VESUVIUS PLC

27 July 2017

Half Year Results for the six months ended 30 June 2017

Strong first half performance across all Regions and Business Units

Vesuvius plc, a global leader in molten metal flow engineering, announces its results for the six months ended 30 June 2017.

Financial summary

	H1 2017 (£m)	HY 2016 (£m)	Year-on-year change	Underlying change[1]
Revenue	**831.5**	668.3	+24.4%	9.6%
Trading Profit[2]	**86.3**	59.1	+46.0%	26.7%
Return on Sales	***10.4%***	*8.8%*	*+160bps*	*+140bps*
Operating Profit	**67.7**	46.5	+45.6%	
Profit Before Tax	**60.8**	38.2	+59.2%	
Profit	**46.4**	27.8	+66.9%	
Headline Earnings[2]	**53.3**	34.4	+54.9%	
Headline EPS[2] (pence)	**19.7**	12.8	+53.9%	
Statutory EPS (pence)	**15.1**	9.1	+65.9%	
Operating cash flow[2]	**67.4**	65.8	+2.4%	
Net Debt	**321.8**	310.3	+3.7%	
Dividend	**5.50p**	5.15p	+6.8%	

[1] Underlying basis is at constant currency and excludes separately reported items and the impact of acquisitions
[2] For definitions of non-GAAP measures, refer to the notes in the financial statements

Key Points

- Revenue and Trading Profit significantly ahead of the same period last year
- Global steel production up across all major markets, with a slowing trend in Q2 expected to continue into the second half
- Achieved outperformance in EMEA and US as well as in the key structural growth markets of China and India
- Restructuring programme delivered £7.7m cost savings in H1 2017 and remains on track to achieve the £40m cumulative cost savings as previously announced
- Expansion of restructuring activities expected to increase total annual savings by £15m to £55m by the end of 2020 at an incremental cost of £25m (total cost of £70m)
- Strong balance sheet with Net Debt / LTM EBITDA at 1.6x, down from 1.8x at year-end 2016
- Reported revenue and trading profit benefited by 13.1% and 15.0% respectively versus H1 2016, due to weaker Sterling
- Interim dividend increased by 6.8% to 5.50 pence per share

François Wanecq, Chief Executive of Vesuvius, commented:

"We had a strong H1 2017, delivering our best half-year Revenue, Trading Profit and Return on Sales since demerger on a reported basis. We also further demonstrated our ability to outperform underlying markets and I was especially pleased at our progress in recovering market position in the US. I am also happy to announce that we have identified a further £15m per annum of restructuring savings, which we expect to realise over the next three years."

"Whilst the trading environment in H1 was strong, we are cautious about H2 as global steel production is slowing and the second half is seasonally weaker in Foundry. Despite some short-term headwinds, we remain confident in our ability to improve trading margins in 2018."

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Vesuvius management will make a presentation to analysts and investors on 27 July 2017 at 10.00 (BST) in the Great Hall of JPMorgan Asset Management, 60 Victoria Embankment, London EC4Y 0JP. For those unable to attend in person, an audio webcast and conference call will also be available (UK participant dial in +44(0)20 7136 2056; US participant dial in +1 646 254 3360; confirmation code 9647602). This presentation will be broadcast live on Vesuvius' website, http://investors.vesuvius.com/investor-relations and an archive version of the presentation will be available on the website later that day.

About Vesuvius plc

Vesuvius is a global leader in molten metal flow engineering principally serving the steel and foundry industries.

We develop innovative and customised solutions, often used in extremely demanding industrial environments, which enable our customers to improve their manufacturing processes, enhance product quality and reduce energy consumption. These include flow control solutions, advanced refractories and other consumable products and increasingly, related technical services including data capture.

We have a worldwide presence. We serve our customers through a network of low-cost manufacturing plants located close to their own facilities, and embed our industry experts within their operations, who are all supported by our global technology centres.

Our core competitive strengths are our market and technology leadership, strong customer relationships, well established presence in developing markets and our global reach, all of which facilitate the expansion of our addressable markets.

Our ultimate goal is to create value for our customers, and to deliver sustainable, profitable growth for our shareholders giving a superior return on their investment whilst providing each of our employees with a safe workplace where he or she is recognised, developed and properly rewarded.

Forward looking statements

This announcement contains certain forward looking statements which may include reference to one or more of the following: the Group's financial condition, results of operations, cash flows, dividends, financing plans, business strategies, operating efficiencies or synergies, budgets, capital and other expenditures, competitive positions, growth opportunities for existing products, plans and objectives of management and other matters.

Statements in this announcement that are not historical facts are hereby identified as "forward looking statements". Such forward looking statements, including, without limitation, those relating to the future business prospects, revenue, working capital, liquidity, capital needs, interest costs and income, in each case relating to Vesuvius, wherever they occur in this announcement, are necessarily based on assumptions reflecting the views of Vesuvius and involve a number of known and unknown risks, uncertainties and other factors that could cause actual results, performance or achievements to differ materially from those expressed or implied by the forward looking statements. Such forward looking statements should, therefore, be considered in light of various important factors that could cause actual results to differ materially from estimates or projections contained in the forward looking statements. These include without limitation: economic and business cycles; the terms and conditions of Vesuvius' financing arrangements; foreign currency rate fluctuations; competition in Vesuvius' principal markets; acquisitions or disposals of businesses or assets; and trends in Vesuvius' principal industries.

The foregoing list of important factors is not exhaustive. When considering forward looking statements, careful consideration should be given to the foregoing factors and other uncertainties and events, as well as factors described in documents the Company files with the UK regulator from time to time including its annual reports and accounts.

You should not place undue reliance on such forward looking statements which speak only as of the date on which they are made. Except as required by the Rules of the UK Listing Authority and the London Stock Exchange and applicable law, Vesuvius undertakes no obligation to update publicly or revise any forward looking statements, whether as a result of new information, future events or otherwise. In light of these risks, uncertainties and assumptions, the forward looking events discussed in this announcement might not occur.

Vesuvius plc, 165 Fleet Street, London EC4A 2AE

Vesuvius plc

Half Year Results for the six months ended 30 June 2017

During the first half of 2017, Vesuvius benefited from the 4.5% year-on-year growth in global steel production, as reported by the World Steel Association. At the same time, we have continued to make further progress, in line with our objectives and strategy, particularly around restructuring, where our targeted annual savings have been increased by £15m to a total of £55m. Although sterling weakness impacted the comparison of H1 2017 with H1 2016, even without this currency tailwind, we achieved strong underlying growth in Trading Profit and Return on Sales. However in comparison to H1 2017, we expect trading profit in H2 2017 to be held back by a continuation of the slowing trend in steel production seen in Q2, the usual seasonality in Foundry sales and rising raw material prices.

£m	**H1 2017 Reported**	**Acquisitions / Disposals**	**H1 2017 Underlying**	H1 2016 Reported	Currency	Acquisitions/ Disposals	H1 2016 Underlying	Reported % change	Underlying % change
Revenue	**831.5**	**(2.9)**	**828.6**	668.3	87.7	-	756.0	+24.4%	+9.6%
Trading Profit	**86.3**	**(0.2)**	**86.1**	59.1	8.9	-	68.0	+46.0%	+26.7%
Return on sales %	**10.4%**	**-**	**10.4%**	8.8%		-	9.0%	+160bps	+140bps

Group trading performance

Group revenue from our continuing operations was £831.5m, an increase of 24.4% compared to the first half of 2016 on a reported basis. Underlying Group revenue, adjusted for the effects of acquisitions and currency translation, increased by 9.6%. Trading profit for the first half was £86.3m, up 46.0% on a reported basis (H1 2016: £59.1m) and up 26.7% on an underlying basis. Return on sales increased by 160 basis points on a reported basis and 140 basis points on an underlying basis to 10.4% in the first half of 2017 (H1 2016: 8.8%).

Foreign exchange

Although Sterling has strengthened against most major currencies during 2017, for the year-on-year comparison with H1 2016, we continue to benefit from a foreign exchange tailwind, given that based on Vesuvius' basket of currencies, Sterling was 15% weaker in H1 2017 than its average H1 2016 level. In H1 2017, Trading Profit benefited from a foreign exchange tailwind of approximately £8.9m compared with average H1 2016 rates.

For H2 2017, all other things being equal, were spot foreign exchange rates to persist, our H2 2016 Trading Profit would be broadly unchanged.

Restructuring

We are expanding our restructuring activities to new territories where the successful methods applied so far should deliver significant further benefits. This has led to the identification of an additional £15m of annual savings which we expect to deliver between 2018 and the end of 2020 at a cost of approximately £25m. This is incremental to the £40m annual savings and £45m of costs which we have previously disclosed. The additional projects identified include industrial efficiency and restructuring opportunities in North America and the establishment of a European Shared Services centre in Poland.

Restructuring costs in 2017 are expected to reach £23m.

Working Capital

Whilst trade working capital increased by £31.1m due to increased Revenues, we have achieved a modest reduction in working capital as a percentage of sales during H1 2017, to 26.2% from 26.6% at year-end 2016. There are various initiatives underway to reduce working capital further and while these take time to flow through into the figures, we have started to see encouraging results in the following two key areas: our average creditor days payable have increased from 43 to 47 since year-end 2016, reflecting changes to agreed payment terms, which equates to a cash release of c.£8.8m; and we have also made material progress in China with a 20.2% reduction in trade debtors.

Financial position

Net Debt / EBITDA ratio has improved from 1.8x at year end 2016 to 1.6x at 30 June 2017, well within our preferred range of between 1.75x and 1.25x. However, Net Debt at 30 June 2017 was up slightly at £321.8m, versus £320.3m at end 2016, due to several factors: increase in trade working capital required to fund increased Revenues; £30.8m final dividend payment; and £15.6m restructuring costs, offset by our £42.0m Free Cash Flow generation.

We have extended the term of our Revolving Credit Facility by two years until 2022 and our liquidity including cash and undrawn credit lines currently totals £316m.

Board and senior management

As announced on 18 July 2017, Patrick André, President, Flow Control, will be appointed as Chief Executive and will join the Board on 1 September 2017, succeeding François Wanecq, who is retiring. François will remain with the Group until the end of 2017 to ensure an orderly transition.

As announced in March, Holly Keller Koeppel joined the Board as an additional Independent Non-executive Director on 3 April 2017. She serves on the Audit, Remuneration and Nomination Committees.

Health and safety

Vesuvius places great emphasis on the importance of health and safety in the workplace and in the communities in which we operate. Safety is of paramount importance as our employees often operate in harsh environments. We continue to work hard at reducing incident severity and developing robust standards and practices aimed at improving the safety and health of our people in all that they do. In the first half of 2017, our lost time injury frequency rate remained broadly stable at 1.6. We continue to focus our efforts to ensure a safe working environment for all our people and the continuous improvement of our group wide safety programmes.

