Registration number: 00251977

Vesuvius Holdings Limited

Annual Report and Financial Statements

for the Year Ended 31 December 2021

Vesuvius Holdings Limited
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Vesuvius Holdings Limited
Company Information

Directors

P André
G Young
HJ Knowles
A Tomczak
E Gingell
G Godin
EG Drysdale

Company secretary

J Smith

Registration number

00251977

Registered office
165 Fleet Street
London
EC4A 2AE

Incorporated

A Private Limited Company incorporated in England & Wales, United Kingdom

Independent Auditors

PricewaterhouseCoopers LLP
1 Embankment Place
London
WC2N 6RH

Vesuvius Holdings Limited
Strategic Report for the Year Ended 31 December 2021

The Directors present their Strategic Report for the year ended 31 December 2021.

Fair review of the business and future developments
Vesuvius Holdings Limited (the "Company") is a holding company for investments in group undertakings, and its investing activities during the year are detailed under the investments note (note 12).

During the year, Thomas Marshall (Loxley) Ltd was liquidated. The company had an investment carrying value of £3m (net of provision for impairment of £3.6m) on 1 January 2021. A loss on disposal of £3m was recognised in the Company's income statement on liquidation.

The Directors do not envisage any change to the business of the Company in the foreseeable future.

The profit before tax for the year to 31 December 2021 is £53,000 (2020: £51.6m) and the net assets are £1,766.2m (2020: £1,899.0m).

Given the straightforward nature of the Company's business, the Directors are of the opinion that analysis using Key Performance Indicators (KPIs) is not necessary for an understanding of the development, performance or position of the business.

Section 172 duties and business relationships with suppliers, customers and other stakeholders
Under Section 172 of the Companies Act 2006 ("Section 172"), the Directors have a duty to promote the success of the Company over the long term for the benefit of its shareholders, having regard to:
(a) the likely consequences of any decision in the long term,
(b) the interests of the company's employees,
(c) the need to foster the company's business relationships with suppliers, customers and others,
(d) the impact of the company's operations on the community and the environment,
(e) the desirability of the company maintaining a reputation for high standards of business conduct, and
(f) the need to act fairly as between members of the company.

The activity of the Company is mainly that of a significant holding and administrative company for its parent, Vesuvius plc. The interests of the Company and its parent are closely aligned and, as a listed company and parent of a Group of international companies (the "Group"), Vesuvius plc has ultimate responsibility for setting strategic and policy issues and is responsible for the Group's long-term success. In the 2021 Annual Report and Financial Statements of Vesuvius plc, the board of Vesuvius plc summarises the key actions taken throughout the Group in 2021 to engage with its stakeholders, including its employees, suppliers and customers, and describes the impact of the Group's operations on the community and the environment in accordance with the requirements of Section 172.

In performance of their duties throughout the year the Directors took decisions to promote the success of the Company over the long term for the benefit of shareholders, had regard to their duties under Section 172 and remained cognisant of the need to act fairly between members of the Company and consider the potential impact on all stakeholders of the decisions it made. The interests of its employees are supported by the Group's employee engagement exercise, which canvasses the opinions of employees and precipitated a series of follow-up actions aimed at supporting employees and implementing change where appropriate. With regard to the Company's need to foster business relationships with suppliers, the Company continued to agree payment terms with its suppliers and sought to pay in accordance with those terms. As an office based Company the impact of the Company's operations on the environment is limited, but the Company recycled materials during the year and continues to support the Group's environmental initiatives. The Company also continued to focus on the desirability of maintaining a reputation for high standards of business conduct with all its stakeholders, with all employees required to comply with the Group's Code of Conduct which states that Vesuvius must maintain an unquestioned reputation for integrity.

Employee engagement
The Company adopts an open and honest approach to employee communications. The Company's employees have access to the Vesuvius intranet which distributes Group news and events along with an employee 'app' for information dissemination. Regular updates are provided to employees on all matters of interest, including direct email updates on the financial performance of the Group. The HR department is the primary point of contact for employees on employment and workplace matters, operating with an open-door policy and advising employees of any local legal, tax, pension or other employment changes. Senior management, supported and facilitated by the HR department, encourage open dialogue. All members of the Group Executive Committee participate in incentive arrangements and receive awards of Vesuvius plc shares through the Vesuvius Share Plan, which vest in accordance with measures and targets set against Earnings Per Share (EPS) and Total Shareholder Return (TSR). For certain senior managers, awards are made under the Vesuvius Medium Term Plan (MTP). These managers participate in the MTP at varying percentage levels, and awards are made in shares and based on the same measures and targets as the Annual Incentive Plan.

As part of the Vesuvius Group, the safety, diversity, personal growth and job satisfaction of the Company's employees are key to the success and growth of the business. The Group's strategic ambition is to provide a safe working environment for all employees and to deliver value to them by providing development opportunities. Details of the performance and initiatives in both Health and Safety, Human Resources and employee engagement activities are disclosed on page 26 and in Our People in the Sustainability section of the Vesuvius plc 2021 Annual Report on pages 72 to 90.

Principal risks and uncertainties
The management of the business and the execution of the Company's strategy are subject to a number of risks. The key business risks and uncertainties affecting the Company are considered to relate to the following:

Recoverability of investments in subsidiaries
The Company carries out an annual investment impairment indicator test. Where impairment indicators are identified, the recoverable amount of the investment is checked against its carrying value to assess whether any provision for impairment of the carrying value is required.

Financial counterparty risk and liquidity risk
Financial counterparty risk is the risk of potential failure by counterparties holding cash deposits. For banks and financial institutions, apart from certain limited circumstances, Company policy is that only independently rated entities with a minimum rating of 'A-' are accepted as counterparties. Liquidity risk is the risk of the Company having difficulties meeting its financial obligations. The Company manages this risk by ensuring that it maintains sufficient levels of committed borrowing facilities and cash and cash equivalents to ensure that it can meet its operational cash flow requirements and any maturing financial liabilities as they fall due.

Recoverability of intercompany receivables
Where amounts are due from group companies with net liabilities, an assessment of their recoverability is performed to ensure that they will be able to meet their obligations as they fall due.

Other principal risks and uncertainties are integrated with the principal risks of Vesuvius plc and its subsidiary, joint venture and associated companies ('the Group') and are not managed separately.

Geopolitical situation in Ukraine and Russia
The effects of the geopolitical situation between Ukraine and Russia are uncertain and being closely monitored as the Company has indirect exposure through its Group structure investments (see aforementioned risk "Recoverability of investments in subsidiaries"). Currently there are no direct impacts on the Company stemming from this situation due to its holding nature.

Having considered the effectiveness of stopping all trade with Russia, the Group has taken the decision to continue supplying non-sanctioned customers in-line with the approach taken by the majority of our peers.

The potential impacts on Principal Risks, namely End Market Risks, Protectionism and Globalisation and Business interruption, and mitigation strategies are managed from a Group perspective by the ultimate parent, Vesuvius plc.

Potential gas supply issues in Europe
At the time of writing, there is political uncertainty regarding the sustainability of gas supplies from Russia into Europe over the coming months, which could impact both our operations and those of our customers. We have been reviewing possible scenarios and have put in place mitigation plans to support our operations in Europe, including, if necessary, the mobilisation of available production capacity in India, Mexico, the Middle East and China. As a result, we anticipate that we will be able to continue providing essential products and services to our European customers even in the case of a complete cessation of Russian gas imports. Furthermore, as our most energy intensive European based manufacturing processes were closed or transferred out of Europe in the framework of our European footprint restructuring two years ago, our exposure to rising European energy prices is now relatively limited.

Covid-19
The effects of the COVID-19 pandemic continued to be felt in certain geographies and disciplines of the business in 2021. The impact of Covid-19 on the Group has been disclosed in the 2021 Annual Report and Financial Statements of Vesuvius plc. The Group delivered resilient results and protected the health and safety of its employees and the security of supply to its customers. It also maintained a robust financial position and continues to have a strong balance sheet and liquidity position as well as covenant headroom to ensure the Group remains well positioned for long term success.

The Company's exposure to financial risk is managed as part of the Group. Full details about the Group's exposure to financial risks and how these risks could affect the Group's future financial performance are given in Note 25 to the 2021 Annual Report and Financial Statements.

Approved by the Board on 3 August 2022 and signed on its behalf by:

Geoffroy Godin
Geoffroy Godin (Aug 3, 2022 21:11 GMT+2)
....
G Godin
Director

Vesuvius Holdings Limited
Directors' Report for the Year Ended 31 December 2021

The Directors present their report and the audited financial statements for the year ended 31 December 2021.
Certain disclosures required under the Companies Act 2006 to be included within the Directors' Report have been presented within the Strategic Report to avoid duplication.

Information incorporated by reference
The information that fulfils this requirement and which is incorporated by reference into, and forms part of, this report is included in the Strategic Report of the Annual Report:

- The Section 172(1) statement
- Business review including future developments

Directors of the company
The Directors who were in office during the year and up to the date of signing the financial statements were as follows:
P André
G Young
HJ Knowles
A Tomczak
E Gingell
G Godin
EG Drysdale

Dividends
A dividend for the year ended 31 December 2021 totalling £55.5m (2020: £8.4m) composed of £38.7m and £16.8m was paid in May and September 2021 respectively to the parent company, Vesuvius plc. Additionally, a dividend of £40.5m was declared, approved, and paid on 23 May 2022.

