocys plc is managed as a single operation and referred to as "the Company" throughout the strategic report. "Company" results represent the Consolidated results and Velocys plc results are for the parent Company only. The Company recognised revenue of £0.7m (2017: £0.8m). The revenue was primarily the result of the lease of catalyst related to the ENVIA project. Gross Profit was flat at £0.4m (2017: £0.4m).

On 1 January 2018, the Company adopted IFRS 15. In accordance with guidance in IFRS 15, the revenues from Red Rock Biofuels will be recognised in future periods, as discussed in notes 6 to the accounts.

Operating losses were £18.6m, before exceptional items of £10.1m related to impairments (2017: £21.4m before exceptional items of £29.7m). The reduction of the operating loss is principally the result of reducing administrative expenses as set out below.

Expenses and income

Administrative expenses before exceptional items reduced to £19.1m and £29.1m after exceptional items (2017: £21.9m before and £53.4m after exceptional items). The reduction before exceptional items comes from a number of elements including the lower number of staff employed by the Company after the closure of the UK R&D facility which was completed in June 2017 and the completion of the work on the project development of the Mississippi project in Q3 2018.

The reduction in administrative expenses after exceptional items is largely due to the scale of the impairment taken in 2017 which has meant that no further impairment is required in 2018, other than for the loan to ENVIA, our associate company. The Board of ENVIA decided to suspend operations in September 2018 (see Impairment on assets and investments below), as a result of this decision there is little chance of the Company receiving repayment of the loan, so it has been fully impaired by £10.1m (2017: £nil).

Other income before exceptional items during the year consisted of the sale of assets and a return on deposit adding to £0.04m, (assets sold in 2017 associated with the closure of the UK R&D facility provided other income of £0.2m). No further income was recorded in 2018. Exceptional items were recorded in 2017 of £1.75m relating to the increased equity share and voting rights in ENVIA following the exit of NRG. No such exceptional items were recorded in 2018.

Assets and cash

The net assets of the Company were £5.4m which is down from the £14.7m in 2017. This decrease was largely due to the impairment of the Company's loan and investment in ENVIA of £10.9m and the operating loss before exceptional items of £18.6m off-set by the £22.4m (net of expenses) raised from share issuances in January and August 2018.

The cash inflow to the Company in 2018 was £4.3m (2017: £16.0m cash outflow) principally being the net receipts of £23.0m after the two fund raises that were successfully completed during the year, less £6.3m cash used in investing activities and £12.4m used in operating activities. The Company continues to carefully manage its underlying cost base and spend prudently on strategy implementation.

The Company incurs much of its expenses in US dollar and has exposure to the US dollar exchange rate. This is hedged to the extent possible by holding cash reserves in US dollars. In addition, the majority of the Company's income is invoiced in dollars.

Impairment on assets and investments

In September 2018 the Board of Directors of ENVIA decided to suspend operations and undertake a review of strategic alternatives at the ENVIA plant. As a result of this decision there is little chance of us receiving full repayment of the loan. The Company recorded an impairment of £10.1m with respect to the loan to ENVIA and £0.9m with respect to the investment as a result of an increase in the credit risk arising from the Board of Directors of ENVIA's decision. In addition, the company analysed the total value of the Company's equity as at 31 December 2018 and determined that despite a decrease in share issue price, no further impairment was warranted on top of the impairment recorded in 2017.

With respect to the impairment assessment in 2017, the recoverable amount was determined based on the fair value less costs of disposal ("fair value"), by reference to the total value of the parent Company's equity (i.e. market capitalisation). For 2017 the Company recorded an impairment of £31.5m against a range of assets, including goodwill and in-process technology. The Board has assessed whether any additional impairment is required in 2018 and based on consideration of operational performance and market capitalisation at 31 December 2018, we do not consider there to be any impairment required in 2018.

There has been no change in the Board's assessment of the long-term potential of the assets. The impairments made, except for Goodwill, could be reversed in future if there is a change in the estimates used to determine the asset's recoverable amount, particularly in relation to the share price of the parent Company. At 31 December 2018, the Board did not consider there has been a change in circumstances that would justify reversal of the impairments recorded in 2017.

The parent Company has both equity and debt investments in its subsidiaries, which are compared to the recoverable amount. On this basis, the impairment assessment indicated that the carrying value of the investments in subsidiaries was higher than the recoverable amount in 2017, determined by fair value less costs of disposal. As a result, an impairment of £33.3m (2017: £57.3m) was recognised. This impairment was eliminated on consolidation.

ENVIA

The loans and investment into ENVIA have been impaired in this year's accounts due to the suspension of activities at the site and the laying off of nearly all the staff. The Company completed negotiations in April 2019 with one of the remaining partners and the landfill gas supplier to sell some of the assets and remove the Company's liens associated with its loans to ENVIA from the Company and release the site to the landlord so that they can pursue their own business from the site in return for a payment of £3.26m. This will be referred collectively as the ENVIA settlement and is considered a best outcome from the loans made of £15.8m and the positive results from the activity with ENVIA including all the operating and management data secured from the operations.

Financial review (continued)

Fundraises

In January 2018 Velocys raised a total of approximately £18.4m (before expenses) via a firm placing and open offer. Both funding elements were strongly supported by existing major shareholders. Over half of the firm placing shares were placed with the Company's existing shareholders and the rest with a number of significant new shareholders.

In July 2018 Velocys secured additional funding of £6.0m (before expenses). The net proceeds of both capital raisings have been used predominantly for:

- strengthening the Company's balance sheet, providing for working capital and central operating costs;
- funding the Company's portion of the pre-FEED development costs for its Immingham UK waste to jet fuel project;
- funding the continuing development costs for the Natchez, Mississippi biorefinery project before securing one or more strategic investors.

Via our two placings, we have seen a mix of both strong support from our existing shareholders, for which we are grateful, as well as investment from new shareholders who demonstrated significant support for our strategy.

Future funding

The financial statements have been prepared on the going concern basis, which assumes the Company will have sufficient funds available to enable it to continue to trade for the foreseeable future. The cash forecast includes the following assumptions: (i) the receipts from the ENVIA settlement; (ii) the completion of the current stage of the UK waste to jet fuel project prior to securing funding for the next stage of development to financial close; (iii) the completion and delivery of reactors to our customer Red Rock Biofuels; (iv) the continued process of on-boarding one or more strategic investors to provide the final stages of development funding for the Mississippi biorefinery project; (v) the current overhead cost run rate.

The Company's plan is to secure investment by one or more strategic partners into either or both of the UK Immingham project and the Mississippi project in the second half of 2019. The Company will assess its cash requirements from these activities and determine at what stage it needs to raise additional funding during the second half of 2019 or early 2020.

This funding may be achieved from one or a combination of a capital raising (including the possibility of a placement of ordinary shares within the next 12 months) or the realisation of certain assets; selling additional technology licences (such as the licence recently sold to Red Rock Biofuels); and selling non-core intellectual property.

The Board will be proposing a Special Resolution at the forthcoming Annual General Meeting to approve the disapplication of the pre-emption rights equal to 15% of the issued share capital, compared to the level of 10% which has been approved by shareholders in previous years. This may assist the Company in securing additional working capital in the year to come.

Following financial close of one or both of the projects in late 2020 or early 2021, the Company's funding requirements will depend on the final structure of each of the biorefinery project consortiums and on the Company's strategy to develop and fund other projects. Risks and uncertainties regarding the two projects are detailed on pages 10 to 13.

As such, these conditions indicate the existence of a material uncertainty that may cast significant doubt on the Company and Velocys plc's ability to continue as a going concern.

The financial statements do not include the adjustments that would arise if the Company and Velocys plc were unable to continue as a going concern.

Andrew Morris
Chief Financial Officer
14 May 2019

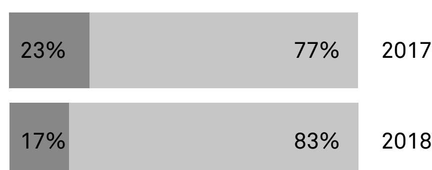
Corporate social responsibility and KPIs

Employees

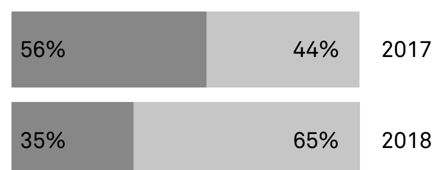
Velocys strives to be a good employer and endeavours to train staff well, to pay them fair market value and to maintain a safe environment in which they can work. Velocys is committed to equal opportunities for all its employees. Of the 35 global employees working for Velocys at 31 December 2018, 26% were female (2017: 33%). At the end of 2018, one of the four members of the Board was female (2017: one of six members). The percentage of female employees broken down by areas of the business was as shown below.

Gender diversity

Scientific & engineering



Sales, finance, HR & admin



Women Men

Velocys takes the safety and well-being of its employees seriously. As an example, in October 2016 the Columbus, Ohio site successfully renewed for an additional three years its Safety and Health Achievement Recognition Program (SHARP) certification with the US Department of Labor's Occupational Safety and Health Administration. SHARP certification recognises Velocys' exemplary injury and illness prevention programme. Velocys has created a culture of safety, health, and environmental responsibility and continuous improvement that extends from the CEO to all employees. Each employee is encouraged to actively participate in, and take responsibility for, their own safety and health through various opportunities, such as by providing suggestions for improvement, participating in safety and environmental training and site meetings. Holding leadership positions on the site's Safety Committee or serving on an investigation team that performs root cause analysis of potential hazards or near misses at the site is actively encouraged. Velocys maintains detailed records that are required for regulatory compliance, and also ensures safety policy, programme and hazard communication documents are available to all staff.

Velocys' dedication for continuous improvement, understanding root causes and implementing corrective and preventative actions is evidenced after the Company experienced its first Lost-Time Accident (LTA) in late July 2018 at the Ohio location. A contractor, working under the direction of Velocys, suffered a broken foot when an unsupported heavy table fell on the worker's foot, impacting above the steel-toed protection of the worker's boot. All staff took part in a lessons-learned session, with a focus on identification and prevention of hazards. Relevant staff were retrained on several safety topics that led to the accident. An elevated level of rigour is placed on completing thorough job safety analyses before work on a new or unfamiliar task begins.

Since the July accident, the Velocys sites in the US have logged over 28,400 operating labour hours without an LTA. The UK site continues to operate without any lost time, bringing the total number of operating labour hours without an LTA to over 392,300 in the United Kingdom.

Environment

Velocys recognises that as an advanced biofuels company it has a duty to limit the environmental impact of its own operations. As such, the Company is careful to monitor the environmental impact of its operations. Air travel and buildings operation have been identified as two of the major factors in the Company's direct CO_2 emissions.

Steps being taken to reduce direct CO_2 emissions in Velocys' operations include permitting business class travel only on overnight long-haul flights, replacing travel for face-to-face meetings with telephone and video calls where practical, measuring and minimising direct energy consumption though efficient use of energy-using assets and minimising waste production and on-site water consumption.

Key performance indicators (KPIs) and milestones

The Company adjusted its business strategy in 2017 to one which concentrates on the development of biorefineries to exploit the use of its core technology, micro-channel Fischer-Tropsch reactors, to produce renewable fuels. In 2018 the key milestones for the Company were as follows:

1. Capitalise the business to progress the business strategy throughout the year and beyond.
2. Continue the operation of the ENVIA plant into long-term operations.
3. Secure one or more strategic investors into the Natchez, Mississippi project.
4. Secure second stage consortium funding for the Immingham, UK waste to jet fuel project.

Financial results were reviewed on a regular basis by Directors. Careful monitoring of the Company's cash and cash commitments is undertaken to ensure that all the fiduciary responsibilities and commitments of the Directors are met.

The performance of the Company against these milestones is expanded upon in the CEO's report on page 6. The financial results are outlined in the Financial Review on pages 7 to 8.

Risks and mitigation

The principal risks and uncertainties that are considered to have a potentially material impact on the Company's long-term performance and delivery of its strategy are set out in the following table.

Risk description and impact	Risk management strategy
Risks specific to Natchez, Mississippi biorefinery project Any risk or combination of risks listed here has the potential of preventing the project from reaching Financial Close, which would prevent Velocys from extracting value from its development activities.	
Technology wrap not secured by EPC contractor Back-to-back guarantees with each of the licensors still leaves a significant risk/liability gap that needs to be filled by the EPC contractor, a strategic partner and/or an insurance product. Inability to provide the necessary performance guarantees required to support the financing could result in delays to the project.	The Company will review other alternative risk and insurance options. Consideration will be given to a revised execution approach of traditional FEED and then identification of a potential wrap partner, once a strategic partner is on board and a +/-10% cost estimate is available.
Development Capital Funding Velocys will need to secure strategic project investment for development capital costs to progress the Mississippi biorefinery project to Financial Close. If this is not secured or is delayed this would adversely affect the project timeline and may impact the financial status of the Company.	The Company is continuing with its process to select and on-board one or more strategic and/or financial investors to support financing the remaining project development capital requirements for the Mississippi project. A financial adviser, appointed by Velocys, is managing the process of due diligence, deal construction and closure.
Independent Engineer's report As part of the suite of due diligence documents for the project the completion of a technical review by an Independent Engineer is needed. A favourable report is a pre-requisite for reaching Financial Close for the project.	Velocys has engaged the Independent Engineer early in the process to ensure we understand their requirements and provide the information needed by them at the time required. The performance data from the ENVIA plant is a key mitigation to ensuring quality information reaches the Independent Engineer.
Capital expenditure and operational expenditure required There remains uncertainty regarding the expenditure required to build and operate the biorefinery as well as the scope and strength of the EPC wrap and the credit worthiness of the EPC. Capex or opex could be higher than desired, which could negatively impact plant economics and financing.	Completion of the FEED package will reduce the uncertainty surrounding plant capital expenditure. The project will optimise plant capital cost, operating costs, carbon intensity and the total returns from the project. Velocys has engaged an estimating advisor to validate the FEED package provided by the EPC. These risks are normal for this stage of the project. Going forward, risks will be mitigated and reduced as the project continues.
Performance of and integration with other licensors' technology Syngas production, syngas clean-up or product upgrading technology, supplied by other licensors, may not function as hoped or may not integrate as envisaged with Velocys technology, which could cause the plant to operate sub-optimally.	Velocys works with technology companies that have proven track records of commercial operation. Velocys and its technology partner TRI have collaborated on a joint technology demonstration. The demonstration has completed 800 hours of successful performance indicating good performance of the FT system operating on biomass-generated syngas. This outcome significantly reduces but not eliminates the technology integration risks associated with the development of the biorefinery.
Carbon intensity threshold Due to process constraints Velocys may not be able to meet cost-effectively the required carbon intensity threshold needed to maximise the LCFS credits it could obtain in California. Failure to do so would limit revenues from plant operations.	Velocys has actively factored into the engineering design the carbon intensity impacts to provide the maximum product revenue that is economically viable.

Risk description and impact	Risk management strategy
Site considerations The site is adjacent to the Mississippi River and a catastrophic flooding event could impact the site and plant itself. If the levee constructions were not completed by the local economic development agency, project delays and additional costs could arise.	The biorefinery will be protected by a levee, currently under construction, which puts the site outside the 100-year flood plain. Velocys will monitor the levee construction progress and take appropriate action for mitigation if required. During the build of the biorefinery Velocys will have the necessary flood insurance in place.
During construction, start-up/commissioning and operations of the biorefinery, hurricanes, tornadoes and forest fires could also adversely affect timelines, operability or costs.	The design of the facility is incorporating the relevant codes for the potential weather conditions for the safe start-up and shutdown in adverse weather situations. The team will also put in place an emergency response plan prior to start of construction and start-up that will align with local and state emergency plans for emergency situations that includes adverse weather conditions.
Changes to the local demand for woody biomass or ability of the existing forestry industry infrastructure to transport RFS qualifying feedstock to the plant could increase the cost of supply or increase complexity by increasing the distance over which feedstock has to be sourced.	Velocys has engaged a consultant with experience of the forestry industry around Natchez and has had preliminary discussions with multiple potential suppliers. The Company is confident that it can cost-effectively source RFS-qualifying feedstock.
Risks specific to the Immingham, UK waste to jet fuel project	
UK policy There could continue to be a lack of clarity on future waste policy, including maintaining the UK landfill tax and/or policy uncertainty around waste for large-scale capital-intensive schemes. In addition, there are risks around the future policy support for development fuel Road Transport Fuel Certificates (dRTFC's).	The project partners are engaging with the UK government to provide input to policy decisions related to the project. Velocys has expanded relevant UK stakeholder engagement, e.g. by becoming a member of the UK Low Carbon Vehicle Partnership.
Project partnership and economics There are no guarantees that the project will proceed through successive development phases. Existing project partners may not be willing to fund the project to Financial Close. Capex, opex and revenue estimates derived during engineering studies, combined with views on risk, may make the project unattractive to other investors and lenders.	The experienced Velocys project team is managing the completion of the engineering feasibility study, reducing uncertainty on project economics, and is validating all the key economic assumptions. Regular meetings with the partners have driven alignment on project requirements and timeline to making investment decisions.
Risk of securing partner/debt financing to proceed based on project returns/structure The inability to secure a financeable return or a financeable EPC relationship/contract/wrap could lead to delays in reaching Financial Close.	Velocys has developed an engagement strategy with targeted EPCs by using a financing approach to address the potential for cost over-runs, which would affect project returns. Additional strategies with our partners are under development that will provide credible pathways to maintain strong project returns.
Operation of the Feedstock Conditioning Facility is not as expected Design and operation of waste handling facilities is not a Velocys core competency and could lead to suboptimal design of this important part of the project.	The UK Velocys development team has been strengthened by experts from the waste sector and has also contracted expert organisations in the UK waste industry to advise and assist with a robust design. We have also added significant over-capacity to this part of the plant to maintain availability of feedstock for the process.
Early cost estimates There is the potential with early cost estimates that as they are by definition estimates and they can have significant error margins, which at a later stage in the project life can increase the cost of the project reducing expected returns.	Velocys is working towards obtaining an early capital cost estimate which can be risk assessed to allow for mitigating measures against higher costs.

Risks and mitigation (continued)

Risk description and impact	Risk management strategy
Risks specific to the Immingham, UK waste to jet fuel project (continued)	
Plant's availability is less than designed The reliability of all of the individual process elements and therefore the up time experienced by the whole plant can adversely impact the project returns if the reliability is worse than expected.	Velocys has undertaken an availability study in the current engineering stage to initiate good practice. This will be revisited in the next stage of the engineering work as greater definition is available. In particular we will be concentrating on the perceived risk areas of the process to ensure we understand all of the potential opportunities for downtime events and how to mitigate against them.
Risks specific to ENVIA	
Velocys having completed an agreement to successfully close out the ENVIA JV has a risk that the conditions of the agreement to ensure the site is clear of the unwanted assets is not completed within the allotted time.	ENVIA, in agreement with Velocys, has engaged the services of a professional demolition firm to take the unwanted assets from the site within the schedule set in the agreement.
Other operational risks	
Supply chain delays Unplanned complications with equipment suppliers in our manufacturing supply chain could lead to delays in our projects and those of our customers. This can lead to Liquidated Damages	By working with proven experts in the field of manufacturing of our type of equipment is the main way to mitigate against the potential for problems to lead to delays in our supply chain. Also by building in inventory equipment we can mitigate against delays in manufacture. A robust quality assurance programme is followed for the supply of commercial catalyst and reactors.
Loss of intellectual property (IP) protection It is possible that through the projects unauthorised third parties may receive or obtain confidential information about our core technology, thereby exposing the Company to competitors obtaining this information and gaining a competitive advantage.	Ultimately the protection against this type of risk is mitigated by having the core technology protected by Patents and the law supporting protection of Intellectual Property rights. Over the years Velocys has spent significant effort in pursuing patents and IP protection for our designs and inventions, for which we vigorously defend all our entrenched rights.
Performance of Velocys' technology Velocys' core technology may not produce the quantity and/or quality of product expected. Supporting technologies at a biorefinery may not operate according to specification, preventing the Fischer-Tropsch (FT) section of a plant from functioning optimally. This could introduce costs and delays to the project inducing delays or reductions in the revenues possible from sales of fuels and environmental credits. Inexpert operation of the plant may produce poorer than predicted performance.	The Company has rigorously tested its technology in the lab, at pilot plant scale, and at commercial scale at the ENVIA plant. It has modelled steady state and upset operations under conditions that will be experienced at future commercial plants. At ENVIA Velocys' core technology performed during start up and steady state operations in line with requirements at a commercial scale and meets the performance expectations according to models based on lab and pilot studies. Velocys' technology has been able to meet both quantity and quality expectations for finished products. Velocys works closely with other technology licensors and EPC companies on plant integration requirements, including the protection of Velocys' FT technology from potential malfunctions in process units other than the central FT units. Velocys' strategy is to de-risk its future projects by selecting commercially proven technologies and piloting significant components of the flowsheet. Velocys' team includes qualified employees and management with significant expertise in the operation of petrochemical and gas-to-liquids plants. For its projects, Velocys is focused on engaging operators who are fully qualified and well-trained in the operation of such plants. Velocys' predictions of performance are conservatively based on the personnel and management resources that it has on hand and plans to obtain as its projects proceed to implementation.

Risk description and impact	Risk management strategy
Health, safety and/or environmental issues at a plant An accident or other incident might occur at a plant incorporating Velocys' technology, resulting in injury to personnel or their exposure to hazardous conditions.	The Company has an excellent in-house safety record. All relevant employees are trained according to OSHA requirements for handling hazardous substances and the Company's HSE procedures and practices are outlined on page 9. Velocys intends to provide significant input into training materials and operating manuals for its future plants. Velocys will provide operational management services to support future biorefineries that the Company, as well as third party developers, develop.
An environmental incident might occur at a plant; emissions could exceed the permitted level.	All Velocys plants are carefully designed from inception to account for expected upset conditions and to continue to operate within the environmental and regulatory framework even if problems arise. Plant personnel are trained in procedures that identify issues that could lead to adverse environmental effects and to act accordingly.
Employee retention and recruitment Velocys may not be able to scale the organisation to deliver its biorefinery projects.	Velocys provides competitive compensation to attract and retain staff. The Company has the required governance and processes within key functions that will be operational when the Company needs to scale up its activities for the development, construction and operation of plants.
Market risks	
Low oil prices Oil prices could track the US Energy Information Administration's (EIA's) Annual Energy Outlook 2018 low oil price case (that assumes a price of Brent crude in 2017 of $52 per barrel by 2050).	Velocys' target market is renewable fuels in the UK and the US. Expected revenues from gate-fees and environmental credits mitigate fully any underlying price volatility in fossil fuel prices.
Future of renewable fuels credits Renewable fuels credits (such as RINs under the Renewable Fuel Standard, RFS in the USA or the development fuel Renewable Transport Fuel Certificates (dRTFC's) in the UK) could be withdrawn (or their value reduced).	The RFS is important to many states with large agricultural economies, to energy security, and to jobs. Velocys engages actively with law makers in Washington and works with industry bodies to ensure its voice is heard. The RFS continues to see strong support from a wide range of stakeholders. In the UK the development team along with our partners representatives actively engage with the senior managers in the Department for Transport to ensure that the dRTFC program is maintained and enhanced by the UK government.
Renewable fuels credits such as those issued under the Low Carbon Fuel Standard in California or dRTFC's in the UK could be withdrawn. The economics of Velocys' biorefineries are dependent on the receipt of these renewable credits to maintain revenues above operational costs.	California is proposing to expand the LCFS programme to include jet fuel. Carbon pricing is stable in California and the state is considering extension of the mandate for carbon reductions. Velocys engages actively with California regulators, through industry groups, to ensure its voice is heard. Similar LCFS requirements are in place in Oregon. The UK RTFO has been strengthened under our current Government and so we consider that this risk is mitigated with the attitude of both the current Government and any alternative Government that could come to power.
Competing technology Existing technologies that are economically-competitive with Velocys technology in specific applications are in the process of being deployed in the field.	Velocys and its partners continue to invest in plant integration optimisation and modularisation, with the aim of significant reductions in cost on a per barrel basis. Such advances take time to develop and provide Velocys with a significant competitive advantage beyond its core Fischer-Tropsch technology capability. In addition, the Company believes that the market is large enough to support multiple suppliers.

Risks and mitigation (continued)

Risk description and impact	Risk management strategy
Market risks (continued)	
Brexit There is uncertainty around the impact of the UK leaving the European Union.	Velocys does not expect to have significant exposure to the European market in the short and medium terms. The effect on the UK waste market could have a positive effect on gate fees which would be a positive outcome for Velocys' UK project.
Financial risks The potentially material financial risks associated with a multinational business, including foreign exchange are presented below. All other financial risks assessed by the Company are included in note 25.	
Company financing The Company's cash usage is significant versus prospective future cash flows (particularly in the short term) and Velocys continues to be reliant on the support of a small group of major shareholders.	The Board recognises that further funding will be needed to reach Financial Close for its two projects. Note 2 to the financial statements discusses uncertainties surrounding the extent and composition of future funding. The Company believes that equity remains the preferred structure to support the business as a going concern in the near term but will keep this under review. Velocys continues to take measures to preserve cash in order to protect against unforeseen events.
Exchange rates As the Company operates in US dollars and pounds sterling it may be impacted by fluctuations in exchange rates.	Based on regularly updated cash flow forecasts the required currency mix is identified and foreign exchange contracts taken out accordingly. A number of brokers are used to give a balanced market view. Financial risks are expanded upon in note 25.