Dividend

The Board has recommended an interim dividend increase of 6.8% to 5.50 pence per share (H1 2016: 5.15 pence per share). This dividend will be paid on 22 September 2017 to shareholders on the register at the close of business on 11 August 2017. Any shareholder wishing to participate in the Vesuvius Dividend Reinvestment Plan ("DRIP") needs to have submitted their election to do so by 1 September 2017. The Board intends to deliver long-term dividend growth provided that this is supported by underlying earnings, cash flows, capital expenditure requirements and the prevailing market outlook.

Outlook

From our strong start in Q1 2017, revenue growth slowed in the second quarter of the year, and looking ahead we expect seasonality in Foundry to drive marginally lower Group sales in H2 2017 vs H1 2017. Whilst we have continued to identify and deliver benefits from our restructuring activities, we expect H2 2017 trading profit to be held back by raw material cost inflation and short term higher costs related to the increased demand experienced in the restructured Flow Control Europe. Despite these short-term headwinds, we remain confident in our ability to improve trading margins and working capital performance in 2018.

Operational Review

Vesuvius comprises two divisions, Steel and Foundry. The Steel division operates as three business lines, Steel Flow Control, Advanced Refractories and Digital Services (formerly Technical Services).

Steel Division

According to the World Steel Association, global steel production in the first half of 2017 increased 4.5% compared with the previous year. All major steel producing countries were up year on year, most significantly China, India and the US up 4.6%, 5.3% and 1.3%, respectively. It is important to highlight that this H1 2017 increase in global steel production is off the relatively low base of H1 2016 and full year 2017 growth expectations for the market are materially lower than the H1 increase.

Revenue in the Steel division increased by 27% on a reported basis. On an underlying basis, Steel Division revenue was up 11.7%. This higher growth rate relative to global steel production, reflects market share gains in EMEA, the US and also in our key strategic growth markets of China and India.

Trading profit improved 55.5% year on year. On an underlying basis, trading profit increased 37.1%, with return on sales increasing by 170bps.

Steel Division	**H1 2017 (£m)**	**H1 2016 (£m)**	**Change (%)**	**Underlying change**
Steel Flow Control Revenue	301.0	240.8	*25.0%*	*9.9%*
Advanced Refractories Revenue	240.4	185.3	*29.7%*	*14.5%*
Digital Services Revenue	21.2	17.1	*24.0%*	*5.7%*
Total Steel Revenue	562.7	443.1	*27.0%*	*11.7%*
Total Steel Trading Profit	51.7	33.2	*55.5%*	*37.1%*
Total Steel Return on Sales	9.2%	7.5%	*170bps*	*170bps*

Steel Flow Control

Steel Flow Control supplies the stoppers and tubes used to channel and control the flow of molten steel from ladle to tundish and from tundish to mould; slide gate refractories for ladles and tundishes; slide gate systems; tundish and mould fluxes; and control devices to monitor and regulate steel flow into the mould. These products have been designed to resist extreme thermomechanical stress and corrosive environments. The majority of these products are consumed during the process of making steel and, consequently, demand is primarily linked to steel production volumes. Continuing innovation allows us to offer enriched solutions that create additional value in our customers' processes.

Steel Flow Control Revenue	**H1 2017 (£m)**	**H1 2016 (£m)**	**Change (%)**	**Underlying change**
Americas	102.3	80.7	*26.8%*	*5.3%*
Europe, Middle East & Africa (EMEA)	117.4	92.8	*26.5%*	*15.6%*
Asia-Pacific	81.3	67.3	*20.8%*	*7.9%*
Total Steel Flow Control Revenue	301.0	240.8	*25.0%*	*9.9%*

Year-on-year, reported revenue in Steel Flow Control increased 25% to £301.0m, mostly due to a recovery in Europe and the Americas. On an underlying basis, revenue was up 9.9%.

In the Americas, Steel Flow Control's underlying revenues increased 5.3% to £102.3m against a 4.5% increase in steel production volumes. Our outperformance relative to steel production is due to market share gains in North America. In the US in particular, our market share is continuing to recover from the low point of the second half of 2015 when we were impacted by customer closures and volume losses due to market pricing pressure.

Steel production in EMEA increased 3.5%, and Vesuvius outperformed the market with underlying revenue up 15.6%, reflecting market share gains. Most of this increase of sales was provided by imports into EMEA from our plants located in China, India and Mexico, with significant additional logistics costs. Our EMEA plants produced more than last year despite the closure of two plants in Italy and one plant in the Czech Republic and are expected to continue ramping up production over the coming quarters, progressively reducing the need for imports from China, India and Mexico.

Underlying revenue increased by 7.9% in Asia-Pacific, compared to an 4.8% increase in steel production volume in the region. Revenues increased faster than the steel market in India, where the penetration of our products continues to grow. Revenues also increased faster than the steel market in China.

Advanced Refractories

Products of the Advanced Refractories business line include specialist refractory materials for lining steelmaking vessels such as blast furnaces, ladles and tundishes, which are subject to extreme temperatures, corrosion and abrasion. These materials are in the form of powder mixes, which are spray-applied or cast onto the vessel to be lined ("monolithics") and refractory shapes (e.g. bricks, pads and dams). Vesuvius is one of the world's largest manufacturers of monolithic refractory linings. Advanced Refractories delivers installation technologies, products adapted to fit customers' processes and effective and efficient logistics services. These factors are combined with significant R&D, a deep knowledge of customers' processes and project management capability to deliver market-leading solutions for customers.

Advanced Refractories Revenue	**H1 2017 (£m)**	**H1 2016 (£m)**	**Change (%)**	**Underlying change**
Americas	**74.5**	62.3	*19.6%*	*4.4%*
Europe, Middle East & Africa (EMEA)	**110.0**	81.6	*34.8%*	*20.7%*
Asia-Pacific	**55.9**	41.4	*35.1%*	*17.8%*
Total Advanced Refractories Revenue	**240.4**	185.3	*29.7%*	*14.5%*

Revenue in Advanced Refractories increased 29.7% to £240.4m on a reported basis compared with the first half of 2016. Underlying revenue increased 14.5%, with sales increasing year-on-year in all regions. The EMEA revenue increase was partly due to the significant progress in regaining share in Europe despite competitive market conditions. Underlying revenue in Asia-Pacific grew by 17.8%, mostly due to India's continued growth cycle. During the second quarter, a number of key raw material supplies were negatively impacted by tightening environmental regulations in China. As a result, prices increased significantly and will take some months to be negotiated into our sales contracts with customers.

Digital Services (formerly Technical Services)

The business line formerly known as Technical Services has been renamed Digital Services to reflect the evolution of our strategy towards an objective of offering digitalised solutions to our customers to make their underlying processes more efficient and reliable. Digital Services complements existing product lines by providing new services to our existing customers. Digital Services focuses on the capture and interpretation of key manufacturing data, complementing Vesuvius' strong presence and expertise in molten metal engineering to create new technologies and integrate them into expert process management systems. Applications include: data acquisition using sensors and laser scanners; slag prevention technology; and caster data acquisition in the tundish and mould, which uses sensors to obtain temperature measurement, metallurgical data and other mould information.

Digital Services Revenue	H1 2017 (£m)	H1 2016 (£m)	Change (%)	Underlying change
Americas	**12.5**	9.8	*27.4%*	*4.4%*
Europe, Middle East & Africa (EMEA)	**7.5**	6.9	*7.5%*	*-3.9%*
Asia-Pacific	**1.2**	0.4	*192.8%*	*373.8%*
Total Digital Services Revenue	**21.2**	17.1	*24.0%*	*5.7%*

Digital Services generated revenues of £21.2m, an increase of 24% year-on-year on a reported basis. On an underlying basis, revenues increased 5.7%. We have gained market share in the Middle East, India and North America, but at the same time have been facing pricing pressure from competition in some regions. Revenue and margins have also been impacted by the appreciation of the Brazilian Real.

It is important to recognise that the sale of Digital Services products takes place to a significant extent through the existing Steel Flow Control and Advanced Refractory sales forces, generating sales which are captured in the Steel Division's reported revenues.

Foundry Division

Vesuvius' Foundry division, trading as Foseco, is a world leader in the supply of consumable products, solutions and associated services related to the foundry industry. The foundry process is highly sequential and is critically dependent on consistency of product quality and productivity optimisation. The Foundry division's products, solutions and use of advanced computer simulation techniques allow foundries to reduce defects and hence reduce labour-intensive fettling and machining, minimise metal usage requirements, influence the metal solidification process and automate moulding and casting, thus reducing cost, energy usage and mould size. The conditioning of molten metal, the nature of the mould used and, especially, the design of the way metal flows into the mould are key parameters in a foundry, determining both the quality of the finished castings and the labour, energy and metal usage efficiency of the foundry. Vesuvius' products and associated services to foundries improve these parameters.

Foundry Division	H1 2017 (£m)	H1 2016 (£m)	Change (%)	Underlying change
Foundry Revenue	**268.8**	225.2	*19.4%*	*5.5%*
Foundry Trading Profit	**34.6**	25.9	*33.6%*	*14.1%*
Foundry Return on Sales	**12.9%**	11.5%	*140bps*	*100bps*

The worldwide foundry market remained mixed, with significant regional and end market specific variations. The market was supported by the progression in light vehicle output in China, India and Mexico, but it was adversely affected by recent weakness in the US auto sector.

Foundry Revenue	H1 2017 (£m)	H1 2016 (£m)	Change (%)	Underlying change
Americas	**56.1**	45.0	*24.6%*	*5.2%*
Europe, Middle East & Africa (EMEA)	**122.0**	106.1	*15.0%*	*4.3%*
Asia-Pacific	**90.7**	74.1	*22.4%*	*7.5%*
Total Foundry Revenue	**268.8**	225.2	*19.4%*	*5.5%*

In the first half of 2017, revenue in the Foundry division increased 19.4% to £268.8m on a reported basis, whilst underlying revenue increased by 5.5%. Trading profit improved by 14.1% ahead of H1 2016 on an underlying basis. This reflected business gains in certain areas, the successful launch of new products with higher margins and the ongoing benefits of restructuring initiatives. Underlying revenue in the Americas increased by 5.2%. Industries such as construction and mining are recovering slowly but this was countered by weaker US light vehicle production. Growth was also achieved in Mexico due to business gains and further penetration of the mining sector. Sales in Brazil are also recovering albeit slowly.