Political and charitable donations
The Company made no political or charitable donations or incurred any political expenditure during the year (2020: Nil).

Employee engagement
Directors' assessment of employee engagement is presented within the Strategic Report.

Directors' indemnity provisions
The parent company of Vesuvius Holdings Limited maintains directors' indemnity cover for all Directors. The indemnities were in force throughout the last financial year and remain in force.

Disclosure of information to the auditors
Each Director has taken steps that they ought to have taken as a Director in order to make themselves aware of any relevant audit information and to establish that the Company's auditors are aware of that information. The Directors confirm that so far as they are aware there is no relevant audit information of which the Company's auditors are unaware.

Independent auditors
The auditors, PricewaterhouseCoopers LLP, are deemed to be reappointed under section 485 of the Companies Act 2006.

Going Concern
At 31 December 2021 the Company had net assets of £1,766.2m (2020: £1,899.0m). At 31 December 2021 the Company had net current assets of £1,626.2m (2020: £1,660.3m). The Directors have a reasonable expectation that the Company has adequate resources to continue in operational existence for the foreseeable future. The going concern position of the Company is linked to that of the wider Group. The liquidity of the Company, defined as undrawn committed debt facilities plus cash on balance sheet, was £308.8m (2020: £290.3m).

On 5 July 2021, the Company refinanced the Revolving Credit Facility ("RCF"). This has increased in size from £300m to £385m with a maturity date of 5 July 2025 and an option to extend this by 1 year.

The Company is the main holding company for the Vesuvius plc group and has the ability to direct the dividend policy and in effect increase the cash that is available to it. Each year dividends are paid up to subsidiaries of the Company by operating and holding companies within the Group and as such, cash is available to be distributed to the Company by these subsidiaries if required.

The Directors have reviewed cashflow scenarios for the Vesuvius Group for a period at least 12 months from 27 July 2022, the date of approval of the 2022 Vesuvius plc Group Interim Condensed Financial Statements, including those that may be relevant to the Company and its investee companies. These forecasts reflect an assessment of current and future end market conditions, including the impact of covid-related lockdowns in China and war in Ukraine, and their impact on the Group's future trading performance. The analysis undertaken includes a severe but plausible downside scenario which assumes a decline in business activity and profitability in H2 2022 to the level achieved in H2 2020. Relative to H1 2022, this implies an c.30% decline in sales and a c.60% decline in Trading Profit, with no improvement from this level assumed in 2023. Even in this downside scenario, the forecasts show that the Group's maximum net debt / EBITDA (pre-IFRS 16 in-line with the covenant calculation) does not exceed 1.0x, compared to a leverage covenant of 3.25x.

On the basis of the exercise described above and the Group's available committed liquidity which stands at £416m per 30 June 2022, the Directors consider that the Company has adequate resources to continue in operational existence for a period of at least 12 months from the date of signing of these financial statements. Accordingly, the Directors continue to adopt a going concern basis in preparing the financials statements of the Company.

The Directors of the Company are satisfied that there are no material events or uncertainties that they are aware of which will impact the ability of the Company to continue as a going concern. Accordingly, the financial statements have been prepared on a going concern basis.

Post Balance sheet events
There are no material events after the reporting period to disclose.

Approved by the Board on 3 August 2022 and signed on its behalf by:

Geoffroy Godin
Geoffroy Godin (Aug 3, 2022 21:11 GMT+2)
....
G Godin
Director

Vesuvius Holdings Limited
Statement of directors' responsibilities in respect of the financial statements

The Directors are responsible for preparing the Annual Report and Financial Statements in accordance with applicable law and regulation.

Company law requires the directors to prepare financial statements for each financial year. Under that law the directors have prepared the financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 "Reduced Disclosure Framework", and applicable law).

Under company law, directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the company and of the profit or loss of the company for that period. In preparing the financial statements, the directors are required to:

- select suitable accounting policies and then apply them consistently;
- state whether applicable United Kingdom Accounting Standards, comprising FRS 101, have been followed, subject to any material departures disclosed and explained in the financial statements;
- make judgements and accounting estimates that are reasonable and prudent; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Company will continue in business.

The directors are responsible for safeguarding the assets of the company and hence for taking reasonable steps for the prevention and detection of fraud and other irregularities.

The directors are also responsible for keeping adequate accounting records that are sufficient to show and explain the company's transactions and disclose with reasonable accuracy at any time the financial position of the company and enable them to ensure that the financial statements comply with the Companies Act 2006.

Directors' confirmations

In the case of each director in office at the date the directors' report is approved:

- so far as the director is aware, there is no relevant audit information of which the company's auditors are unaware; and
- they have taken all the steps that they ought to have taken as a director in order to make themselves aware of any relevant audit information and to establish that the company's auditors are aware of that information.

Independent auditors' report to the members of Vesuvius Holdings Limited

Report on the audit of the financial statements

Opinion

In our opinion, Vesuvius Holdings Limited's financial statements:

- give a true and fair view of the state of the company's affairs as at 31 December 2021 and of its loss for the year then ended;
- have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 "Reduced Disclosure Framework", and applicable law); and
- have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements, included within the Annual Report and Financial Statements (the "Annual Report"), which comprise: Balance Sheet as at 31 December 2021; the Profit and Loss Account, the Statement of Comprehensive Income and the Statement of Changes in Equity for the year then ended; and the notes to the financial statements, which include a description of the significant accounting policies.

Basis for opinion

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

Independence

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

Conclusions relating to going concern

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

In auditing the financial statements, we have concluded that the directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate.

However, because not all future events or conditions can be predicted, this conclusion is not a guarantee as to the company's ability to continue as a going concern.

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

Reporting on other information

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

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

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

Based on our work undertaken in the course of the audit, the Companies Act 2006 requires us also to report certain opinions and matters as described below.

Strategic report and Directors' Report

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic report and Directors' Report for the year ended 31 December 2021 is consistent with the financial statements and has been prepared in accordance with applicable legal requirements.

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

Responsibilities for the financial statements and the audit

Responsibilities of the directors for the financial statements

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

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

Auditors' responsibilities for the audit of the financial statements

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

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

Based on our understanding of the company and industry, we identified that the principal risks of non-compliance with laws and regulations related to tax and anti-bribery, and we considered the extent to which non-compliance might have a material effect on the financial statements. We also considered those laws and regulations that have a direct impact on the financial statements such as Companies Act 2006. We evaluated management's incentives and opportunities for fraudulent manipulation of the financial statements (including the risk of override of controls), and determined that the principal risks were related to inappropriate journal entries and management bias in accounting estimates. Audit procedures performed by the engagement team included:

- Enquiries of management, those charged with governance, internal audit and the Group's legal counsel, including consideration of known or suspected instances of non-compliance with laws and regulations and fraud.
- Understanding and evaluation of the design and implementation of management's controls designed to prevent and detect irregularities, including compliance, whistleblowing arrangements and the results of management's investigation of such matters.
- Inspecting management reports and Board minutes and reading key correspondence with regulatory authorities.
- Challenging assumptions and judgements made by management in their critical accounting estimates, in particular relating to impairment of investment in subsidiaries.
- Identifying and testing journal entries, in particular any journal entries posted with unusual account combinations including in respect of journals posted to cash, journal posted to foreign exchange accounts and journal entries with unusual descriptions.

There are inherent limitations in the audit procedures described above. We are less likely to become aware of instances of non-compliance with laws and regulations that are not closely related to events and transactions reflected in the financial statements. Also, the risk of not detecting a material misstatement due to fraud is higher than the risk of not detecting one resulting from error, as fraud may involve deliberate concealment by, for example, forgery or intentional misrepresentations, or through collusion.

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

Use of this report

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

Other required reporting

Companies Act 2006 exception reporting

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

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

We have no exceptions to report arising from this responsibility.

Darryl Phillips (Senior Statutory Auditor)
for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
London
3 August 2022

Vesuvius Holdings Limited
(Registration number: 00251977)

Profit and Loss Account for the Year Ended 31 December 2021

	Note	2021 £ 000	2020 £ 000
Administrative expenses	3	(15,426)	(15,075)
Loss on disposal of investment	3	(2,966)	(17,674)
Write-off intercompany loan payables	3	2,940	44,936
Operating (loss)/ profit	3	**(15,452)**	**12,187**
Income from shares in group undertakings	4	15,302	38,444
Other interest receivable and similar income	5	34,131	52,035
Interest payable and similar expenses	6	(33,928)	(51,032)
		15,505	**39,447**
Profit before taxation		**53**	**51,634**
Income tax expense	10	(134)	(157)
(Loss)/ Profit for the financial year		(81)	51,477

The above results were derived from continuing operations.

Vesuvius Holdings Limited
(Registration number: 00251977)

Statement of Comprehensive Income for the Year Ended 31 December 2021

	Note	2021 £ 000	2020 £ 000
(Loss)/ Profit for the year		(81)	51,477
Items that will not be reclassified subsequently to profit or loss			
Remeasurements of post employment benefit obligations	17	(93,473)	14,955
Tax relating to items that will not be reclassified	17	16,285	(4,822)
Items that may be reclassified subsequently to profit or loss			
Change in the fair value of hedging instrument	20	4,707	(7,502)
Net change in cost of hedging	20	(4)	514
Amounts reclassified from the income statement	20	(4,725)	5,544
Total other comprehensive (expense)/ income		**(77,210)**	**8,689**
Total comprehensive (expense)/income for the year		(77,291)	60,166

The notes on pages 14 to 40 form an integral part of these financial statements.