Approved by the Board and signed on its behalf by:

Henrik Wareborn
Chief Executive Officer
14 May 2019

Corporate governance report

Introduction

Companies whose securities are traded on the Alternative Investment Market ('AIM') of the London Stock Exchange are not required to comply with the principles and provisions of the UK Corporate Governance Code 2018 ('Code'). For example, the Company does not comply with:

- FCA Listing Rule 9.8.6R (which includes the 'comply or explain' requirement);
- FCA Disclosure Guidance and Transparency Rules (DTR) Section 7.2 (which set out certain mandatory disclosures);
- Competition and Markets Authority's Final Order 1 (for UK incorporated FTSE 350 companies only).

The Directors recognise the value and importance of good corporate governance and are committed to drawing upon best practice and maintaining high standards. Further to the amendment to AIM Rule 26 with effect 28 September 2018, the Board has determined to follow the QCA Code, published by the Quoted Companies Alliance, which sets out a minimum best practice standard for small and mid-size quoted companies, particularly AIM companies.

The following information is provided to describe how the Company applies the principles of the QCA Code and explain any departures from the specific provisions of that code.

The QCA's Ten Principles of Corporate Governance

The ten principles of corporate governance set out under three headings – Deliver Growth, Maintain a Dynamic Management Framework, and Build Trust – in the QCA Code and applied by the Company are as follows:

Deliver Growth

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

The Board is responsible to shareholders for setting the Company's strategy and overseeing its execution, and for the overall management, control and performance of Velocys' business. Velocys' strategy and business model can be found in the Chairman's and CEO's reports on pages 4 to 6, respectively.

2. Seek to understand and meet shareholder needs and expectations.

The Board considers effective communication with shareholders to be very important and encourages regular dialogue with investors.

At the Company's Annual Meeting, the Chairman and Chief Executive Officer are available before and after the meeting for further discussions with shareholders. The Chief Executive Officer attends meetings with shareholders and analysts on various occasions during the year, primarily following the Company's Annual Results and Interim Results announcements. Relevant feedback from shareholder discussions is advised to the Board. The Board considers that their policy on shareholder engagement has resulted in the considerable support demonstrated by major shareholders since the Company was originally admitted to AIM in 2006.

The Board responds promptly to questions received, which may be sent to info@velocys.com.

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

Velocys is committed to being a good employer and endeavours to train staff well, to pay them fair market value and to maintain a safe environment in which they can work. We are also committed to equal opportunities for all our employees. In addition, as an advanced biofuels Company, we have a duty to limit the environmental impact of our own operations and are careful to monitor and improve their environmental impact. Further information on our corporate social responsibility and KPIs can be found on page 9.

There is an ongoing dialogue with our technology partners, customers, suppliers and other stakeholders which is continuously fed back into our knowledge base in relation to projects under development and, where relevant, integrated into the Company's strategy and business model.

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

The Company employs Directors and senior personnel with the appropriate knowledge and experience for a business active in its field of operations and undertakes regular risk assessments and reviews of its activities.

The Audit & Risk Committee reviews all of the Company's principal risk management policies and the ongoing development of a Company risk register. Further information on Risk Management can be found pages 10 to 14.

The principal risks and uncertainties that are considered to have a potentially material impact on the Company's long-term performance and delivery of its strategy are set out page 10 to 14.

Maintain a Dynamic Management Framework

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

The Board comprises a Chairman and three part-time Non-Executive Directors with relevant experience to complement the two full-time Executive Directors and to provide an independent view to the Executive Directors. Details of the Board can be found in the Directors' Report on page 20. A time commitment of up to four days a month is expected of the Non-Executive Directors.

Attendance at Board and Committee meetings

	Scheduled Board meetings	Special Board meetings	Audit & Risk Committee	Remuneration Committee	Nominations Committee
Number of meetings held in 2018	7	7	4	5	6
Attendance* by:					
Pierre Jungels	100%	100%	–	–	100%
David Pummell	100%	100%	–	–	–
Paul Schubert	100%	100%	–	–	–
Sandy Shaw	100%	100%	100%	100%	100%
Julian West	–	100%	–	–	–
Andrew Morris	100%	100%	100%	100%	100%
Henrik Wareborn	100%	–	–	–	–

* The attendance percentage relates only to applicable meetings (for example, percentages do not include meetings held prior to appointment or following the resignation of particular Directors).

At the time of Pierre Jungels' appointment as Chairman, he met the independence criteria set out in the UK Corporate Governance Code. Thereafter the test of independence is not appropriate in relation to the Chairman. Pierre Jungels has served more than four consecutive three-year terms of office. The Board regards each of the other Non-Executive Directors as being fully independent.

The roles of the Chairman and the Chief Executive Officer are separated, with clear written guidance to support the division of responsibilities. The role of the Senior Independent Director is also clearly set out.

The Chairman is principally responsible for leadership and effectiveness of the Board, for corporate governance matters, setting the Board agenda, ensuring adequacy of information flow to the Board, that due consideration is given to strategic issues, and promoting a culture of openness of debate at Board level, and between Directors and the Executive Committee.

The Chief Executive Officer is primarily responsible for the management of the business and implementation of the Company's strategy and policies, maintaining a close working relationship with the Chairman, and leading the Executive Committee. Philip Holland was appointed Senior Independent Director on 1 January 2019, in place of Julian West who held this position until his resignation on 6 February 2018.

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

The Board includes individuals with a deep knowledge of markets worldwide and relationships at the highest level of industry. The Board believes that, as a whole, it contains the necessary mix of experience, skills, personal qualities (including gender balance) and capabilities to deliver the strategy of the Company for the benefit of the shareholders over the medium to long term. This is an area which is maintained under constant review.

Name Dr. Pierre Jungels, CBE
Role Chairman
Skills and experience
Pierre is an oil industry veteran, with over 40 years' experience – over 25 of which were spent at main Board level, which included appointments as Chairman of Rockhopper Exploration plc, Chief Executive of Enterprise Oil plc, Executive Director of PetroFina, and Managing Director of British Gas. Pierre is a certified engineer and has a PhD in geophysics and hydraulics from the California Institute of Technology. He was twice President of the Institute of Petroleum.

Name Philip Holland
Role Senior Independent Director
Skills and experience
Philip was appointed as Senior Independent Director of Velocys in January 2019. Philip holds a BSc in Civil Engineering from Leeds University and a MSc in Engineering and Construction Project Management from Cranfield School of Management. He has extensive experience in managing large-scale oil and gas projects around the globe. In 1980, he joined Bechtel Corporation and managed major oil and gas projects in a wide range of international locations. In 2004, he joined Shell as vice president of projects, Shell Global Solutions International. In 2009, Philip became Executive Vice President Downstream Projects in Shell's newly formed projects and technology business and in 2010 he was appointed as Project Director for Shell's Kashagan phase 2 project in Kazakhstan, and subsequently the Shell/QP Al Karaana petrochemicals project. Since 2013, he has operated as an independent project management consultant. Philip joined the Board of Enquest plc in August 2015, where he chairs its Risk Committee and is a member of its Remuneration Committee.

Name Henrik Wareborn
Role Chief Executive Officer
Skills and experience
Henrik was appointed Chief Executive Officer and Executive Director in November 2018, having acted as a consulting adviser to the Company and provided services equivalent to those of a Chief Commercial Officer since March 2017.

Henrik was formerly a Managing Director with Natixis S.A. (both in the UK and North America), and previously Global Head of Crude Oil Sales and Trading at BP PLC. His experience prior to this included roles as Executive Director at Hess Energy Trading Ltd, and Executive Director at Goldman Sachs International, London. His expertise includes investment banking, commodities trading, fund raising, and commodity finance. Henrik has an MBA from INSEAD and graduated from the Stockholm School of Economics with a BA in finance and economics.

Name Andrew Morris
Role Chief Financial Officer
Skills and experience
Andrew was appointed Chief Financial Officer and Executive Director in November 2018. He was formerly a Non-Executive Director of the Company and Chair of Velocys' Audit Committee and has been on the Board since June 2017.

Andrew has extensive experience as Chairman, CEO, CFO and Group Finance Director with significant involvement in financing and business development for AIM companies, SMEs and private equity backed organisations. He has considerable experience in the power and renewable energy, energy from waste and biofuels sectors. Until November 2018, he acted as CEO of Envirofusion, a company with nascent technology in the waste-to-energy and biomass-to-power sector. For six years he acted as Commercial & Finance Director for Advanced Plasma Power Limited, a private equity funded company that owns gasification and plasma waste treatment technology. He began his career at Price Waterhouse in London, is a qualified accountant and graduated from the University of Newcastle with a BSc in agricultural and economics.

Name Sandy Shaw
Role Non-Executive Director
Skills and experience
Sandy was appointed to the Board of Velocys in October 2012 and chairs the Audit & Risk Committee. Sandy has nearly 40 years of experience in the oil and gas industry. From 2008 until its take-over in 2013 Sandy was an Executive Director Corporate & Commercial, and Company Secretary of Valiant Petroleum PLC, a company of which she was a founder and initially a Non-Executive Director. She has held senior executive positions as group legal counsel and/or commercial director for numerous companies including Consort Resources, LASMO PLC (where she was also inter alia President of LASMO USA), Esso Petroleum, Marathon Oil and Mobil. Sandy has extensive oil and gas M&A experience, has overseen numerous material private equity subscriptions and led a £200m trade sale through to final negotiations. She has worked as a consultant to several oil and gas companies, as well as two UK law firms.

Name Darran Messem
Role Non-Executive Director
Skills and experience
Darran was appointed to the Board of Velocys in January 2019 and chairs the Remuneration Committee. Darran has 30 years of commercial experience in energy, transport and sustainable development, with particular focus on renewable energy and low-emission transport. He has served as Managing Director Certification and International Director at the Carbon Trust, Vice President Fuel Development at Shell, and General Manager Market Development at British Airways. At Shell he worked on the removal of lead and sulphur from fuel in the UK, new business models in the US, and the development of Shell's global biofuel business, where he worked on a number of biofuel technologies including gasification and Fisher-Tropsch synthesis. He was Shell's nominated Director, and subsequently elected Chair, of Iogen Energy. Since 2014 he has been Chair of the Low Carbon Vehicle Partnership, a UK public-private partnership that works to accelerate the deployment of low carbon vehicles and fuels.

Internal Advisory Responsibilities

The Company Secretary, through the Chairman, is responsible for advising the Board on governance matters, and for ensuring that Board procedures are followed and that applicable rules and regulations are complied with. All Directors have access to the advice and services of the Company Secretary. An agreed procedure exists for Directors in the furtherance of their duties to take independent professional advice. During 2018, no Director sought independent legal advice pursuant to the policy.

The Company regularly reviews the ongoing training requirements of Directors as part of the annual Board evaluation process. Directors keep their personal skillsets up to date through a combination of industry contact, reading of relevant material and, where appropriate, training courses.

There is a process for ensuring that any new Director receives advice, including from the Company's nominated adviser and external lawyers where appropriate, on his/her responsibilities as a Director of an AIM company. The Board ensures that any new appointee benefits from an induction programme.

Corporate governance report (continued)

7. Evaluate board performance based on clear and relevant objectives, seeking continuous improvement.
An annual evaluation of the Board and its committees is carried out by the Company Secretary, taking the form of comprehensive questionnaires which provide all Directors with an opportunity to score (1=Dissatisfied; 5= Satisfied) their opinion on a series of questions in relation to inter alia the constitution, execution and performance of the Board and the three committees, and to comment on procedures or any relevant matters. Average scores for each question are measured against the relevant score in the previous two years to help identify trends and are also assessed in absolute terms. Written comments, on an unattributed basis, are assimilated into a written report.

A performance evaluation of the Chairman is carried out, led by the Company Secretary, and takes into account the views of all Directors. As in previous years, the results of the evaluation are considered by the Board and each committee in open session and, where appropriate, actions arising from such reviews are implemented.

Actions have resulted in improvements to timing and quality of management information; the provision to the Board of more detailed information on individual projects, including presentations by senior management; and improvements to the structure and workings of committees.

Succession planning at Board and Committee level is formally reviewed on an annual basis. During 2018, the Board reviewed its succession plan for all Board members and senior management. In accordance with best practice, all Directors are proposed for re-appointment at the Annual General Meeting, and due consideration is given by the Nomination Committee as to whether individual Directors are recommended for re-election.

8. Promote a corporate culture that is based on ethical values and behaviours.
The Board believes that the business culture is consistent with the Company's objectives, strategy and business model as set out in the strategic report and the description of principal risks and uncertainties.

The Board ensures that the Company has the means to determine that ethical values and behaviours are recognised and respected through the adoption of appropriate policies, including an Anti-Bribery and Corruption and Anti-Modern Slavery Policy; a Whistleblowing Policy; and a Policy on Equal Employment Opportunity and Diversity.

In addition, in response to the Market Abuse Regulations (MAR) which came into force on 3 July 2016, and which apply to AIM companies, the Company has adopted a Share Dealing Policy and Dealing Code which apply to all Directors and employees of the Company.

9. Maintain governance structures and processes that are fit for purpose and support good decision-making by the board.
The Board meets at least seven times a year with a formal schedule of matters reserved for its decision. The Board has also established a schedule of delegated authorities, which are reviewed to ensure they are commensurate with the level of the Company's development. The governance structure in place is considered to be appropriate for the foreseeable future but will be evolved in line with the Company's plans for growth.

Board Committees
The minutes of the Audit & Risk, Remuneration and Nomination & Governance Committees are circulated to the Board. The Committee chairs also report to the Board on the outcome of committee meetings at the subsequent Board meeting. The Committees have the following roles.

Audit & Risk Committee
The members of the Audit & Risk Committee with effect 1 January 2019 are Sandy Shaw (Chair), Philip Holland and Darran Messem. Meetings are held not less than four times a year and are based on the work programme set out in the Audit Committee Guide published by the QCA.

Under its Terms of Reference, which can be found on the Company website, the Audit & Risk Committee reviews inter alia the Company's audit planning, risk management systems and processes and effectiveness of internal controls, accounting policies and financial reporting, provides a forum through which the external auditors report, and reviews and monitors their independence and the provision of additional services. At least once a year it meets with the external auditors without Executive Directors present.

Financial information
The Company prepares detailed budget and working capital projections, which are approved annually by the Board and are maintained and updated regularly throughout the year. Detailed management accounts and working capital cash flows are prepared on a monthly basis and compared to budgets and projections to identify any significant variances.

The Audit & Risk Committee has considered the integrity of the Company's 2018 financial statements and reviewed the appropriateness of its critical accounting policies and the judgements made in applying them. The year-end financial statements were reviewed and discussed with PricewaterhouseCoopers LLP. In addition, the interim financial statements were reviewed by the committee.

The committee considered, among others, the following specific matters:
- Going concern.
- Valuation of intangibles (consolidated company) and investment in subsidiaires (Velocys plc)
- Valuation of investment in associate ENVIA, and valuation of loan receivable from ENVIA (consolidated company)

Audit review

The Audit & Risk Committee has discussed PricewaterhouseCoopers LLP's audit process and has reviewed the findings from the audit of the 2018 financial year as well as the effectiveness of the external audit process. The committee reviewed the quality and cost effectiveness of the external audit, and the independence and objectivity of the auditors. It obtained confirmation from PricewaterhouseCoopers LLP that their independence and ethics policies complied with FRC requirements, and that they remain independent and maintain internal safeguards to ensure their objectivity. No contractual obligations exist that restrict the Company's choice of external auditor and the committee is satisfied that the external auditor remains independent.

The committee has established policies determining the non-audit services that the external auditors can provide and the procedures required for approval of any such engagement. Further details of fees paid to PricewaterhouseCoopers LLP for both audit and non-audit work can be found in note 11 to the financial statements.

Remuneration Committee

The members of the Remuneration Committee with effect 1 January 2019 are Darran Messem (Chair), Sandy Shaw and Philip Holland. Meetings of the Committee take place not less than three times a year. Due regard is paid to the Investment Association Principles of Remuneration.

The committee reviews, inter-alia, the performance of Executive Directors and senior managers setting the scale and structure of their remuneration and the basis of their service agreements, having due regard to the interests of shareholders. The committee also determines the allocation of share options to Executive Directors and senior managers. No Executive Director has a service agreement notice period exceeding one year.

The remuneration of the Non-Executive Directors is a matter for the Chairman and the Company's Executive Directors.

Under its Terms of Reference, which can be found on the Company website, no Director is permitted to participate in decisions concerning his or her own remuneration.

Nomination & Governance Committee

The members of the Nomination & Governance Committee are Pierre Jungels (Chair), Sandy Shaw, Philip Holland and Darran Messem. The committee meets at least twice a year, and among its duties it reviews the composition of the Board and its succession planning, the Board evaluation process and the findings from recent evaluations, Director performance and recommendations for re-elections at the AGM, and considerations of Director independence under the corporate governance code. The Terms of Reference can be found on the Company website.

Build Trust

10. Communicate how the Company is governed and is performing by maintaining a dialogue with shareholders and other relevant stakeholders.

The Board considers effective communication with shareholders to be very important and encourages regular dialogue with investors. Directors regularly attend meetings with shareholders and analysts throughout the year, and the Board responds promptly to questions received. Shareholders will be given at least 21 days' notice of the Annual General Meeting, at which they have the opportunity to discuss the Company's developments and performance. Further information is shown under QCA Principle 2 above.

Copies of the Annual Report and Financial Statements are issued to all shareholders and copies are available on the Company's website www.velocys.com, which provides information to shareholders and other interested parties. The website contains full details of the Company's business activities, press releases and links to the London Stock Exchange website for share price information, share trading activities and graphs, as well as Regulatory News Service (RNS) announcements. The Company Secretary also deals with shareholder correspondence and may be contacted at info@velocys.com.

Directors' report

The Directors present their report and the audited consolidated financial statements for the year ended 31 December 2018

Company

Velocys plc is the parent of the Company. It is a public limited Company listed on AIM and incorporated and registered in the United Kingdom. The registered office address is given on the information page inside the back cover of this document.

Future developments

The Board aims to pursue its corporate strategies as detailed in the Strategic report on pages 2 to 14.

Dividends

The Directors do not recommend any dividend for the year ended 31 December 2018 (2017: nil).

Research and development

The Company's R&D activity now relates primarily to the development of first-of-its-kind biorefinery projects in the UK and the USA. However, some limited research is being undertaken to establish lessons learned from the experience at ENVIA both from an operational point of view but also from a technical assessment of the results from the plant operations. Details of R&D expense and capitalised R&D are in note 10.

Donations

The Company made no political donations during 2018 (2017: nil).

Post-balance sheet events

Additional funds have been brought into the Company from the settlement of the outcome from activities at ENVIA and was announced on 29 April 2019. This is described in the Strategic report on page 2 and in note 32 along with other post-financial position events.

Directors

The Directors of Velocys plc who were in office during the year and up to the date of signing the financial statements, unless otherwise stated, were as follows.

- Pierre Jungels (Non-Executive Chairman)
- Henrik Wareborn (Chief Executive Officer) – appointed 13 November 2018
- Andrew Morris (Chief Financial Officer)
- Sandy Shaw (Non-Executive Director)
- David Pummell (Chief Executive Officer) – resigned as Director 3 December 2018
- Paul Schubert (Chief Operating Officer) – resigned as Director 4 December 2018
- Julian West (Senior Independent Director) – resigned 6 February 2018
- Philip Holland (Senior Independent Director) – appointed 1 January 2019
- Darran Messem (Non-Executive Director) – appointed 1 January 2019

While the Company's Articles of Association require that all Directors are subject to election by shareholders at the first opportunity after their appointment, and to re-election thereafter at intervals of not more than three years, the Directors have decided that, in line with best corporate governance practice, at the 2019 Annual General Meeting all of the Directors will again retire and offer themselves for re-election, as they did in 2018.

Directors' interests

The Directors who held office at 31 December 2018 had the following interests in the shares of parent Company undertakings (as recorded in the Register of Directors' Interests and including those of the spouse or civil partner and children under 18).

	Velocys plc ordinary shares	
	31 December 2018	31 December 2017
Pierre Jungels	423,031	223,031
Sandy Shaw	117,758	17,758
Andrew Morris	100,000	–
Henrik Wareborn	1,000,000	–

The following Board members purchased shares as part of the January 2018 fundraise during the year (as recorded in the Register of Directors' Interests and including those of the spouse or civil partner and children under 18): Pierre Jungels (200,000), Sandy Shaw (100,000) and Andrew Morris (100,000). In December 2018, Henrik Wareborn purchased 1,000,000 shares.

Directors' share options and service contracts are detailed in the Directors' remuneration report.

Directors' qualifying third-party indemnity provision

The Company maintains Directors' qualifying third-party indemnity insurance to provide cover for legal action against its Directors. This has been in place throughout the year and remains in place at the date of this report.

Financial instruments

The Company's financial instruments are detailed in note 25.

Financial risk management

Financial risks, and exposure and risk management policies and objectives are detailed in the Strategic Report on page 14, and in note 25.

Substantial shareholdings
The Company has been notified of the following holdings of 3% or more of the issued share capital of Velocys plc as at 7 March 2019.

	Number of shares held	Percentage of issued share capital
Ervington Investments Limited	91,189,110	22.22%
Lansdowne Partners	86,846,353	21.16%
CQS Asset Management Limited	60,000,000	14.62%
Janus Henderson Investors	37,982,359	9.25%
Invesco Perpetual Asset Management	23,600,000	7.14%
Hargreaves Lansdown Asset Mgt	19,389,601	4.72%
Jarvis Investment Management	13,170,446	3.21%

Going concern
The financial statements have been prepared on the going concern basis, which assumes that the Company and Velocys plc will have sufficient funds available to enable them to continue to trade for the foreseeable future.

The Company expects to develop its projects, in particular, the Mississippi biorefinery and UK waste to jet fuel projects, which will require significant development and capital expenditure. The Company will also complete the supply of its Fischer-Tropsch reactors to its customer Red Rock Biofuels with its project in Oregon, USA.

The nature of the Company's strategy means that the timing of milestones and funds generated from developments are difficult to predict at this stage. The Directors have prepared financial forecasts to estimate the likely cash requirements of the Company and Velocys plc over the next 12 months from the date of approval of the financial statements.

The forecasts show that the Company and Velocys plc require additional external funding within the 12-month forecast period to be able to continue as a going concern. The Directors anticipate that this will come from one, or a combination of, the following sources, with agreements being actively sought from third parties:

- Placement of Company ordinary shares, which may occur within the next twelve (12) months.
- Additional third-party licence sales, such as the Red Rock Biofuels project.
- The realisation of certain assets and the selling of non-core intellectual property.
- Strategic investment of development capital into either or both of Immingham, UK project and the Natchez, Mississippi biorefinery project, which are expected during the second half of 2019.

The Directors are confident that the funding required for the Company and Velocys plc to continue as a going concern will be secured within a period of 12 months from the date of approval of the financial statements and have therefore prepared the financial statements on a going concern basis.

However, as at the date of approval of the financial statements no additional funding is committed. Should additional funding not be secured within the 12 months from the date of approval of these financial statements, the Company and Velocys plc would not be a going concern. As such, these conditions indicate the existence of a material uncertainty that may cast significant doubt on the Company and Velocys plc's ability to continue as a going concern.

The financial statements do not include the adjustments that would arise if the Company and Velocys plc were unable to continue as a going concern.

Annual General Meeting
The Annual General Meeting of the Company will be held at the Milton Park Innovation Centre, 99 Park Drive, Milton Park, Oxfordshire OX14 4RY on Wednesday 12 June 2019.

Auditors and disclosure of information to auditors
Each of the persons who is a Director at the date of approval of this report confirms that:

- So far as the Director is aware, there is no relevant audit information of which the Company's auditors are unaware.
- The Director has taken all the steps that he/she ought to have taken as a Director in order to make himself/herself aware of any relevant audit information and to establish that the Company's auditors are aware of that information.

This confirmation is given and should be interpreted in accordance with the provisions of s418 of the Companies Act 2006.

Corporate governance
The Company's statement on corporate governance is available on pages 15 to 32.
Approved by the Board and signed on its behalf by:

Henrik Wareborn
Chief Executive Officer
14 May 2019

Directors' remuneration report

Introduction
The Remuneration Committee is resolute in maintaining high standards of corporate governance and has taken steps to comply with the principles of best practice in so far as they can be applied practically given the size of the Company. The Company is listed on AIM and is therefore not required to comply with the following regulations: disclosure requirements of the Directors' Remuneration Report Regulations 2013; the UKLA Listing Rules; Schedule 8 of the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008. The content of this report is unaudited unless stated. Consequently, certain disclosures contained in these regulations are not included below.