Underlying revenue in EMEA increased by 4.3% year-on-year, in part due to light vehicle production being up 2.4% and heavy truck production up 7.7%. We also saw slight increases in iron casting output relating to the agriculture and construction sectors.

In Asia-Pacific, underlying revenue increased by 7.5% to £90.7m. Sales were up in all major markets, with India and China up 5.1% and 10.0% respectively year-on-year, benefiting from increased light vehicle production in India and increased light vehicle and truck production in China. We are also seeing business gains in China as a result of initiatives recently implemented.

Financial Review

The following review considers a number of our financial KPIs and sets out other relevant financial information

Basis of Preparation

We have continued to adopt a columnar presentation format for our accounts separately identifying headline performance results, as we consider that this gives a better view of the underlying results of the ongoing business.

Headline profit before tax (PBT) and earnings per share (EPS)

Details relating to revenue, trading profit and return on sales are provided in the Financial Summary and Operating Review in this release. Net finance costs in 2017 of £7.3m were £0.6m below H1 2016. The key changes in 2017 were lower costs associated with unwinding of discounted provisions and lower interest on net retirement obligations. These were partially offset by higher interest charges from an in increase in the average net debt for the period.

Headline PBT was £79.4m (H1 2016: £50.8m), 56.2% higher than last year on a reported basis. Including amortisation £9.7m (H1 2016: £8.3m) and the exceptional restructuring charges £8.9m (H1 2016: £5.3m), our PBT of £60.8m (H1 2016: £38.2m) was 59.2% higher than 2016.

Headline EPS at 19.7p is 53.9% higher than 2016. Statutory EPS at 15.1p is 65.9% higher than 2016.

Return on Net Operating Assets

RONA is our principal measure of capital efficiency. We do not exclude the results of businesses acquired and disposed from this calculation as capital efficiency is an important consideration in our portfolio decisions. It is calculated by dividing trading profit plus our share of profits from joint ventures by our average operating assets (property, plant and equipment, and trade working capital).

We measure this on a 12-month moving average basis at constant currency to ensure we focus on sustainable underlying improvements. Our RONA for H1 2017 was 23.6% compared to 19.4% in H1 2016, driven by higher profits over the trailing 12-month period.

Free Cash Flow and Working Capital

Trade working capital as a percentage of sales was 26.2% (H1 2016: 26.6%), measured on a 12-month moving average basis. In absolute terms on a constant currency basis trade working capital increased by £31.1m in H1 2017, the majority of this increase is attributable to the increase in sales.

Operating cash flow was £67.4m, which is higher than last year at £65.8m. This represented a cash conversion ratio of 78% which is lower than the H1 2016 ratio of 111%. This reduction in cash conversion was primarily driven by a higher working capital outflow compared to the prior year.

Free cash flow from continuing operations of £26.4m (H1 2016: £33.3m) is after charging £15.6m (H1 2016: £10.2m) of cash costs for restructuring activities for the period.

Operating cash flow and cash conversion:

	H1 2017 (£m)	H1 2016 (£m)
Cash generated from operations	**62.3**	63.0
Add: Outflows relating to restructuring charges	**15.6**	10.2
Add: Additional pension funding contributions	**1.1**	1.0
Less: Capital expenditure	**(13.2)**	(9.1)
Add: Proceeds from the sale of property, plant and equipment	**1.6**	0.7
Operating cash flow	**67.4**	65.8
Trading profit	**86.3**	59.1
Cash conversion	**78%**	111%

Interest Cover and Net Debt

As at 30 June 2017, the Group had committed borrowing facilities of £564.3m (December 2016: £576.9m), of which £123.1m were undrawn (December 2016: £158.3m).

Net debt as at 30 June 2017 was £321.8m, an increase of £1.5m since 31 December 2016.

The Group's debt facilities have two financial covenants: the ratios of net debt to EBITDA (maximum three times limit) and EBITDA to interest (minimum four times limit). These ratios are monitored regularly to ensure the Group has sufficient financing available to run the business and fund future growth. At 30 June 2017, the net debt to EBITDA ratio was 1.6x (December 2016: 1.8x) and EBITDA to interest was 14.4x (December 2016: 13.4x).

Restructuring

In the first half of 2017 we reported £8.9m of restructuring costs (H1 2016: £5.3m) that were predominantly made up of redundancy and legal and professional fees. The cash costs in H1 2017 were £15.6m (H1 2016: £10.2m) which primarily relate to redundancy costs in Italy. We are carrying a restructuring provision at 30 June 2017 of £11.0m.

Capital Expenditure

Capital expenditure in H1 2017 of £14.6m (H1 2016: £9.4m) comprised £12.1m in the Steel division (H1 2016: £6.7m) and £2.5m in the Foundry division (H1 2016: £2.7m). Capital expenditure on revenue generating customer installation assets was £4.5m (H1 2016: £1.9m).

Pensions

The Group has a limited number of historical defined benefit plans mainly in the UK, US, Germany and Belgium. The main plans in the UK and US are largely closed to further benefit accruals and 55% of the liabilities in the UK have already been insured. The total net deficit attributed to these defined benefit obligations at the end of June 2017 was £23.3m (December 2016: £29.4m), representing an improvement of £6.1m. The key movements giving rise to this were re-measurement gains of £14.7m, principally on the UK plan offset by a loss on plan assets of £9.5m.

The majority of the ongoing pension plans are defined contribution plans, where our only obligation is to make contributions, with no further commitments on the level of post-retirement benefits. During H1 2017, £4.4m (H1 2016: £5.3m) of contributions were made into the plans.

Taxation

The Group's effective tax rate, based on the income tax costs associated with headline performance of £22.1m (H1 2016: £13.1m), was 28.0% in the first half of 2017 (H1 2016: 25.5%).

The Group's total income tax costs include a credit of £6.0m (H1 2016: £2.7m) relating to separately reported items comprising: a net credit of £0.9m (H1 2016: £0.8m) in relation to restructuring charges; and a credit of £5.1m (H1 2016: £1.9m) relating to the amortisation of acquired intangible assets. Tax charged in the Group statement of comprehensive income during the half year amounted to £0.7m (H1 2016: £1.4m credit), which related to net actuarial gains on the UK and German employee benefit plans.

Going concern

The Directors have prepared cash flow forecasts for the Group for a period in excess of 12 months from the date of approval of the 2017 interim financial statements. These forecasts reflect an assessment of current and future end-market conditions and their impact on the Group's future trading performance. The forecasts show that the Group will be able to operate within the current committed debt facilities and show continued compliance with the Company's financial covenants. On the basis of the exercise described above and the Group's available committed debt facilities, the Directors consider that the Group and Company have adequate resources to continue in operational existence for a period of at least 12 months from the date of signing of the 2017 interim financial statements. Accordingly, they continue to adopt a going concern basis in preparing the financial statements of the Group and the Company.

Principal Risks and Uncertainties

Risk Management

The Board is responsible for setting the Group's risk appetite and ensuring that appropriate risk management systems are in place. The Group undertakes a continuous process of risk identification and review, which includes both top down and bottom up processes, allowing operational, functional, senior executive and Board members' views on risk to be independently gathered.

Risk mitigation

Once risks are identified by the Group, they are actively managed in order to mitigate exposure and, where cost effective, the risk is transferred to insurers. The senior management 'owners' for each principal risk update the mitigations of that specific risk and contribute to the analysis of likelihood and materiality. This is reported to the Board. We have also built a business structure that gives protection against the principal risks we face with diversified currencies, a widespread customer base, local production matching the diversity of our markets and intensive training of our employees.

Board Monitoring

The Board defines the Group's risk appetite, considering the nature and extent of the principal risks that the Group should take. During 2016, the Board discussed the classification of the Group's risks, considering the range and limits of the risks the Group should adopt. The Board's oversight of principal risks also involved a Board review of the processes by which the Group manages those risks, establishing a clear understanding at Board level of the individuals and groups in the business formally responsible for the management of specific risks.

Principal Risks

The risks identified are those the Board considers to be the most relevant to the Group in relation to their potential impact on the achievement of its strategic objectives. All of the risks set out could materially affect the Group, its businesses, future operations and financial condition and could cause actual results to differ materially from expected or historical results. These risks are not the only ones that the Group will face. Some risks are not yet known and some currently not deemed to be material could become so.

Changes to Risk in 2017

There are a number of potential risks and uncertainties which could have a material impact on the Group's performance over the remaining six months of the financial year and could cause actual results to differ materially from expected and historical results. The directors do not consider that the principal risks and uncertainties have changed since the publication of the annual report for the year ended 31 December 2016. The risks and uncertainties are summarised below:

Risk and context	Potential Impact	Mitigation
Demand volatility *Vesuvius' expectations of future trading are based upon an assessment of end-market conditions, which are subject to some uncertainty. Vesuvius' end-markets are historically somewhat cyclical in nature.*	• Unplanned drop in demand and/or revenue due to reduced production • Margin reduction • Customer failure leading to increased bad debts • Loss of market share to competition • Cost pressures at customers leading to use of cheaper solutions	• Geographic diversification of revenues • Product innovation & service offerings securing long-term revenue streams and maintaining performance differential • Increase in service and product lines by the development of the Digital Services business • R&D includes assessment of emerging technologies • Manufacturing capacity rationalisation and flexible cost base • Diversified customer base: no customer is greater than 10% of revenue • Robust credit and working capital control to mitigate the risk of default by counterparties

Risk and context	Potential Impact	Mitigation
Protectionism & Globalisation *Pressure from local, national or regional requirements conflict with the quality and efficiency delivered by scale and standardisation.*	• Restricted access to market due to enforced preference of local suppliers • Increased barriers to entry for new businesses or expansion • Increased costs from import duties or taxation • Loss of market share	• Highly diversified manufacturing footprint with manufacturing sites located in 26 countries • Strong local management with delegated authority to run their businesses and manage customer relationships • Cost flexibility • Tax risk management and control framework together with a strong control of inter-company trading
Financial uncertainty *Fluctuations in the value of currencies, interest rates, or rates of inflation may adversely impact the Group's financial position or results of operations. Availability of sufficient capital is critical to allow Vesuvius to deliver its business plan.*	• Customer and other counterparty default • Restricted access to capital hampering ability to fund growth • Reduction in earnings from increased interest charges • Reduced market liquidity and increased cost of capital	• Capital allocation discipline • Capital structuring, including fixed rate borrowing and matching of debt to cash flow earnings currency • Alignment of cost structure with revenue where possible • Effective planning of the debt refinancing profile to avoid exposure to short term market disruptions
Complex and changing regulatory environment *Vesuvius is subject to worldwide legal and regulatory regimes, some of which impose extra-jurisdictional obligations on companies and are continually updated.*	• Revenue reduction from reduced end-market access • Disruption of supply chain and route to market • Increased internal control processes • Increased frequency of regulatory investigations • Reputational damage	• Globally disseminated Code of Conduct highlighting ethical approach to business • Worldwide confidential Speak up procedure • Compliance programmes and training across the Group • Independent Internal audit function • Experienced Internal legal function
Business interruption *The Group is subject to operational risks including natural catastrophe, terrorist action, fire / explosion, environmental regulation, industrial actions, supply chain issues, and cyber risk.*	• Loss of a major plant temporarily or permanently impairing our ability to serve our customers • Damage to or restriction in ability to use assets • Denial of access to critical systems of control processes • Disruption of manufacturing processes • Inability to source critical raw materials	• Diversified manufacturing footprint. • Dual sourcing strategy and development of substitutes • Disaster recovery planning • Business continuity planning with strategic maintenance of excess capacity • Physical and IT control systems security, access and training • Cyber risks integrated into wider risk-management structure • Well established global Insurance programme • Group-wide safety management programmes