Vesuvius Holdings Limited
(Registration number: 00251977)

Balance Sheet as at 31 December 2021

	Note	2021 £ 000	2020 £ 000
Fixed assets			
Property, plant and equipment	11	4,705	3,605
Investments	12	1,416,924	1,419,890
		1,421,629	1,423,495
Current assets			
Trade and other receivables (of which non-current: 2021: £1,722,620,000 2020: £1,648,711,000)	13	1,728,410	1,649,944
Income tax asset		3,000	3,000
Cash at bank and in hand		651	43,997
		1,732,061	1,696,941
Creditors: Amounts falling due within one year			
Trade and other payables	19	(8,403)	(4,192)
Bank loans and overdrafts	16	(97,461)	(32,456)
Creditors: Amounts falling due within one year		(105,864)	(36,648)
Net current assets		1,626,197	1,660,293
Trade and other payables	19	(991,932)	(960,104)
Bank loans and overdrafts	16	(303,363)	(309,826)
Deferred tax liabilities	10	(5,315)	(21,599)
Derivative financial instruments	20	(2,283)	(6,986)
Creditors: Amounts falling due after more than one year		(1,302,893)	(1,298,515)
Net pension asset	17	21,259	113,679
Net assets		1,766,192	1,898,952
Capital and reserves			
Called up share capital	14	10	10
Share premium account	14	105	105
Other reserves	15	643,594	643,594
Cash flow hedge reserve	20	(1,466)	(1,444)
Profit and loss account		1,123,949	1,256,687
Total Shareholders' funds		1,766,192	1,898,952

The notes on pages 14 to 40 form an integral part of these financial statements.

The financial statements on pages 10 to 40 were approved by the Board of Directors on 3 August 2022 and signed on their behalf by:

Geoffroy Godin
Geoffroy Godin (Aug 3, 2022 21:11 GMT+2)
....
G Godin
Director

Vesuvius Holdings Limited
(Registration number: 00251977)

Statement of Changes in Equity for the Year Ended 31 December 2021

	Share capital £ 000	Share premium £ 000	Other reserves £ 000	Cash flow hedge reserve £ 000	Retained earnings £ 000	Total £ 000
At 1 January 2021	10	105	643,594	(1,444)	1,256,687	1,898,952
Loss for the year	-	-	-	-	(81)	(81)
Remeasurements of post employment benefit obligations (net)	-	-	-	-	(77,188)	(77,188)
Change in the fair value of hedging instrument	-	-	-	4,707	-	4,707
Net change in cost of hedging	-	-	-	(4)	-	(4)
Amounts reclassified from the income statement	-	-	-	(4,725)	-	(4,725)
Total other comprehensive expense	-	-	-	**(22)**	**(77,269)**	**(77,291)**
Dividends paid	-	-	-	-	(55,469)	(55,469)
At 31 December 2021	10	105	643,594	(1,466)	1,123,949	1,766,192

	Share capital £ 000	Share premium £ 000	Other reserves £ 000	Cash flow hedge reserve £ 000	Retained earnings £ 000	Total £ 000
At 1 January 2020	10	105	643,594	-	1,203,449	1,847,158
Profit for the year	-	-	-	-	51,477	51,477
Remeasurements of post employment benefit obligations (net)	-	-	-	-	10,133	10,133
Change in the fair value of hedging instrument	-	-	-	(7,502)	-	(7,502)
Net change in cost of hedging	-	-	-	514	-	514
Amounts reclassified from the income statement	-	-	-	5,544	-	5,544
Total other comprehensive income	-	-	-	**(1,444)**	**61,610**	**60,166**
Dividends paid	-	-	-	-	(8,372)	(8,372)
At 31 December 2020	10	105	643,594	(1,444)	1,256,687	1,898,952

The notes on pages 14 to 40 form an integral part of these financial statements.

Notes to the Financial Statements for the Year Ended 31 December 2021

1 General information

Vesuvius Holdings Limited (the 'Company') is a holding company. The Company is a private company limited by shares and is incorporated and domiciled in England & Wales, United Kingdom.
The address of its registered office is:
165 Fleet Street
London
EC4A 2AE

2 Accounting policies

Basis of preparation
The financial statements of the Company have been prepared in accordance with Financial Reporting Standard 101, 'Reduced Disclosure Framework' (FRS 101) and the Companies Act 2006 as applicable to companies using FRS 101. The financial statements have been prepared under the historical cost convention apart from financial assets and liabilities (including derivative instruments) which are carried at fair value through the profit or loss.

The Company proposes to continue to adopt the reduced disclosure framework of FRS 101 in its next financial statements.

The Company has split out the amounts owed by/to Group undertakings into current and non-current, to be in line with the expected repayment time frame.

The Company's parent undertaking, Vesuvius plc includes the Company in its consolidated financial statements. Therefore the Company is exempt, by virtue of section 400 of the Companies Act 2006, from the requirement to prepare consolidated financial statements. The consolidated financial statements of Vesuvius plc have been prepared in accordance with International Accounting Standards in conformity with the requirements of the Companies Act 2006 (IFRS) and the applicable legal requirements of the Companies Act 2006. In addition to complying with International Accounting Standards in conformity with the requirements of the Companies Act 2006, the Group Financial Statements also comply with International Financial Reporting Standards adopted pursuant to Regulation (EC) No 1606/2002 as it applies in the European Union.

Summary of significant accounting policies and key accounting estimates
The principal accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all the years presented, unless otherwise stated.

Summary of disclosure exemptions
In these financial statements, the Company has applied the exemptions available under FRS 101 in respect of the following disclosures:

• A cash flow statement and related notes (IAS 1 para 10(d) and IAS 7)
• Comparative period reconciliation for investments; (IAS 1 Para 38)
• Disclosures in respect of related party transactions with wholly owned members of the Vesuvius plc Group (IAS 24 para 17)
• Disclosures in respect of capital management (IAS 1 para 134-136)
• Disclosures in respect of fair value measurements (IFRS 13 para 91-99)
• Disclosures in respect of leases (IFRS 16 para 52, 89-91, 93)
• The effects of new but not yet effective IFRSs (IAS 8 para 30-31)

As the consolidated financial statements of the ultimate parent undertaking, Vesuvius plc, include the equivalent disclosures, the Company has also taken the exemptions under FRS 101 available in respect of the following disclosures:

• IFRS 2 (para 45(b) and 46-52) Share Based Payment in respect of Group settled share based payments;
• Certain disclosures required by IFRS 13 (para 91-99) Fair Value Measurement and the disclosures required by IFRS 7 Financial Instrument Disclosures.

Notes to the Financial Statements for the Year Ended 31 December 2021 (continued)

2 Accounting policies (continued)

Going concern

At 31 December 2021 the Company had net assets of £1,766.2m (2020: £1,899.0m). At 31 December 2021 the Company had net current assets of £1,626.2m (2020: £1,660.3m). The Directors have a reasonable expectation that the Company has adequate resources to continue in operational existence for the foreseeable future. The going concern position of the Company is linked to that of the wider Group. The liquidity of the Company, defined as undrawn committed debt facilities plus cash on balance sheet, was £308.8m (2020: £290.3m).

On 5 July 2021, the Company refinanced the Revolving Credit Facility ("RCF"). This has increased in size from £300m to £385m with a maturity date of 5 July 2025 and an option to extend this by 1 year.

The Company is the main holding company for the Vesuvius plc group and has the ability to direct the dividend policy and in effect increase the cash that is available to it. Each year dividends are paid up to subsidiaries of the Company by operating and holding companies within the Group and as such, cash is available to be distributed to the Company by these subsidiaries if required.

The Directors have reviewed cashflow scenarios for the Vesuvius Group for a period at least 12 months from 27 July 2022, the date of approval of the 2022 Vesuvius plc Group Interim Condensed Financial Statements, including those that may be relevant to the Company and its investee companies. These forecasts reflect an assessment of current and future end market conditions, including the impact of covid-related lockdowns in China and war in Ukraine, and their impact on the Group's future trading performance. The analysis undertaken includes a severe but plausible downside scenario which assumes a decline in business activity and profitability in H2 2022 to the level achieved in H2 2020. Relative to H1 2022, this implies an c.30% decline in sales and a c.60% decline in Trading Profit, with no improvement from this level assumed in 2023. Even in this downside scenario, the forecasts show that the Group's maximum net debt / EBITDA (pre-IFRS 16 in-line with the covenant calculation) does not exceed 1.0x, compared to a leverage covenant of 3.25x.

On the basis of the exercise described above and the Group's available committed liquidity which stands at £416m per 30 June 2022, the Directors consider that the Company has adequate resources to continue in operational existence for a period of at least 12 months from the date of signing of these financial statements. Accordingly, the Directors continue to adopt a going concern basis in preparing the financials statements of the Company.

Changes in accounting policy

Certain new accounting standards and interpretations have been published that are not mandatory for 31 December 2021 reporting periods and have not been early adopted by the Company. The Company's assessment of the impact of these new standards and interpretations is that they are not expected to have a significant impact on the Company's financial position, performance, cash flows and disclosures.