Remuneration Committee
The following served as members of the Committee throughout the year ended 31 December 2018 (unless otherwise specified):
- Sandy Shaw (Chair – until January 2019)
- Julian West – resigned 6 February 2018
- Andrew Morris – resigned 13 November 2018

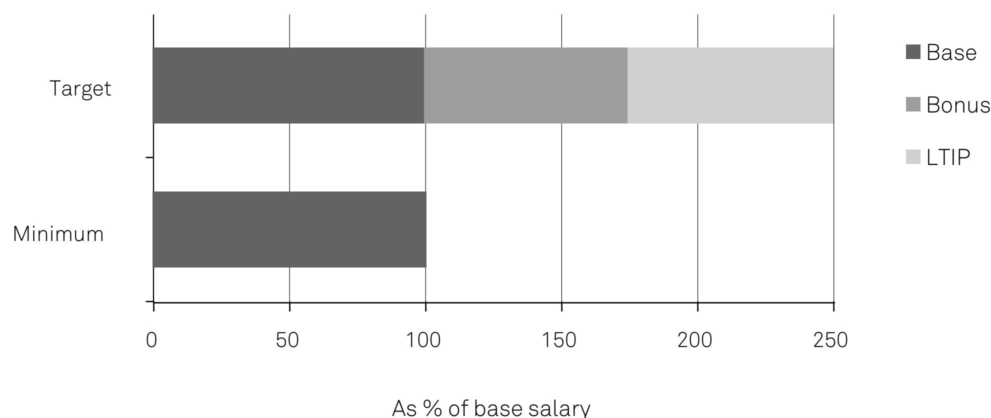
Darran Messem and Philip Holland were appointed as members of the Remuneration Committee with effect 1 January 2019, and Darran Messem was appointed Chair of the Committee on that date.

Save for the period 13 November 2018 to 31 December 2018 when there was only one member of the committee, the Committee's constitution and operation has been compliant with the provisions of the QCA Code, published by the Quoted Companies Alliance, which sets out a minimum best practice standard for small and mid-size quoted companies, particularly AIM companies. In determining remuneration policy for Executive Directors, the Committee takes into consideration both the QCA Code and the guidelines published by The Investment Association Principles of Remuneration (formerly the Association of British Insurers).

Remuneration policy for Executive Directors
The remuneration policy has been designed to ensure that Executive Directors receive incentives and rewards appropriate to their performance, responsibility and experience. In making its assessment, the Remuneration Committee seeks to align the policy with the interests of the shareholders.

Key features of the policy are:
- Setting salaries to be competitive relative to the experience of the individual and the nature, complexity and responsibilities of their work in order to attract and retain management of the required quality.
- Linking individual remuneration packages to the Company's performance through bonus schemes and long-term share-based plans.
- Providing employment and post-retirement benefits in accordance with standard policies of the Company.

The following chart illustrates the proportion of fixed and variable elements in the remuneration package.



Remuneration of Executive Directors
Executive Directors' remuneration is considered annually. In addition, the Remuneration Committee undertakes periodically a comprehensive review using external advisers. Current remuneration is based on the following principles.

Base salary
The base salary is reviewed annually at the beginning of each year. The review process undertaken by the Remuneration Committee considers the ongoing development of the Company, the contribution of the individual, the need to retain and motivate employees, and benchmark remuneration information from comparable organisations.

Annual performance incentive

All Executive Directors are eligible, at the discretion of the Remuneration Committee, for an annual bonus. The target bonus award for each individual is based on a percentage of base salary, which, for the year commencing 1 January 2018, was 75%. The Remuneration Committee sets performance targets for bonus awards at the beginning of each year. Awards are determined by both the performance of the individual and the Company as a whole at the end of each year. The performance targets for the Company comprise measures of financial, technical and business development goals. For 2018 performance, none of the Executive Directors remain in the Company and therefore no bonus is due. However, the new Executive Directors who were appointed in November 2018 may be paid a bonus in 2019 (post-period end) but this will be at the discretion of the Remuneration Committee and will depend on the success of the Company and the level of liquidity within the Company. At the date of signing of the Annual report and accounts no bonus has been paid.

Long-term Incentive Plan (LTIP)

The committee believes that the LTIP scheme should provide to Executive Directors and other senior managers the appropriate incentivisation, focus and reward for achievement that is aligned with shareholder interests. The last LTIP scheme that the Company put in place was in 2014 and due to other changes in the business during 2018, the Remuneration Committee decided not to make an award under this scheme during the year. Instead, the committee intends to make a new equity-based incentive award in 2019. It may, in the allocation of such awards, take into consideration the fact that no awards were made in 2016 through 2018.

As part of this process, the Company has consulted with major shareholders to seek their views on the proposed 2019 LTIP Scheme ('Scheme'), which is consistent with the LTIP rules agreed by the Board and approved by Shareholders in 2015.

The Scheme, which applies to all Velocys staff except Non-Executive Directors, subject to grade, and runs for three years, has been reviewed and endorsed by external remuneration consultants, who have confirmed that they believe the scheme is reasonable and in line with market practice. The Scheme represents a potential maximum dilution of current shareholders' interests of 12.54% taking into account historic awards outstanding (0.74%), new awards (6.4%) and 2019-2021 LTIP (5.4%). There will be no nil-cost options in the proposed Scheme. The committee believes the proposed Scheme is necessary to compensate for the absence of a share scheme in recent years, and to motivate and retain expert staff who are essential to the success of Velocys over the crucial next three years.

Pensions and other benefits

The Company contributes to individuals' defined contribution pension plans in line with the Company-wide schemes in place. For UK-based employees, the Company contributions are 7% of base salary. For US-based employees, the contributions are 3% of pensionable pay (which includes bonus) up to the maximum allowable under US pensions law.

Other benefits provided are life insurance, private medical insurance and relocation allowances where applicable, in line with the Company's standard policies.

Directors' service contracts

Each of the Executive Directors has a service contract with a notice period of six months.

Remuneration policy for Non-Executive Directors

The remuneration of Non-Executive Directors is determined by the executive members of the Board in consultation with the Chairman, based on a benchmark review of current practices in similar companies. The Non-Executive Directors are paid a fixed fee and do not receive any pension payments, bonus or other benefits.

Non-Executive Directors are appointed for an initial three-year term and typically expected to serve for two three-year terms. Either the Non-Executive Director or the Company can terminate the contract with three months' written notice. The Chairman's appointment is on the same terms and the notice period is also three months. The Company may invite a Non-Executive Director to serve for further periods after the expiry of two three-year terms subject to a particularly rigorous review of performance and considering the need for progressive refreshing of the Board. Under the Company's Articles of Association, all Directors are required to stand for re-election by shareholders on appointment and thereafter at least once every three years. However, in line with best practice, the Company has decided to put all Non-Executive Directors up for re-election at its Annual General Meeting (AGM).

Fees paid to Non-Executive Directors

The aggregate amount of Non-Executive Directors' fees, as set out in the Company's Annual report and accounts for the years ended 31 December 2018 and 2017 is as follows.

	2018 **£**	2017 £
Aggregate fees paid to Chairman and Non-Executive Directors	154,195	225,125

Directors' remuneration report (continued)

Directors' remuneration

Aggregate emoluments for current and former Directors in 2018 totalled £771,458 (2017: £1,056,867), and Company pension contributions were £23,550 (2017: £24,837).

The Directors who held office at 31 December 2018 received the following remuneration in relation to the year ended 31 December 2018.

					2018					2017
Name of Director	Salary & fees £	Other benefits £	Bonus £	Pension £	Total £	Salary & fees £	Other benefits £	Bonus £	Pension £	Total £
Executive										
Henrik Wareborn[1]	34,295	–	–	–	34,295	–	–	–	–	–
Andrew Morris[2]	65,810	–	–	–	65,810	23,625	–	–	–	23,625
Non-Executive										
Pierre Jungels	72,000	–	–	–	72,000	72,000	–	–	–	72,000
Sandy Shaw	40,500	–	–	–	40,500	40,500	–	–	–	40,500
Aggregate emoluments and pension contributions	212,605	–	–	–	212,605	136,125	–	–	–	136,125

1. For period 13 November 2018 to 31 December 2018.
2. Aggregate salary & fees paid to Andrew Morris includes an amount of £34,945 paid to him in his role as a Non-Executive Director in the period 1 January 2018 to 13 November 2018. Setley Consultants Limited provided management consultancy services of £30,364 to the Company in 2018. Setley Consultants Limited is a company wholly owned and operated by Andrew Morris, the Company's chief financial officer (CFO). All consulting work was performed prior to Andrew Morris becoming CFO and was paid as work in addition to his role as a Non-Executive Director.

Directors' share options

Aggregate emoluments disclosed above include any amounts paid through the employee benefit trust (EBT) in relation to share options exercised. In 2018 no such payments were made to serving or former Directors (2017: £92,000).

Details of all directors' shareholdings are disclosed on page 20 in the Directors' report.

No options were held by the acting Directors at 31 December 2018 and no options were exercised by acting Directors during 2018. The total charge for share-based payments during the year in respect of former Directors was £32,000.

Shareholding requirements

The Company has not previously had in place share ownership guidelines covering shareholdings of Executive Directors. It is intended that the new equity-based incentive award, to be made in 2019, will include such guidelines designed to ensure that Executive Directors retain an interest in the Company.

Former Directors

The Directors listed below, who were members of the Board at 1 January 2018 and resigned during the year, received the following remuneration.

	2018					2017				
Name of Director	Salary & fees[1] £	Other benefits[2] £	Bonus	Pension £	Total £	Salary & fees £	Other benefits £	Bonus	Pension £	Total £
Executive										
David Pummell	251,706	1,175	0	17,619	270,500	265,000	850	99,375	18,550	383,775
Paul Schubert	261,798	37,424	0	5,931	305,153	252,257	42,375	85,809	6,287	386,728
Non-Executive										
Julian West	6,750	–	–	–	6,750	40,500	–		–	40,500
Aggregate emoluments and pension contributions	520,254	38,599	0	23,550	582,403	557,757	43,225	185,184	24,837	811,003

1. All salaries and fees are denominated in pounds sterling except for that of Paul Schubert, who is based in the US and paid in dollars. His remuneration has been converted from dollars to pounds at the exchange rate on the date of recognition of the cost. The average rate used for his 2018 salary was £1=$1.34 compared to £1=$1.29 in 2017. Salary and fees for David Pummell does not include a payment for severance of £350,000 in 2018. Salary and fees for Paul Schubert does not include payments for severance in 2019 of £39,012 and pay out of accrued paid time-off £46,963.
2. Other benefits include medical cover for Executive Directors and, in the case of Paul Schubert, costs related to his relocation to Houston.

David Pummell resigned on 3 December 2018, Paul Schubert on 4 December 2018 and Julian West on 6 February 2018.

At the time that Mr Schubert left the Company, he held options over the Company's shares as follows. In accordance with the settlement agreement all of these options, whether vested or unvested, shall not be capable of exercise at any time and shall lapse or be treated as surrendered on 9 May 2019.

Name of Director	At 31 December 2017	Granted	Exercised	Lapsed	**At 31 December 2018**	Exercise price (£)	Earliest date of exercise	Date of expiry	Exercisable at 31 December 2018
Paul Schubert									
EMI	207,894	–	–	–	207,894	0.59	04/10/14	04/10/21	207,894
ELTIP 2012	119,000	–	–	–	119,000	0.49	01/01/15	01/02/22	119,000
ELTIP 2013	502,930	–	–	–	502,930	1.59	01/01/16	12/04/23	502,930
ELTIP 2013	41,911	–	–	–	41,911	1.59	01/01/15	12/04/23	41,911
ELTIP 2014	336,711	–	–	–	336,711	1.64	01/01/17	01/04/24	336,711
ELTIP 2014	56,119	–	–	–	56,119	1.64	01/01/15	01/04/24	56,119
ELTIP 2015	43,344	–	–	–	43,344	Nil	01/01/17	26/02/25	43,344
ELTIP 2015	144,482	–	–	–	144,482	Nil	01/01/17	26/02/25	–
ELTIP 2015	36,227	–	–	–	36,227	Nil	01/01/18	26/02/25	–
ELTIP 2015	120,758	–	–	–	120,758	Nil	01/01/18	26/02/25	–
Total	1,609,376	–	–	–	1,609,376				1,307,909

Share price

The market price of the parent Company's shares as at 31 December 2018 was 4.845p (2017: 32p) and the range during the year was 3.8p to 31p (2017: 31p to 92p). Details of options and the cost of share-based payments are given in note 15.

Approved by the Board and signed on its behalf by:

Darran Messem

Non-Executive Director and Chair of the Remuneration Committee

14 May 2019

Statement of Directors' responsibilities

in respect of the financial statements

The Directors are responsible for preparing the Annual report and the financial statements in accordance with applicable law and regulation.

Company law requires the Directors to prepare financial statements for each financial year. Under that law the Directors have prepared the Company financial statements in accordance with International Financial Reporting Standards ("IFRS") as adopted by the European Union and parent Company financial statements in accordance with IFRS as adopted by the European Union. 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 Company and parent Company and of the profit or loss of the Company and parent Company for that period. In preparing the financial statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently;
- state whether applicable IFRSs as adopted by the European Union have been followed for the Company financial statements and IFRSs as adopted by the European Union have been followed for the parent Company financial statements, subject to any material departures disclosed and explained in the financial statements;
- make judgements and accounting estimates that are reasonable and prudent; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company and parent Company will continue in business.

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company and parent Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and parent Company and enable them to ensure that the financial statements comply with the Companies Act 2006 and, as regards the Company financial statements, Article 4 of the IAS Regulation.

The Directors are also responsible for safeguarding the assets of the Company and parent Company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

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

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

Each of the Directors, whose names and functions are listed in the Corporate governance report confirm that, to the best of their knowledge:

- the parent Company financial statements, which have been prepared in accordance with IFRSs as adopted by the European Union, give a true and fair view of the assets, liabilities, financial position and loss of the Company;
- the Company financial statements, which have been prepared in accordance with IFRSs as adopted by the European Union, give a true and fair view of the assets, liabilities, financial position and loss of the Company; and
- the Strategic report includes a fair review of the development and performance of the business and the position of the Company and parent Company, together with a description of the principal risks and uncertainties that it faces.

On behalf of the Board

Henrik Wareborn
Chief Executive Officer
14 May 2019

Independent auditors' report to the members of Velocys plc

Report on the audit of the financial statements

Opinion

In our opinion, the Company's consolidated financial statements and Velocys plc's financial statements (the "financial statements"):

- give a true and fair view of the state of the Company's and Velocys plc's affairs as at 31 December 2018 and of the Company's consolidated loss and the Company's and Velocys plc's cash flows for the year then ended;
- have been properly prepared in accordance with International Financial Reporting Standards (IFRSs) as adopted by the European Union and, as regards to Velocys plc's financial statements, as applied in accordance with the provisions of the Companies Act 2006; and
- have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements, included within the Annual report and accounts 2018 (the "Annual Report"), which comprise: the Consolidated and Velocys plc statements of financial position as at 31 December 2018; the Consolidated income statement and Consolidated statement of comprehensive income, the Consolidated and Velocys plc statements of cash flows, and the Consolidated and Velocys plc statements of changes in equity for the year then ended; and the notes to the financial statements, which include a description of the significant accounting policies.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) ("ISAs (UK)") and applicable law. Our responsibilities under ISAs (UK) are further described in the Auditors' responsibilities for the audit of the financial statements section of our report. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We remained independent of the Company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, which includes the FRC's Ethical Standard, as applicable to listed entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements.

Material uncertainty relating to going concern – Company and Velocys plc

In forming our opinion on the financial statements, which is not modified, we have considered the adequacy of the disclosure made in note 2 to the financial statements concerning the Company's and Velocys plc's ability to continue as a going concern. In order to continue as a going concern the Company and Velocys plc need to secure additional external funding within 12 months from the date of approval of the financial statements. At the time of the approval of the financial statements no such funding is committed. These conditions, along with the other matters explained in note 2 to the financial statements, indicate the existence of a material uncertainty which may cast significant doubt about the Company's and Velocys plc's ability to continue as a going concern. The financial statements do not include the adjustments that would result if the Company and Velocys plc were unable to continue as a going concern.

Explanation of material uncertainty

Note 2 to the financial statements details the directors' disclosures of the material uncertainty relating to going concern.

The Directors have prepared financial forecasts to estimate the likely cash requirements of the Company and Velocys plc over a period of 12 months from the date of approval of the financial statements. The forecasts show that the Company and Velocys plc require additional external funding within the 12 month forecast period to be able to continue as a going concern. The Directors anticipate that this will come from one or more of the potential sources, as set out in note 2 to the financial statements. Given the risks associated with raising additional funding, the Directors have drawn attention to this in disclosing a material uncertainty relating to going concern in the basis of preparation to the financial statements.

What audit procedures we performed

In concluding there is a material uncertainty, we examined the Company's and Velocys plc's cash flow forecast for the 12 month period to 31 May 2020 and agreed that it is based on Board approved budgets. We also requested the Directors to extend their forecast to June 2020. The forecast included certain assumptions as set out in note 2 to the financial statements. We tested these assumptions by performing the following audit procedures:

- We tested the mathematical accuracy of the cash flow forecast and we did not identify any material exceptions in these tests.
- We compared the planned cash outflow to historical actual results and considered management's assumptions to be supportable.
- We examined documentation supporting the mitigating actions identified by management to extend the Company's and Velocys plc's cash position, should additional funding not be achieved in line with forecast. We considered management's assumptions to be reasonable.
- We held discussions with management to understand the nature of downside risks, to obtain an update on the current status of the sources of funding options being sought, as set out in note 2 to the financial statements, including the plan to bring them to fruition, and we considered whether there were additional risks that needed to be reflected in the forecasts. We used our understanding of the Company and industry to assess the possibility of such risks arising and their potential impact. We considered management's assumptions to be reasonable, however, at the time of the approval of the financial statements, we determined that there are no agreements for additional funding in place.

Additionally we considered the adequacy of the disclosure in note 2 to the financial statements and found it to be sufficient to inform members about the directors' conclusions on the appropriateness of using the going concern basis being adopted.

Our audit approach

Overview

Materiality	• Overall consolidated Company materiality: £1.0 million (2017: £1.0 million), equivalent to 5% of loss before income tax, before exceptional items. • Overall Velocys plc materiality: £147,000 (2017: £150,000), based on 1% of total assets.
Scope	• We identified two financially significant components which were subject to full scope audits. • We also performed a full scope audit over the significant components Velocys plc and Velocys Inc as well as Velocys Technology Limited for statutory reporting purposes. • We performed specified audit procedures at two further components to address specific risk characteristics or to provide sufficient overall coverage of particular financial statement line items. • All audit work was performed by the Company engagement team. • Components where we performed audit procedures accounted for 98% of Company loss before tax and 95% of Velocys total assets.
Key audit matters	• Valuation of Intangible assets (consolidated Company) and Investments in subsidiaries (Velocys plc). • Valuation of Investment in associate, ENVIA (consolidated Company). • Valuation of loan receivable from ENVIA (consolidated Company). • Going concern.

The scope of our audit

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements. In particular, we looked at where the directors made subjective judgements, for example in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain.

As in all of our audits we also addressed the risk of management override of internal controls, including evaluating whether there was evidence of bias by the directors that represented a risk of material misstatement due to fraud.

Key audit matters

Key audit matters are those matters that, in the auditors' professional judgement, were of most significance in the audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) identified by the auditors, including those which had the greatest effect on: the overall audit strategy; the allocation of resources in the audit; and directing the efforts of the engagement team. These matters, and any comments we make on the results of our procedures thereon, were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters. In addition to going concern, described in the 'Material uncertainty related to going concern' section above, we determined the matters described below to be the key audit matters to be communicated in our report. This is not a complete list of all risks identified by our audit.

Key audit matter	How our audit addressed the key audit matter
Valuation of Intangible assets (consolidated Company) and Investments in subsidiaries (Velocys plc)	
The carrying value of the Company's intangible assets is £0.4m (2017: £0.8m). The carrying value of Velocys plc's investments in subsidiaries is £12.4m following an impairment loss of £2.0m recorded in the current year. The Company's intangible assets and Velocys plc's investments in subsidiaries are subject to impairment testing at least annually or more frequently if events or changes in circumstances indicate the carrying value may not be recoverable. In assessing whether there was any indication of impairment, management considered any changes in operations and also compared the carrying amount of the Company's and Velocys plc's net assets to Velocys plc's market capitalisation. For the assessment of the recoverable amount of the Company's intangible assets and Velocys plc's investments in subsidiaries, the recoverable amount was determined for the cash generating unit ('CGU') to which the these assets belong. The Company has one CGU, being synthetic fuels production. The recoverable amount of the CGU was determined based on its fair value less costs of disposal ('fair value'), using Velocys plc's market capitalisation. IAS 36, also requires that the Group assess at the end of each reporting period whether there is any indication that an impairment loss recognised in prior periods for an asset other than goodwill may no longer exist or may have decreased. Management considered the operational performance in 2018 to be mixed with no clear favourable events or changes in circumstances that would indicate the impairment loss no longer exists, or has decreased. Management have also considered the market capitalisation. The market capitalisation at 31 December 2018 was £19.9m (2017: £14.7m). Post year end the market capitalisation has fluctuated at approximately £16.8m and did decrease to £14.1m in February 2019 before recovering. Based on no change in circumstance and the market capitalisation management concluded there was no adjustment to the intangible asset carrying value required. Our audit focused on the risk that the carrying value of the Company's intangible assets and Velocys plc's investments in subsidiaries could be overstated and further impairments could be necessary as well as considering if there was any indicators that the previous impairment may be reversed.	We assessed the level at which impairment testing was performed. Based on our knowledge of the business, including the use of assets and internal reporting, we agreed with management's judgement that, for the assessment of the recoverable amount of the Company's intangible assets, the Company has one CGU. We evaluated management's approach to calculating the CGU's recoverable amount, based on its fair value, using Velocys plc's market capitalisation. Management's assessment considered the market capitalisation at 31 December 2018 and also post year end up to the date of this report. Management also considered if there were any changes in circumstance, whether favourable or adverse, that would impact their assessment. There have been both positive and negative operational factors in 2018 and we accept management's assessment that these are net neutral in consideration of further impairment triggers or reversals. We concluded that the application of this market approach was appropriate. We tested the accuracy of the impairment loss calculated for the investment in subsidiaries, by comparing the carrying value of assets with their recoverable amount. We did not identify any material exceptions in these tests. We also assessed the Company's and Velocys plc's disclosures regarding the significant accounting judgements in assessing the impairment required. We consider that these disclosures appropriately draw attention to the significant areas of judgement that support management's conclusion.

Independent auditors' report to the members of Velocys plc (continued)

Report on the audit of the financial statements

<table>
<tr><th>Key audit matter</th><th>How our audit addressed the key audit matter</th></tr>
<tr><td colspan="2">Valuation of Investment in associate, ENVIA (Consolidated Company)</td></tr>
<tr><td>The Company holds an investment in its associate, ENVIA Energy, LLC ('ENVIA'). The investment is subject to impairment testing at least annually or more frequently if events or changes in circumstances indicate the carrying value may not be recoverable. The carrying value of this investment is nil (2017: £2.6m), following an impairment loss of £0.9m recorded in the current year and the Company's share of trading loss of £1.7m.

Management consider the nil carrying value to be appropriate given the suspension of the plant during FY 2018 and that asset disposals are not expected to generate sufficient cashflows to enable any distribution to equity holders after loans have been settled.</td><td>We consider that there remains a significant level of risk and uncertainty in respect of the recoverability of the groups' net investment in ENVIA. Management have taken a view, following the suspension of operations to impair the full amount of the investment and accordingly made appropriate disclosures in the 2018 financial statements.

We consider management's position to be reasonable given the latest developments in ENVIA and the history of losses incurred.</td></tr>
<tr><td colspan="2">Valuation of loan receivable from ENVIA (Consolidated Company)</td></tr>
<tr><td>The Company holds a £15.8 million loan to ENVIA (2017: £10.3m) and have re-assessed the carrying value following ENVIA's Board of Directors decision to suspend operations during 2018.

As at 31 December 2018 and post year end management have been in discussions with the ENVIA board to understand how much the assets of ENVIA can be disposed for and, therefore, whether the receivable of £15.8m is recoverable.

Based on a signed settlement agreement with ENVIA, the Company will receive $4.15m (£3.2m) in settlement of the £15.8m loan.

Therefore the Company have impaired the loan in line with IFRS 9 based on a weighted outcome by £12.3m to reflect the appropriate carrying value at 31 December 2018.

Management have also implemented IFRS 9 – Financial instruments (effective 1 January 2018) and considered the carrying value at 1 January 2018 (£10.3m) to be £8.0m based upon lifetime expected credit loss model. The model used by management utilised a range of probabilities of recovery from nil to 40% and an expected lifetime default rate of 28% based on Ca-C rated Moodys bond.

As such of the total impairment of £12.3m, management have recorded £2.3m as an adjustment to the opening retained profit.</td><td>We have obtained and read the signed settlement agreement with ENVIA, confirming that the Company will receive $4.15m (£3.2m) in settlement of the £15.8m loan.

We have re-translated the amount from USD to GBP and confirmed the mathematical accuracy of the adjustment recorded in the financial statements by comparing the carrying value of £15.8m to the amount per the settlement agreement. We also assessed the Company's disclosures regarding the significant accounting judgements in assessing the impairment required. We consider that these disclosures appropriately draw attention to the significant areas of judgement that support management's conclusion.