Risk and context	Potential Impact	Mitigation
Failure to secure Innovation *Not maintaining and/or developing the necessary sustainable differentiation in products, systems and services by driving innovative solutions. Competitive advantage derived from proprietary intellectual property is lost through inadequate protection.*	• Product substitution by customers • Increased competitive pressure through lack of differentiation of Vesuvius offering • Commoditisation of product portfolio through lack of development • Lack of response to changing customer needs • Loss of intellectual property protection	• Enduring & significant investment in R&D, with market leading research • A shared strategy for innovation across the Group, deployed via our R&D centres • Stage gate process from innovation to commercialisation to foster innovation and increase alignment with strategy • Programmes of Manufacturing and Process Excellence • Quality programme, focused on quality and consistency • Stringent intellectual property registration and defence
Attracting & retaining staff *Failure to attract sufficient new talent to the Group based on industry perception and competition. Failure to retain and maintain a talent pipeline and internal succession options, for middle and senior management positions.*	• Staff turnover in growing countries and regions • Stagnation of ideas and development opportunities • Loss of expertise and critical business knowledge • Organisational culture is not maintained • Reduced management pipeline for succession to senior positions	• Contacts with universities to identify and develop talent • Internal focus on talent development and training, with tailored career-stage programmes • Career path planning and global opportunities for high potential staff • Internal programmes for the structured transfer of technical and other knowledge • Clearly elucidated values to underpin business culture
Quality, Health & Safety *Vesuvius works in highly challenging manufacturing environments, providing products, systems and services that are mission critical and for which reliability is paramount.*	• Product or application failures lead to adverse financial impact or loss of reputation as technology leader • Health & safety breach, manufacturing downtime or damage to infrastructure from incident at customer plant • Customer claims from product quality issues • Injury to staff and contractors	• Active safety programmes, with ongoing wide-ranging monitoring and safety training • Quality management programmes including stringent quality control standards, monitoring and reporting • Experienced technical staff knowledgeable in the application of our products and technology • Targeted global Insurance programme • Experienced internal legal department controlling third party contracting

Directors' responsibility statement

We confirm that to the best of our knowledge:

(a) The condensed financial statements have been prepared in accordance with IAS 34*, Interim Financial Reporting*, as adopted by the EU; and

(b) This half-yearly financial report includes a fair review of the information required by:

- DTR 4.2.7R of the *Disclosure and Transparency Rules*, being an indication of important events that have occurred during the first six months of the financial year and their impact on the condensed set of financial statements; and a description of the principal risks and uncertainties for the remaining six months of the financial year; and
- DTR 4.2.8R of the *Disclosure and Transparency Rules*, being related parties' transactions that have taken place in the first six months of the current financial year and that have materially affected the financial position or the performance of the Group during that period; and any changes in the related parties' transactions described in the last annual report that could do so.

On behalf of the Board

Guy Young
Chief Financial Officer
26 July 2017

Vesuvius plc Board of Directors:

John McDonough CBE, Chairman
François Wanecq, Chief Executive
Guy Young, Chief Financial Officer
Douglas Hurt, Non-executive Director, Senior Independent Director and Chairman of the Audit Committee
Jane Hinkley, Non-executive Director and Chairman of the Remuneration Committee
Christer Gardell, Non-executive Director
Hock Goh, Non-executive Director
Holly Koeppel, Non-executive Director

Independent review report to Vesuvius plc

Report on the condensed half year financial statements

Our conclusion

We have reviewed Vesuvius plc's condensed half year financial statements (the "interim financial statements") in the Half Year Results of Vesuvius plc for the 6 month period ended 30 June 2017. Based on our review, nothing has come to our attention that causes us to believe that the interim financial statements are not prepared, in all material respects, in accordance with International Accounting Standard 34, 'Interim Financial Reporting', as adopted by the European Union and the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority.

What we have reviewed

The interim financial statements comprise:

- the Condensed Group Balance Sheet as at 30 June 2017;
- the Condensed Group Income Statement and Condensed Group Statement of Comprehensive Income/(Loss) for the period then ended;
- the Condensed Group Statement of Cash Flows for the period then ended;
- the Condensed Group Statement of Changes in Equity for the period then ended; and
- the explanatory notes to the interim financial statements.

The interim financial statements included in the Half Year Results have been prepared in accordance with International Accounting Standard 34, 'Interim Financial Reporting', as adopted by the European Union and the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority.

As disclosed in note 1 to the interim financial statements, the financial reporting framework that has been applied in the preparation of the full annual financial statements of the Group is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the European Union.

Responsibilities for the interim financial statements and the review

Our responsibilities and those of the directors

The Half Year Results, including the interim financial statements, is the responsibility of, and has been approved by, the directors. The directors are responsible for preparing the Half Year Results in accordance with the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority.

Our responsibility is to express a conclusion on the interim financial statements in the Half Year Results based on our review. This report, including the conclusion, has been prepared for and only for the company for the purpose of complying with the Disclosure Guidance and Transparency Rules sourcebook of the United Kingdom's Financial Conduct Authority and for no other purpose. We do not, in giving this conclusion, 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.

What a review of interim financial statements involves

We conducted our review in accordance with International Standard on Review Engagements (UK and Ireland) 2410, 'Review of Interim Financial Information Performed by the Independent Auditor of the Entity' issued by the Auditing Practices Board for use in the United Kingdom. A review of interim financial information consists of making enquiries, primarily of persons responsible for financial and accounting matters, and applying analytical and other review procedures.

Independent review report to Vesuvius plc

A review is substantially less in scope than an audit conducted in accordance with International Standards on Auditing (UK) and, consequently, does not enable us to obtain assurance that we would become aware of all significant matters that might be identified in an audit. Accordingly, we do not express an audit opinion.

We have read the other information contained in the Half Year Results and considered whether it contains any apparent misstatements or material inconsistencies with the information in the interim financial statements.

PricewaterhouseCoopers LLP
Chartered Accountants
London
26 July 2017

Notes:

a) The maintenance and integrity of the Vesuvius plc website is the responsibility of the directors; the work carried out by the auditors does not involve consideration of these matters and, accordingly, the auditors accept no responsibility for any changes that may have occurred to the interim financial statements since they were initially presented on the website.

b) Legislation in the United Kingdom governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

Condensed Group Income Statement

For the six months ended 30 June 2017

		Half year 2017			Half year 2016			Full year 2016		
	Notes	**Headline performance[(1)] £m**	**Separately reported items £m**	**Unaudited Half year 2017 £m**	Headline performance £m	Separately reported items £m	Unaudited Half year 2016 £m	Headline performance £m	Separately reported items £m	Full year 2016 £m
Continuing operations										
Revenue	2	**831.5**	**-**	**831.5**	668.3	-	668.3	1,401.4	-	1,401.4
Manufacturing costs		**(596.9)**	**-**	**(596.9)**	(485.2)	-	(485.2)	(1,018.6)	-	(1,018.6)
Administration, selling and distribution costs		**(148.3)**	**-**	**(148.3)**	(124.0)	-	(124.0)	(249.5)	-	(249.5)
Trading profit	2, 16	**86.3**	**-**	**86.3**	59.1	-	59.1	133.3	-	133.3
Amortisation of acquired intangible assets		**-**	**(9.7)**	**(9.7)**	-	(8.3)	(8.3)	-	(17.1)	(17.1)
Restructuring charges	3	**-**	**(8.9)**	**(8.9)**	-	(5.3)	(5.3)	-	(28.5)	(28.5)
Gain on employee benefit plan	10	**-**	**-**	**-**	-	1.0	1.0	-	5.2	5.2
Operating profit/(loss)	2	**86.3**	**(18.6)**	**67.7**	59.1	(12.6)	46.5	133.3	(40.4)	92.9
Finance expense		**(8.9)**	**-**	**(8.9)**	(9.9)	-	(9.9)	(17.4)	-	(17.4)
Finance income		**1.6**	**-**	**1.6**	2.0	-	2.0	2.9	-	2.9
Net finance costs	4	**(7.3)**	**-**	**(7.3)**	(7.9)	-	(7.9)	(14.5)	-	(14.5)
Share of post-tax income (loss) of joint ventures		**0.4**	**-**	**0.4**	(0.4)	-	(0.4)	1.0	-	1.0
Profit/(loss) before tax	2	**79.4**	**(18.6)**	**60.8**	50.8	(12.6)	38.2	119.8	(40.4)	79.4
Income tax (charge)/credits	5	**(22.1)**	**6.0**	**(16.1)**	(13.1)	2.7	(10.4)	(31.4)	5.0	(26.4)
Profit/(loss) from:										
Continuing operations		**57.3**	**(12.6)**	**44.7**	37.7	(9.9)	27.8	88.4	(35.4)	53.0
Discontinued operations		**-**	**1.7**	**1.7**	-	-	-	-	10.2	10.2
Profit/(loss)		**57.3**	**(10.9)**	**46.4**	37.7	(9.9)	27.8	88.4	(25.2)	63.2
Profit attributable to:										
Owners of the parent		**53.3**	**(10.9)**	**42.4**	34.4	(9.9)	24.5	82.1	(25.2)	56.9
Non-controlling interests		**4.0**	**-**	**4.0**	3.3	-	3.3	6.3	-	6.3
Profit/(loss)		**57.3**	**(10.9)**	**46.4**	37.7	(9.9)	27.8	88.4	(25.2)	63.2
Earnings per share — pence	6									
Continuing operations — basic				**15.1**			9.1			17.3
— diluted				**15.0**			9.1			17.3
Total operations — basic				**15.7**			9.1			21.1
— diluted				**15.6**			9.1			21.0

(1) Headline performance is defined in Note 16.1

Condensed Group Statement of Comprehensive Income/(Loss)