Benchmark reform

The replacement of Libor with alternative interest rate benchmarks is now well progressed and the Company has reviewed the impact of this on its financial statements.

The £385m central bank facility signed on 5 July 2021 provides for the use of SONIA and EURIBOR for GBP and EUR drawdowns respectively. USD Libor remains quoted until June 2023; a replacement reference rate for USD drawdowns will be agreed by that date as provided for within the terms of the facility.

The Company's US private placement notes and cross currency interest rate swaps are not exposed to Libor rates and as a result are unaffected by the benchmark reform. The Company's £19m bi-lateral loan agreement was amended in October 2021 with GBP Libor replaced by SONIA. The Company concludes that benchmark reform has no material impact on its financial statements.

The Company also has intercompany loan arrangements which are impacted by the benchmark reform. Management has undertaken an impact assessment and the impact is expected to be immaterial. GBP Libor linked loans will be impacted in the following financial year upon transition to SONIA and the USD Libor remains quoted until June 2023.

The Company also confirms it has made no changes to its risk management strategy as a result of benchmark reform.

Foreign currency transactions and balances

The financial statements are presented in 'Pounds Sterling (£)', which is also the Company's functional currency. Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are remeasured. Foreign exchange gains and losses resulting from the settlement of such transactions, and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies, are recognised in the Profit and Loss Account under 'Other interest receivable and similar income' and 'interest payable and similar expenses' respectively.

2 Accounting policies (continued)

Tax

Tax expense represents the sum of current tax and deferred tax. Current and deferred tax are recognised in the Profit and Loss Account except to the extent that they relate to items charged or credited in the Statement of Comprehensive Income or Statement of Changes in Equity, in which case the associated tax is also recognised in those statements. In arriving at its current tax charge, the Company also makes careful assessment of the likely impact of tax law changes.

The current income tax charge is calculated on the basis of tax rates and laws that have been enacted or substantively enacted by the reporting date in the countries where the Company operates and generates taxable income.

Deferred tax is recognised on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit and is accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from the initial recognition of goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit. Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset is realised, based on tax rates and laws that have been enacted, or substantively enacted, by the balance sheet date.

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries and interests in joint ventures, except where the Company is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. The carrying amount of deferred tax assets is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered. Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied by the same taxation authority and the Company intends to settle its current tax assets and liabilities on a net basis.

Leases

Lease liabilities are recognised at the present value of the remaining lease payments, discounted using the interest rate implicit in the lease if that rate could be readily determined. If that rate cannot be readily determined the lessee's incremental borrowing rate was used, calculated as the local government bond rate plus an interest rate spread. In cases where there was an option to terminate or extend a lease, the duration of the lease assumed for this purpose reflected the Group's existing intentions regarding such options. Lease liabilities include the net present value of the following lease payments:

- fixed payments (including in-substance fixed payments), less any lease incentives receivable
- variable lease payments that are based on an index or a rate
- amounts expected to be payable by the lessee under residual value guarantees
- the exercise price of a purchase option if the lessee is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

Leases of low-value assets and short-term leases (shorter than 12 months) are classified as operating leases and neither the asset nor the corresponding liability to the lessor is recognised in the Balance Sheet. Rentals payable under operating leases are charged to the Group Income Statement on a straight-line basis over the term of the lease. Benefits received and receivable as an incentive to enter an operating lease are also spread on a straight-line basis over the lease term.

Tangible fixed assets

Tangible fixed assets are initially recognised at cost. As well as the purchase price, cost includes directly attributable costs and the estimated present value of any future unavoidable costs of dismantling and removing items. The corresponding liability is recognised within provisions.

Depreciation on assets under construction does not commence until they are complete and available for use. Depreciation is provided on all other items of property, plant and equipment so as to write off their carrying value over their expected useful economic lives. It is provided at the following rates:

- Leasehold property: between 2 to 10 % per annum straight line
- Right of use asset – Land and Buildings: over the expected term of the lease
- Land and Buildings – Owned: between 6 to 20 % per annum straight line

Gains and losses on disposals are determined by comparing the proceeds with the carrying amount, and they are recognised within 'Other income' in the income statement.

Investments

Shares in subsidiaries and loans to subsidiaries are stated at cost less any impairment in value.

2 Accounting policies (continued)

Impairment of Investment in Subsidiaries

The Company carries out an annual investment impairment indicator test. Where impairment indicators are identified, the recoverable amount of the investment is checked against it's carrying value to assess whether any provision for impairment of the carrying value is required.

Cash and cash equivalents
Cash and cash equivalents comprise cash on hand and call deposits, and other short-term highly liquid investments that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value.

Financial assets
The Company holds all financial assets at amortised cost with the exception of derivative financial instruments which are held at fair value through the profit or loss account. These are set out in Note 18.

IFRS 13 Fair Value Measurement requires classification of financial instruments within a hierarchy that prioritises the inputs to fair value measurement. The three levels of the fair value hierarchy are:

- Level 1 - Unadjusted quoted prices in active markets for identical assets or liabilities
- Level 2 - 1nputs other than quoted prices that are observable for the asset or liability, either directly or indirectly
- Level 3 - 1nputs that are not based on observable market data

Trade and other receivables are amounts due from other subsidiaries in the Group. Trade receivables are recognised initially at fair value. The Company holds the trade receivables with the objective of collecting the contractual cash flows (held to collect) and therefore measures them subsequently at amortised cost using the effective interest method.

Impairment of financial assets
The Company applies the IFRS 9 simplified approach to measuring expected credit losses which uses a 12-month expected loss allowance for all debtor balances. While cash and cash equivalents are also subject to the impairment requirements of IFRS 9, the identified impairment loss was also immaterial

Trade and other payables
Trade and other payables are initially recognised at fair value and subsequently measured at amortised costs, using the effective interest method.

Bank Loans and overdrafts
Loans and borrowings are initially recognised at fair value net of directly attributable transaction costs. After initial recognition they are measured at amortised cost, using the effective interest method. Borrowings are classified as current liabilities unless the Company has an unconditional right to defer settlement of the liability for at least 12 months after the reporting date.

Derivative financial instruments
The Company uses derivative financial instruments ('Derivatives') to manage the financial risks associated with the underlying activities of the Group and the financing of those activities. Derivatives are measured at fair value using market prices at the balance sheet date. Any Derivatives which form part of a hedge accounting relationship are designated as such on the date on which they are executed. Any Derivatives which do not form part of a designated hedge accounting relationship are classified as 'held for trading' for accounting purposes and are accounted for at fair value through profit or loss. They are presented as current assets or liabilities to the extent they are expected to be settled within 12 months after the end of the reporting period, otherwise they are presented as non-current assets or liabilities.

Cash flow hedges
Changes in the fair value of Derivatives designated as cash flow hedges are recognised in other comprehensive income to the extent that the hedges are effective. Any ineffective portion would immediately be recognised in net finance costs in the profit or loss. If a forecast transaction is no longer expected to occur, the amounts previously recognised in other comprehensive income would be transferred to net finance costs in the profit or loss.

The hedging reserve includes the cash flow hedge reserve and the costs of hedging reserve. The cash flow hedge reserve is used to recognise the effective portion of gains or losses on derivatives that are designated and qualify as cash flow hedges. Amounts are subsequently reclassified from profit or loss as appropriate.

Dividend Income
Dividend income is recognised when the right to receive payment is established.

Management charges
Management charges are invoiced to other Vesuvius group companies where costs incurred by the Company are for the benefit of other group companies. Invoices are issued and settled quarterly.

2 Accounting policies (continued)

Provisions for liabilities
Provisions are recognised when the Company has a present obligation (legal or constructive) as a result of a past event, it is probable that the Group will be required to settle that obligation and a reliable estimate can be made of the amount of the obligation.

Provisions are measured at the Directors' best estimate of the expenditure required to settle the obligation at the reporting date and are discounted to present value where the effect is material.

Impairment of non-financial assets
The Directors regularly review the performance of the business and the external business environment to determine whether there is any indication that the Company's tangible assets have suffered an impairment loss. If such indication exists, the higher of the value in use and the fair value less costs to sell of the asset is estimated and compared with the carrying value in order to determine the extent, if any, of the impairment loss. For the purpose of impairment testing, the recoverable amount of an asset is the higher of (i) its fair value less costs to sell and (ii) its value in use.

Issued share capital
Equity instruments issued by the Company are recorded at the proceeds received, net of direct issue costs.

Dividends
Dividend distribution to the company's shareholders is recognised as a liability in the company's financial statements in the period in which the dividends are paid.

Defined contribution pension obligation
The amount charged to the income statement represents the contributions payable to each plan for the year. Differences between the contributions payable in the year and contributions actually paid are shown as either accruals or prepayments in the balance sheet.