For IFRS 9, we obtained management's model, which uses a weighted average calculation of probability of recovery and estimated lifetime default rate. We agreed this model was compliant with IFRS 9 methodology. Management have assumed that a Ca-C rated bond lifetime default rate provides the best objective benchmark for the loan. We have agreed the rate used (28%) to Moodys published benchmark for Ca-C rated bond and concur this is an acceptable benchmark to use given its comparable risk profile.

We tested the mathematical accuracy of the expected credit loss calculation.

We agreed the adjustment recorded in opening equity to the calculation and that appropriate disclosures were made in the financial statements.

No material exceptions were noted.</td></tr>
</table>

How we tailored the audit scope
We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the structure of the Company and Velocys plc, the accounting processes and controls, and the industry in which they operate.

The Company's accounting process is structured around a local finance function based in the United States ('US'). This function maintains the accounting records and controls. In establishing the overall Company audit strategy and plan, we determined the type of work that needed to be performed at the legal entities ('entities') in the Company.

For each entity we determined whether we required an audit of their complete reported financial information ("full scope") or whether specified procedures addressing specific risk characteristics or particular financial statement line items would be sufficient. Velocys plc and Velocys, Inc., were determined as individually financially significant because they contributed more than 15% of the Company's loss before income tax, before exceptional items (on a gross basis). In addition we performed a statutory audit for Velocys Technologies Limited. We also performed specified procedures on VMH Assets LLC and Velocys (USA Holdings) LLC to address specific risk characteristics or to provide sufficient overall coverage. Velocys (USA Holdings) LLC holds the Company's investment in its associate, ENVIA. The Company engagement team conducted all necessary audit procedures.

In aggregate, the components where we performed audit procedures accounted for 98% of consolidated Company loss before tax and 95% of Company total assets. This gave us the evidence we needed for our opinion on the financial statements as a whole.

Materiality
The scope of our audit was influenced by our application of materiality. We set certain quantitative thresholds for materiality. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and in evaluating the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

Based on our professional judgement, we determined materiality for the financial statements as a whole as follows:

	Company consolidated financial statements	Velocys plc parent financial statements
Overall materiality	**£1.0 million (2017: £1 million).**	**£147,000 (2017: £150,000).**
How we determined it	5% of Loss before tax, before exceptional items.	1% of Total assets.
Rationale for benchmark applied	Based on the benchmarks used in the Annual Report, loss before income tax before exceptional items, is the primary measure used by the members in assessing the financial performance of the Company. We consider it appropriate to eliminate exceptional items, which are considered non-recurring, to preserve the link between materiality and the underlying performance of the Company.	We believe that total assets is the primary measure used by the shareholders in assessing the performance and position of the entity and reflects the Company's principal activity as a holding Company.

For each component in the scope of our Company audit, we allocated a materiality that is less than our overall Company materiality. The range of materiality allocated across components was between £147,000 and £949,050. Certain components were audited to a local statutory audit materiality that was also less than our overall Company materiality.

We agreed with the Audit Committee that we would report to them misstatements identified during our audit above £49,000 (Company audit) (2017: £50,000) and £7,000 (Velocys plc audit) (2017: £7,500) as well as misstatements below those amounts that, in our view, warranted reporting for qualitative reasons.

Independent auditors' report to the members of Velocys plc (continued)

Report on the audit of the financial statements

Reporting on other information
The other information comprises all of the information in the Annual Report other than the financial statements and our auditors' report thereon. The directors are responsible for the other information. Our opinion on the financial statements does not cover the other information and, accordingly, we do not express an audit opinion or, except to the extent otherwise explicitly stated in this report, any form of assurance thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If we identify an apparent material inconsistency or material misstatement, we are required to perform procedures to conclude whether there is a material misstatement of the financial statements or a material misstatement of the other information. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report based on these responsibilities.

With respect to the Strategic Report and Directors' Report, we also considered whether the disclosures required by the UK Companies Act 2006 have been included.

Based on the responsibilities described above and our work undertaken in the course of the audit, ISAs (UK) require us also to report certain opinions and matters as described below.

Strategic report and Directors' report
In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic report and Directors' report for the year ended 31 December 2018 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements.

In light of the knowledge and understanding of the Company and Velocys plc and their environment obtained in the course of the audit, we did not identify any material misstatements in the Strategic report and Directors' Report.

Responsibilities for the financial statements and the audit
Responsibilities of the Directors for the financial statements
As explained more fully in the Statement of Directors' responsibilities set out on page 26, the directors are responsible for the preparation of the financial statements in accordance with the applicable framework and for being satisfied that they give a true and fair view. The directors are also responsible for such internal control as they determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

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

A further description of our responsibilities for the audit of the financial statements is located on the FRC's website at: www.frc.org.uk/auditorsresponsibilities. This description forms part of our auditors' report.

Use of this report
This report, including the opinions, has been prepared for and only for Velocys plc's members as a body in accordance with Chapter 3 of Part 16 of the Companies Act 2006 and for no other purpose. We do not, in giving these opinions, accept or assume responsibility for any other purpose or to any other person to whom this report is shown or into whose hands it may come save where expressly agreed by our prior consent in writing.

Other required reporting
Companies Act 2006 exception reporting
Under the Companies Act 2006 we are required to report to you if, in our opinion:

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

We have no exceptions to report arising from this responsibility.

Gareth Murfitt
(Senior Statutory Auditor)
for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
Reading
14 May 2019

Consolidated income statement

for the year ended 31 December 2018

	Note	2018 £'000 Before exceptional items	2018 £'000 Exceptional items (note 4)	2018 £'000 Total	2017 £'000 Before exceptional items	2017 £'000 Exceptional items (note 4)	2017 £'000 Total
Revenue	6	664	–	664	759	–	759
Cost of sales		(273)	–	(273)	(409)	–	(409)
Gross profit		391	–	391	350	–	350
Administrative expenses		(19,060)	(10,067)	(29,127)	(21,930)	(31,486)	(53,416)
Other income	9	36	–	36	163	1,750	1,913
Operating loss	10	(18,633)	(10,067)	(28,700)	(21,417)	(29,736)	(51,153)
Share of loss of investments accounted for using the equity method	19	(1,717)	(848)	(2,565)	(1,784)	(2,736)	(4,520)
Loss before finance net finance (costs)/income		(20,350)	(10,915)	(31,265)	(23,201)	(32,472)	(55,673)
Finance income	7	993	–	993	730	–	730
Finance costs	8	(628)	–	(628)	(399)	–	(399)
Net finance income		365	–	365	331	–	331
Loss before income tax		(19,985)	(10,915)	(30,900)	(22,870)	(32,472)	(55,342)
Income tax credit	13	317	–	317	739	–	739
Loss for the financial year attributable to the owners of Velocys plc		(19,668)	(10,915)	(30,583)	(22,131)	(32,472)	(54,603)
Loss per share attributable to the owners of Velocys plc							
Basic and diluted loss per share (pence)	16	(5.75)		(8.95)	(15.19)		(37.47)

The notes on pages 38 to 68 are part of these consolidated financial statements.

Consolidated statement of comprehensive income

for the year ended 31 December 2018

	2018 £'000	**2018 £'000**	**2018 £'000**	2017 £'000	2017 £'000	2017 £'000
	Before exceptional items	Exceptional items (note 4)	Total	Before exceptional items	Exceptional items (note 4)	Total
Loss for the year	(19,668)	(10,915)	(30,583)	(22,131)	(32,472)	(54,603)
Other comprehensive (expense)/income						
Items that may be reclassified to the income statement in subsequent periods						
Foreign currency translation differences	897	–	897	(4,411)	–	(4,411)
Total comprehensive (expense)/income for the year attributable to the owners of Velocys plc	(18,771)	(10,915)	(29,686)	(26,542)	(32,472)	(59,014)

The notes on pages 38 to 68 are part of these consolidated financial statements.

Consolidated statement of financial position

as at 31 December 2018

	Note	2018 £'000	(Restated) 2017 £'000
Assets			
Non-current assets			
Intangible assets	17	357	755
Property, plant and equipment	18	1,819	1,801
Trade and other receivables	20	281	10,284
Investment in associate	19	–	2,580
		2,457	15,420
Current assets			
Inventories	21	1,438	388
Trade and other receivables	20	4,404	416
Current income tax asset		862	546
Restricted cash	22	–	620
Cash and cash equivalents	22	6,964	2,070
		13,668	4,040
Total assets		16,125	19,460
Liabilities			
Current liabilities			
Trade and other payables	23	(3,018)	(2,898)
Borrowings		(289)	(268)
Other liabilities	28	(2,092)	–
Deferred revenue	29	(579)	(618)
		(5,978)	(3,784)
Non-current liabilities			
Trade and other payables	24	(90)	(98)
Borrowings		–	(273)
Deferred revenue	29	(4,634)	(620)
		(4,724)	(991)
Total liabilities		(10,702)	(4,775)
Net assets		5,423	14,685
Capital and reserves attributable to owners of Velocys plc			
Called up share capital	26	1,913	1,468
Share premium account	26	182,208	149,964
Merger reserve		369	369
Convertible loan/"other" reserve		–	9,421
Share-based payments reserve		16,143	16,085
Foreign exchange reserve		3,551	2,654
Accumulated losses		(198,761)	(165,276)
Total equity		5,423	14,685

The notes on pages 38 to 68 are part of these consolidated financial statements.

The presentation of share premium in the period ended 31 December 2017 has been restated with respect to the convertible loan notes, in the amount of £9,000,000 and the interest on convertible loan notes, in the amount of £421,000. In November 2018, these convertible loan notes converted into ordinary shares in accordance with the convertible loan note agreement. See Note 26 for further information.

The financial statements on pages 33 to 68 were approved by the Board of Directors and authorised for issue on 14 May 2019. They were signed on its behalf by:

Henrik Wareborn
Chief Executive Officer

Company number 05712187

Consolidated statement of changes in equity

for the year ended 31 December 2018

	Note	Called up share capital £'000	Share premium account (Restated) £'000	Merger reserve £'000	Convertible loan/'other' reserve £'000	Share-based payment reserve £'000	Foreign exchange reserve £'000	Accumulated losses £'000	Total equity £'000
Balance at 1 January 2017		1,438	149,275	369	–	15,843	7,065	(110,252)	63,738
Loss for the year		–	–	–	–	–	–	(54,603)	(54,603)
Other comprehensive expense									
Foreign currency translation differences		–	–	–	–	–	(4,411)	–	(4,411)
Total comprehensive expense		–	–	–	–	–	(4,411)	(54,603)	(59,014)
Transactions with owners					–				
Share-based payments – value of employee services	13	–	–	–	–	242	–	–	242
Proceeds from share issues	26	30	689	–	–	–	–	–	719
Convertible loan notes	26	–	–	–	9,000	–	–	–	9,000
Interest on convertible loan note	26	–	–	–	421	–	–	(421)	–
Total transactions with owners		30	689	–	9,421	242	–	(421)	9,961
Balance at 31 December 2017		**1,468**	**149,964**	**369**	**9,421**	**16,085**	**2,654**	**(165,276)**	**14,685**
Adjustment on adoption of IFRS 9		–	–	–	–	–	–	(2,274)	(2,274)
Balance at 1 January 2018		**1,468**	**149,964**	**369**	**9,421**	**16,085**	**2,654**	**(167,550)**	**12.411**
Loss for the year		–	–	–	–	–	–	(30,583)	(30,583)
Other comprehensive expense									
Foreign currency translation differences		–	–	–	–	–	897	–	897
Total comprehensive expense		–	–	–	–	–	897	(30,583)	(29,686)
Transactions with owners									
Share-based payments – value of employee services	13	–	–	–	–	58	–	–	58
Proceeds from share issues	26	243	22,397	–	–	–	–	–	22,640
Convertible loan notes	26	180	8,820	–	(9,000)	–	–	–	–
Interest on convertible loan note	26	22	1,027	–	(421)	–	–	(628)	–
Total transactions with owners		445	32,244	–	(9,421)	58	–	(628)	22,698
Balance at 31 December 2018		1,913	182,208	369	–	16,143	3,551	(198,761)	5,423

The notes on pages 38 to 68 are part of these consolidated financial statements.

The presentation of share premium in the period ended 31 December 2017 has been restated with respect to the convertible loan notes, in the amount of £9,000,000 and the interest on convertible loan notes, in the amount of £421,000. In November 2018, these convertible loan notes converted into ordinary shares in accordance with the convertible loan note agreement. See Note 26 for further information.

Consolidated statement of cash flows

for the year ended 31 December 2018

	Note	2018 £'000	(Restated) 2017 £'000
Cash flows from operating activities			
Operating loss		(28,700)	(51,153)
Depreciation and amortisation		659	2,893
Gain on bargain purchase for ENVIA		–	(1,750)
Loss on disposal of property, plant and equipment		–	83
Loss on disposal of intangible assets	17	627	152
Impairment of assets	4	–	31,486
Impairment of loan to associate ENVIA	4	10,067	–
Impairment of inventory		–	340
Impairment of assets under construction		–	31
Amortisation of leased inventory		–	92
Share-based payments		58	242
Changes in working capital (excluding the effects of exchange differences on consolidation)			
Trade and other receivables		(220)	358
Trade and other payables		(1,125)	914
Other liabilities		2,092	–
Deferred revenue	29	5,213	–
Inventory		(1,050)	–
Cash consumed by operations		(12,379)	(16,312)
Tax credits received		–	1,047
Net cash used in operating activities		(12,379)	(15,265)
Cash flows from investing activities			
Purchase of property, plant and equipment		(509)	(34)
Purchase of intangible assets		(349)	(335)
Loan to associate ENVIA		(5,531)	(9,788)
Interest received		74	62
Net cash used in investing activities		(6,315)	(10,095)
Cash flows from financing activities			
Proceeds from issues of shares and convertible loan notes	26	25,172	10,160
Costs of issuing shares and convertible loan notes		(1,904)	(443)
Interest paid		(13)	(17)
Repayment of borrowings		(252)	(308)
Net cash generated from financing activities		23,003	9,392
Net increase/(decrease) in cash and cash equivalents		4,309	(15,968)
Cash and cash equivalents at beginning of year	22	2,070	18,124
Exchange movements on cash and cash equivalents		585	(86)
Cash and cash equivalents at end of year	22	6,964	2,070

The notes on pages 38 to 68 are part of these consolidated financial statements.

The Statement of cash flow for the period ended 31 December 2017 has been restated by the correct the presention of cash moved to restricted cash.

Notes to the consolidated financial statements

1. General information

Velocys plc is a Company incorporated in England and Wales and domiciled in England. It operates through a number of subsidiaries in the UK and the US, and collectively they are referred to in the financial statements as the "Company" or "Velocys", with Velocys plc as "Velocys plc" or the "parent Company". The nature of the Company's operations and its principal activities are set out in the Strategic report on pages 2 to 14. The parent Company financial statements are included on pages 69 to 78. The parent Company's securities are traded on the Alternative Investment Market (AIM) of The London Stock Exchange under the symbol "VLS".

2. Accounting policies

The principal accounting policies applied in the preparation of these consolidated financial statements are summarised below. The policies have been consistently applied to each year presented unless otherwise stated.

Basis of preparation

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards as adopted by the European Union (IFRSs as adopted by the EU, hereafter referred to as 'IFRS'), IFRS Interpretations Committee (IFRS IC) Interpretations and the Companies Act 2006 applicable to companies reporting under IFRS. The statements have been prepared under the historical cost convention as modified by the revaluation of certain financial assets and liabilities (including derivative instruments) at fair value, where relevant.

The preparation of financial statements to conform to IFRS requires the use of certain critical accounting estimates and the exercise of management's judgement in the application of the Company's accounting policies. Areas involving a higher degree of judgement or complexity, and areas where assumptions and estimates are significant to the financial statements are referenced in note 3.

Going concern

The financial statements have been prepared on the going concern basis, which assumes that the Company and Velocys plc will have sufficient funds available to enable them to continue to trade for the foreseeable future.

The Company expects to develop its projects, in particular, progressing the Mississippi biorefinery and Immingham UK waste to jet fuel projects, which will require significant development and capital expenditure.

The nature of the Company's strategy means that the timing of milestones and funds generated from developments are difficult to predict. The Directors have prepared financial forecasts to estimate the likely cash requirements of the Company and Velocys plc over the next 12 months from the date of approval of the financial statements.

The forecasts show that the Company and Velocys plc require additional external funding within the 12-month forecast period to be able to continue as a going concern. The Directors anticipate that this will come from one, or a combination of, the following three sources, with agreements being actively sought from third parties:

- Strategic investment of development capital into both the Mississippi and Immingham biorefinery projects, which are expected during 2H 2019.
- Placement of Company ordinary shares, which may occur within the next twelve (12) months.
- Additional third-party licence sales, such as the Red Rock Biofuels project.

The Directors are confident that the funding required for the Company and Velocys plc to continue as a going concern and have therefore prepared the financial statements on a going concern basis.

However, as at the date of approval of the financial statements no additional funding is committed. Should additional funding not be secured, the Company and Velocys plc would not be a going concern. As such, these conditions indicate the existence of a material uncertainty that may cast significant doubt on the Company and Velocys plc's ability to continue as a going concern.

The financial statements do not include the adjustments that would arise if the Company and Velocys plc were unable to continue as a going concern.

Accounting developments

New and amended standards adopted by the Company

The Company has applied the following standards and amendments for the first time for the annual reporting period commencing 1 January 2018:

- IFRS 9 Financial Instruments
- IFRS 15 Revenue from Contracts with Customers
- Classification and Measurement of Share-based Payment Transactions – Amendments to IFRS 2
- Transfers to Investment Property – Amendments to IAS 40
- Interpretation 22 Foreign Currency Transactions and Advance Consideration

The Company also elected to adopt the following amendments early:

- Annual Improvements to IFS Standards 2015-2017 Cycle.

IFRS 9 Financial Instruments

The Company and its subsidiaries adopted International Financial Reporting Standard 9, Financial Instruments ('IFRS 9'), on 1 January 2018. IFRS 9 replaces the provisions of International Accounting Standard 39, Financial Instruments: Recognition and Measurement ('IAS 39'), that relate to the recognition, classification and measurement of financial assets and financial liabilities, derecognition of financial instruments, impairment of financial assets and hedge accounting. The Company has elected to apply the limited exemption if IFRS 9 related to transition for classification and measurement, and impairment. Accordingly, the Company has not restated comparative period in the year of initial application.

IFRS 9 introduces principle-based requirements for the classification of financial assets, using the following measurement categories:

- Amortised cost
- Fair value through Other Comprehensive Income ('OCI') ('FVOCI') with cumulative gains and losses reclassified to profit or loss upon derecognition
- Fair value through profit loss ('FVPL')

The classification depends on the Company's business model for managing the financial assets and the contractual terms of the cash flows.

All financial liabilities are measured at amortised cost, except for financial liabilities at fair value through profit or loss.

After initial recognition, an entity cannot reclassify any financial liability.

IFRS 9 also introduces a new impairment model, the expected credit loss ('ECL') model. This model applies to debt instruments measured at amortised cost or at FVOCI, as well as trade receivables. The Company applies the IFRS 9 simplified approach to measuring estimated ECL which uses a lifetime expected loss allowance for all trade receivables, and the general approach to measuring estimated ECL with respect to the ENVIA loan.

Under the simplified approach, the Company is not required to track changes in credit risk, but instead is required to recognise a lifetime ECL at all times for trade and other receivables that do not contain significant financing components.

Under the general approach, the Company will recognise a loss allowance on either a 12-month ECL or lifetime ECL. IFRS 9 prescribes three stages related to impairments. In stage 1, a 12month ECL is recorded as a result of probability of default are possible within the next 12 months. In stage 2, a lifetime ECL is recorded if a loans credit risk has significantly increased since initial recognition and is not considered low. In stage 3, a lifetime ECL is recorded if a loans credit risk increases to the point where it is considered credit impaired. The changes in loss allowance balances are recognised in the income statement as an impairment gain or loss. For credit exposure where there have not been significant increases in credit risk since initial recognition, a 12-month ECL is required. For credit exposure where there have been significant increases in credit risk since initial recognition, a lifetime ECL is required.

At December 31, 2018, the following balance sheet items were impacted by the adoption of IFRS 9.

- short-term trade receivables; and
- the ENVIA loan.

IFRS 15 Revenue from Contracts with Customers

The Company and its subsidiaries adopted IFRS 15 Revenue from Contracts with Customers on 1 January 2018 on a full retrospective transition method. The comparative figures in the Company's audited financial statements for the year ended 31 December 2017 were not required to be restated as a result of the adoption of IFRS 15.

IFRS 15 introduces a five-step model which is applied to determine when to recognise revenue, and at what amount. The five steps consist of (i) identifying the customer, (ii) identifying all of the performance obligations within the contract, (iii) determine the transaction price, (iv) allocating the price to the performance obligations and (v) recognizing revenue as the performance obligations are fulfilled. Revenue is recognised when (or as) a company transfers control of goods or services to a customer at the amount to which the company expects to be entitled. Depending on whether certain criteria are met, revenue is recognised either over time, in a manner that best reflects the Company's performance, or at a point in time, when control of the goods or services is transferred to the customer.

2. Accounting policies (continued)

New standards and interpretations not yet adopted

Certain new accounting standards and interpretations have been published that are not mandatory for 31 December 2018 reporting periods and have not been early adopted by the Company. The Company's assessment of the impact of these new standards and interpretations is set out below.

IFRS 16 Leases

IFRS 16 was issued in January 2016. It will result in almost all leases being recognised on the balance sheet by lessees, as the distinction between operating and finance leases is removed. Under the new standard, an asset (the right to use leased item) and a financial liability to pay rents are recognised. The only exceptions are short-term and low-value leases.

The Company has reviewed all its leasing arrangements over the last year considering the new lease accounting rules in IFRS 16. The standard will primarily affect the accounting for the Company's operating leases.

Significant judgements and estimates were used with respect to the incremental borrowing rate, as the Company currently has no outstanding significant debt. Also, significant judgement and estimates were used in the calculation of lease term as some leases are expected to be extended beyond the stated lease term.

As of 31 December 2018, the Company had non-cancellable operating lease commitments of £1,592,000 (see note 27). Of these commitments, approximately £38,000 relate to short-term leases and £5,000 to low value leases, both of which will be recognised on a straight-line basis as expense.

For the remaining lease commitments, on 1 January 2019, the Company expects to recognise right-of-use assets of approximately £1,062,000 and lease liabilities of £1,062,000 (after adjustments for prepayments and accrued lease payments recognised as of 31 December 2018).

The Company's activities as a lessor are not material and the Company does not expect any significant impact on the financial statements related to lessor activities. However, there may be additional disclosures related to these activities that will be required for 2019 and subsequent years.

The Company will apply this standard on the mandatory adoption date of 1 January 2019. The Company intends to apply the simplified transition approach and will not restate comparative amounts for the year prior to adoption. Right-of-use assets for property leases will be measured on transition as if the new rules had always been applied. All other right-of-use assets will be measured at the amount of the lease liability on adoption (adjusting for any prepaid or accrued lease expenses).

There are no other standards that are not yet effective and that would be expected to have a material impact on the Company in the current or future reporting periods or on foreseeable future transactions.

Change in accounting policies

On 1 January 2018, the Company adopted IFRS 9 and performed an analysis of its trade receivables and loan receivables to determine if a provision should be recorded. The Company's loan receivable consisted of a loan to ENVIA.

	£'000
Opening balance at 1 January 2018 – IAS 39	10,284
Increase in loan receivable loss allowance recognised in impairment expense	(2,274)
Closing balance at 1 January 2018 – IFRS 9	8,010

The Company applied the simplified approach to providing an ECL prescribed by IFRS 9, which permits the use of the lifetime expected loss allowance for trade receivables. Trade receivables represent assets that are held for collection of contractual cash flows and those cash flows represent solely payments of principal and interest. To measure the expected credit losses, trade receivables were grouped based on shared credit risk and the days past due. Based on this ECL model, the Company did not record a loss allowance with respect to trade receivables.

At 1 January 2018, the Company reviewed its loan to ENVIA in accordance with the recently adopted IFRS 9. The Company considered the credit worthiness of ENVIA and determined that the loan would be the equivalent of Ca-C rating using the Moody global long term rating scale. The Company considers historical loss rates for each category of customers, and adjusts for forward looking macroeconomic data where necessary. This aligns with managements expectation of a high credit risk. Based on this assessment, the Company calculated a Stage 3 ECL based on a lifetime probability of default. In the IFRS 9 ECL model, two scenarios were considered and individual weightings were assigned based on management's best estimate of current and future risks of the ENVIA plant. Based on the IFRS 9 ECL model, the Company recorded a loss allowance on a lifetime ECL basis of £2,274,000 in the Consolidated income statement.

In accordance with IFRS9, the Company continued to assess the ENVIA loan for impairment throughout the reporting period. See Note 20 for the year end ECL position.

Financial risk management policies

Financial risk management policies are set out in the Strategic report on page 10, and in note 25.

Capital management policies

Capital management policies are set out in note 25.

Significant accounting policies

Foreign currency translation

Functional and presentation currency

Items included in the financial statements of each of the Company's entities are measured using the currency of the primary economic environment in which the entity operates (the functional currency). The consolidated financial statements are presented in sterling (£).

Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the Income statement. Foreign exchange gains and losses that relate to borrowings and cash and cash equivalents are presented in the Income statement within Finance income or Finance costs.

The net investment that the Company has in its subsidiary undertakings is its interest in the net assets of that subsidiary.

The inclusion of long-term loans and receivables ('Loans to subsidiaries') as part of the net investment in the subsidiary undertaking is determined where settlement is neither planned nor likely to occur in the foreseeable future. All loans to subsidiaries by the parent Company meet these criteria.

On this basis the loans to subsidiaries, being monetary items that are receivable from a foreign subsidiary undertaking, are regarded as an extension of the Company's net investment in that foreign subsidiary undertaking. Exchange differences, arising on a monetary item that forms part of the Company's net investment in a foreign operation that is a subsidiary or associate, are recorded in the consolidated financial statements, with exchange differences being recognised initially in a separate component of Other comprehensive income and, on disposal of the net investment, in profit or loss.

Entities within Velocys

The results and financial position of all Velocys entities that have a functional currency different from the presentation currency (none of which is of a hyper-inflationary economy) are translated into the presentation currency as follows:

1. assets and liabilities for each balance sheet presented are translated at the closing rate at the date of that balance sheet;
2. income and expenses for each income statement are translated at average exchange rates; and
3. all resulting exchange differences are recognised as a movement within other comprehensive income.

On consolidation, exchange differences arising from the translation of the net investment in foreign operations are taken to shareholders' equity.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate.

Other significant accounting policies are incorporated in the note to which they apply.

3. Critical accounting estimates and judgements

The preparation of financial statements in conformity with IFRS requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Company's accounting policies. Although these estimates and judgements are based on management's best knowledge of the amount and/or timing, actual results ultimately may differ. These estimates and judgements are regularly reviewed and revised as necessary. The areas that involve a higher degree of judgement or complexity, or that have the most significant effect on the amounts included in these consolidated financial statements are listed below and described in the relevant note.

	Note
Items involving a critical estimate	
IFRS 9 critical estimates	2
Investment in associate – impairment assessment	19
Other receivables – impairment assessment under IFRS 9	20
Items involving a judgement	
Revenue recognition under IFRS 15	6
Intangible assets – impairment assessment	17

Notes to the consolidated financial statements (continued)

4. Exceptional items

Items that are significant by virtue of their size or nature, which are considered non-recurring and which are excluded from the underlying profit measures used by the Board to monitor and measure the underlying performance of the Company are classified as exceptional operating items. Exceptional operating items are included within the appropriate Consolidated income statement category but are highlighted separately in the notes to the financial statements.

The following exceptional items have been included in the Consolidated income statement.

	2018 £'000	2017 £'000
Administrative expenses:		
Intangible assets impairment	–	(28,760)
Property, plant and equipment impairment	–	(2,185)
Inventories impairment	–	(541)
Impairment of loan receivable	(10,067)	–
	(10,067)	(31,486)
Impairment in carrying value of equity accounted associate	(848)	(2,736)
Other income		
Gain on bargain purchase	–	1,750
	(848)	986
Total	(10,915)	(32,472)

Administrative expenses

During 2018, the Board of Directors of ENVIA announced its intentions to suspend operations. As a result of this decision, Velocys impaired its loan to associate. The Company has recorded an impairment of its loan to ENVIA of £10,067,000 (2017: nil).

At varying points during 2017, the carrying value of the Company's net assets exceeded the market capitalisation indicating a potential impairment at year end. This conclusion was supported by the fundraise in January 2018, which was discounted to 10p per share, and which prompted the share price to drop to 10p immediately afterwards. As a result, an impairment of £31.5 million was recorded against a range of assets, as described in note 17. The assets impacted by the impairment were Intangible assets, Inventories and Property, plant and equipment. Critical estimates and judgements are included in note 17.

Impairment in carrying value of equity accounted associate

The Company is required to assess, at the end of each reporting period, whether there is any indication that an asset may be impaired. If any such indication exists, the entity shall estimate the recoverable amount of the asset. During 2018, the Board of Directors of ENVIA announced its intentions to suspend operations. As a result of this decision, Velocys impaired its loan to associate (detailed above) and the investment in associate account. The Company has recorded an impairment of its investment in associate in the amount of £848,000 (2017: £2,736,000).

Other income

In September 2017, Velocys increased its equity share and voting rights at ENVIA following the exit of NRG from the joint venture, for no consideration. The voting rights for the three remaining joint venture members, including Velocys, were accordingly increased to 33% each. The increased interest in the associate has been acquired through an increase in an existing stake. Velocys applied the 'cost approach', whereby there is a requirement to assess the fair value of both the consideration and the net assets being acquired. The fair value of the net assets being acquired was determined by its value in use, assessed by the estimated future cash flows discounted to their present value using an appropriate pre-tax discount rate model. The Company has recorded a gain on bargain purchase of £1,750,000 in respect of this step acquisition during 2017 and no change has occurred with the Velocys shareholding in ENVIA during 2018. See note 19 for more information.

5. Segmental information

The Company's chief operating decision-maker is the Chief Executive Officer. The Chief Executive Officer reviews the Company's internal reporting in order to assess performance and allocate resources and has determined the operating segments based on these reports.

The Chief Executive Officer considers that the business comprises a single activity, which is the design, development, marketing and sale of technology for the production of synthetic fuels. This includes facilitating project development by putting together partnerships with technology licensors, engineers, feedstock suppliers, offtakers and financing entities. The Chief Executive Officer reviews the Company's profit or loss and its cash flows, assets and liabilities on a Company-wide basis. In carrying out these reviews, the Chief Executive Officer considers all material items of income and expenditure that are directly attributable to individual commercial projects and development programmes. The internal management reports do not allocate assets and liabilities or shared overheads to individual products or projects.

The business has one segment on the basis that the key end use market is that of synthetic fuels production. At this stage, the synthetic fuels segment represents 100% of the business and therefore represents the only material segment. Based on management's judgement, all products and services offered within the operating segment have similar economic characteristics.

Internal and external reporting is on a consolidated basis, with purchases and sales between subsidiaries eliminated on consolidation. Therefore, the segmental and financial information is the same as that set out in the financial statements.

The Chief Executive Officer assesses the performance of the operating segment based on a measure of operating loss.

The Company's operating segment operates in three main geographical areas. Revenue is allocated based on the country in which the customer is located.

	2018 **£'000**	2017 £'000
Europe	–	142
Americas	652	591
Asia Pacific	12	26
Total revenue	664	759

Revenues during the year originated predominantly in the United States, with immaterial revenue from feasibility studies elsewhere in the world.

The total amount of revenue recognised from customers where revenue comprises 10% or more of Company revenue is as follows:

	2018 **£'000**	2017 £'000
Customer 1	508	484
Customer 2	144	–
Customers less than 10%	12	275
Total revenue	664	759

Non-current assets held in the United States are as follows:

	2018 **£'000**	2017 £'000
Intangible assets	175	415
Property, plant and equipment	1,701	1,782
Trade and other receivables	281	10,284
Investment in associate	–	2,580
Total	2,157	15,061

All other non-current assets were held in the United Kingdom and amounted to £223,000 (2017: £359,000).

6. Revenue

The Company adopted IFRS 15 on 1 January 2018, using the full retrospective transition method. The comparative figures in the Company's audited financial statements for the year ended 31 December 2017 were not required to be restated as a result of the adoption of IFRS 15.

The Company generates revenue through contracts in which it (i) sells Fischer-Tropsch reactors, (ii) leases or sells Fischer-Tropsch catalyst, (iii) provides license agreements and (iv) performs engineering services. In general, contracts with the Company provide a license agreement for the use of its intellectual property associated with the catalyst, which is used in specifically designed reactors. The majority of the Company's revenue is derived from a small number of significant commercial customers and development partners.

Determining whether the services provided are considered distinct performance obligations can require significant judgment. The Company's agreements, in some instances, could have a single performance obligation which would result in the deferral of revenue until the performance obligation is satisfied. This is the case when the entity promises an integrated package of services and where the customer is receiving a combined output (for example, an engineering service that results in operational technology at a particular site). In other instances, there will be no integration service and each good or service will be considered separately.

When there are multiple performance obligations, revenue is allocated to the respective performance obligations based on relative transaction prices and is recognised as services are delivered to the customer or in some instance, as when the catalyst is leased, revenue is recognised over the estimated life of the catalyst. Revenue is measured as the amount of consideration expected to be received in exchange for the services delivered.

6. Revenue (continued)

Revenue is recognised when the Company satisfies a performance obligation by transferring promised goods or services to a customer. In 2018, there was no reactor or licence fee revenue. In instances in which catalyst is leased to the customer, sales income is recognised monthly over the term of the arrangement. Otherwise, the sales income related to sales of catalyst will be recognised as the performance obligations are satisfied. Revenue from engineering services is earned on a time and materials basis and is recognised as the work is performed.

If the entity is providing a single performance obligation in the form of an integrated set of activities, each contract is assessed to determine if it meets the criteria for recognition over time. This would require the contract to either transfer control of the combined output over time or for the entity to have an enforceable right of payment for the performance completed to date for activities that do not create an asset with alternative use. In 2018, there is one contract that has been assessed as a combined performance obligation and it was determined that none of these criteria are met. As such, all consideration received has been deferred and revenue will be recognised when the final project is completed and control is transferred to the customer.

Contract modifications are accounted for prospectively or as a cumulative catch-up adjustment depending on the nature of the change. Revenue from engineering services is recognised as services are delivered to the customer.

	2018 £'000	2017 £'000
FT reactor, catalyst and licence	508	484
Engineering services	156	275
Total	664	759

FT reactor, catalyst and license revenue in the amount of £508,000 for the year ended December 31, 2018 consisted of lease revenue related to the ENVIA agreement (2017:£484,000).

7. Finance income

	2018 £'000	2017 £'000
Interest income on bank deposits	76	61
Interest on loan to associate	732	669
Foreign exchange gains	185	–
Total	993	730

In 2018, the Company stopped recognising interest on loan to associate as a result of the impairment of the investment in ENVIA.

8. Finance costs

	2018 £'000	2017 £'000
Interest on finance leases	–	1
Interest on borrowings	628	16
Net fair value losses on forward foreign exchange contracts	–	61
Foreign exchange losses	–	321
Total	628	399

Included in interest on borrowing in 2018 is the interest associated with the convertible loan note and other loans.

9. Other income

Other income consists of items such as sales of fixed assets, contractual and legal settlements and any other operating income recognised outside of commercial activities. Other income derived from sales of fixed assets and non-commercial activities is recognised on an accruals basis. Legal settlements are recognised as income when a final judgement is received.

	2018 **£'000**	2017 £'000
Before exceptional items:		
Return on deposits	22	–
Sale of fixed assets	14	163
Total other income before exceptional items	36	163
Exceptional items (see note 4):		
Gain on bargain purchase	–	1,750
Total other income exceptional items	–	1,750
Total	36	1,913

10. Expenses by nature

	2018 **£'000**	2017 £'000
Employee benefit expense (see note 12)	6,282	9,022
Sub-contractor and consultant costs	3,888	2,364
Depreciation of property, plant and equipment: owned (note 18)	581	1,101
Depreciation of property, plant and equipment: leased (note 18)	–	35
Amortisation of intangible assets (note 17)	96	1,757
Impairment of inventory	–	340
Impairment of assets under construction	–	31
Operating lease expense – plant and machinery	–	71
Operating lease expense – other	470	808
Patent and other IP costs	88	225
Materials expense	735	972
Services	5,041	2,181
Legal	720	872
Travel	958	942
Other expenses	201	1,618
Total cost of sales and administrative expenses before exceptional items	19,060	22,339
Exceptional items – impairment of investment in associate/assets (note 4)	10,067	31,486
Total cost of sales and administrative expenses	29,127	53,825

Included in administrative expenses were research and development costs of £1,849,000 (2017: £11,064,000). The decrease in research and development costs is the result of the Company's pivot to developing projects. The increase in services in 2018 is the result of the Company's use of third-party service providers to assist in the development of projects.

11. Auditor's remuneration

	2018 **£'000**	2017 £'000
Payable to PricewaterhouseCoopers LLP and its associates:		
For the audit of the parent company and consolidated financial statements in respect of the current year	100	94
For the audit of the parent company and consolidated financial statements in respect of the prior year	44	35
For the audit of the financial statements of subsidiaries of the parent company in respect of the current year	25	25
For the audit of the financial statements of subsidiaries of the parent company in respect of the prior year	12	–
Other services:		
Audit-related assurance services	7	7
Taxation advisory services in respect of the current year	–	10
Total	188	171

12. Employee benefit expense

Short-term employee benefits

Accruals are included to reflect the cost of short-term compensation to employees for absences such as paid leave.

Pensions

The Company operates various defined contribution pension schemes for its employees. The Company has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefit derived from the current and prior periods.

The amount charged to the Income statement in respect of pension costs and other post-retirement benefits is the contributions payable in the year. Differences between contributions payable and contributions actually paid are accrued. The Company has no further payment obligations once the contributions have been paid.

The average monthly number of Company employees (including Executive Directors) was as follows.

	2018 number	2017 number
Research, design and development	21	37
Administration	18	23
Total average headcount	39	60

Their aggregate remuneration comprised the following items.

	2018 £'000	2017 £'000
Wages and salaries	5,053	7,787
Social security costs	349	519
Other pension costs	433	232
Severance expense	389	242
Share-based payments granted to Directors and employees (note 15)	58	242
Total remuneration	6,282	9,022

Details of Directors' remuneration are given in the audited information in the Directors' remuneration report on pages 22 to 25, which forms part of these financial statements.

During 2017 a number of employees were made redundant due to the scaling down of R&D activities. Redundancy payments, including payments in lieu of notice and holiday totalled £389,000 in 2018 (2017: £242,000).

13. Income tax

Current tax, including UK corporation tax and foreign tax, is provided for at the amount expected to be paid (or recovered) based on the tax rates and laws that have been enacted or substantively enacted by the balance sheet date.

	2018 £'000	2017 £'000
Current tax:		
R&D tax credit relating to prior years	133	(193)
R&D tax credit relating to current year	(450)	(546)
Current tax total	(317)	(739)
Income tax total	(317)	(739)

Due to the availability of losses incurred in the year, there is no charge to corporation tax. The Company recognised £317,000 for R&D tax credits (2017: £739,000). The credit relating to the current year is on an accruals basis, which is an estimate of the amount to be claimed from HMRC based on the activity level and significant R&D costs of the current year compared to previous years. The debit relating to prior years is the difference between the brought forward accrual and the settlement from HMRC.

The accrual for the current year, which is the majority of the credit, is based on an assessment of the Company's projects, to determine which ones qualify under HMRC's rules, and to estimate the level of allowable cost within each, based on the nature of costs.

The actual tax credit for the current and previous year is lower (2017: lower) than the theoretical amount that would arise using the weighted average tax rate applicable to the results of the consolidated entities, for the reasons set out in the following reconciliation.

	2018 £'000	2017 £'000
Loss before income tax after exceptional items	(30,900)	(55,342)
Tax calculated at domestic tax rates applicable to losses in the respective countries	(5,779)	(18,004)
Tax effects of:		
Expenses not deductible for tax purposes	215	20
Impairment loss not deductible for tax purposes	2,292	8,696
Unutilised tax losses for which no deferred tax asset is recognised	3,272	9,288
R&D tax credit	(317)	(739)
Income tax total	(317)	(739)

In the table, Impairment loss not deductible for tax purposes, in both 2018 and 2017, removes the tax impact of the In-process technology and Goodwill impairments (see note 17). Goodwill created from a stock purchase such as that of Velocys Inc.is not deductible for US tax purposes. Goodwill created from purchasing the assets of the Company (such as Velocys Project Solutions LLC) is tax deductible.

The weighted average applicable tax rate was 21% (2017: 32.5%).

The standard rate of corporation tax in the United Kingdom changed from 20% to 19% with effect from 1 April 2017. The applicable tax rate for 2018 is therefore 19%. Legislation to reduce the rate to 17% from 1 April 2020 was enacted on 15 September 2016. Unrecognised UK deferred tax balances have been measured at 17% (recognised: £nil).

In December 2017 the US Congress voted to reduce the tax rate to 21%. Unrecognised US deferred tax balances have been measured at 21% (recognised: £nil).

14. Deferred tax

Deferred tax is recognised, using the liability method, on temporary differences arising between the tax basis of assets and liabilities and their carrying amounts in the consolidated financial statements. Deferred tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affected neither accounting nor taxable profit or loss. Tax amounts are determined using tax rates (and laws) that have been enacted or substantively enacted by the balance sheet date and are expected to apply when the related deferred income tax asset is realised, or the deferred income tax liability is settled.

Deferred tax assets are recognised only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised. Deferred tax is provided on temporary differences arising on investments in subsidiaries except where the timing of the reversal of the temporary difference is controlled by the parent Company and it is probable that the temporary difference will not reverse in the foreseeable future.

There was no recognised deferred tax in the year or the comparative period.

	2018 £'000	2017 £'000
Unrecognised		
Deferred tax assets		
Trading losses	(37,418)	(24,720)
Equity settled options	–	(54)
Total	(37,418)	(24,774)

At 31 December 2018, the Company had a net unrecognised deferred tax asset of £37,418,000 (2017: £24,720,000) arising from trading losses since incorporation. No recognition (2017: £nil) of the net deferred tax asset has been made at 31 December 2018 on the grounds of uncertainty over its recoverability in light of the Company's nascent revenue streams and commitment to continued investment in the development of its biorefineries, and therefore there is no impact on the current or prior year income statement.

Of this unrecognised deferred tax asset £19,306,000 (2017: £12,035,000) is anticipated to remain available indefinitely to offset against future taxable trading profits of the entities in which the losses arose. The remainder has expiry dates between 2024 and 2038 (2017: 2023 and 2037).

15. Share-based payments

Velocys plc issues share options to employees of its subsidiaries that are accounted for as equity settled. There are a number of schemes covering employees, executives and external consultants; most are based on a service period, but some include performance conditions, both market based and non-market based.

Options are measured at fair value (excluding the effect of non-market-based vesting conditions) at the date of grant. For executive options with market performance conditions attached, the Monte Carlo pricing model is used. All other options apply the Black-Scholes model.

The basic assumptions that feed into both models are volatility of the share price, annual risk-free rate and dividend yield. Volatility is estimated using the average daily share price from the previous five years, the risk-free rate is based on the Bank of England's yield curve tables, and it is assumed no dividend will be paid over the life of the option. Additionally, for the Monte Carlo model, expected life is assumed to be the earliest point at which the shares may vest. This has been adjusted, using management's best estimate, for the effects of non-transferability, exercise restrictions and behavioural considerations.

At the end of each reporting period, the Company revises its estimates of the number of options that are expected to vest, based on historical satisfaction of non-market vesting and service conditions. It recognises the impact of the revision to original estimates in the Income statement, recorded in Administrative expenses, with a corresponding adjustment to equity.

When options are exercised, the Company issues new shares; proceeds received, net of attributable transaction costs, are credited to share capital and premium. The Company does not hold any treasury shares.

The number of options outstanding at 31 December 2018 and the expense recognised in the profit or loss for these schemes, along with bonus shares and other schemes, are as follows.

	2018		2017	
Scheme	Options outstanding	Income statement £'000	Options outstanding	Income statement £'000
Employees UK/US	1,767,100	12	2,036,100	105
ELTIP (Executives)	4,922,741	44	7,597,733	91
Velocys, Inc.	63,570	–	63,570	–
Bonus shares	79,760	–	79,760	–
Other	212,625	2	212,625	46
Total	7,045,796	58	9,989,788	242

Employees UK/US

This scheme covers all employees of the Company and was previously referred to as the EMI scheme; however, the Company ceased to qualify for EMI status due to the value of its gross assets.

Options are granted to employees when they join the Company, which vest three, four or five years from the date of joining, subject to the employee completing a corresponding service period, and expire after ten years. The exercise price is the mid-market value of Velocys plc's ordinary shares on the day prior to grant. Options are fair valued at grant date using the Black-Scholes model, and expensed over the vesting period.

Non-market performance options that were granted to certain employees in 2015 did not meet the target conditions and did not vest in 2017.

Movements in the number of options outstanding and their related weighted average exercise prices are as follows.

	2018		2017	
	Weighted average exercise price	Number of options	Weighted average exercise price	Number of options
At 1 January	117.95p	2,036,100	121.26p	3,228,566
Granted	–	–	48.97p	160,000
Forfeited	89.31p	(269,000)	67.90p	(1,352,466)
Exercised	–	–	–	–
At 31 December	129.45p	1,767,100	117.95p	2,036,100

Of the 1,767,100 options outstanding at 31 December 2018, 1,550,431were exercisable (2017: 1,484,764). The weighted average exercise price of the exercisable shares was 129.62p (2017: 43.88p).

Options outstanding at the end of the year have the following expiry dates and exercise prices.

		2018		2017	
Year of expiry	Range of exercise price	Number of options	Weighted average exercise price	Number of options	Weighted average exercise price
2018	–	–	–	62,893	159.00p
2019	159p	62,893	159.00p	–	–
2020	68.32p	24,352	68.32p	24,352	64.49p
2021	51–72.25p	739,855	44.74p	774,855	62.57p
2022	69.89p	10,000	69.89p	80,000	73.32p
2023	187.72–206.53p	460,000	198.36p	484,000	184.38p
2024	202.61–293.23p	160,000	236.74p	200,000	218.38p
2025	60.47–174.66p	240,000	154.18p	240,000	145.53p
2026	29.24–39.26p	70,000	30.67p	70,000	28.95p
2027	–	–	–	100,000	43.73p
Total	29.24 – 293.23p	1,767,100	129.45p	2,036,100	117.95p

No options have been granted in 2018; the weighted average fair value of options granted in 2017 was 22.49p per option. The significant inputs into the model were as follows.

	2018	2017
Weighted average share price at grant date	–	48.97p
Weighted average exercise price	–	48.97p
Expected volatility	–	61%
Weighted average annual risk-free rate	–	0.3%
Dividend yield	–	0%
Weighted average expected life	–	4.0 years

Total expense recognised in the income statement for share options granted to directors and employees was £12,000 (2017: £105,000).

Executive options

Executive options (also referred to as 'ELTIP' in the Directors' remuneration report, and 'ELTIP' and 'NELTIP' in the 2015 Annual report and accounts) are awarded to Executive Directors and senior managers of the Company.

The fair value of options is recognised from the start of the relevant service period to the end of the vesting period.

Executive options granted up to and including 2014, are exercisable at a price of 1p or at a price equal to the mid-market value of the parent Company's ordinary shares on the day prior to the grant. Options vest immediately or after a period of one, two or three years from grant, they expire after ten years and are forfeited if the employee leaves the Company before the options vest.

Options, including Restricted Stock Units (RSUs), awarded after 2014 were divided into those with a service period and those with market performance conditions. Except for a former executive, service period options represented 23% of the award; they vest two years after the conclusion of the period over which performance is measured; the market performance conditions on which the rest of the award was based pertain to the compound annual growth rate of the Company's market capitalisation excluding fund raising subsequent to 1 January 2015; market performance options are measurable after three years from the start of the service period, with a possible final re-measurement in 2019; options are subject to the discretion of the Board if the employee leaves the Company before the options vest.

The Remuneration Committee intends to introduce a new equity-based incentive scheme for executives following shareholder consultation in 2019, and, in the allocation of such awards, may take into consideration the fact that no 2017 or 2018 awards were made.

15. Share-based payments (continued)

Executive options (continued)

Movements in the number of options outstanding and their related weighted average exercise prices are as follows.

	2018		2017	
	Weighted average exercise price	Number of options	Weighted average exercise price	Number of options
At 1 January	89.85p	7,597,732	84.92p	8,166,548
Granted	–	–	46.01p	100,000
Forfeited	63.10p	(2,674,991)	4.76p	(385,310)
Exercised	–	–	32.03p	(283,506)
At 31 December	97.02p	4,922,741	89.85p	7,597,732

Of the 4,922,741 options outstanding at 31 December 2018, 4,822,741 were exercisable (2017: 7,244,534). The weighted average exercise price of the exercisable shares was 90.55p (2017: 94.22p).

Share options and RSUs outstanding at the end of the year have the following expiry dates (RSU latest exercise dates) and exercise prices.

		2018		2017	
Year of expiry	Range of exercise price	Number of options	Weighted average exercise price	Number of options	Weighted average exercise price
2018	–	–	–	225,172	Nil
2019	Nil–1.00p	517,369	0.31p	335,541	0.31p
2020	Nil	171,407	Nil	194,769	Nil
2021	1.00–58.00p	550,000	17.52p	1,175,000	39.05p
2022	49.00p	970,503	49.00p	2,313,178	49.00p
2023	159.00p	1,456,694	159.00p	1,841,837	159.00p
2024	153.00–163.50p	1,156,768	163.05p	1,412,235	163.13p
2027	1.00p	100,000	1.00p	100,000	1.00p
Total	Nil–163.50p	4,922,741	97.02p	7,597,732	89.85p

No options have been granted in respect of 2018; the weighted average fair value of options granted in 2017 was 47.00p per option. The significant inputs into the model were as follows.