For the six months ended 30 June 2017

	Notes	**Unaudited Half year 2017 £m**	Unaudited Half year 2016 £m	Full year 2016 £m
Profit		**46.4**	27.8	63.2
Items that will not be reclassified subsequently to income statement:				
Remeasurement of defined benefit assets/liabilities		**5.4**	(9.9)	9.5
Income tax relating to items not reclassified	5	**(0.7)**	1.4	(0.7)
Items that may be reclassified subsequently to income statement:				
Exchange differences on translation of the net assets of foreign operations		**(23.6)**	146.7	207.7
Exchange translation differences arising on net investment hedges		**6.4**	(27.1)	(41.6)
Other comprehensive (loss)/income, net of income tax		**(12.5)**	111.1	174.9
Total comprehensive income		**33.9**	138.9	238.1
Total comprehensive income attributable to:				
Owners of the parent		**30.1**	132.4	226.2
Non-controlling interests		**3.8**	6.5	11.9
Total comprehensive income		**33.9**	138.9	238.1
Total comprehensive income attributable to owners of the parent arises from:				
Continuing operations		**26.1**	132.4	216.0
Discontinued operations		**4.0**	-	10.2
Total comprehensive income attributable to owners of the parent		**30.1**	132.4	226.2

Condensed Group Statement of Cash Flows

For the six months ended 30 June 2017

	Notes	Unaudited Half year 2017 £m	Unaudited Half year 2016 £m	Full year 2016 £m
Cash flows from operating activities				
Cash generated from operations	9	**62.3**	63.0	130.2
Net interest paid		**(6.8)**	(5.8)	(12.1)
Income taxes paid		**(19.3)**	(16.3)	(34.2)
Net cash inflow from operating activities		**36.2**	40.9	83.9
Cash flows from investing activities				
Capital expenditure		**(13.2)**	(9.1)	(31.3)
Proceeds from the sale of property, plant and equipment		**1.6**	0.7	1.6
Acquisition of subsidiaries and joint ventures, net of cash acquired		**(0.1)**	-	(7.7)
Disposal of subsidiaries and joint ventures, net of cash disposed of		**0.9**	-	-
Dividends received from joint ventures		**1.7**	0.9	2.0
Net cash (outflow) from investing activities		**(9.1)**	(7.5)	(35.4)
Net cash inflow before financing activities		**27.1**	33.4	48.5
Cash flows from financing activities				
Proceeds from borrowings		**36.4**	4.9	0.8
Settlement of forward foreign exchange contracts		**(6.3)**	10.4	20.6
Dividends paid to equity shareholders	7	**(30.8)**	(30.0)	(43.9)
Dividends paid to non-controlling shareholders		**(1.0)**	(0.9)	(2.5)
Net cash (outflow) from financing activities		**(1.7)**	(15.6)	(25.0)
Net increase in cash and cash equivalents	8	**25.4**	17.8	23.5
Cash and cash equivalents at beginning of period		**101.0**	67.0	67.0
Effect of exchange rate fluctuations on cash and cash equivalents		**(1.7)**	6.7	10.5
Cash and cash equivalents at end of period		**124.7**	91.5	101.0
Free cash flow from continuing operations (Note 16.10)				
Net cash inflow from operating activities		**36.2**	40.9	83.9
Additional funding contributions into Group pension plans		**1.1**	1.0	7.7
Capital expenditure		**(13.2)**	(9.1)	(31.3)
Proceeds from the sale of property, plant and equipment		**1.6**	0.7	1.6
Dividends received from joint ventures		**1.7**	0.9	2.0
Dividends paid to non-controlling shareholders		**(1.0)**	(0.9)	(2.5)
Free cash flow from continuing operations	16	**26.4**	33.5	61.4
Discontinued operations		**-**	(0.2)	-
Free cash flow	16	**26.4**	33.3	61.4

Condensed Group Balance Sheet

As at 30 June 2017

	Notes	**Unaudited Half year 2017 £m**	Unaudited Half year 2016 £m	Full year 2016 £m
Assets				
Property, plant and equipment		**311.3**	309.8	323.6
Intangible assets		**761.5**	755.4	781.9
Employee benefits - net surpluses	10	**81.9**	65.5	78.8
Interests in joint ventures		**16.1**	17.0	18.0
Investments		**2.5**	2.8	2.6
Income tax recoverable		**1.0**	1.3	1.0
Deferred tax assets		**89.3**	76.3	92.1
Other receivables		**22.6**	20.3	23.4
Total non-current assets		**1,286.2**	1,248.4	1,321.4
Cash and short-term deposits	8	**152.2**	134.0	144.4
Inventories		**225.7**	190.0	207.7
Trade and other receivables		**427.4**	375.0	393.2
Income tax recoverable		**2.4**	1.8	3.9
Derivative financial instruments		**-**	0.7	-
Total current assets		**807.7**	701.5	749.2
Total assets		**2,093.9**	1,949.9	2,070.6
Equity				
Issued share capital		**27.8**	27.8	27.8
Retained earnings		**2,388.0**	2,333.4	2,370.0
Other reserves		**(1,358.4)**	(1,385.5)	(1,341.4)
Equity attributable to the owners of the parent		**1,057.4**	975.7	1,056.4
Non-controlling interests		**44.9**	38.4	42.1
Total equity		**1,102.3**	1,014.1	1,098.5
Liabilities				
Interest-bearing borrowings	8	**360.0**	396.6	330.8
Employee benefits - net liabilities	10	**105.2**	119.7	108.2
Other payables		**18.0**	19.6	16.5
Provisions	14	**30.6**	30.3	32.9
Deferred tax liabilities		**44.8**	45.4	48.6
Total non-current liabilities		**558.6**	611.6	537.0
Interest-bearing borrowings	8	**114.0**	47.7	133.9
Trade and other payables		**260.1**	217.5	232.7
Income tax payable		**42.2**	43.9	41.9
Provisions	14	**15.9**	15.1	25.7
Derivative financial instruments	15	**0.8**	-	0.9
Total current liabilities		**433.0**	324.2	435.1
Total liabilities		**991.6**	935.8	972.1
Total equity and liabilities		**2,093.9**	1,949.9	2,070.6

Condensed Group Statement of Changes in Equity

For the six months ended 30 June 2017

	Issued share capital £m	Other reserves £m	Retained earnings £m	Owners of the parent £m	Non-controlling interests £m	Total equity £m
As at 1 January 2016	**27.8**	**(1,501.9)**	**2,346.5**	**872.4**	**32.7**	**905.1**
Profit	**-**	**-**	**24.5**	**24.5**	**3.3**	**27.8**
Remeasurement of defined benefit liabilities/assets	-	-	(9.9)	(9.9)	-	(9.9)
Income tax relating to items not reclassified	-	-	1.4	1.4	-	1.4
Exchange differences on the net assets of foreign operations	-	143.5	-	143.5	3.2	146.7
Exchange translation differences arising on net investment hedges	-	(27.1)	-	(27.1)	-	(27.1)
Other comprehensive income/(loss), net of income tax	**-**	**116.4**	**(8.5)**	**107.9**	**3.2**	**111.1**
Total comprehensive income	**-**	**116.4**	**16.0**	**132.4**	**6.5**	**138.9**
Recognition of share-based payments	-	-	0.9	0.9	-	0.9
Dividends paid (note 7)	-	-	(30.0)	(30.0)	(0.8)	(30.8)
Total transactions with owners	**-**	**-**	**(29.1)**	**(29.1)**	**(0.8)**	**(29.9)**
As at 30 June 2016, unaudited	**27.8**	**(1,385.5)**	**2,333.4**	**975.7**	**38.4**	**1,014.1**
Profit	**-**	**-**	**32.4**	**32.4**	**3.0**	**35.4**
Remeasurement of defined benefit liabilities/assets	-	-	19.4	19.4	-	19.4
Income tax relating to items not reclassified	-	-	(2.1)	(2.1)	-	(2.1)
Exchange differences on the net assets of foreign operations	-	58.6	-	58.6	2.4	61.0
Exchange translation differences arising on net investment hedges	-	(14.5)	-	(14.5)	-	(14.5)
Other comprehensive income, net of income tax	**-**	44.1	17.3	61.4	2.4	63.8
Total comprehensive income	**-**	**44.1**	**49.7**	**93.8**	**5.4**	**99.2**
Recognition of share-based payments	-	-	0.8	0.8	-	0.8
Dividends paid (note 7)	-	-	(13.9)	(13.9)	(1.7)	(15.6)
Total transactions with owners	**-**	**-**	**(13.1)**	**(13.1)**	**(1.7)**	**(14.8)**
As at 1 January 2017	**27.8**	**(1,341.4)**	**2,370.0**	**1,056.4**	**42.1**	**1,098.5**
Profit	**-**	**-**	**42.4**	**42.4**	**4.0**	**46.4**
Remeasurement of defined benefit liabilities/assets	-	-	5.4	5.4	-	5.4
Income tax relating to items not reclassified	-	-	(0.7)	(0.7)	-	(0.7)
Exchange differences on the net assets of foreign operations	-	(23.4)	-	(23.4)	(0.2)	(23.6)
Exchange translation differences arising on net investment hedges	-	6.4	-	6.4	-	6.4
Other comprehensive income/(loss), net of income tax	**-**	(17.0)	4.7	(12.3)	(0.2)	(12.5)
Total comprehensive income	**-**	**(17.0)**	**47.1**	**30.1**	**3.8**	**33.9**
Recognition of share-based payments	-	-	1.7	1.7	-	1.7
Dividends paid (note 7)	-	-	(30.8)	(30.8)	(1.0)	(31.8)
Total transactions with owners	**-**	**-**	**(29.1)**	**(29.1)**	**(1.0)**	**(30.1)**
As at 30 June 2017	**27.8**	**(1,358.4)**	**2,388.0**	**1,057.4**	**44.9**	**1,102.3**

Notes to the Financial Statements

1 Basis of preparation

1.1 Basis of accounting

These condensed financial statements of Vesuvius plc ("Vesuvius" or the "Company") and its subsidiary and joint venture companies (the "Group") have been prepared in accordance with International Accounting Standard ("IAS") 34 Interim Financial Reporting, as adopted by the EU and in accordance with the Disclosure and Transparency Rules of the UK's Financial Conduct Authority.

These condensed financial statements have been prepared using the same accounting policies as used in the preparation of the Group's annual financial statements for the year ended 31 December 2016, which were prepared in accordance with International Financial Reporting Standards as adopted by the EU ("IFRS"). They do not include all of the information required for full annual financial statements, and should be read in conjunction with the consolidated financial statements of the Group for the year ended 31 December 2016. The financial information presented in this document is unaudited, but has been reviewed by the Company's auditor.