Defined benefit pension obligation
The net surplus recognised in the balance sheet for the Company's defined benefit plan is the present value of the defined benefit obligation at the balance sheet date, less the fair value of the plan assets. The defined benefit obligation is calculated by independent actuaries using the projected unit credit method and by discounting the estimated future cash flows using interest rates on high-quality corporate bonds that have terms to maturity approximating the terms of the related pension liability. Any asset recognised in respect of a surplus arising from this calculation is limited to the asset ceiling, where this is the present value of any economic benefits available in the form of refunds or reductions in future contributions in respect of the plans. The Company has an unconditional right to a refund of surplus, as defined under IFRIC 14, and considers that the possibility that a surplus could be reduced or extinguished by discretionary actions by the Trustee does not affect the existence of the asset at the end of the reporting period. The Group therefore recognises a pension asset with respect to the scheme valued on an IAS 19 basis. No liability is recognised with respect to further funding contributions.
The expense for the Company's defined benefit plans is recognised in the Profit and Loss Account. Actuarial gains and losses arising on the assets and liabilities of the plan are reported within the Statement of Comprehensive Income; and gains and losses arising on settlements and curtailments are recognised in the Profit and Loss Account in the same line as the item that gave rise to the settlement or curtailment or, if material, separately reported as a component of operating profit.

The Company is the sponsoring employer of a group wide defined benefit pension plan. As there is no contractual agreement or stated group policy for charging the net defined benefit cost of the plan to participating entities, the net defined benefit cost of the pension plan is recognised fully by the sponsoring employer, which is the Company.

The Company's financial statements include the costs and obligations associated with the provision of pension and other post retirement benefits to current and former employees. It is the Directors' responsibility to set the assumptions used in determining the key elements of the costs of meeting such future obligations. These assumptions are set after consultation with the actuaries and include those used to determine regular service costs and the financing elements related to the plans' assets and liabilities. Whilst the Directors believe that the assumptions used are appropriate, a change in the assumptions could affect the profit and financial position. The pension obligations are most sensitive to a change in the discount rate and therefore could materially change in the next financial year if the discount rate changes significantly. Sensitivity disclosures are included in Note 17.

2 Accounting policies (continued)

Share based payments
The Company's immediate parent company, Vesuvius plc, operates equity-settled share based payment arrangements for employees of the Group. The Company bears the expense attributable to those awards made to its employees. Equity-settled share based payments are measured at fair value at the date of grant. The fair value determined at the grant date takes account of the effect of market-based conditions, such as the Total Shareholder Return target upon which vesting for some of the awards is conditional, and is expensed on a straight-line basis over the vesting period with a corresponding increase in equity. The cumulative expense recognised is adjusted for the best estimate of the shares that will eventually vest and for the effect of other non market-based vesting conditions, such as growth in headline earnings per share, which are not included in the fair value determined at the date of grant. For grants with market-based conditions attaching to them, fair value is measured using a form of stochastic option pricing model. For all other grants, fair value is measured using the Black-Scholes model.

Critical Accounting Estimates
Determining the carrying amount of some assets and liabilities requires the estimation of the effect of uncertain future events. The major sources of estimation uncertainty that have a significant risk of resulting in a material adjustment to the carrying amounts of assets or liabilities are noted below.

Impairment and valuation of investments
For the below estimate, the Company does not have any key assumptions concerning the future, or other key sources of estimation uncertainty in the reporting period that are reasonably expected to have a significant risk of causing a material adjustment to the carrying amounts of assets/liabilities within the next financial year. Nonetheless, this estimate has the potential to materially vary over time and is therefore highlighted.

The Company assesses its investments in subsidiaries and other companies for impairment shortly before the Company's year-end or whenever events or changes in circumstances indicate that the recoverable amount of the investment could be less than the carrying amount of the investment. If this is the case, the investment is considered to be impaired and is written down to its recoverable amount. Judgement is required in the determination of the recoverable amount as the Company evaluates various factors related to the operational and financial position of the relevant investee business, appropriate discounting and long-term growth rates.

Determining whether investments are impaired requires an estimation of the value-in-use. The value-in-use calculation requires estimation of future cash flows expected to arise, the selection of suitable discount rates and the estimation of long-term growth rates. The annual investment impairment test is described in Note 12 below.

Employee benefits
The Company's Financial Statements include the costs and obligations associated with the provision of pension and other post-retirement benefits to current and former employees. It is the Directors' responsibility to set the assumptions used in determining the key elements of the costs of meeting such future obligations. These assumptions are set after consultation with the Group's actuaries and include those used to determine regular service costs and the financing elements related to the plans' assets and liabilities. Whilst the Directors believe that the assumptions used are appropriate, a change in the assumptions could affect the Group's profit and financial position. The pension obligations are most sensitive to a change in the discount rate and therefore could materially change in the next financial year if the discount rate changes significantly. Sensitivity disclosures are included in Group's Note 26.3.

Impairment and classification of intercompany balances
Intercompany balances are reviewed for impairment if events or changes in circumstances indicate that the carrying amount may not be recoverable. The Company applies the IFRS 9 simplified approach to measuring expected credit losses which uses a 12-month expected loss allowance for amounts due from other group companies. As determining such assumptions is inherently uncertain and subject to future factors, there is the potential these may differ in subsequent periods and therefore materially change the conclusions reached.

3 Operating (Loss)/ Profit

Arrived at after charging

	2021 £ 000	2020 £ 000
Employee benefits expense (Refer to note 7)	12,143	8,407
GMP equalisation charge	-	829
Depreciation expense	471	377
Loss on disposal of plant property and equipment	-	425
Operating lease expense - property	26	-
Operating lease expense - other	2	-

Details of auditors' remuneration is set out in Note 9.

During the year, Thomas Marshall (Loxley) Ltd was liquidated. The company had an investment carrying value of £3.0m (net of provision for impairment of £3.6m) on 1 January 2021. A loss on disposal of £3.0m was recognised in the Company's income statement on liquidation. The Company also had loans payable to the liquidated entity and as a result the intercompany loans were cancelled, resulting in a net income of £2.9m.

4 Income from shares in group undertakings

	2021 £ 000	2020 £ 000
Intra-group management charges	15,251	9,057
Intra-group dividend received	51	29,387
	15,302	**38,444**

5 Other interest receivable and similar income

	2021 £ 000	2020 £ 000
Interest income on bank deposits	716	1,236
Interest income from loans to Group undertakings	31,836	48,864
Net interest on pension asset	1,579	1,920
Other finance income	-	15
	34,131	**52,035**

6 Interest payable and similar expenses

	2021 £ 000	2020 £ 000
Interest on bank overdrafts and borrowings	11,146	14,740
Interest expense on loans from Group undertakings	19,537	26,858
Other finance costs	3,245	9,434
	33,928	**51,032**

7 Staff costs

The aggregate payroll costs (including Directors' remuneration) were as follows:

	2021 £ 000	2020 £ 000
Wages and salaries	8,463	5,362
Social security costs	1,213	639
Other short-term employee benefits	216	15
Pension costs, defined contribution scheme	603	376
Pension costs, defined benefit scheme	700	2,050
Share-based payment charge/ (credit)	948	(35)
	12,143	**8,407**

7 Staff costs (continued)

The monthly average number of persons employed by the company (including Directors) during the year, analysed by category was as follows:

	2021 No.	2020 No.
Administration and support	37	35

8 Directors' remuneration

The Directors' remuneration for the year was as follows:

	2021 £ 000	2020 £ 000
Remuneration	1,400	948
Contributions paid to money purchase schemes	44	38
	1,444	**986**

The Directors in office at the end of the year received no remuneration in respect of their appointments as Directors. Remuneration disclosed relates to that received in relation to the ordinary course of employment as employees of Vesuvius Holdings Limited. The remuneration of Directors employed by Vesuvius plc (including that of the highest paid Director) is disclosed in the 2021 Annual Report and Financial Statements of Vesuvius plc. No recharge is made to the Company in respect of remuneration borne by Vesuvius plc.

During the year the number of Directors who were receiving benefits and share incentives was as follows:

	2021 No.	2020 No.
Received or were entitled to receive shares under long term incentive schemes	4	4
Exercised options during the year	3	2
Accruing benefits under money purchase pension scheme	3	3

For Directors of the Company, who are also Directors of Vesuvius plc and other group companies, share options granted and exercised are in respect of the services provided to the Company.

In respect of the highest paid director:

	2021 £ 000	2020 £ 000
Remuneration	1,552	797
Company contributions to money purchase pension schemes	154	139
	1,706	**936**

The highest paid director is remunerated by Vesuvius plc directly.

Share options exercised by the highest paid director is presented in the Directors' Remuneration Report in the Vesuvius plc 2021 Annual Report and Financial Statements.

During the year the highest paid director received or was entitled to receive, from a Group company, shares under a long term incentive scheme. This director also received or was entitled to receive a pension allowance which could be used to participate in Vesuvius' pension arrangements, be invested in their own pension arrangements or be taken as a cash supplement.

9 Auditors' remuneration

Amounts receivable by the Company's auditors and their associates in respect of services to the Company, other than the audit of the Company's financial statements, have not been disclosed as the information is required instead to be disclosed on a consolidated basis in the consolidated financial statements of the Company's parent, Vesuvius plc. An allocated audit fee was borne by the ultimate parent undertaking, Vesuvius plc, on behalf of the Company of £8,506 (2020: £7,920).

10 Taxation on profit

Tax charged in the profit and loss account

	2021 £ 000	2020 £ 000
Current taxation		
UK corporation tax	134	157

The tax on profit before tax for the year is higher than the standard rate of corporation tax in the UK (2020: lower than the standard rate of corporation tax in the UK) of 19% (2020: 19%).