	2018	2017
Weighted average share price at grant date	–	47.00p
Weighted average exercise price	–	47.00p
Expected volatility	–	61%
Weighted average annual risk-free rate	–	0.3%
Dividend yield	–	0%
Weighted average expected life	–	3.0 years

Total expense recognised in the income statement for executive options granted to Directors and employees was £44,000 in 2018 (2017: £91,000).

At the time of exercising share options, executives of the Company may apply to an employee benefit trust managed by Oxford Catalysts Trustees Limited for a distribution in respect of the exercise value of their options. The trustees, at their discretion, then request a contribution from the Company in respect of the grant made. The total value of funds distributed to executives by Oxford Catalysts Trustees Limited during the year in respect of the relevant executive options was £ nil (2017: £ 92,000).

Velocys, Inc. scheme

The Velocys, Inc. Stock Compensation Plan ('Pre-Acquisition Scheme') was acquired as part of the acquisition of Velocys, Inc. by Velocys plc, formerly Oxford Catalysts Group PLC, on 20 November 2008. The scheme was started in 2001 and covers all US-based employees. Prior to the acquisition, Velocys, Inc.'s Board of Directors granted non-qualified share options to employees with expiry ten years from grant date. The options' exercise price was equal to the stock's fair market value at the date of grant. Options are forfeited if an employee leaves the Company. Generally, options vest as follows.

After one year of service from vest start date:	25% of grant
Each month subsequent to one year of service:	1/48th of grant

Pursuant to the terms and conditions of the acquisition of Velocys, Inc., each vested and unvested Pre-Acquisition Scheme option existing on the acquisition date was converted into 0.3659 of a Velocys plc, formerly Oxford Catalyst Group PLC, option (the ratio of the value of one share of Velocys, Inc. stock to one share of Velocys plc, formerly Oxford Catalyst Group PLC stock) with a corresponding increase to the exercise price. Share options are exercisable in US dollars.

During 2011, the Company reviewed employee incentives and concluded that the Pre-Acquisition Scheme options did not provide the intended incentive or retention value for its employees due to significant shifts in the market price since the original grants. Consequently, holders of these options were offered the opportunity to forfeit their options and have new options issued. All such new issues vest in three years and expire ten years from date of grant.

Details of the share options outstanding under the Velocys, Inc. scheme are as follows.

	2018		2017	
	Weighted average exercise price	Number of options	Weighted average exercise price	Number of options
At 1 January	$0.93	63,570	$1.10	83,248
Forfeited	–	–	$0.93	(19,678)
Exercised	–	–	–	–
At 31 December	$0.93	63,570	$0.93	63,570

Of the options outstanding presented above, 63,570 (2017: 63,570) were exercisable as of 31 December 2018. The weighted average share price of the exercisable shares was $0.93 (2017: $0.93).

Share options outstanding at the end of the year have the following expiry dates and exercise prices.

		2018		2017	
Year of expiry	Exercise price per share	Number of options	Weighted average exercise price	Number of options	Weighted average exercise price
2021	$0.93	63,570	$0.93	63,570	$0.93
Total	$0.93	63,570	$0.93	63,570	$0.93

Total expense recognised in the income statement for share options granted under the Velocys, Inc. plan was £nil (2017: £nil).

15. Share-based payments (continued)

Bonus shares

The Company previously maintained two bonus share schemes for certain executives: one in respect of employees of Velocys Technologies Limited and one in respect of employees of Velocys, Inc. Under both schemes, the value of the bonus was based upon the executive's salary as well as the Company and the executive achieving certain targets throughout the year. No awards were, or will be, made under these schemes during, or in respect of, 2018 and 2017.

The Velocys Technologies Limited bonus share scheme awarded nominal value share options (1p) that were issued subsequent to the end of previous financial years. The awards vested on the date of grant and expire 10 years thereafter. Details of the bonus shares outstanding under the Velocys Technologies Limited bonus share scheme are as follows.

	2018		2017	
	Exercise price	Number of options	Exercise price	Number of options
At 1 January	1.00p	79,760	1.00p	79,760
Exercised	–	–	–	–
At 31 December	1.00p	79,760	1.00p	79,760

Velocys Technologies Limited bonus share options outstanding at the end of the year have the following expiry dates.

	2018		2017
Year of expiry	Exercise price	Number of options	Number of options
2019	1.00p	42,105	42,105
2021	1.00p	37,655	37,655
Total	1.00p	79,760	79,760

The Velocys, Inc. bonus share scheme consists of deferred shares awarded subsequent to year end at a nominal price of 1p. 20% of the award is due to be granted on each anniversary of the date of award. Shares remaining to be granted in future years totalled 16,418.

No bonus share grants were made for either scheme in 2018 (2017: nil). All expense has been recognised prior to 2018.

Other share options

The Board has approved the granting of share options to a small number of consultants (non-employees) who provide a strategic service to the business.

Options are granted either in respect of a completed service period, in which case they vest immediately, or in respect of a future service period, in which case they vest over periods of up to three years. They expire after ten years. Exercise prices range from £nil to the mid-market value of Velocys plc's ordinary shares on the day prior to grant. Options are fair valued at grant date using the Black-Scholes model (which is not the fair value of goods and services received). For a completed service period, fair value is expensed over the service period plus the vesting period, for a future service period, fair value is expensed over the vesting period.

Movements in the number of consultants' share options outstanding and their related weighted average exercise prices are as follows.

	2018		2017	
	Weighted average exercise price	Number of options	Weighted average exercise price	Number of options
At 1 January	104.15p	212,625	87.39p	253,879
Granted	–	–	1.00p	81,000
Exercised	–	–	1.00p	(122,254)
At 31 December	104.15p	212,625	104.15p	212,625

Of the options outstanding at 31 December 2018, 212,625 were exercisable (2017: 172,625). The weighted average exercise price of the exercisable shares was 104.15p (2017: 103.89p).

Share options outstanding at the end of the year have the following expiry dates and exercise prices.

		2018		2017	
Year of expiry	Range of exercise price	Weighted Number of options	Average exercise price	Weighted Number of options	Average exercise price
2023	1.00–53.10p	29,500	53.10p	29,500	53.10p
2024	145.25p	21,375	145.25p	21,375	145.25p
2025	105.25–143.50p	161,750	108.03p	161,750	108.03p
Total	1.00–145.25p	212,625	104.15p	212,625	104.15p

In 2016 an award was made to Jan Verloop, who resigned from the Board of Velocys plc in September 2016, in respect of consultancy services thereafter performed in 2016; these options were granted in 2017. Two further awards were made in 2017 and subsequently granted. The number of options was determined by the average share price in the quarter prior to the service period, and the options vested immediately.

No options have been granted in respect of 2018; the weighted average fair value of options granted in 2017 was 57.59p per option. The significant inputs into the model were as follows.

	2018	2017
Weighted average share price at grant date	–	48.88p
Weighted average exercise price	–	1.00p
Weighted average expected volatility	–	61%
Weighted average annual risk free rate	–	0.0%
Dividend yield	–	0%
Weighted average expected life	–	0 years

The share-based payment expense for the year includes a cost of £2,000 (2017: £46,000) relating to options granted to consultants.

Share-based payments charge

The total charge for share-based payments during the year was £58,000 (2017: £242,000) of which £32,000 (2017: £46,000) relates to options granted to Directors and the remainder to other employees.

16. Loss per share

The basic loss per share is calculated by dividing the loss attributable to owners of the parent Company by the weighted average number of ordinary shares in issue during the year.

	2018	2017
Loss attributable to owners of Velocys plc (£'000s)	(30,583)	(54,603)
Weighted average number of ordinary shares in issue	341,867,109	145,729,727
Basic and diluted loss per share (pence)	(8.95)	(37.47)

Diluted loss per share is calculated by adjusting the weighted average number of shares in issue to assume conversion of all potential dilutive shares. Share options have not been included in the number of shares used for the purpose of calculating diluted loss per share since these would be anti-dilutive for the period presented. At the end of 2018 and 2017 there were no other potentially dilutive instruments (see note 26). Details of share options are given in note 15.

Notes to the consolidated financial statements (continued)

17. Intangible assets

Significant accounting policies

Cost or valuation and amortisation

Goodwill

Goodwill represents the excess of the cost of an acquisition over the fair value of the Company's share of the identifiable assets acquired and liabilities and contingent liabilities assumed at the date of acquisition. Goodwill is not amortised. In the balance sheet at 1 January 2017, £5,445,000 of the Goodwill balance related to the acquisition of Velocys, Inc. in 2008 and £2,668,000 to the acquisition of Velocys Project Solutions, LLC (VPS) in 2014. The Goodwill balance was written down to nil in 2017 (see Impairment below).

In-process technology

In-process technology consists of purchased intangibles and capitalised development costs and arose from the acquisition of Velocys, Inc. and Velocys Project Solutions, LLC (VPS).

In respect of intangible assets acquired as part of a business combination, the Company recognises these as distinct from Goodwill provided, they are separable or arise from contractual or other legal rights, and their fair value can be measured reliably. Intangible assets are initially recognised at fair value, which is regarded as their cost. They are subsequently held at cost less accumulated amortisation and impairment losses.

Prior to 2017, amortisation was charged using the units-of-production method based on useful economic lives of the assets projected over future sales of 1,400 four-core reactors. Amortisation began in 2015 based on the manufacture of the first commercial reactors. From 1 January 2017, following an update to the Company's business model, whereby it is concentrating on the development of biorefineries rather than the licensing of technology to third parties, the expected pattern of consumption of the future economic benefits has been revised. The Company estimates that the total useful economic life of the asset is 20 years, from the completion of the first two reactors in August 2015. Amortisation is charged on a straight-line basis over the remaining estimated useful economic life of the asset, being 18.7 years from 1 January 2017 resulting in an increase of the amortisation charge for the year of £1,577,000. Subsequently in 2017, the Company fully impaired the In-process technology asset, as a result there was no amortisation charge in 2018.

Research costs are recognised as an expense in the Income statement as they are incurred.

Development costs, where the related expenditure is separately identifiable and measurable, and management are satisfied as to the ultimate technical and commercial viability of the project and that the asset will generate future economic benefit based on all relevant available information, are recognised as an intangible asset. Capitalised development costs are carried at cost less accumulated amortisation and impairment losses. Amortisation is charged over periods expected to benefit, typically up to 20 years, commencing with launch of the product. Development costs not meeting the criteria for capitalisation are expensed as incurred.

Patents, licences and trademarks

Patents and trademarks are recorded at cost less accumulated amortisation and impairment losses. Amortisation is charged on a straight-line basis over a period of 20 years, which is their estimated useful economic life. Residual values and useful lives are reviewed annually and adjusted if appropriate. The Company decided to abandon certain non-core patents in 2018 and 2017. This resulted in a loss on disposal of patents of £627,000 (2017: loss of £152,000).

Customer contracts

Customer contracts are carried at cost less impairment losses. The customer contract value that had been fully impaired in 2015 related to an expected project development fee negotiated during the acquisition of VPS in 2014. Its value was contingent on achieving a final investment decision on the Ashtabula project in 2015, which did not happen. The customer contracts were written off in 2017.

Software

Purchased software is recorded at cost less accumulated amortisation and impairment losses. Amortisation is charged on a straight-line basis over its estimated useful life of three years.

Impairment

Intangible assets are reviewed for impairment annually and whenever events or changes in circumstances indicate their carrying value may not be recoverable. To the extent carrying value exceeds recoverable amount, the difference is recognised as an expense in the income statement. The recoverable amount used for impairment testing is the higher of value in use and fair value less costs of disposal. For the purpose of impairment testing, assets are generally tested individually or at a Cash Generating Unit (CGU) level which represents the lowest level for which there are separately identifiable cash inflows that are largely independent of cash inflows from other assets or groups of assets. The Company has one CGU on the basis that the key end use market is that of synthetic fuels production. At this stage, the synthetic fuels segment represents 100% of the business and therefore represents the only material segment. Based on management's judgement, all products and services offered within the operating segment have similar economic characteristics.

An impairment loss in respect of Goodwill is not reversed. An impairment loss in respect of intangible assets (excluding Goodwill) is reversed if the subsequent increase in recoverable amount can be related objectively to an event occurring after the loss was recognised, or if there has been a change in the estimate used to determine the recoverable amount. A loss is reversed only to the extent that the asset's carrying amount does not exceed that which would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

Were the fair value of the business to change in the coming 12 months, due to an increase or further decrease in the market capitalisation of Velocys plc, the impairment disclosed in this note would be reversed or the Company's assets would be further impaired accordingly. Upon analysis performed at 31 December 2018, the Company determined that no reversal of prior year impairments was required or additional impairment required. This assessment also considered the operating performance of the Company during 2018 which included the ENVIA plant shutting down but progress being made on other projects, new funding obtained and customer agreements signed. This 2018 performance, including both negative and positive factors, was also not considered indicative of incremental impairment or reversal of previous impairment.

Critical estimates and judgements

In assessing whether there is any indication that an asset may be impaired, an entity shall consider, as a minimum, a number of indicators of potential impairment. In 2018, the Company considered:

- At varying points during 2018, if the carrying amount of the Company's net assets exceeded Velocys plc's market capitalisation;
- Significant decreases in the market price of the asset; and
- Significant adverse changes in the extent or manner in which an asset is being used.

Based on the 2018 analysis, the Company concluded that no impairment or reversal of previous impairment was required.

To assess the recoverability of the intangible assets, the recoverable amount is calculated at a CGU level, which represents the lowest level for which there are separately identifiable cash inflows that are largely independent of cash inflows from other assets or groups of assets. As detailed in the accounting policy set out above, the Company is considered to operate as a single CGU. Due to the early stage of the Company's strategy, its biorefinery development plans are still at too early a stage to provide reliable revenue forecasts for long-term discounted cash flow analysis. Consequently, the CGU's recoverable amount has been determined based on its fair value less costs of disposal (fair value), by reference to the total value of the parent Company's equity based on the AIM-listed shares of the parent Company, consistent with the impairment assessment performed in the prior year.

In 2017, the Company recorded an impairment of its intangibles. The Company considered that using a fair value less cost of disposal value of £33.1 million, based on the share price of 10p from the equity raised on 15 January 2018 to the enlarged share capital, for the 31 December 2017 impairment assessment would imply that the combined business would be in excess of this at the date of the fundraise in January 2018, following the cash injection. The assessment reflected the decrease in the share price resulting from the January 2018 fundraise, and applied a per share value of 10p to the number of shares in issue at 31 December 2017. This gave a valuation of £14.7 million and, a control premium was not applied, as most of the Company's significant investors were participating in the January 2018 fundraise at the discounted price. As a result of this fair value assessment, the Company recorded an impairment charge of £31.5 million in 2017.

The method of allocation of the impairment in 2017 was as follows:

- Write down Goodwill to nil, resulting in an impairment of £7,398,000.
- The other assets in the CGU on a pro rata basis, based on the carrying amount of each asset in the CGU. However, within this allocation framework, each asset is reduced only to the highest of:
  (i) Its fair value less costs of disposal, if measurable.
  (ii) Its value in use, if this can be determined.
  (iii) Nil.

This resulted in the following impairment allocation in 2017:

- In-process technology £20,610,000.
- Patents, licence and trademarks £752,000.
- Property, plant and equipment £2,185,000.
- Inventories £541,000.

17. Intangible assets (continued)
Significant accounting policies (continued)
Cost or valuation and amortisation (continued)
Critical estimates and judgements (continued)

2018	Goodwill £'000	Patents, In-process technology £'000	Licence and trademarks £'000	Software £'000	Total £'000
Cost					
At 1 January 2018	7,398	23,681	2,159	96	33,334
Additions	–	–	349	–	349
Disposals	–	–	(956)	–	(956)
Foreign exchange movement	–	–	28	–	28
At 31 December 2018	7,398	23,681	1,580	96	32,755
Accumulated amortisation and impairment					
At 1 January 2018	7,398	23,681	1,404	96	32,579
Charge for the year	–	–	96	–	96
Disposals	–	–	(329)	–	(329)
Foreign exchange movement	–	–	52	–	52
At 31 December 2018	7,398	23,681	1,223	96	32,398
Net book amount					
At 31 December 2018	–	–	357	–	357

2017	In-process Goodwill £'000	Patents, licence and technology £'000	Customer trademarks £'000	Contracts £'000	Software £'000	Total £'000
Cost						
At 1 January 2017	8,113	25,942	2,248	1,473	101	37,877
Additions	–	–	335	–	–	335
Disposals	–	–	(282)	–	–	(282)
Write-off of customer contracts	–	–	–	(1,473)	–	(1,473)
Foreign exchange movement	(715)	(2,261)	(142)	–	(5)	(3,123)
At 31 December 2017	7,398	23,681	2,159	–	96	33,334
Accumulated amortisation and impairment						
At 1 January 2017	–	1,628	678	1,473	63	3,842
Charge for the year	–	1,577	144	–	36	1,757
Disposals	–	–	(130)	–	–	(130)
Write-off of customer contracts	–	–	–	(1,473)	–	(1,473)
Impairment	7,398	20,610	752	–	–	28,760
Foreign exchange movement	–	(134)	(40)	–	(3)	(177)
At 31 December 2017	7,398	23,681	1,404	–	96	32,579
Net book amount						
At 31 December 2017	–	–	755	–	–	755

18. Property, plant and equipment

Property, plant and equipment is stated at historical cost, net of depreciation and any provision for impairment. Cost includes the original purchase price of the asset and the costs attributable to bringing the asset to working condition for its intended use. Depreciation is provided on all property, plant and equipment at rates calculated to write off the cost, less estimated residual value, of each asset on a straight-line basis over its expected useful life, which for plant and machinery is three to ten years. No depreciation is provided on land or assets under construction.

Residual values and useful lives are reviewed annually. Values are estimated using benchmark prices at the balance sheet date; useful lives are estimated based on management expectations of future project requirements and operational assessment of the state of assets.

Assets are reviewed for impairment annually and also whenever events or changes in circumstances indicate their carrying value may not be recoverable. To the extent the carrying value exceeds the recoverable amount, the difference is recorded as an expense in the Income statement. The recoverable amount used for impairment testing is the higher of the value in use and fair value less costs of disposal. For the purpose of impairment testing, assets are generally tested individually or at a CGU level, which represents the lowest level for which there are separately identifiable cash inflows, which are largely independent of cash inflows from other assets or groups of assets. Property, plant and equipment were included in the list of items to which an impairment was applied subsequent to the impairment review (see note 17). The value of the impairment was £nil (2017: £2,185,000).

Expenditure funded by research partners is only capitalised where there are no significant rights acquired by the third party over the asset and the asset has a clear enduring use beyond the specific funding project, these are regularly reviewed.

2018	Assets under construction £'000	Land £'000	Plant and machinery £'000	Total £'000
Cost				
At 1 January 2018	51	1,212	8,731	9,994
Additions	476	–	33	509
Disposals	(4)	–	(1,492)	(1,496)
Transfers to plant and machinery	(16)	–	16	–
Foreign exchange	25	73	553	651
At 31 December 2018	532	1,285	7,841	9,658
Accumulated depreciation and impairment				
At 1 January 2018	31	666	7,496	8,193
Charge for the year	–	–	563	563
Disposals	–	–	(1,466)	(1,466)
Foreign exchange	2	40	507	549
At 31 December 2018	33	706	7,100	7,839
Net book amount				
At 31 December 2018	499	579	741	1,819

18. Property, plant and equipment (continued)

2017	Assets under construction £'000	Land £'000	Plant and machinery £'000	Total £'000
Cost				
At 1 January 2017	104	1,330	12,200	13,634
Additions	18	–	16	34
Disposals	–	–	(2,545)	(2,545)
Transfers to plant and machinery	(64)	–	64	–
Foreign exchange	(7)	(118)	(1,004)	(1,129)
At 31 December 2017	51	1,212	8,731	9,994
Accumulated depreciation and impairment				
At 1 January 2017	–	–	7,997	7,997
Charge for the year	–	–	1,136	1,136
Disposals	–	–	(2,462)	(2,462)
Impairment	31	666	1,519	2,216
Foreign exchange	–	–	(694)	(694)
At 31 December 2017	31	666	7,496	8,193
Net book amount				
At 31 December 2017	20	546	1,235	1,801

As at 31 December 2018, the Company had entered into contractual commitments for the acquisition of property, plant and equipment amounting to £nil (2017: £2,000).

19. Investment in associate

This investment relates solely to Velocys' holding in ENVIA Energy, LLC (ENVIA), located at 1021 Main Street, Suite 1000 Houston, TX 77002. ENVIA is a US company and is the holding company for the project located in Oklahoma (the ENVIA project). The Company first invested in ENVIA in 2014 as entry into a joint venture to develop GTL plants in the US using a combination of renewable biogas (including landfill gas) and natural gas. The first of these plants, ENVIA Oklahoma City produced its first product in 2017.

Associates are all entities over which the Company has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. In January 2016, Velocys entered into a financing arrangement with ENVIA under which it contributed additional equity finance of $2.6m and committed to provide loan finance of up to $9.3m. As a result of the new funding arrangement, Velocys increased its ownership share and was awarded additional voting rights, taking its share of voting rights from 9% to 28%. The investment has since been recognised as an Investment in associate, reflecting the significant influence that Velocys holds in ENVIA, including voting rights exceeding 20% and a seat on ENVIA's board. The Company recorded the transaction as a step acquisition under the equity method in 2016.

Investments in associates are accounted for using the equity method of accounting from the date on which it becomes an associate. Under the equity method, a cost approach is followed whereby the cost of all purchases are accumulated, including transaction costs, to determine the amount of the investment. The notional purchase price allocation, including Goodwill arising on the purchase of the additional stake, is calculated using fair value information at the date when the additional interest is acquired. Goodwill is calculated as the excess of the cost of the investment over the Company's share of the net fair value of the investee's identifiable assets and liabilities and included in the carrying amount of the investment. During 2017 Velocys committed to a series of extensions to the loan, which increased the facility to $13.8m (£10.3m) (see note 20), however these extensions did not result in a change in the Company's ownership interest or voting rights. In September 2017, one of the joint venture partners, NRG, withdrew its interest and assigned its ownership and voting units to the remaining partners such that each was left with voting rights of 33%. No consideration was given in respect of this transfer. The Company recorded the transaction as a step acquisition under the equity method in 2017.

The Company's share of post-acquisition profit or loss is recognised in the Income statement based on its economic interest. There are no post-acquisition movements in Other comprehensive income in the Company's investments in associates. Distributions received from an associate reduce the carrying amount of the investment. The carrying amount of the investment is adjusted to recognise the investor's share of the change in net assets of the investee after the date of acquisition.

Gains and losses resulting from upstream and downstream transactions between the Company and its associate are recognised in the financial statements only to the extent of unrelated investors' interests in the associates. Unrealised losses are eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the Company. There have been no dilution gains and losses arising in investments in associates.

The Company determines at each reporting date whether there is any objective evidence that the investment in the associate is impaired. If this is the case, the Company calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value and recognises the amount adjacent to share of profit/(loss) of associates in the income statement.

Critical estimates and judgements

For 2017 Change in ownership rights – fair value assessment of ENVIA's net assets

In September 2017 Velocys increased its equity share and voting rights at ENVIA following the exit of NRG from the joint venture, for no consideration. The voting rights for the three remaining joint venture members, including Velocys, were accordingly increased to 33% each. The increased interest in the associate was acquired through an increase in an existing stake. There is an accounting policy choice available for the acquisition of an associate in stages (step acquisition). Velocys applied the 'cost approach', whereby there is a requirement to assess the fair value of both the consideration and the net assets being acquired. The fair value of the net assets being acquired was determined by its value in use, assessed by the estimated future cash flows discounted to their present value using an appropriate pre-tax discount rate model, which requires the use of a number of key assumptions. The Company recorded a gain on bargain purchase of £1,750,000 in 2017 in respect of the step acquisition.

Impairment of the investment in ENVIA

The calculations use projections derived from cash flow forecasts developed by Velocys, covering the two-year period from 2018 to 2019, and subsequently extrapolated to 2037, which is considered to be the economic life of the asset, using the estimated long-term growth rate. The cash flow forecast relies on the intimate working knowledge of the plant that Velocys has gained since the beginning of the start-up process. Ongoing uncertainties, for example, with the availability and price of RINs, are taken into account by using a number of different scenarios in the model. IAS 36 requires that when performing an impairment review that risk is incorporated into the impairment model. This can be done either in the cash flows or through the discount rate. The Company has incorporated risk through the cash flow forecasts by assessing a number of potential outcomes and assigning a probability of the likelihood of each of these outcomes occurring. The range of the value in use based on these potential outcomes is significant, which reflects the early stage nature of the venture. The key assumptions included in calculating the recoverable amount are set out below.

(i) Sales volume

The plant capacity is 250 barrels per day (bpd) production and the model assumes 200 bpd average actual production at the plant due to varied reduction in availability due to time out for catalyst regeneration, catalyst change out or other maintenance. It assumes that a large majority of the product will qualify for RINs. There are offtake agreements in place for all products that exceed five years for 100% of products produced and there is a six-month contract in place for all of the available RIN credits generated; therefore, the sales volume risk is solely based on operational availability. As indicated above, sensitivity analysis reveals that a decrease to 186 bpd from the 200 bpd modelled availability (which is over 25 bpd below operating plan) would be required in order to generate a material change in the cash flows. The impact of aggressive sensitivity modelling of RIN availability does not have a material impact on cash flows.