The comparative figures for the financial year ended 31 December 2016 are not the Company's statutory accounts for that financial year. Those accounts have been reported on by the Company's auditor and delivered to the Registrar of Companies. The report of the auditor was unqualified, did not include reference to any matters to which the auditor drew attention by way of emphasis without qualifying its report and did not contain a statement under section 498(2) or (3) of the Companies Act 2006. These sections address whether proper accounting records have been kept, whether the Company's accounts are in agreement with those records and whether the auditor has obtained all the information and explanations necessary for the purposes of its audit.

1.2 Basis of consolidation

The consolidated financial statements of the Group incorporate the financial statements of the Company and entities controlled by the Company (its "subsidiaries"). Control exists when the Company has the power to direct the relevant activities of an entity that significantly affect the entity's return so as to have rights to the variable return from its activities. In assessing whether control exists, potential voting rights that are currently exercisable are taken into account. The results of subsidiaries acquired or disposed of during the year are included in the Group income statement from the effective date of acquisition or up to the effective date of disposal, as appropriate.

Where necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies into line with those detailed herein to ensure that the Group financial statements are prepared on a consistent basis. All intra-Group transactions, balances, income and expenses are eliminated on consolidation.

Non-controlling interests in the net assets of consolidated subsidiaries are identified separately from the Group's interest therein. Non-controlling interests consist of the amount of those interests at the date of the original business combination together with the non-controlling interests' share of profit or loss and each component of other comprehensive income since the date of the combination. Total comprehensive income is attributed to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

1.3 Going concern

The Directors have prepared cash flow forecasts for the Group for a period in excess of 12 months from the date of approval of the 2017 interim financial statements. These forecasts reflect an assessment of current and future end-market conditions and their impact on the Group's future trading performance. The forecasts show that the Group will be able to operate within the current committed debt facilities and show continued compliance with the Company's financial covenants. On the basis of the exercise described above and the Group's available committed debt facilities, the Directors consider that the Group and Company have adequate resources to continue in operational existence for the foreseeable future. Accordingly, they continue to adopt a going concern basis in preparing the financial statements of the Group and the Company.

Notes to the Financial Statements (continued)

1.4 Functional and presentation currency

The financial statements are presented in millions of pounds Sterling, which is the functional currency of the Company, and rounded to one decimal place.

1.5 Disclosure of "separately reported items"

IAS 1 Presentation of Financial Statements provides no definitive guidance as to the format of the income statement, but states key lines which should be disclosed. It also encourages the disclosure of additional line items and the reordering of items presented on the face of the income statement when appropriate for a proper understanding of the entity's financial performance. In accordance with IAS 1, the Company has adopted a columnar presentation for its Group income statement, to separately identify headline performance results (as defined in Note 16), as the Directors consider that this gives a better view of the underlying results of the ongoing business. As part of this presentation format, the Company has adopted a policy of disclosing separately on the face of its Group income statement, within the column entitled 'Separately reported items', the effect of any components of financial performance for which the Directors consider separate disclosure would assist both in a better understanding of the financial performance achieved and in making projections of future results. In its adoption of this policy, the Company applies an even-handed approach to both gains and losses and aims to be both consistent and clear in its accounting and disclosure of such items.

Both materiality and the nature and function of the components of income and expense are considered in deciding upon such presentation. Such items may include, inter alia, the financial effect of exceptional items which occur infrequently, such as major restructuring activity, initial recognition and subsequent increase, decrease and amortisation of US deferred tax assets, together with items always reported separately, such as amortisation charges relating to acquired intangible assets, profits or losses arising on the disposal of continuing or discontinued operations and the taxation impact of the aforementioned exceptional items and items reported separately.

1.6 New and revised IFRS

IFRS 9 Financial Instruments (effective from 1 January 2018, for the year ending 2018), replaces the existing guidance in IAS 39 Financial Instruments Recognition and Measurement. IFRS 9 includes revised guidance on the classification and measurement of financial instruments, including a new expected credit loss model for calculating impairment on financial assets, and new general hedge accounting requirements. It also carries forward the guidance on recognition and de-recognition of financial instruments from IAS 39. Based on an assessment of the adoption of IFRS 9, the Group does not believe there will be a significant impact on its Consolidated Financial Statements.

IFRS 15 Revenue from Contracts with Customers (effective from 1 January 2018, for the year ending 2018) establishes a comprehensive framework for determining whether, how much and when revenue is recognised. It replaces existing revenue recognition guidance, including IAS 18 Revenue, IAS 11 Construction Contracts and IFRIC 13 Customer Loyalty Programmes. Based on an initial assessment of the adoption of IFRS 15, the Group does not believe there will be a significant impact on its Consolidated Financial Statements.

IFRS 16 Leases (effective from 1 January 2019, for the year ending 2019), replaces the existing guidance in IAS 17 Leases. IFRS 16 provides a single lessee accounting model, requiring lessees to recognise assets and liabilities for all leases unless the lease term is 12 months or less or the underlying asset has a low value. The Group is currently assessing the potential impact on its Consolidated Financial Statements resulting from the application of IFRS 16.

IFRIC 23 Uncertainty over income tax treatments (effective from 1 January 2019, for the year ending 2019, not yet endorsed), clarifies how to recognise and measure deferred and current income tax assets and liabilities where there is uncertainty over tax treatment under IAS 12. The Group is currently assessing the potential impact on its Consolidated Financial Statements resulting from the application of IFRIC 23.

Other new or amended standards are not expected to have a significant impact on the Group's financial statements.

Notes to the Financial Statements (continued)

2 Segment information

Operating segments for continuing operations

For reporting purposes, the Group is organised into two business segments: Steel and Foundry. It is the Vesuvius Board which makes the key operating decisions in respect of these segments. The information used by the Vesuvius Board to review performance and determine resource allocation between the business segments is presented with the Group's activities segmented between the two business segments, Steel and Foundry. Taking into account the basis on which the Group's activities are reported to the Vesuvius Board, the Directors believe that these two business segments are the appropriate way to analyse the Group's results.

Segment revenue represents revenue from external customers (inter-segment revenue is not material). Trading profit includes items directly attributable to a segment as well as those items that can be allocated on a reasonable basis.

2.1 Income statement

	Unaudited Half year 2017		
	Steel £m	Foundry £m	Continuing operations £m
Segment revenue	**562.7**	**268.8**	**831.5**
Segment EBITDA	**66.3**	**42.2**	**108.5**
Segment depreciation	**(14.6)**	**(7.6)**	**(22.2)**
Segment trading profit	**51.7**	**34.6**	**86.3**
Return on sales margin	*9.2%*	*12.9%*	*10.4%*
Amortisation of acquired intangibles			**(9.7)**
Restructuring charges			**(8.9)**
Gain on employee benefit plan			**-**
Operating profit			**67.7**
Net finance costs			**(7.3)**
Share of post-tax profit of joint ventures			**0.4**
Profit before tax			**60.8**
Capital expenditure additions	**12.1**	**2.5**	**14.6**

Notes to the Financial Statements (continued)

2.1 Income statement (continued)

	Unaudited Half year 2016		
	Steel £m	Foundry £m	Continuing operations £m
Segment revenue	443.1	225.2	668.3
Segment EBITDA	46.3	32.8	79.1
Segment depreciation	(13.1)	(6.9)	(20.0)
Segment trading profit	33.2	25.9	59.1
Return on sales margin	*7.5%*	*11.5%*	*8.8%*
Amortisation of acquired intangibles			(8.3)
Restructuring charges			(5.3)
Gain on employee benefit plan			1.0
Operating profit			46.5
Net finance costs			(7.9)
Share of post-tax profit of joint ventures			(0.4)
Profit before tax			38.2
Capital expenditure additions	6.7	2.7	9.4

	Full year 2016		
	Steel £m	Foundry £m	Continuing operations £m
Segment revenue	942.0	459.4	1,401.4
Segment EBITDA	107.0	68.6	175.6
Segment depreciation	(27.8)	(14.5)	(42.3)
Segment trading profit	79.2	54.1	133.3
Return on sales margin	*8.4%*	*11.8%*	*9.5%*
Amortisation of acquired intangibles			(17.1)
Restructuring charges			(28.5)
Gain on employee benefit plan			5.2
Operating profit			92.9
Net finance costs			(14.5)
Share of post-tax profit of joint ventures			1.0
Profit before tax			79.4
Capital expenditure additions	23.7	11.5	35.2

Notes to the Financial Statements (continued)

3 Restructuring charges from continuing operations

The Group-wide restructuring programme initiated in 2015 was continued, resulting in charges of £8.9m (2016: half year £5.3m; full year £28.5m) reflecting redundancy costs of £3.0m (2016: half year £4.9m; full year £21.4m), plant closure costs of £0.3m (2016: half year £nil; full year £4.2m), the full programme's consultancy and professional fees of £4.8m (2016: half year £0.4m; full year £2.0m) and an inventory write-off of £0.8m (2016: half year £nil; full year £0.9m).

The net tax credit attributable to the total restructuring charges was £0.9m (2016: half year £0.8m; full year £3.8m).

Cash costs of £15.6m (2016: half year £10.2m; full year £16.8m) (Note 9) were incurred in the period in respect of the restructuring programme leaving provisions made but unspent of £11.0m as at 30 June 2017 (2016: half year £5.3m; full year £18.5m), of which £2.7m relates to future costs in respect of leases expiring between one and six years (2016: half year £2.9m; full year £2.7m).

4 Finance costs

Total net finance costs for the period of £7.3m is analysed in the table below.

	Unaudited Half year 2017 £m	Unaudited Half year 2016 £m	Full year 2016 £m
Interest payable on borrowings			
Loans, overdrafts and factoring arrangements	**8.1**	7.0	15.1
Obligations under finance leases	**0.2**	0.1	0.2
Amortisation of capitalised borrowing costs	**0.3**	0.3	0.5
Total interest payable on borrowings	**8.6**	7.4	15.8
Interest on net retirement benefits obligations	**0.3**	0.6	1.3
Adjustments to discounts on provisions and other liabilities	**0.1**	1.9	(0.2)
Adjustments to discounts on receivables	**(0.1)**	(0.5)	0.3
Finance income	**(1.6)**	(1.5)	(2.7)
Total net finance costs	**7.3**	7.9	14.5

5 Income tax costs

The Group's effective tax rate, based on the income tax costs associated with headline performance of £22.1m (2016: half year £13.1m; full year £31.4m), was 28% in the first half of 2017 (2016: half year 25.5%; full year 26.4%).