The differences are reconciled below:

	2021 £ 000	2020 £ 000
Profit before tax	53	51,634
Profit multiplied by corporation tax at standard rate in the UK	10	9,810
Decrease from effect of revenues exempt from taxation	(10)	(10,758)
Increase from effect of expenses not deductible in determining taxable profit	4	1,541
Group relief not settled	(4)	(593)
Prior year adjustment	-	124
Increase arising from overseas tax suffered	134	33
Total income tax expense	134	157

Factors that may affect future tax charges
Following the 2021 Budget announcement, the rate of corporation tax will be increased from 19% to 25% from the 1 April 2023.

Deferred tax
Deferred tax liabilities recognised at rate of 25%

	Liability £ 000
2021	
Pension benefit obligations	(5,315)

	Liability £ 000
2020	
Pension benefit obligations	(21,599)

Deferred tax movement during the year:

	At 1 January 2021 £ 000	Recognised in other comprehensive income £ 000	At 31 December 2021 £ 000
Pension benefit obligations	(21,599)	16,284	(5,315)

Deferred tax movement during the prior year:

	At 1 January 2020 £ 000	Recognised in other comprehensive income £ 000	At 31 December 2020 £ 000
Pension benefit obligations	(16,777)	(4,822)	(21,599)

There are £482,154 of deductible temporary differences (2020: £334,834) and £64,741,560 of unused tax losses (2020: £49,203,585) for which no deferred tax asset is recognised in the Balance Sheet.

11 Property, plant and equipment

Movement in net book value

Cost	**Leasehold property**	**Right of use asset – Land and Buildings**	**Land and Buildings - Owned**	**Plant and Machinery – Owned**	**Total**
	£ 000	**£ 000**	**£ 000**	**£ 000**	**£ 000**
As at 1 January 2020	1,284	568	-	239	2,091
Capital expenditure additions	-	3,599	-	-	3,599
Disposals	(1,284)	(568)	-	(217)	(2,069)
As at 31 December 2020	**-**	**3,599**	**-**	**22**	**3,621**
Capital Expenditure additions	-	-	1,571	-	1,571
Disposals	-	-	-	-	-
As at 31 December 2021	**-**	**3,599**	**1,571**	**22**	**5,192**

Accumulated depreciation	**Leasehold property**	**Right of use asset – Land and Buildings**	**Land and Buildings - Owned**	**Plant and Machinery – Owned**	**Total**
	£ 000	**£ 000**	**£ 000**	**£ 000**	**£ 000**
As at 1 January 2020	848	284	-	151	1,283
Depreciation Charge	73	284	-	20	377
Disposals	(921)	(568)	-	(155)	(1,644)
As at 31 December 2020	-	-	-	**16**	**16**
Depreciation	-	360	105	6	471
Disposals	-	-	-	-	-
As at 31 December 2021	-	**360**	**105**	**22**	**487**

Net Book Value	**Leasehold property**	**Right of use asset – Land and Buildings**	**Land and Buildings - Owned**	**Plant and Machinery – Owned**	**Total**
	£ 000	**£ 000**	**£ 000**	**£ 000**	**£ 000**
31 December 2021	-	3,239	1,466	-	4,705
31 December 2020	-	3,599	-	6	3,605
31 December 2019	436	284	-	88	808

Land and Buildings addition of £1.6m relates to refurbishment project of Fleet Street office during the year and is depreciated over the term of the lease.

12 Investments

	Subsidiaries £ 000
Cost or valuation	
At 1 January 2021 (a)	1,446,795
Additions	-
Disposals	(6,549)
At 31 December 2021	**1,440,246**
Provision	
At 1 January 2021 (a)	26,905
Provision	2,966
Disposals	(6,549)
At 31 December 2021	**23,322**
Carrying amount	
At 31 December 2021	**1,416,924**
At 31 December 2020	1,419,890

(a) Prior year figures were restated (2020 cost: £1,458,638,000; 2020 provision: £38,748,000) to correspond to underlying accounting records with £nil impact on the carrying amount brought forward.

During the year, Thomas Marshall (Loxley) Ltd was liquidated. The company had an investment carrying value of £3.0m (net of provision for impairment of £3.6m) on 1 January 2021. A loss on disposal of £3.0m was recognised in the Company's income statement on liquidation.

The Group carried out its investment impairment test as at 31 October 2021 (2020: 31 October 2020). The recoverable amount of the investment exceeded its carrying value of all existing investments, therefore no impairment charges have been recognised, except as set out above. No further impairment indicators were identified up to 31 December 2021.

The cash flow predictions are based on financial budgets and strategic plans approved by the Board. These assume a level of revenue and profits which are based on both past performance and expectations for future market development and consider the cyclicality of the business in which the Group operates. In assessing the cash flows of the parent's investment in its subsidiaries, the amounts payable by the parent to subsidiaries are also taken into account. Cash flows beyond the period of the strategic plans are extrapolated in perpetuity using a long-term growth rate of 2.5% (2020: 2.5%). The key assumptions and methodology in determining the value in use of the Group are disclosed in Note 17.2 to the Vesuvius plc 2021 Annual Report and Financial Statements. A sensitivity analysis was carried out using reasonably possible changes to the key assumptions set out in Note 17.2 of the Vesuvius plc 2021 Annual Report and Financial Statements. No scenarios of impairment were identified.

The subsidiaries, joint ventures and associates of Vesuvius Holdings Limited and the countries in which they are incorporated are set out below. At 31 December 2021, the ordinary share capital of those marked with * was directly owned by Vesuvius Holdings Limited and the ordinary share capital of the remaining companies was owned by a subsidiary of the Company. As with Vesuvius Holdings Limited, all of the companies listed below have a 31 December year-end.

Notes to the Financial Statements for the Year Ended 31 December 2021 (continued)

12 Investments (continued)

Name of subsidiary	Country	Registered office
Advent Process Engineering Inc.	Canada	333 Prince Charles Drive, Welland, Ontario, L3B 5P4, Canada
BMI Refractory Services Inc.	US (Pennsylvania)	600 N, 2nd Street, Suite 401 Harrisburg, PA 17101-1071, United States
Brazil 1 Limited	England & Wales	165 Fleet Street, London, EC4A 2AE, England
CCPI Inc.	US (Delaware)	Suite 201, 910 Foulk Road, Wilmington, New Castle, Delaware, 19803, United States
Cookson Dominicana, SRL	Dominican Republic	Km 7 1/2, Autopista San Isidro, Edificio Modelo A, Zona Franca San Isidro, Santo Domingo Oeste, Dominican Republic
East Moon Investment (HK Holding) Company Limited	Hong Kong	Unit 01, 82/F, International Commerce Centre, 1 Austin Road West, Kowloon, Hong Kong
Flo-Con Holding, Inc.	US (Delaware)	CT Corporation, 1209 Orange Street, The Corporation Trust Company, Wilmington, Delaware, 19801, United States
Foseco (FS) Limited	England & Wales	1 Midland Way, Central Park, Barlborough Links, Derbyshire, S43 4XA, England
Foseco (Jersey) Limited	Jersey	44 Esplanade, St Helier, JE4 9WG, Jersey
Foseco (UK) Limited	England & Wales	165 Fleet Street, London, EC4A 2AE, England
Foseco Canada Limited	Canada	181 Bay Street, Suite 1800, Toronto, Ontario, M5J 2T9, Canada
Foseco Espaňola SA	Spain	5, Barrio Elizalde, Izurza, Bizkaia, 48213, Spain
Foseco Foundry (China) Limited	China	Room 819, Shekou Zhaoshang Building, Nanshan District, Shenzhen, Guangdong, 518067, China
Foseco Fundición Holding (Española), S.L.	Spain	5, Barrio Elizalde, Izurza, Bizkaia, 48213, Spain
Foseco Holding (Europe) Limited	England & Wales	165 Fleet Street, London, EC4A 2AE, England
Foseco Holding (South Africa) (Pty) Limited	South Africa	12, Bosworth Street, Alrode, Alberton, 1449, South Africa
Foseco Holding BV	Netherlands	165 Fleet Street, London, EC4A 2AE, England (Branch registration in England)
Foseco Holding International Limited	England & Wales	165 Fleet Street, London, EC4A 2AE, England
Foseco Holding Limited	England & Wales	165 Fleet Street, London, EC4A 2AE, England