(ii) Sales price/RIN credits

The model is based on an oil price (WTI) of $57.50 per barrel and a RIN price of $2.40 per gallon until October 2018 and then $3.05 per gallon, with scenarios looking at an increase or reduction in these prices of 10%. The prices of diesel, naphtha and wax are all indexed to the oil price and/or rack pricing that is highly correlated to the price of oil. Although volatility of oil price could significantly vary revenues, the price has been relatively stable for the past 12 months and, based on current WTI futures, is projected to trade in this range for the remainder of 2018. There is a possibility within the range of modelled scenarios for RIN pricing to result in a material impact on cash flows, but not on a risk-adjusted basis, as the current forward outlook shows price recovery.

(iii) Long-term growth rates

A long-term growth rate of 2% was used to extrapolate the cash flows for the period from 2020 to 2037. This is based on the US long-term GDP growth rates, the principal country in which ENVIA operates, and in preference to an industry average rate, given the early stage of development in the industry and resulting uncertainty. A reduction in the growth rate to 0% would not result in a material reduction in the gain on bargain recorded, or to the impairment recognised.

(iv) Discount rate

The discount rate is based on an estimate of ENVIA's weighted average cost of capital (WACC) being the average rate of return ENVIA expects to compensate all its investors. ENVIA has both equity and debt capital in the form of the loan from Velocys. At September 2017 (step acquisition) and December 2017 (impairment assessment) a post-tax discount rate ('discount rate') of 10.95% was applied to the model. It is a reasonable assumption that the discount rate might vary in a range up to 12.7%; this would not result in a material change to the value of ENVIA's net assets.

Impairment assessments

In September 2018, the Board of Directors of ENVIA announced its intentions to suspend operations at the Oklahoma City plant and to undertake a review of strategic alternatives in order to preserve the value inherent in the facility. This decision was driven by financial circumstances following a leak at the plant, which was established not to be caused by Velocys' FT technology, as announced on 15 May 2018. ENVIA's investigation into the leak identified the ancillary coolant system as the root cause, which was independently verified through a third-party insurance company. Based on the Board of Directors of ENVIA decision to suspend operations, the Company determined that its investment in ENVIA should be fully impaired. As a result, the Company recorded an impairment of £848,000 in 2018.

During 2017 the first saleable products using Velocys' reactors and catalyst had been produced to customer specification and the offtakers had begun taking delivery of the waxes, diesel and naphtha. Despite these milestones, ENVIA's recoverable amount, based on its value in use, calculated using a discounted cash flow model, had decreased significantly, predominantly driven by a lower revenue forecast based on a revision of product and RIN pricing produced by the Company. The recoverable amount of the investment was determined by its value in use, assessed by the estimated future cash flows discounted to their present value using an appropriate pre-tax discount rate model, which required the use of a number of key assumptions. These are included in the 'Change in ownership rights – fair value assessment of ENVIA's net assets' section above. The Company recorded an impairment of £2,736,000 in 2017.

Notes to the consolidated financial statements (continued)

19. Investment in associate (continued)

Critical judgements

Share of ENVIA's identifiable assets and liabilities and its share of profit and loss

Under the equity method the profit or loss of the investor includes its share of the profit or loss of the investee. The Company bases the calculation of its share of ENVIA's identifiable assets and liabilities and its net losses on a value distribution model developed by ENVIA that uses the LLC agreement agreed with each of the other parties that hold ownership units. The resulting percentage share differs to both the Company's proportion of ownership units held in ENVIA and its proportion of voting units. This value distribution is considered a more appropriate measure of the Company's economic interest in ENVIA.

	2018 £'000	2017 £'000
Investment in associate		
At 1 January	2,580	5,865
Gain on bargain purchase	–	1,750
Share of loss	(1,717)	(1,784)
Impairment	(848)	(2,736)
Foreign exchange	(15)	(515)
At 31 December	–	2,580

Summarised financial information for ENVIA

Set out below is the unaudited summarised financial information for ENVIA. The information below reflects the amounts presented in the financial statements of ENVIA adjusted for differences in accounting policies between the Company and ENVIA. ENVIA financial statements are not prepared under IFRS but management does not consider US GAAP to be materially different from IFRS for this purpose. The unaudited amounts below represent the book values and exclude any fair value adjustments that may be required.

ENVIA Energy, LLC	**2018 (unaudited) £'000**	2017 (unaudited) £'000
Summarised balance sheet		
Non-current assets	55,823	57,667
Current assets	2,609	2,978
Current liabilities	(242)	(435)
Non-current liabilities	(17,231)	(10,966)
Net assets	40,959	49,244
Summarised statement of comprehensive loss		
Revenue	445	409
Loss from continuing operations	(12,282)	(7,851)
Total comprehensive loss	(12,282)	(7,851)

20. Trade and other receivables

Trade receivables represent assets that are held for collection of contractual cash flows and those cash flows represent solely payments of principal and interest. Other receivables consist of vendor deposits and deferred costs associated with an ongoing project. Loan receivable represent the outstanding loan and related interest associated with the loan to ENVIA. The interest receivable associated with the ENVIA loan is calculated using the effective interest rate method. The Company's trade receivables and loan receivable are classified and measured at amortised cost.

	2018 £'000	2017 £'000
Trade and other receivables – non-current	281	–
Trade and other receivables – current	930	416
Loan receivable	3,474	10,284
Total	4,685	10,700

The Company applies the IFRS 9 simplified approach to measuring ECL which uses a lifetime expected loss allowance for trade receivables. To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due. As part of the ECL analysis, it was noted that trade receivables are considered to be both short term and low credit risk and as such any provision would be trivial.

Under the general approach, the Company recognises a loss allowance on either a 12-month ECL or lifetime ECL. IFRS 9 prescribes three stages related to impairments. In stage 1, a 12month ECL is recorded as a result of probability of default are possible within the next 12 months. In stage 2, a lifetime ECL is recorded if a loans credit risk has significantly increased since initial recognition and is not considered low. In stage 3, a lifetime ECL is recorded if a loans credit risk increases to the point where it is considered credit impaired. The changes in loss allowance balances are recognised in profit loss as an impairment gain or loss. For credit exposure where there have not been significant increases in credit risk since initial recognition, a 12-month ECL is required. For credit exposure where there have been significant increases in credit risk since initial recognition, a lifetime ECL is required.

As required by IFRS 9, the Company assessed the expected credit loss on the ENVIA receivable at 1 January 2018 to be credit impaired (stage 3) based on management's view of the current and expected circumstances. Two scenarios were considered relevant at 1 January 2018 - the Upside scenario with a probability weighting of 25% and a Downside scenario with a probability weighting of 75% and applied to the determined LGD (loss given default). In calculating the expected credit loss rates, the Company determined the probability of default using historical loss rates, and adjusted (where necessary) for forward looking data and information. Overall this resulted in an adjustment of £2,274,000 to reflect the lifetime expected credit loss against this receivable.

In September 2018, the Board of Directors of ENVIA announced its intentions to suspend operations at the Oklahoma City plant and to undertake a review of strategic alternatives in order to preserve the value inherent in the facility. At year end a further review of the IFRS 9 ECL analysis for its loan with ENVIA was performed, updating for the key inputs mentioned above. Based on the year end ECL analysis, the Company recorded an additional impairment on a lifetime ECL basis of £10,067,000. The outstanding balance of the loan at 31 December 2018 is therefore £3,474,000. The loan agreement with ENVIA resulted in a total committed limit of £15, 815,000 and was terminated in May 2019.

The loss allowance provision related to loan receivables as at 31 December 2018 reconciles to the opening loss allowance for that provision as follows:

	Loss allowance provision £'000
1 January 2018 – IAS 39	–
Increase in loan receivable loss allowance recognised in impairment expense	2,274
Opening allowance at 1 January 2018 – IFRS 9	2,274
Increase in loan receivable loss allowance recognised in impairment expense	10,067
At 31 December 2018 – IFRS 9	12,341

Presented below is a roll forward of the loan receivable balance as at 31 December 2018.

	Amortised Costs £'000
1 January 2018 – IAS 39	10,284
Increase in loan loss allowance recognised in impairment expense	(2,274)
Opening balance at 1 January 2018 – IFRS 9	8,010
Drawdowns on loan during 2018	5,531
Increase in loan loss allowance recognised in impairment expense	(10,067)
31 December 2018 – IFRS 9	3,474

Impairment losses are presented in administrative expense in the Consolidated income statement.

21. Inventories

Inventories are stated at the lower of cost or net realisable value less provision for impairment. Cost is determined on a first-in, first-out basis and includes transport and handling costs. In the case of manufactured products, cost includes all direct expenditure including production overheads. Where necessary, provision is made for obsolete, slow-moving and defective inventories. Items purchased for use in externally funded research and development projects are expensed to that contract immediately. Items held for the Company's own development are also expensed when acquired. Items purchased for ongoing commercial sale are held in inventory and expensed when used or sold.

	2018 £'000	2017 £'000
Raw materials and consumables	1,043	31
Finished goods	395	357
Total	1,438	388

Raw material and consumables consist primarily of material that will be consumed in the manufacturing of reactors and catalyst.

There were no impairments recorded with respect to inventory in 2018. In 2017, the Company impaired £340,000 of inventory which was primarily the value of a remaining inventoried reactor and an immaterial amount of catalyst. The Company impaired the reactor as a reflection of the fact that it is unlikely the Company will find a buyer for this reactor due to subsequent advances in the reactor design. As part of the impairment allocation described in note 4 the Company impaired £541,000 of inventories in 2017.

22. Cash and cash equivalents and restricted cash

Cash and cash equivalents includes cash in hand, deposits held at call with banks and other short-term highly liquid investments with original maturities of three months or less.

	2018 £'000	2017 £'000
Cash and cash equivalents	6,964	2,070
Restricted cash	–	620
Total	6,964	2,690

Restricted cash related to a letter of credit provided to ENVIA under the first amendment to the loan agreement. This was determined to be restricted on the basis that for a certain period the funds could only be accessed by ENVIA. In September 2018, the Company received notice that ENVIA filed the required paperwork to draw down the standby letter of credit. In October 2018, the standby letter of credit was drawn down by ENVIA.

Cash and cash equivalents is denominated in pound sterling and US dollars, and restricted cash is denominated in US dollars, as follows.

	2018 £'000	2017 £'000
Cash and cash equivalents		
pound sterling denominated	5,130	1,245
US dollar denominated	1,733	825
Euro denominated	101	
Restricted cash		
US dollar denominated	–	620
Total	6,964	2,690

23. Trade and other payables: current

	2018 £'000	2017 £'000
Trade payables	853	604
Other taxation and social security	395	52
Accruals	1,770	2,242
Total	3,018	2,898

Due to their short maturity, the fair value of trade and other payables is not considered to be materially different to their carrying values, based on discounted cash flows.

All trade payables are due in 60 days or less (2017: 60 days or less).

24. Trade and other payables: non-current

	2018 £'000	2017 £'000
Accruals	90	98
Total	90	98

The fair values of trade and other payables are not considered to be materially different to their carrying values.

25. Financial instruments

On 1 January 2018, the Company adopted IFRS 9. IFRS 9 replaces the provisions of International Accounting Standard 39, 'Financial Instruments: Recognition and Measurement' ('IAS 39'), that relate to the recognition, classification and measurement of financial assets and financial liabilities, derecognition of financial instruments, impairment of financial assets and hedge accounting.

Financial assets

Financial assets are classified upon initial recognition and the classification based on the guidance in IFRS 9. In accordance with IFRS 9, the Company classifies its financial assets as at amortised cost only if both of the following criteria are met: (i) the asset is held within a business model with the objective of collecting the contractual cash flows and (ii) the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal outstanding.

The Company holds cash, trade receivables and loan receivables at amortised costs in accordance with IFRS 9.

The Company's principal financial asset is Cash and cash equivalents. From time to time it also holds short-term investments, which are cash deposits on fixed terms of interest for more than three months. It last held short-term investments in 2015.

Loans and receivables also includes Trade receivables and Other receivables (see note 20) which are classified as both non-current assets and current assets, and the loan to ENVIA (see notes 10, 19 and 20), which was classified as non-current as its maturity is more than 12 months from the balance sheet date in 2017. The loan to ENVIA was impaired in 2018, see note 20.

Financial liabilities

Financial liabilities are classified in accordance with IFRS 9. The financial liabilities of the Company are measured at amortised cost.

Financial liabilities at amortised cost

Financial liabilities at amortised cost includes Trade payables, all of which are current liabilities (see note 23), Borrowings and Finance leases. Trade payables are stated at fair value and subsequently held at amortised cost using the effective interest method. Under Borrowings, interest-bearing loans and overdrafts are initially recorded at the fair value of proceeds received net of direct issue costs, and thereafter at amortised cost. Finance charges, including premiums payable on settlement or redemption and direct issue costs, are recognised in the income statement using the effective interest method and are added to the carrying amount of the instrument to the extent that they are not settled in the period in which they arise.

Financial risks

The Company's exposure to various risks associated with the financial instruments is discussed below.

Liquidity

The Company's cash usage is significant versus prospective future cash inflows (particularly in the short term) and Velocys is reliant on the support of a small group of major shareholders. The timing of cash flows is difficult to predict given the long development time and reliance on external parties. The Board recognises that further funding will be needed. Note 2 discusses uncertainties surrounding the extent and composition of future funding. The Company is targeting strategic project investment during the middle of 2019, at which point financing optionality is created.

The fundraise in May 2017 included the issue of loan notes that are convertible into equity. In management's view, they have the key characteristics of equity (see note 26). Velocys continues to take measures to preserve cash in order to protect against unforeseen events.

Equity forms the basis of the Company's capital. Its objectives when managing this capital are:

- To secure its ability to continue as a going concern.
- To keep its cost of capital low through an optimised capital structure.
- To preserve sufficient funds to protect it against unforeseen events and risks.
- To be in a position to take advantage of opportunities that can deliver a return to shareholders.

The Company's revenue stream relies on projects incorporating its technology securing project finance. The Company's strategy is to take a proactive role in this process. It is actively engaging with banks and financial advisers with high levels of expertise in project financing to support the financing plans for the types of projects it is developing.

Cash flow forecasts are regularly reviewed, cash balances are held immediately available as necessary, and surplus funds are placed on time deposits of varying duration. The Company maintains sufficient cash balances to meet anticipated requirements, however, additional funding is required for the Company to remain a going concern. The forecasts show that the Company and Velocys plc require additional external funding within the 12-month forecast period to be able to continue as a going concern. The directors anticipate that this will come from one, or a combination of, the following three sources, with agreements being actively sought from third parties:

- Strategic investment of development capital into both the Mississippi and Immingham biorefinery projects, which are expected during 2H 2019.
- Placement of Company ordinary shares, which may occur within the next twelve (12) months.
- Additional third-party licence sales, such as the Red Rock Biofuels project.

25. Financial instruments (continued)

Exchange rates

A significant proportion of commercial activity and development costs are US-dollar denominated. Where possible, revenue is receipted in US dollars to act as a natural hedge against this exposure. Additionally, a proportion of liquid assets is held in US dollars.

The use of financial derivatives is governed by Company policies, which are approved by the Board of Directors, and which provide a set of written principles for the management of these risks.

The table below illustrates the Company's sensitivity to changes in the US dollar exchange rate at the balance sheet date. The analysis covers only financial assets and liabilities.

	2018		2017	
	Income statement £'000	Equity £'000	Income statement £'000	Equity £'000
GBP:USD exchange rate +/- 10%	84	(242)	98	1,162

Credit

The Company's credit risk is primarily attributable to its trade receivables, which are concentrated in a small number of high value customer accounts. This risk is managed by carrying out relevant financial checks on customers, and where necessary, requiring letters of credit or advance payments.

The credit risk of liquid funds is limited through a Company treasury policy, maintained to ensure that liquid assets are only placed with highly rated institutions, and that the spread of such assets restricts exposure to any one counterparty. Risk is assessed using an external credit rating agency's long-term ratings.

The maximum exposure to credit risk at the end of the reporting period is the carrying amount of each class of financial assets mentioned above. Refer to Note 20 for credit risk disclosures relating to the ENVIA loan.

Interest rates

Variations in interest rates affect only Velocys' cash holdings, as its borrowing is payable at a fixed rate. As far as the cash flow forecast allows for certainty, funds are placed on fixed rate deposits. The effect of interest rates on exchange rates is not anticipated.

Financial assets are as follows.

			31 December 2018
	Loans and receivables £'000	Assets at fair value through profit or loss £'000	Total £'000
Assets			
Trade and other receivables excluding non-financial assets	1,198	–	1,198
Cash and cash equivalents	6,964	–	6,964
Total	8,162	–	8,162

			31 December 2017
	Loans and receivables £'000	Assets at fair value through profit and loss £'000	Total £'000
Assets			
Trade and other receivables excluding non-financial assets	10,575	–	10,575
Cash and cash equivalents	2,070	–	2,070
Restricted cash	620	–	620
Total	13,265	–	13,265

The credit risk of short-term investments, cash and cash equivalents and restricted cash is summarised in the following table.

	2018		2017	
Short-term bank deposits, cash at bank and in hand	£'000	%	£'000	%
Aa1	517	7	–	–
Aa2	–	–	102	5
Aa3	4,064	59	1,040	50
A1	24	–	904	44
A2	2,359	34	24	1
Total	6,964	100	2,070	100
Restricted cash				
Aa2	–	–	620	100

Financial liabilities are as follows.

	31 December 2018	
	Financial liabilities at amortised cost £'000	Total £'000
Liabilities as per balance sheet		
Borrowings	289	289
Trade and other payables excluding non-financial liabilities	943	943
Accruals	1,770	1,770
Total	3,002	3,002

	31 December 2017	
	Financial liabilities at amortised cost £'000	Total £'000
Liabilities as per balance sheet		
Borrowings	540	540
Trade and other payables excluding non-financial liabilities	604	604
Accruals	2,340	2,340
Finance lease liabilities	1	1
Total	3,485	3,485

The contractual maturity of financial liabilities is as follows.

	2018 £'000	2017 £'000
Within one year	3,002	3,232
Within two to five years	–	253
Total	3,002	3,485

The financial liabilities payable with one year, consisting primarily of trade payables and year-end accruals, will be paid in accordance with the terms of the agreements, generally 30 to 60 days.

26. Called up share capital and reserves

Share capital and share premium include ordinary shares in Velocys plc issued to shareholders and options that have been exercised by employees and associated consultants.

Convertible loan note instruments ('loan notes') issued by the Company allow the issuer the right to exchange all outstanding loan notes and all accrued interest thereon for equity in the parent Company. The Company assesses whether the loan notes and the conversion feature should be classified as a financial liability or equity instrument. In making this assessment the Company assesses whether there is an obligation for the Company to:

a) deliver cash to another entity; or to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavourable to the Company (as the issuer); and
b) if the instrument will or may be settled in the issuer's own equity instruments it is:
   (i) a non-derivative that includes no contractual obligation for the Company to deliver a variable number of its own equity instruments; or
   (ii) a derivative that will be settled only by the Company exchanging a fixed amount of cash or another financial asset for a fixed number of its own equity instruments.

If these criteria are met, the loan notes will be recorded as an equity instrument.

In May 2017 18,000,000 loan notes were issued to the Company's two largest shareholders at a price of £0.50 per share. The final maturity date of the loan notes is 18 months from the date of issue, after which the Company has the right but not the obligation to convert the outstanding principal and interest into a fixed number of ordinary shares, at a conversion price of £0.50 per share. The fixed annual interest rate is 8.0%, with accrued interest also being convertible into additional ordinary shares.

Based on the contractual terms it was determined that the Company does not have a contractual obligation to deliver cash to the loan note holders, and the loan notes convert into a fixed number of shares at a fixed price. Based on these criteria being met the loan notes were recorded as an equity instrument. The interest accrued on the loan notes is recorded as a distribution to holders of the loan notes within equity.

	Number of shares* (thousands)	Ordinary shares £'000	Share premium (restated) £'000	Convertible loan/'other' reserve £'000
At 1 January 2017	144,501	1,445	149,886	–
Employee share options scheme: Shares issued including 1p exercise price options	2,318	23	(13)	–
Holdback shares	41	–	91	–
Convertible loan notes	–	–	–	9,000
Interest on convertible loan notes	–	–	–	421
At 31 December 2017	146,860	1,468	149,964	9,421
Proceeds from share issues	243,463	243	22,397	–
Convertible loan notes	18,000	180	8,820	(9,000)
Interest on convertible loan notes	2,100	22	1,027	(421)
At 31 December 2018	410,423	1,913	182,208	–

* All shares have been issued, authorised and fully paid.

The presentation of share premium in the period ended 31 December 2017 has been restated with respect to the convertible loan notes, in the amount of £9,000,000, and the interest on convertible loan notes, in the amount of £421,000.

In January 2018 Velocys announced a gross fundraise of £18.4 million (£16.8 million net of fees and expenses). This constituted a firm placing of Ordinary shares and a conditional placing of Ordinary shares. The firm placing was of 139,605,000 Ordinary shares and the conditional placing was of 44,057,946 Ordinary shares, both at a price of £0.10 with existing and new shareholders. These shares represented 55.5% of the enlarged Ordinary share capital.

In August 2018 Velocys announced a gross fundraise of £6.0 million (£5.6 million net of fees and expenses). This constituted a firm placing of Ordinary shares and a conditional placing of Ordinary shares. The firm placing was of 30,000,000 Ordinary shares at a price of £0.10 with existing and new shareholders. These shares represented 14.4% of the enlarged Ordinary share capital.

In November 2018, the 18,000,000 loan notes that were issued in 2017 to two of Company's largest shareholders matured; as such the Company issued 20,100,000 shares. The Company issued 420,000 of shares to HMRC related to the £1.1 million of interest expense associated with the loan notes.

A total of 9,362,496 (2017: 10,014,317) options to subscribe for ordinary shares of Velocys plc have been granted and are outstanding at 31 December 2018 under the employee options schemes operated within the Company and contracts for options granted to a limited number of consultants. Details are given in note 15.

Reserves

Foreign exchange reserve relates to the exchange differences arising from the retranslation of the results and opening net assets of foreign subsidiaries. Changes in the reserve are included in other comprehensive income. The Company's foreign exchange reserve was a credit balance of £2,061,000 (2017: a credit balance of £2,654,000).

The share-based payment reserve records the IFRS 2 charge for equity settled share-based payment awards. At 31 December 2018, the Company's share-based payment reserve was £16,143,000 (2017: £16,085,000).

27. Commitments

The Company leases certain property, plant and equipment. Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases (net of any incentives received from the lessor) are charged to the income statement on a straight-line basis over the period of the lease. Leases under which the Company incurs substantially all the risks and rewards of ownership are classified as finance leases, however, are not material to the Company.

Operating lease commitments

The Company leases various offices under non-cancellable operating lease agreements. The lease terms are between two and five years and the majority of lease agreements are renewable at the end of the lease period at market rate.

	2018 £'000	2017 £'000
Future aggregate minimum lease payments		
Within one year	414	395
Between one and five years	900	1,267
After more than five years		–
Total	1,314	1,662

Capital commitments are not material.

28. Other liabilities

Other liabilities are comprised of development funding received from industry partners and the UK Department for Transport related to the next stage of the UK waste to jet project, £2,092,000 in 2018 (nil:2017).

29. Deferred revenue

The Company recognised the following liabilities associated with contracts with customers:

£'000	Catalyst	Reactor	Licence	Total
At 1 January 2017	1,721	–	–	1,721
Contract liabilities incurred	–	–	–	–
Revenue recognised in the period	(483)	–	–	(483)
At 31 December 2017	1,238	–	–	1,238
Contract liabilities incurred	1,334	1,949	1,199	4,482
Revenue recognised in the period	(507)	–	–	(507)
At 31 December 2018	2,065	1,949	1,199	5,213

Contract liabilities consist of deferred revenue as a result of instances in which the Company's receives payments received prior to the satisfaction of the performance obligation. Revenue is allocated to the respective performance obligations based on relative transaction prices and is recognised as services are delivered to the customer or in some instance, as when the catalyst is leased, revenue is recognised over the estimated life of the catalyst.

Notes to the consolidated financial statements (continued)

30. Related parties

For 2018, the Company recognised catalyst lease revenue totalling £534,000 related to a catalyst lease agreement with ENVIA, an associate in which the Company has ownership and voting rights as detailed in note 19 of the consolidated financial statements. As at 31 December 2018, draw downs on the loan facility had been made by ENVIA in the amount of £5,531,000. In September 2018, the Board of Directors of ENVIA announced its intentions to suspend operations at the Oklahoma City plant and to undertake a review of strategic alternatives in order to preserve the value inherent in the facility. This decision was driven by financial circumstances following a leak at the plant, as announced on 15 May 2018. ENVIA's investigation into the leak identified the ancillary coolant system as the root cause, which was independently verified through a third-party insurance company. As a result of the decision of the Board of Directors of ENVIA, the Company fully impaired its investment in ENVIA. In addition, the Company impaired £12,341,000 related to the loan facility during 2018.