The Group's total income tax costs include a credit of £6.0m (2016: half year £2.7m; full year £5.0m) relating to separately reported items comprising: a credit of £0.9m (2016: half year £0.8m credit; full year £3.8m credit) in relation to restructuring charges; a credit of £5.1m (2016: half year £1.9m credit; full year £3.7m credit) relating to the amortisation of intangible assets; a charge of £nil (2016: half year £nil; full year £2.1m charge) in respect of the recognition of US temporary differences and a net charge of £nil (2016: half year £nil; full year £0.4m charge) relating to the gain on employee benefit plan. The net tax charge in the Group statement of comprehensive income in the year amounted to £0.7m (2016: half year £1.4m; full year £0.7m) related to tax on net actuarial gains and losses on employee benefits plans.

Notes to the Financial Statements (continued)

6 Earnings per share ("EPS")

6.1 Earnings for EPS

Basic and diluted EPS from continuing operations are based upon the profit attributable to owners of the parent, as reported in the Group income statement, of £40.7m (2016: half year £24.5m; full year £46.7m), being the profit for the period of £44.7m (2016: half year £27.8m; full year £53.0m) less non-controlling interests of £4.0m (2016: half year £3.3m; full year £6.3m); basic and diluted EPS from total operations are based on the profit attributable to owners of the parent of £42.4m (2016: half year £24.5m; full year £56.9m); headline and diluted headline EPS are based upon headline profit from continuing operations attributable to owners of the parent of £53.3m (2016: half year £34.4m; full year £82.1m). The table below reconciles these different profit measures.

	Notes	**Unaudited Half year 2017 £m**	Unaudited Half year 2016 £m	Full year 2016 £m
Profit attributable to owners of the parent		**40.7**	24.5	46.7
Adjustments for separately reported items:				
Amortisation of intangible assets		**9.7**	8.3	17.1
Restructuring charges		**8.9**	5.3	28.5
Gain on employee benefit plan		**-**	(1.0)	(5.2)
Income tax credit		**(6.0)**	(2.7)	(5.0)
Headline profit attributable to owners of the parent	15	**53.3**	34.4	82.1

6.2 Weighted average number of shares

	Unaudited Half year 2017 £m	Unaudited Half year 2016 £m	Full year 2016 £m
For calculating basic and headline EPS	**270.2**	269.7	269.9
Adjustment for dilutive potential ordinary shares	**2.0**	0.5	0.8
For calculating diluted and diluted headline EPS	**272.2**	270.2	270.7

For the purposes of calculating diluted and diluted headline EPS, the weighted average number of ordinary shares is adjusted to include the weighted average number of ordinary shares that would be issued on the conversion of all dilutive potential ordinary shares expected to vest, relating to the Company's share-based payment plans. Potential ordinary shares are only treated as dilutive when their conversion to ordinary shares would decrease earnings per share, or increase loss per share, from continuing operations.

Notes to the Financial Statements (continued)

6.3 Per share amounts

		Continuing operations pence	Discontinued operations pence	Unaudited Half year 2017 pence	Continuing operations pence	Discontinued operations pence	Unaudited Half year 2016 pence
Earnings per share	- basic	**15.1**	**0.6**	**15.7**	9.1	-	9.1
	- headline	**19.7**			12.8		
	- diluted	**15.0**	**0.6**	**15.6**	9.1	-	9.1
	- diluted headline	**19.6**			12.7		

		Continuing operations pence	Discontinued operations pence	Full year 2016 pence
Earnings per share	- basic	17.3	3.8	21.1
	- headline	30.4		
	- diluted	17.3	3.7	21.0
	- diluted headline	30.3		

7 Dividends

	Unaudited Half year 2017 £m	Unaudited Half year 2016 £m	Full year 2016 £m
Amounts recognised as dividends and paid to equity holders during the period			
Final dividend for the year ended 31 December 2015 of 11.125p per ordinary share	**-**	30.0	30.0
Interim dividend for the year ended 31 December 2016 of 5.15p per ordinary share	**-**	-	13.9
Final dividend for the year ended 31 December 2016 of 11.40p per ordinary share	**30.8**	-	-
	30.8	30.0	43.9

The Directors have declared an interim dividend of 5.50p per ordinary share in respect of the year ending 31 December 2017. The dividend will be paid on 22 September 2017 to ordinary shareholders on the register at the close of business on 11 August 2017. Based upon the number of shares in issue at 30 June 2017, the total cost of the dividend would be £14.9m.

Notes to the Financial Statements (continued)

8 Net debt

	Balance as at 1 January 2017 £m	Foreign exchange adjustments £m	Non-cash movements £m	Cash flow £m	Balance as at Half year 2017 £m
Cash and cash equivalents					
Cash at bank and in hand	**144.4**	**(2.1)**	**-**	**9.9**	**152.2**
Bank overdrafts	**(43.4)**	**0.4**	**-**	**15.5**	**(27.5)**
	101.0	**(1.7)**	**-**	**25.4**	**124.7**
Borrowings, excluding bank overdrafts					
Current	**(91.1)**	**5.4**	**-**	**(1.3)**	**(87.0)**
Non-current	**(331.9)**	**5.6**	**-**	**(35.1)**	**(361.4)**
	(423.0)	**11.0**	**-**	**(36.4)**	**(448.4)**
Capitalised borrowing costs	**1.7**	**-**	**0.2**	**-**	**1.9**
Net debt	**(320.3)**	**9.3**	**0.2**	**(11.0)**	**(321.8)**

9 Cash generated from operations

	Continuing operations £m	Discontinued operations £m	Unaudited Half year 2017 £m	Continuing Operations £m	Discontinued Operations £m	Unaudited Half year 2016 £m
Operating profit	**67.7**	**1.7**	**69.4**	46.5	-	46.5
Adjustments for:						
Amortisation of intangible assets	**9.7**	**-**	**9.7**	8.3	-	8.3
Restructuring charges	**8.9**	**-**	**8.9**	5.3	-	5.3
Gains relating to employee benefit plans	**-**	**-**	**-**	(1.0)	-	(1.0)
Depreciation	**22.2**	**-**	**22.2**	20.0	-	20.0
EBITDA (Note 16.12)	**108.5**	**1.7**	**110.2**	79.1	-	79.1
Net (increase)/decrease in trade and other working capital	**(29.5)**	**(1.7)**	**(31.2)**	(4.9)	(0.2)	(5.1)
Outflow related to restructuring charges	**(15.6)**	**-**	**(15.6)**	(10.2)	-	(10.2)
Additional pension funding contributions	**(1.1)**	**-**	**(1.1)**	(1.0)	-	(1.0)
Cash generated from operations	**62.3**	**-**	**62.3**	63.0	(0.2)	62.8

Notes to the Financial Statements (continued)

9 Cash generated from operations (continued)

	Continuing operations £m	Discontinued operations £m	Full year 2016 £m
Operating profit	92.9	1.2	94.1
Adjustments for:			
Amortisation of intangible assets	17.1	-	17.1
Restructuring charges	28.5	-	28.5
Gains relating to employee benefit plans	(5.2)	-	(5.2)
Depreciation	42.3	-	42.3
EBITDA (Note 16.12)	175.6	1.2	176.8
Net (increase)/decrease in trade and other working capital	(20.9)	(1.2)	(22.1)
Outflow related to restructuring charges	(16.8)	-	(16.8)
Additional pension funding contributions	(7.7)	-	(7.7)
Cash generated from operations	130.2	-	130.2

10 Employee benefits

The net employee benefits balance as at 30 June 2017 of £23.3m (2016: half year £54.2m; full year £29.4m) in respect of the Group's defined benefit retirement plans and other post-retirement benefits plans, results from an actuarial valuation of the Group's defined benefit pension and other post-retirement obligations as at that date. As analysed in the following table, the net balance comprised net surpluses (assets) of £81.9m (2016: half year £65.5m; full year £78.8m), relating largely to the Group's main defined benefit pension plan in the UK, together with net liabilities (deficits) of £105.2m (2016: half year £119.7m; full year £108.2m).

	Unaudited Half year 2017 £m	Unaudited Half year 2016 £m	Full year 2016 £m
Employee benefits — net surpluses			
UK defined benefit pension plans	**81.7**	65.2	78.6
ROW defined benefit pension plans	**0.2**	0.3	0.2
Net surpluses	**81.9**	65.5	78.8
Employee benefits — net liabilities			
UK defined benefit pension plans	**(1.9)**	(1.7)	(1.9)
US defined benefit pension plans	**(35.6)**	(47.2)	(37.7)
German defined benefit pension plans	**(44.8)**	(46.2)	(45.3)
ROW defined benefit pension plans	**(16.6)**	(17.4)	(16.4)
Other post-retirement benefit obligations	**(6.3)**	(7.2)	(6.9)
Net liabilities	**(105.2)**	(119.7)	(108.2)
Total liabilities	**(23.3)**	(54.2)	(29.4)

Notes to the Financial Statements (continued)

10 Employee benefits (continued)

The total net charge of £3.6m (2016: half year £2.7m; full year £2.8m) recognised in the Group income statement in respect of the Group's defined benefit retirement plans and other post-retirement benefits plans is recognised in the following lines.

		Unaudited Half year 2017 £m	Unaudited Half year 2016 £m	Full year 2016 £m
In arriving at trading profit (as defined in Note 16)	— within other manufacturing costs	**1.2**	2.9	2.0
	— within administration, selling and distribution costs	**2.1**	-	4.4
In arriving at profit before tax	— within restructuring charges	**-**	0.2	0.3
	— gain on employee benefit plan	**-**	(1.0)	(5.2)
	— within net finance costs	**0.3**	0.6	1.3
Total net charge - continuing operations		**3.6**	2.7	2.8

11 Contingent liabilities

Guarantees given by the Group under property leases of operations disposed of amounted to £1.5m (2016: half year £1.6m; full year £1.6m).

Vesuvius has extensive international operations and is subject to various legal and regulatory regimes, including those covering taxation and environmental matters. Several of Vesuvius' subsidiaries are parties to legal proceedings, certain of which are insured claims arising in the ordinary course of the operations of the company involved, and the Directors are aware of a number of issues which are, or may be, the subject of dispute with tax authorities. Reserves are made for the expected amounts payable in respect of known or probable costs resulting both from legal or other regulatory requirements, or from third-party claims. As the settlement of many of the obligations for which reserve is made is subject to legal or other regulatory process, the timing and amount of the associated outflows is subject to some uncertainty.

Certain of Vesuvius' subsidiaries are subject to lawsuits, predominantly in the US, relating to a small number of products containing asbestos manufactured prior to the acquisition of those subsidiaries by Vesuvius. These suits usually also name many other product manufacturers. To date, Vesuvius is not aware of there being any liability verdicts against any of these subsidiaries. A number of lawsuits have been withdrawn, dismissed or settled and the amount paid, including costs, in relation to this litigation has not had a material adverse effect on Vesuvius' financial position or results of operations.