12 Investments (continued)

Name of subsidiary	Country	Registered office
Foseco Industrial e Comercial Ltda.	Brazil	Km 15, Rodovia Raposo Tavares, Butanta Cep, Sao Paulo, 05577-100, Brazil
Foseco International Holding (Thailand) Limited	Thailand	170/69, 22nd Floor Ocean Tower 1, Ratchadapisek Road, Klongtoey, Bangkok, 10110, Thailand
Foseco International Limited	England & Wales	1 Midland Way, Central Park, Barlborough Links, Derbyshire, S43 4XA, England
Foseco Japan Ltd.	Japan	9th Floor, Orix Kobe Sannomiya Building, 6-1-10, Goko dori, Chuo-ku, Kobe Hyogo, 651-0087, Japan
Foseco Korea Limited	Korea	74 Jeongju-ro, Wonmi-gu, Bucheon-si, Gyeonggi-do, 14523, South Korea
Foseco Limited	England & Wales	165 Fleet Street, London, EC4A 2AE, England
Foseco Metallurgical Inc.	US (Delaware)	CT Corporation, 1209 Orange Street, The Corporation Trust Company, Wilmington, Delaware, 19801, United States
Foseco Nederland BV	Netherlands	Binnenhavenstraat 20, 7553 GJ Hengelo (OV), Netherlands
Foseco Overseas Limited	England & Wales	165 Fleet Street, London, EC4A 2AE, England
Foseco Philippines Inc	Philippines	Unit 401, 4th Floor 8 Antonio Centre, Prime St. Madrigal Business Park 2, Ayala Alabang Muntinlupa City, 1770 Philippines
Foseco Portugal Produtos Para Fundiçâo Lda.	Portugal	Rua Manuel Pinto de Azevedo, No 626 4100-320 Porto, Portugal
Foseco SAS	France	Le Newton C, 7 Mail Barthélémy Thimonnier, 77185 Lognes, France
Foseco Steel (UK) Limited	England & Wales	1 Midland Way, Central Park, Barlborough Links, Derbyshire, S43 4XA, England
Foseco Technology Limited	England & Wales	165 Fleet Street, London, EC4A 2AE, England
J. H. France Refractories Company	US (Delaware)	CT Corporation, 1209 Orange Street, The Corporation Trust Company, Wilmington, Delaware, 19801, United States
John G. Stein & Company Limited *	England & Wales	1 Midland Way, Central Park, Barlborough Links, Derbyshire, S43 4XA, England
Mainsail Insurance Company Limited*	Bermuda	Victoria Place, 5th Floor, 31 Victoria Street, Pembroke, Hamilton HM10, Bermuda
Mascinco Empreendimentos e Participações Ltda.	Brazil	Avenida Brasil, 49550 - parte, Distrito Industrial de Palmares - Campo, Grande - Cep: 23065-480, Rio de Janeiro, RJ, Brazil
Mastercodi Industrial Ltda	Brazil	Rodovio Raposo Tavares, KM15, Butantã, São Paulo, Brazil
Mercajoya, S.A.	Spain	Capitán Haya, 56 - 1ºH, 28020 Madrid, Spain

12 Investments (continued)

Name of subsidiary	Country	Registered office
Metal Way Equipamentos Metalurgicos Ltda	Brazil	Estrada Santa Isabel, 7655 KM37, Bairro Do Una, Itaquaquecetuba, São Paulo - SP, CEP: 08580 000, Brazil
New Foseco (UK) Limited	England & Wales	1 Midland Way, Central Park, Barlborough Links, Derbyshire, S43 4XA, England
Process Metrix, LLC	US (California)	6622 Owens Drive, Pleasanton, California, 94588, United States
PT Foseco Indonesia	Indonesia	Jl. Rawa Gelam 2/5, Kawasan Industri Pulogadung, Jakarta, 13930, Indonesia
PT Foseco Trading Indonesia	Indonesia	Jl. Rawa Gelam 2/5, Kawasan Industri Pulogadung, Jakarta, 13930, Indonesia
Realisations 789, LLC	US (Delaware)	CT Corporation, 1209 Orange Street, The Corporation Trust Company, Wilmington, Delaware, 19801, United States
S G Blair & Company Limited	England & Wales	1 Midland Way, Central Park, Barlborough Links, Derbyshire, S43 4XA, England
Vesuvius-SERT SAS	France	3, Avenue de l'Europe, Parc, Les Pivolles, Decines-Charpieu, 69150, France
SIDERMES Inc.	Canada	175, Calixa-Lavallée Verchêres, Québec J0L2R0, Canada#
SIDERMES Do Brasil Sensores Termicos Ltda.	Brazil	Estrada Municipal PDD 436, S/N, Prédio “C”, Bairro da Boa Vista, Municipio de Piedade, Estado de São Paulo, Brazil
SIDERMES Latinoamericana CA	Venezuela	Zona Industrial, San Vicente Av., Anton Phillips Grupo Industrial, San Vicente Local 4, Maracay, Venezuela
SIDERMES S.A.	Argentina	Urquiza 919 Piso 2 Rosario Santa Fe, CP 2000, Argentina
SIR Feuerfestprodukte GmbH	Germany	Siegener Strasse 152, Kreuztal, D-57223, Germany
Soled SAS	France	Centre d’Activités Economiques Zone Industrielle de Franchepré, 54240 Joeuf, France
Veservice Ltda	Brazil	Av Brasil, 49550, Distrito Industrial de Palmares, Campo Grande, Rio de Janeiro, 23065-480, Brazil
Vesuvius (Thailand) Co., Ltd	Thailand	170/69, 22nd Floor Ocean Tower 1, Ratchadapisek Road, Klongtoey, Bangkok, 10110, Thailand
Vesuvius (V.E.A.R.) S.A.	Argentina	Street Urquiza, 919,Floor 2, Rosario, Provincia de Santa Fé, Argentina
Vesuvius Advanced Ceramics (China) Co., Ltd	China	221 Xing Ming Street, China-Singapore Suzhou Ind Park, Suzhou, Jiangsu Province, 215021, China

Notes to the Financial Statements for the Year Ended 31 December 2021 (continued)

12 Investments (continued)

Name of subsidiary	Country	Registered office
Vesuvius America, Inc.	US (Delaware)	1209 Orange Street, Wilmington, Delaware, 19801, United States
Vesuvius Australia (Holding) Pty Limited	Australia	40-46 Gloucester Boulevarde, Port Kembla, NSW, 2505, Australia
Vesuvius Australia Pty Limited	Australia	40-46 Gloucester Boulevarde, Port Kembla, NSW, 2505, Australia
Vesuvius Belgium N.V.*	Belgium	Zandvoordestraat 366, Oostende, B-8400, Belgium
Vesuvius Canada Inc.	Canada	181 Bay Street, Suite 1800, Toronto, Ontario, M5J 2T9, Canada
Vesuvius Ceramics Limited	England & Wales	165 Fleet Street, London, EC4A 2AE, England
Vesuvius China Holdings Co. Limited	Hong Kong	Unit 01, 82/F International Commerce Centre, 1 Austin Road West, Kowloon, Hong Kong
Vesuvius China Limited	England & Wales	165 Fleet Street, London, EC4A 2AE, England
Vesuvius Colombia SAS	Colombia	Calle 26 No. 102-20 Floor 3, Bogota, Colombia
Vesuvius Corporation S.A.*	Switzerland	Via Nassa, 17, Lugano, CH 6900, Switzerland
Vesuvius CSD Sp.z.o.o.	Poland	ul. Jasnogórska 11,Kraków, 31-358, Poland
Vesuvius Emirates FZE	United Arab Emirates	Warehouse No: 1J-09/3, P O Box 49261, Hamriyah Free Zone, Sharjah, United Arab Emirates
Vesuvius Europe Beteiligungs GmbH	Germany	Geschaftsanschrift, Schieferbank 2-16, 45472 Mülheim an der Ruhr
Vesuvius Europe GmbH & Co KG	Germany	Geschaftsanschrift, Schieferbank 2-16, 45472 Mülheim an der Ruhr
Vesuvius Europe SA	Belgium	17 Rue de Douvrain, Ghlin, 7011, Belgium
Vesuvius Europe SAS	France	3, Avenue DeL'europe, Parc Les Pivolles,69150 Decines-Charpieu
Vesuvius Financial 1 Limited*	England & Wales	165 Fleet Street, London, EC4A 2AE, England
Vesuvius Finland OY	Finland	Pajamäentie 8D7, 00360 Helsinki, Finland
Vesuvius Foundry Products (Suzhou) Co., Ltd.	China	12 Wei Wen Road, China-Singapore Suzhou Ind Park, Suzhou, Jiangsu Province, 215122, China
Vesuvius Foundry Technologies (Jiangsu) Co. Ltd	China	2, Changchun Road, Economic Development Area, Changshu, Jiangsu, 215537, China
Vesuvius France S.A.	France	Rue Paul Deudon 68, Boite Postale 19, Feignies, F-59750, France
Vesuvius GmbH	Germany	Gelsenkirchener Strasse 10, Borken, D-46325, Germany
Vesuvius Group Limited	England & Wales	165 Fleet Street, London, EC4A 2AE, England
Vesuvius Group SA	Belgium	17 Rue de Douvrain, Ghlin, 7011, Belgium