For 2017 the Company recognised catalyst lease revenue totalling £484,000 related to a catalyst lease agreement with ENVIA, an associate in which the Company has ownership and voting rights as detailed in note 19 of the consolidated financial statements. During 2017 Velocys committed to provide up to $13,810,000 to ENVIA through a senior loan note, which bears interest of 10%, and is due for repayment on 31 December 2019 with an optional extension to 31 December 2020. As at 31 December 2017, draw downs on this facility had been made by ENVIA in the amount of £13,010,000.

The Company provided engineering services of £100,000 to Norma Investments Limited, which is the parent Company of Ervington Investments, the largest shareholder in Velocys plc with a holding of 28.9% at 31 December 2017.

Disclosures related to key management personnel can be located in the Directors remuneration report, see page 20. Only the Executive and Non-Executive Directors are recognised as being key management personnel.

31. Net debt reconciliation

This section sets out an analysis of net debt and the movements in net debt for each of the periods presented.

	2018 £'000	2017 £'000
Cash and cash equivalents	6,964	2,690
Borrowings – repayable with one year	(289)	(268)
Borrowings – repayable after one year	–	(273)
Net debt	6,675	2,149

	2018 £'000	2017 £'000
Cash and cash equivalents	6,964	2,690
Gross debt – fixed interest rate	(289)	(541)
Net debt	6,675	2,149

32. Post financial position events

The following events took place after 31 December 2018.

Appointment of Directors

The appointments of Philip Holland and Darran Messem as Non-Executive Directors to the Board of Velocys plc was made on 1 January 2019.

Red Rock Biofuels amendments

The Company agreed a series of amendments in its licensing contracts on 12th February 2019, with Red Rock Biofuels LLC (RRB), regarding RRB's license of Velocys Fischer-Tropsch reactors and proprietary catalyst for the RRB biorefinery under construction in Lakeview, Oregon, USA. The amendments are at RRB's request and allow it to complete the biorefinery on their desired timeline. The amended agreement will see Velocys accelerate delivery of the first of four reactors and first four charges of catalyst. It will also reduce the firm commitment for reactors from six to four but RRB will retain an option to acquire reactors 5 and 6 until the end of 2020, for delivery at the existing contract price. These changes have a positive impact on Velocys' near-term cash flow of an estimated £1.4 million and a decrease in future revenue of nearly £3.8 million (out of a total contract value of approximately £19.1 million). Should RRB exercise its option to purchase the two additional reactors the total contract value will return to approximately £19.1 million. RRB remains committed to purchase a total of six charges of catalyst in 2019.

ENVIA Settlement

The Company has completed negotiations in April 2019 with one of the remaining partners and landfill gas supplier to sell some of the assets and remove the Company's liens associated with its loans to ENVIA from the Company and release the site to the landlord so that they can pursue their own business from the site for a total of £3.26m. Please see note 20 for additional information regarding the ENVIA loan. This will be referred collectively as the ENVIA settlement and is considered a best outcome for the loans made of £15.8m and a positive result from the activity with ENVIA including all the operating and management data secured from the operation of this full scale operational FT plant.

Velocys plc statement of financial position

as at 31 December 2018

	Note	2018 £'000	(Restated) 2017 £'000
Assets			
Non-current assets			
Investments in subsidiaries	7	12,377	14,441
Current assets			
Trade and other receivables		7	6
Current income tax asset	5	589	438
Cash and cash equivalents		1,803	–
Total assets		14,776	14,885
Current liabilities			
Trade and other payables		(75)	(184)
Total liabilities		(75)	(184)
Net assets		14,701	14,701
Capital and reserves attributable to owners of Velocys plc			
Called up share capital	9	1,913	1,468
Share premium account	9	182,208	149,964
Share-based payment reserve	9	16,143	16,085
Convertible loan note/"other" reserve		–	9,421
Accumulated losses			
At 1 January		(162,237)	(99,116)
Loss for the year attributable to owners		(22,698)	(62,700)
Convertible loan note interest		(628)	(421)
Total equity		14,701	14,701

The notes on pages 72 to 78 are part of these parent Company financial statements.

Share premium in the period ending 31 December 2017 has been restated by £9.0m to corrrect the presentation of the convertible loan notes as separate equity instruments. In November 2018, these convertible loan notes converted into ordinary shares. See Note 26 for further information.

The financial statements on pages 69 to 78 were approved by the Board of Directors on 14 May 2019 and signed on its behalf by:

Henrik Wareborn
Chief Executive Officer
14 May 2019

Company number 05712187

Velocys plc statement of changes in equity

for the year ended 31 December 2018

	Called up share capital £'000	Share premium account (Restated) £'000	Share-based payment reserve £'000	Convertible loan note/'other' reserve	Accumulated losses £'000	Total equity £'000
Balance at 1 January 2017	1,438	149,275	15,843	–	(99,116)	67,440
Loss for the year	–	–	–	–	(56,839)	(56,839)
Foreign currency translation differences	–	–	–	–	(5,861)	(5,861)
Total comprehensive expense	–	–	–	–	(62,700)	(62,700)
Transactions with owners						
Share-based payments – value of employee services	–	–	242	–	–	242
Proceeds from share issues	30	689	–	–	–	719
Convertible loan notes	–	–	–	9,000	–	9,000
Interest on convertible loan notes	–	–	–	421	(421)	–
Total transactions with owners	30	689	242	9,421	(421)	9,961
Balance at 1 January 2018	1,468	149,964	16,085	9,421	(162,237)	14,701
Net loss for the year	–	–	–	–	(28,314)	(28,314)
Foreign currency translation differences	–	–	–	–	5,616	5,616
Total comprehensive expense	–	–	–	–	(22,698)	(22,698)
Transactions with owners						
Share-based payments – value of employee services	–	–	58	–	–	58
Proceeds from share issues	243	22,397	–	–	–	22,640
Convertible loan notes	180	8,820	–	(9,000)	–	–
Interest on convertible loan notes	22	1,027	–	(421)	(628)	–
Total transactions with owners	445	32,244	58	(9,421)	(628)	22,698
Balance at 31 December 2018	1,913	182,208	16,143	–	(185,563)	14,701

The notes on pages 72 to 78 are part of these parent Company financial statements.

Share premium in the period ended 31 December 2017 has been restated by £9.0m to correct the presention of the convertible loan notes as a separate equity instruments. In November 2018, these convertible loan notes converted into ordinary shares. See Note 26 for further information.

Velocys plc statement of cash flows

for the year ended 31 December 2018

	2018 £'000	2017 £'000
Cash flows from operating activities		
Operating loss before taxation	(33,972)	(62,294)
Impairment of subsidiaries	33,288	57,256
Share-based payments	58	–
Changes in working capital		
Trade and other receivables	(1)	25
Trade and other payables	(113)	115
Cash consumed by operations	(740)	(10,546)
Tax credit received	–	829
Net cash used in operating activities	(740)	(9,717)
Cash flow from investing activities		
Intercompany balances	(31,365)	(5,648)
Interest received	5,510	–
Net cash generated from investing activities	(25,855)	(5,646)
Cash flows from financing activities		
Proceeds from issues of shares and convertible loan notes	23,065	10,160
Costs of issuing shares and convertible loan notes	(628)	(443)
Net cash generated from financing activities	22,437	9,717
Net movement in cash and cash equivalents	(4,158)	–
Cash and cash equivalents at beginning of year	–	–
Exchange movements on cash and cash equivalents	5,961	–
Cash and cash equivalents at end of year	1,803	–

The notes on pages 72 to 78 are part of these parent Company financial statements.

Notes to the financial statements of Velocys plc

1. General information

Velocys plc is a holding Company incorporated in England and Wales and domiciled in England. It operates through a number of subsidiaries in the UK and the US, and collectively they are referred to in the financial statements as the 'Company' or 'Velocys', with Velocys plc as 'Velocys plc' or the 'parent Company'.

Velocys plc is a public limited Company listed on AIM.

2. Accounting policies

The principal accounting policies applied in the preparation of these parent Company financial statements are the same as those of the Company unless otherwise specified. The additional accounting policy for the parent Company relates to the Investments in subsidiaries (see note 7). The policies have been consistently applied to each year presented unless otherwise stated.

Basis of preparation

The basis of preparation is the same as the Company, as set out on page 34 of the consolidated financial statements. The parent Company has taken advantage of the legal dispensation contained in Section 408 of the Companies Act 2006 allowing it not to publish a separate income statement and related notes and not to publish a separate statement of other comprehensive income. The comprehensive loss for the parent Company for the year was £22,698,000 (2017: loss £62,700,000), see note 7. There were no impairments recorded by the Company in 2018.

Going concern

The going concern of Velocys plc is intrinsically linked to that of its subsidiaries, through which it trades in the UK and the US. The going concern basis of preparation is consistent with that set out for the Company. See note 2 of the consolidated financial statements.

Accounting developments

New and amended standards adopted by the Company

The Company has applied the following standards and amendments for the first time for the annual reporting period commencing 1 January 2018:

- IFRS 9 Financial Instruments
- IFRS 15 Revenue from Contracts with Customers
- Classification and Measurement of Share-based Payment Transactions – Amendments to IFRS 2
- Transfers to Investment Property – Amendments to IAS 40
- Interpretation 22 Foreign Currency Transactions and Advance Consideration

The Company also elected to adopt the following amendments early:

- Annual Improvements to IFS Standards 2015 – 2017 Cycle.

IFRS 9 Financial Instruments

Velocys plc and its subsidiaries adopted International Financial Reporting Standard 9, Financial Instruments ('IFRS 9'), on 1 January 2018. IFRS 9 replaces the provisions of International Accounting Standard 39, Financial Instruments: Recognition and Measurement ('IAS 39'), that relate to the recognition, classification and measurement of financial assets and financial liabilities, derecognition of financial instruments, impairment of financial assets and hedge accounting.

IFRS 9 introduces principle-based requirements for the classification of financial assets, using the following measurement categories:

- Amortised cost
- Fair value through Other Comprehensive Income ('OCI') ('FVOCI') with cumulative gains and losses reclassified to profit or loss upon derecognition
- Fair value through profit loss ('FVPL')

The classification depends on the Company's business model for managing the financial assets and the contractual terms of the cash flows.

All financial liabilities are measured at amortised cost, except for financial liabilities at fair value through profit or loss.

After initial recognition, an entity cannot reclassify any financial liability.

IFRS 9 also introduces a new impairment model, the expected credit loss ("ECL") model. This model applies to debt instruments measured at amortised cost or at FVOCI, as well as trade receivables.

At December 31, 2018, IFRS 9 did not impact Velocys plc as a result of Velocys plc not having any trade receivables.

IFRS 15 Revenue from Contracts with Customers

Velocys plc and its subsidiaries adopted IFRS 15 Revenue from Contracts with Customers on January 1, 2018 on a full retrospective transition method. The comparative figures in the Company's audited financial statements for the year ended 31 December 2017 were not required to be restated as a result of the adoption of IFRS 15.

IFRS 15 introduces a five-step model which is applied to determine when to recognise revenue, and at what amount. The five steps consist of (i) identifying the customer, (ii) identifying all of the performance obligations within the contract, (iii) determine the transaction price, (iv) allocating the price to the performance obligations and (v) recognizing revenue as the performance obligations are fulfilled. Revenue is recognised when (or as) a company transfers control of goods or services to a customer at the amount to which the company expects to be entitled. Depending on whether certain criteria are met, revenue is recognised either over time, in a manner that best reflects the Company's performance, or at a point in time, when control of the goods or services is transferred to the customer.

New standards and interpretations not yet adopted

IFRS 16 Leases

IFRS 16 was issued in January 2016. It will result in almost all leases being recognised on the balance sheet by lessees, as the distinction between operating and finance leases is removed. Under the new standard, an asset (the right to use leased item) and a financial liability to pay rents are recognised. The only exceptions are short-term and low-value leases.

The Company has reviewed all its leasing arrangements over the last year considering the new lease accounting rules in IFRS 16. The standard will primarily affect the accounting for the Company's operating leases.

The Company's activities as a lessor are not material and the Company does not expect any significant impact on the financial statements related to lessor activities. However, there may be additional disclosures related to these activities that will be required for 2019 and subsequent years.

The Company will apply this standard on the mandatory adoption date of 1 January 2019. The Company intends to apply the simplified transition approach and will not restate comparative amounts for the year prior to adoption. Right-of-use assets for property leases will be measured on transition as if the new rules had always been applied. All other right-of-use assets will be measured at the amount of the lease liability on adoptions (adjusting for any prepaid or accrued lease expenses).

There are no other standards that are not yet effective and that would be expected to have a material impact on the Company in the current or future reporting periods or on foreseeable future transactions.

Financial risk management policies

Financial risk management policies are set out in the Strategic report on page 10 and in note 25 of the consolidated financial statements.

Capital management policies

Capital management policies are set out in note 25 of the consolidated financial statements.

3. Critical accounting estimates and judgements

In applying the parent Company's relevant accounting policies set out in note 2, the parent Company is required to make certain estimates and judgements concerning the future. Although these estimates and judgements are based on management's best knowledge of the amount and or timing, actual results ultimately may differ. These estimates and judgements are regularly reviewed and revised as necessary. The estimates and judgements that have the most significant effect on the amounts included in these financial statements are listed below and described in the relevant note.

Item of critical estimate	Note
Investment in subsidiaries – impairment assessment	7

Notes to the financial statements of Velocys plc (continued)

4. Exceptional items

Items that are significant by virtue of their size or nature, which are considered non-recurring and which are excluded from the underlying profit measures used by the Board Executive Committee to monitor and measure the underlying performance of the parent Company are classified as exceptional items. They include, for instance, impairments to the parent Company's investments in subsidiaries. Exceptional items are included within the appropriate parent Company income statement category but are highlighted separately in the notes to the financial statements.

The following exceptional items have been included in the income statement.

	2018 £'000	2017 £'000
Impairment of investment in subsidiaries	(33,288)	(57,256)
Total	(33,288)	(57,256)

At the end of 2018 and 2017, the parent Company reviewed for impairment its investments in subsidiaries in light of the respective closing market capitalisation and concluded that an impairment was required in 2018 and 2017. As a result of this analysis Velocys plc recorded an impairment of £33,288,000 (2017: £57,256,000) related to its investment in subsidiaries.

5. Income tax

	2018 £'000	2017 £'000
Current tax:		
R&D tax credit relating to prior years	152	(179)
R&D tax credit relating to current year	(300)	(438)
Current tax total	(148)	(617)
Income tax total	(148)	(617)

Due to the availability of losses incurred in the year, there is no charge to corporation tax. The parent Company recognised £148,000 for R&D tax credits in 2018 (2017: £617,000).

The actual tax credit for the current and previous year is lower (2017: lower) than the theoretical amount that would arise using the weighted average tax rate for the reasons set out in the following reconciliation.

	2018 £'000	2017 £'000
Loss before income tax	(28,314)	(57,456)
Tax calculated at domestic tax rates applicable to losses in the respective countries	(5,380)	(11,060)
Tax effects of:		
Expenses not deductible for tax purposes	8	4
Impairment loss not deductible for tax purposes	6,108	11,022
(Utilised) /Unutilised tax losses	(736)	34
R&D tax credit	(148)	(617)
Income tax total	(148)	(617)

The impairment loss not deductible for tax purposes represents the impairment of investment in subsidiaries as described in note 7.

The weighted average applicable tax rate was 19% (2017: 19.25%).

The standard rate of corporation tax in the United Kingdom changed from 20% to 19% with effect from 1 April 2017. Accordingly, profits in the United Kingdom for 2018 were taxed at 19%. Legislation to reduce the rate to 17% from 1 April 2020 was enacted on 15 September 2016. The parent Company has not recognised a deferred tax asset or liability in 2018 (2017 £nil). Unrecognised UK deferred tax balances have been measured at 17% (recognised: £nil).

6. Deferred tax

The parent Company has not recognised a deferred tax asset or liability in 2018 (2017 £nil).

	2018 £'000	2017 £'000
Unrecognised		
Deferred tax assets		
Trading losses	(8,579)	(8,411)
Total	(8,579)	(8,411)

At 31 December 2018, the Company had a net unrecognised deferred tax asset of £8,579,000 (2017: £8,411,000) arising from trading losses since incorporation. No recognition (2017: £nil) of the net deferred tax asset has been made at 31 December 2018 on the grounds of uncertainty over its recoverability in light of the Company's nascent revenue streams and commitment to continued investment in the development of its biorefineries, and therefore there is no impact on the current or prior year's income statement.

All of the unrecognised deferred tax asset (2017: all) is anticipated to remain available indefinitely to offset against future taxable trading profits.

7. Investments in subsidiaries

Investments in subsidiaries are held by Velocys plc at historical cost less impairment. The net investment that the parent company has in its subsidiary undertakings is its interest in the net assets of that subsidiary.

The carrying amounts of the parent Company's Investments in subsidiaries are reviewed at each balance sheet date, or when events or changes in circumstance indicate their carrying value may not be recoverable, to determine whether there is any indication of impairment. If such an indication exists, the asset's recoverable amount is estimated. To the extent the carrying amount exceeds the recoverable amount, the difference is recorded as an expense in the Income statement. The recoverable amount used for impairment testing is the higher of the value in use and fair value less costs of disposal. For the purpose of impairment testing, assets are generally assessed individually or at a CGU level, which represents the lowest level for which there are separately identifiable cash inflows that are largely independent of cash inflows from other assets or groups of assets.

An impairment loss in respect of Investments in subsidiaries is reversed if the subsequent increase in recoverable amount can be related objectively to an event occurring after the impairment loss was recognised or if there has been a change in the estimate used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed that which would have been determined if no impairment loss had been recognised.

Critical estimates and judgements

Assets are reviewed for impairment annually and also whenever events or changes in circumstances indicate their carrying value may not be recoverable. In assessing whether there is any indication that an asset may be impaired, an entity shall consider, as a minimum, a number of indicators of potential impairment.

As set out in note 17 to the consolidated financial statements, an impairment assessment was carried out on the Company's intangible assets and an impairment was indicated. Velocys plc used the same basis for calculating the recoverable amount to determine the total value of the three subsidiaries held by the parent Company, based on the judgement that there is limited value attributable to the parent Company. The parent Company has both equity and debt investments in its subsidiaries, which are compared to the recoverable amount. On this basis, the impairment assessment indicated that the carrying value of the investments in subsidiaries was higher than the recoverable amount in 2017, determined by fair value less costs of disposal. As a result, an impairment of £33,288,000 (2017: £57,256,000) was recognised. This impairment was eliminated on consolidation.

Notes to the financial statements of Velocys plc (continued)

7. Investments in subsidiaries (continued)

Critical estimates and judgements (continued)

Impairments recorded on Velocys plc are eliminated through consolidation.

	2018		2017	
	Capital contributions to subsidiaries £'000	Total investment in subsidiaries £'000	Capital contributions to subsidiaries £'000	Total investment in subsidiaries £'000
Investments in subsidiaries				
At 1 January	14,441	14,441	66,831	66,831
Additions	31,365	31,365	14,159	14,159
Impairment of subsidiaries	(33,288)	(33,288)	(57,256)	(57,256)
Foreign exchange	(141)	(141)	(9,293)	(9,293)
At 31 December	12,377	12,377	14,441	14,441

The table above has been restated as in the prior period capital contributions of £10.6m were incorrectly accounted for as loans to the subsidiaries. There is no contractual right for Velocys plc to receive cash from the subsidiaries and as such Velocys plc does not have a financial asset from those subsidiaries.

Velocys plc has direct investments in the following subsidiary undertakings.

Subsidiary undertakings	Country of incorporation or principal business address	Principal activity	% Holding (all ordinary share capital)
Velocys Technologies Limited*	England and Wales	Exploitation of platform catalyst technologies	100
Velocys (USA Holdings) LLC**	Ohio, USA	Holding company for US subsidiaries	100
Oxford Catalysts Trustees Limited*	England and Wales	Holds assets and makes distributions in respect of employee remuneration	100

The following companies are subsidiaries of the Company whose immediate parent is not Velocys plc.

Subsidiary undertakings	Country of incorporation or principal business address	Principal activity	% Holding (all ordinary share capital)
Velocys, Inc.**	Delaware, USA	Design, development and exploitation of its microchannel technologies	100
YellowRock GTL Services, LLC**	Delaware, USA	Secondment of employees to plants	100
VMH Assets LLC**	Ohio, USA	Holds manufacturing assets in Ohio	100

The following are dormant subsidiaries.

Dormant subsidiaries	Incorporated	Immediate parent	% Holding
Oxford Catalysts UK Limited*	England and Wales	Velocys plc	100
Velocys Projects Ltd*	England and Wales	Velocys plc	100
Velocys Project Solutions, LLC***	Delaware, USA	Velocys (USA Holdings) LLC	100
Velocys Renewables LLC**	Ohio, USA	Velocys (USA Holdings) LLC	100
Ashtabula Energy, LLC***	Delaware, USA	Velocys Project Solutions, LLC	100
Bayou Fuels One LLC	Delaware, USA	Velocys Projects Ltd	100
Bradford GTL LLC***	Delaware, USA	Velocys Project Solutions, LLC	100
JAB Land-Ashtabula**	Ohio, USA	Ashtabula Energy, LLC	100
Susquehanna GTL LLC***	Delaware, USA	Velocys Project Solutions, LLC	100
Westlake GTL, LLC**	Delaware, USA	Velocys (USA Holdings) LLC	100

* Located at Harwell Innovation Centre, 173 Curie Avenue, Harwell, Oxfordshire, OX11 0QG, UK.
** Located at 7950 Corporate Boulevard, Plain City, OH 43064, USA.
*** Located at 2603 Augusta Drive, Suite 1175, Houston, TX 77057, USA.

8. Financial instruments

Financial assets

Velocys plc classifies, measures and accounts for its financial assets in the same way as the Company as a whole (see note 25 to the consolidated financial statements).

Financial risks

The risks that the parent company faces are intrinsically linked to those of the Company, see note 12 to the consolidated financial statements. No mitigation of this risk is taken at parent company level.

Financial assets are held at amortised costs and are as follows.

	31 December 2018
	Loans and receivables £'000
Assets	
Cash and cash equivalents	1,803
Trade and other receivables excluding non-financial assets	7

	31 December 2017
	Loans and receivables £'000
Assets	
Trade and other receivables excluding non-financial assets	6

The parent Company liability is an obligation to fund the Employee Benefit Trust (EBT) in 2018 in respect of a share options exercise (see consolidated accounts note 15). In 2018, no share options were exercised which result in no obligation for the Company to fund the EBT.

	31 December 2017
	Financial liabilities at amortised cost £'000
Liabilities	
Trade and other payables excluding non-financial liabilities	88

9. Share capital

Disclosures in respect of share capital of the Velocys plc are provided in note 26 to the consolidated financial statements on page 66.

10. Commitments

The Company has no capital commitments (2017: nil) or operating lease commitments (2017: nil).

Notes to the financial statements of Velocys plc (continued)

11. Related party transactions

Oxford Catalysts Trustees Limited

At the time of exercising their share options, executives of the Company may apply to the employee benefit trust managed by Oxford Catalysts Trustees Limited for a distribution in respect of the exercise value of their options. The trustees, at their discretion, then request a contribution from the Company in respect of the grant made. The total value of funds contributed by the Company to Oxford Catalysts Trustees Limited during the year was £nil (2017: £nil).

12. Other information

Directors' remuneration

Details of the remuneration paid to Directors of the parent Company are provided in the Directors' remuneration report on pages 22 to 25.

Velocys plc does not have any employees. Refer to note 12 in the consolidated financial statements for Company employees.

Auditor's remuneration

Details of remuneration paid for the audit of the Company are disclosed in note 11 to the consolidated financial statements on page 45.

13. Post financial position events

The following events took place after 31 December 2018.

The appointments of Philip Holland and Darran Messem as Non-Executive Directors to the Board of Velocys plc was made on 1 January 2019.

Directors, secretary and advisers to the Company

Registered office
Velocys
Harwell Innovation Centre
173 Curie Avenue
Harwell, Oxfordshire, OX11 0QG

Velocys plc registration no.
05712187

Directors
Pierre Jungels (Non-Executive Chairman)
Henrik Wareborn (Chief Executive Officer)
Andrew Morris (Chief Financial Officer)
Sandy Shaw (Non-Executive Director)
Philip Holland (Non-Executive Director)
Darran Messem (Non-Executive Director)

Company secretary
Jeremy Gorman

Nominated advisors and joint brokers
Numis Securities Limited
The London Stock Exchange Building
10 Paternoster Square
St Pauls
London
EC4M 7LT

Joint brokers
Canaccord Genuity Limited
88 Wood Street
London
EC2V 7QR

Registrars
Link Market Services Limited
The Registry
34 Beckenham Road
Beckenham
Kent
BR3 4TU

Bankers
Barclays Bank Plc
Wytham Court
11 West Way
Oxford
OX2 0JB

Public relations
Camarco
107 Cheapside
London
EC2V 6DN

Independent auditors
PricewaterhouseCoopers LLP
3 Forbury Place
23 Forbury Road
Reading
Berkshire
RG1 3JH

Design & Production
www.carrkamasa.co.uk
ckd

Velocys plc
Harwell Innovation Centre
173 Curie Avenue
Harwell
Oxfordshire
OX11 0QG

Company Number: 05712187
+44 1235 838 621
info@velocys.com
www.velocys.com