12 Related parties

All transactions with related parties are conducted on an arm's length basis and in accordance with normal business terms. Transactions between related parties that are Group subsidiaries are eliminated on consolidation.

Notes to the Financial Statements (continued)

13 Discontinued operations

Discontinued operations income during H1 2017, related to a release of provisions no longer required of £1.7m. Discontinued operations income during 2016 of £10.2m, comprised a £9.0m tax credit relating to the release of a provision for possible China taxes and a £1.2m release of provisions no longer required.

	Unaudited Half year 2017 £m	Unaudited Half year 2016 £m	Full year 2016 £m
Other income	**1.7**	-	10.2
Profit before tax — attributable to owners of the parent	**1.7**	-	10.2
Earnings per share — pence			
Basic	**0.6**	-	3.8
Diluted	**0.6**	-	3.7

14 Provisions

	Disposal and closure costs £m	**Restructuring charges £m**	**Other £m**	**Total £m**
As at 1 January 2017	**33.2**	**18.5**	**6.9**	**58.6**
Exchange adjustments	**(1.6)**	**-**	**(0.2)**	**(1.8)**
Charge to Group income statement	**-**	**8.9**	**5.6**	**14.5**
Unused amounts released to Group income statement	**(1.7)**	**-**	**-**	**(1.7)**
Adjustment to discount	**0.1**	**-**	**-**	**0.1**
Cash spend	**(0.6)**	**(15.6)**	**(6.2)**	**(22.4)**
Transferred to other balance sheet accounts	**-**	**(0.8)**	**-**	**(0.8)**
As at 30 June 2017	**29.4**	**11.0**	**6.1**	**46.5**

In assessing the probable costs and realisation certainty of provisions, or related assets, reasonable assumptions are made. Changes to the assumptions used could significantly alter the Directors' assessment of the value, timing or certainty of the costs or related amounts.

15 Analysis of derivative financial instruments

	Unaudited Half year 2017		Unaudited Half year 2016		Full year 2016	
	Assets £m	**Liabilities £m**	Assets £m	Liabilities £m	Assets £m	Liabilities £m
Derivatives not designated for hedge accounting purposes	**-**	**(0.8)**	0.7	-	-	(0.9)
Total derivative financial instruments	**-**	**(0.8)**	0.7	-	-	(0.9)

All of the fair values shown in the table above are classified under IFRS 13 Fair Value Measurement as Level 2 measurements which have been calculated using quoted prices from active markets, where similar contracts are traded and the quotes reflect actual transactions in similar instruments. All of the derivative assets and liabilities reported in the table above will mature within a year of the balance sheet date. The method for determining the hierarchy and fair value is consistent with that used at year-end, as disclosed on page 134 of the 2016 Annual Report.

Loan notes, included in interest-bearing loans and borrowings, are measured at amortised cost using the effective interest rate method. The carrying value of the loan notes and other current and non-current assets and liabilities are deemed to equate to fair value as at 30 June 2017.

Notes to the Financial Statements (continued)

16 Alternative Performance Measures

The Company uses a number of Alternative Performance Measures (APMs) in addition to those reported in accordance with IFRS. The Directors believe that these APMs, listed below, are important when assessing the underlying financial and operating performance of the Group and its divisions. The following APMs do not have standardised meaning prescribed by IFRS and therefore may not be directly comparable to similar measures presented by other companies.

16.1 Headline

Headline performance, reported separately on the face of the Group Income Statement, is from continuing operations and before items reported separately on the face of the income statement.

16.2 Underlying revenue, underlying trading profit and underlying return on sales

Underlying revenue, underlying trading profit and underlying return on sales are the headline equivalents of these measures after adjustments to exclude the effects of changes in exchange rates, business acquisitions and disposals. Reconciliations of underlying revenue and underlying trading profit can be found in the Half Year Results statement. Underlying revenue growth is one of the Group's key performance indicators and provides an important measure of organic growth of Group businesses between reporting periods, by eliminating the impact of exchange rates, acquisitions, disposals and significant business closures.

16.3 Return on sales (ROS)

ROS is calculated as trading profit divided by revenue. It is one of the Group's key performance indicators and is used to assess the trading performance of Group businesses.

16.4 Trading profit

Trading profit is defined as operating profit before separately reported items. It is one of the Group's key performance indicators and is used to assess the trading performance of Group businesses. It is also used as one of the targets against which the annual bonuses of certain employees are measured.

16.5 Headline profit before tax

Headline profit before tax is calculated as the net total of trading profit, plus the Group's share of post-tax profit of joint ventures and total net finance costs associated with headline performance. It is one of the Group's key performance indicators and is used to assess the financial performance of the Group as a whole.

16.6 Effective tax rate (ETR)

The Group's ETR is calculated on the income tax costs associated with headline performance, divided by headline profit before tax and before the Group's share of post-tax profit of joint ventures.

16.7 Headline earnings per share

Headline earnings per share is calculated by dividing headline profit before tax less associated income tax costs, attributable to owners of the parent by the weighted average number of ordinary shares in issue during the year. It is one of the Group's key performance indicators and is used to assess the underlying earnings performance of the Group as a whole. It is also used as one of the targets against which the annual bonuses of certain employees are measured.

16.8 Operating cash flow

Operating cash flow is cash generated from continuing operations before restructuring and additional pension funding contributions but after deducting capital expenditure net of asset disposals. It is used in calculating the Group's cash conversion.

Notes to the Financial Statements (continued)

16.9 Cash conversion

Cash conversion is calculated as operating cash flow divided by trading profit. It is useful for measuring the rate at which cash is generated from trading profit.

16.10 Free cash flow

Free cash flow is defined as net cash flow from operating activities after net outlays for the purchase and sale of property, plant and equipment, dividends from joint ventures and dividends paid to non-controlling shareholders, but before additional funding contributions to Group pension plans. It is one of the Group's key performance indicators and is used to assess the underlying cash generation of the Group and is one of the measures used in monitoring the Group's capital.

16.11 Average trade working capital to sales ratio

The average trade working capital to sales ratio is calculated as the percentage of average trade working capital balances to the total revenue for the year, at constant currency. Average trade working capital (comprising inventories, trade receivables and trade payables) is calculated as the average of the 12 previous month-end balances. It is one of the Group's key performance indicators and is useful for measuring the level of working capital used in the business and is one of the measures used in monitoring the Group's capital.

16.12 Earnings before interest, tax, depreciation and amortisation ('EBITDA')

EBITDA is calculated as the total of trading profit before depreciation and amortisation of non-acquired intangibles charges. It is used in the calculation of the Group's interest cover and net debt to EBITDA ratios.

16.13 Net interest

Net interest is calculated as interest payable on borrowings less interest receivable, excluding any item separately reported. It is used in the calculation of the Group's interest cover ratio.

16.14 Interest cover

Interest cover is the ratio of EBITDA to net interest. It is one of the Group's key performance indicators and is used to assess the financial position of the Group and its ability to fund future growth.

16.15 Net debt

Net debt comprises the net total of current and non-current interest-bearing borrowings and cash and short-term deposits. Net debt is a measure of the Group's net indebtedness to banks and other external financial institutions.

16.16 Net debt to EBITDA

Net debt to EBITDA is the ratio of net debt at the year-end to EBITDA for that year. It is one of the Group's key performance indicators and is used to assess the financial position of the Group and its ability to fund future growth and is one of the measures used in monitoring the Group's capital.

16.17 Return on net assets ('RONA')

RONA is calculated as trading profit plus share of post-tax profit of joint ventures, divided by average net operating assets, at constant currency (being the average over the previous 12 months of property, plant and equipment, trade working capital and other operating receivables and payables). It is one of the Group's key performance indicators and is used to assess the financial performance and asset management of the Group and is one of the measures used in monitoring the Group's capital.

Notes to the Financial Statements (continued)

16.18 Constant currency

Figures presented at constant currency represent June and December 2016 numbers retranslated at June 2017 exchange rates.

17 Exchange rates

The Group reports its results in pounds sterling. A substantial portion of the Group's revenue and profits are denominated in currencies other than pounds sterling. It is the Group's policy to translate the income statements and cash flow statements of its overseas operations into pounds sterling using average exchange rates for the year reported (except when the use of average rates does not approximate the exchange rate at the date of the transaction, in which case the transaction rate is used) and to translate balance sheets using year-end rates. The principal exchange rates used were as follows:

	Income and expense Average rates					Assets and liabilities Period end rates				
	Half year 2017	Half year 2016	Full year 2016	Half year to Half year change	Half year to Full year change	**Half year 2017**	Half year 2016	Full year 2016	Half year to Half year change	Half year to Full year change
US Dollar	**1.26**	1.44	1.36	(12.3%)	(7.3%)	**1.30**	1.33	1.23	(2.1%)	5.6%
Euro	**1.16**	1.29	1.22	(9.5%)	(5.0%)	**1.14**	1.20	1.17	(4.8%)	(2.8%)
Chinese Renminbi	**8.65**	9.38	9.00	(7.8%)	(3.9%)	**8.83**	8.84	8.56	(0.1%)	3.1%
Japanese Yen	**141.37**	160.51	147.62	(11.9%)	(4.2%)	**146.34**	137.39	144.17	6.5%	1.5%
Brazilian Real	**4.00**	5.32	4.75	(24.9%)	(15.8%)	**4.31**	4.28	4.01	0.7%	7.3%
Indian Rupee	**82.67**	96.41	91.13	(14.2%)	(9.3%)	**84.16**	89.81	83.82	(6.3%)	0.4%
South African Rand	**16.62**	22.12	20.00	(24.9%)	(16.9%)	**16.99**	19.53	16.94	(13.0%)	0.3%

Alternative performance measures – Supplementary information

5-year history at constant currency

	H1 2013	H1 2014	H1 2015	H1 2016	H1 2017
Revenue (£m)	**803.3**	**831.3**	**811.2**	**756.0**	**831.5**
Steel	540.8	563.5	548.3	501.3	562.7
Foundry	262.5	267.7	262.9	254.7	268.8
Trading Profit (£m)	**72.9**	**82.3**	**80.4**	**68.0**	**86.3**
Steel	45.2	55.2	49.8	39.2	51.7
Foundry	27.8	27.1	30.5	28.8	34.6
Return on Sales	**9.1%**	**9.9%**	**9.9%**	**9.0%**	**10.4%**
Steel	8.4%	9.8%	9.1%	7.8%	9.2%
Foundry	10.6%	10.1%	11.6%	11.3%	12.9%