12 Investments (continued)

Name of subsidiary	Country	Registered office
Vesuvius Holding Deutschland GmbH	Germany	Gelsenkirchener Strasse 10, Borken, D-46325, Germany
Vesuvius Holding France S.A.S	France	68 Rue Paul Deudon, BP 19, Feignies 59750, France
Vesuvius Holding Italia Sarl	Italy	Via Mantova 10, 20835 Muggio MB, Italy
Vesuvius Iberica Refractarios, S.A.	Spain	Capitán Haya, 56 - 1ºH, 28020 Madrid, Spain
Vesuvius International Corporation	US (Delaware)	CT Corporation, 1209 Orange Street, The Corporation Trust Company, Wilmington, Delaware, 19801, United States
Vesuvius Investments Limited	England & Wales	165 Fleet Street, London, EC4A 2AE, England
Vesuvius Istanbul Refrakter Sanayi ve Ticaret A.S.	Turkey	Gebze OSB2 Mh. 1700., Sok No:1704/1, Cayirova, Kocaeli, 41420, Turkey
Vesuvius Italia SPA	Italy	Via Mantova 10, 20835 Muggio MB, Italy
Vesuvius Japan Inc.	Japan	9th Floor, Orix Kobe Sannomiya Building 6-1-10, Goko dori, Chouku, Kobe Hyogo, 651-0087, Japan
Vesuvius K.S.R. Limited*	England & Wales	1 Midland Way, Central Park, Barlborough Links, Derbyshire, S43 4XA, England
Vesuvius Life Plan Trustee Limited*	England & Wales	165 Fleet Street, London, EC4A 2AE, England
Vesuvius LLC	Russia	502, 5th floor, 1 Myasicsheva str., Zhukovsky, Moscow region, 140180, Russian Federation
Vesuvius Malaysia Sdn Bhd	Malaysia	Unit 30-01, Level 30 Tower A. Vertical Business Suite Avenue 3. Bangsar South. No 8 Jalan Krinchi, Kuala Lumpur Wilayah Persekutuan, 59200, Malaysia
Vesuvius Management Limited	England & Wales	165 Fleet Street, London, EC4A 2AE, England
Vesuvius Management Services Limited*	England & Wales	165 Fleet Street, London, EC4A 2AE, England
Vesuvius Mexico S.A. de C.V.	Mexico	Av. Ruiz Cortinez, Num. 140, Colonia Jardines de San Rafael, Guadalupe, Nuevo León, CP 67119, Mexico
Vesuvius Mid-East Limited	Egypt	56, rd 15, Apt 103, Maadi, Cairo, Egypt
Vesuvius Moravia, s.r.o	Czech Republic	Konska c.p. 740, Trinec, 739 61, Czech Republic
Vesuvius Mulheim Beteiligungs GmbH	Germany	Geschaftsanschrift, Schieferbank 2-16, 45472 Mülheim an der Ruhr,
Vesuvius Mulheim GmbH & Co KG	Germany	Geschaftsanschrift, Schieferbank 2-16, 45472 Mülheim an der Ruhr,
Vesuvius NC, LLC.	US (Delaware)	Corporation Trust Center, 1209 Orange Street, Wilmington, New Castle County, DE 19801, United States
Vesuvius New Zealand Limited	New Zealand	Bell Gully, Level 22, Vera Centre, 48 Shortland Street, , Auckland, 1010, New Zealand

12 Investments (continued)

Name of subsidiary	Country	Registered office
Vesuvius Overseas Investments Limited*	England & Wales	165 Fleet Street, London, EC4A 2AE, England
Vesuvius Overseas Limited *	England & Wales	165 Fleet Street, London, EC4A 2AE, England
Vesuvius Pension Plans Trustees Limited	England & Wales	165 Fleet Street, London, EC4A 2AE, England
Vesuvius Peru SAC	Peru	Jiron Saenz Pena 185, Magdalena del Mar, Lima, Peru
Vesuvius Poland Sp. z.o.o	Poland	Ul Tyniecka 12, Skawina, 32-050, Poland
Vesuvius-Premier Refractories (Holdings) Limited	England & Wales	1 Midland Way, Central Park, Barlborough Links, Derbyshire, S43 4XA, England
Vesuvius Ras Al Khaimah FZ-LLC	United Arab Emirates	Street No. F14, RAK Investment Authority Free Zone, Al Hamra, Ras Al Khaimah, PO Box 86408, United Arab Emirates
Vesuvius Refractarios de Chile SA	Chile	Street San Martin 870, Room 308, Tower B, Concepcion, Chile
Vesuvius Refractories SRL	Romania	Galati, Marea Unire avenue 107, Galati county, 800329, Romania
Vesuvius Refratarios Ltda	Brazil	Av Brasil, 49550, Distrito Industrial de Palmares, Campo Grande, Rio de Janeiro, 23065-480, Brazil
Vesuvius Refractory India Private Limited	India	Room No. 9, 3rd Floor, 7 Ganesh Chandra Avenue, Kolkata, WB 700013, India
Vesuvius Scandinavia AB	Sweden	4, Forradsgatan, Amal, S-662 34, Sweden
Vesuvius Sensors & Probes Europe S.p.A.	Italy	10 Via Mantova, Muggio, Monza e Brianza, 20835, Italy
Vesuvius Solar Crucible (Suzhou) Co., Ltd	China	58, KuaChun Road, Kua Tang, China-Singapore Suzou Ind Park, Suzhou, Jiangsu Province, 215122, China
Vesuvius South Africa (Pty) Ltd	South Africa	Pebble Lane, Private Bag X2, Olifantsfontein, Gauteng Province, 1665, South Africa
Vesuvius Sp.z.o.o	Poland	ul. Jasnogórska 11, Kraków, 31-358, Poland
Vesuvius SSC Sp.z.o.o	Poland	ul. Jasnogórska 11, Kraków, 31-358, Poland
Vesuvius UK Limited	England & Wales	1 Midland Way, Central Park, Barlborough Links, Derbyshire, S43 4XA, England
Vesuvius Ukraine LLC	Ukraine	27, Udarnykiv Street, City of Dnipropetrovsk, 49000, Ukraine
Vesuvius Penn Corporation	US (Delaware)	CT Corporation, 1209 Orange Street, Wilmington, DE 19801, United States
Vesuvius Vietnam Limited	Vietnam	7th Floor, Peakview Tower Building, No.36 Hoang Cau Street, O Cho Dua Ward, Don Da District, Hanoi City, Vietnam
Vesuvius USA Corporation	US (Illinois)	CT Corporation, 208 South LaSalle Street, Chicago, Cook County, Illinois, IL 60604, United States

12 Investments (continued)

Name of subsidiary	Country	Registered office
Vesuvius VA Limited	England	165 Fleet Street, London, England, EC4A 2AE
Vesuvius Zyarock Ceramics (Suzhou) Co., Ltd	China	58, KuaChun Road, Kua Tang, China-Singapore Suzou Ind Park, Suzhou, Jiangsu Province, 215122, China
VSV Advanced Ceramics (Anshan) Co., Ltd.	China	Xiaotaizi Village, Ningyuan Town, Qianshan District, Anshan, Liaoning Province, 114011, China
Vesv Distribution Private Limited	India	R tech Park, 13th Floor Western Express Highway, Goregaon (East), Mumbai, Mumbai City, MH400063, India
Wilkes-Lucas Limited	England & Wales	165 Fleet Street, London, EC4A 2AE, England
Yingkou Bayuquan Refractories Co., Ltd	China	Cui Tun Village, Hai Dong Office, Bayuquan District, Liaoning Province, YingKou, 115007, China

Non-wholly owned subsidiaries

Details of the associates as at 31 December 2021 and 31 December 2020 are as follows:

Name of non-wholly owned subsidiary	Proportion of ownership interest and voting rights held 2021	2020	Country of incorporation and principal place of business
Foseco (Thailand) Limited	74%	74%	170/69, 22nd Floor Ocean Tower 1, Ratchadapisek Road, Klongtoey, Bangkok, 10110, Thailand
Foseco Golden Gate Company Limited	51%	51%	6 Kung Yeh 2nd Road, Ping Tung Dist, Ping Tung, 90049, Taiwan
Foseco India Limited	74.98%	74.98%	922/923 Gat, Sanaswadi, Taluka, Shirur, Pune, 412208, India
Newshelf 480 Proprietary Limited*	45%	45%	44 Main Street, Johannesburg, 2001, South Africa
Vesuvius India Limited	55.57%	55.57%	P-104 Taratala Road, Kolkata, 700 088, India
Vesuvius Ceska Republika, a.s.	60%	60%	Prumyslová 726, Konská, Trinec, 739 61, Czech Republic
Sapotech Oy	14.9%	14.9%	Paavo Havaksen tie 5 D, 90570 Oulu, Finland
Wuhan Wugang-Vesuvius Advanced CCR Co., Limited	50%	50%	Gongnong Village Qingshan District, Wuhan, Hubei Province, 430082, China
Wuhan Wugang-Vesuvius Advanced Ceramics Co., Limited	50%	50%	Gongnong Village Qingshan District, Wuhan, Hubei Province, 430082, China

Notes to the Financial Statements for the Year Ended 31 December 2021 (continued)

13 Trade and other receivables

	2021 £ 000	2020 £ 000
Non-current trade and other receivables		
Amounts due from other group companies	1,726,648	1,648,711

Interest on loans from other companies within the Vesuvius Group are typically interest free between dormant companies, Libor +2% for loans between UK companies, Libor + 2.5% for loans from UK to non-UK companies and Libor +1.05% for loans from non-UK to UK companies. As a result of risk-free rate reform, with effect from 1st June 2021 GBP Libor was replaced with the Bank of England base rate for GBP denominated loans. Repayment dates across all loans are variable and include loans repayable on demand but able to be renewed as required.

	2021 £ 000	2020 £ 000
Current trade and other receivables		
Receivables from other group companies	849	585
Prepayments and other receivables	913	648
	1,762	**1,233**

14 Called up share capital

Allotted, called up and fully paid shares

	2021		2020	
	No. 000	**£ 000**	**No. 000**	**£ 000**
Ordinary share capital of £0.00004 each (2020:0.00004)	278,468	10	278,468	10

The issued and fully paid share capital of the Company was 278,468,201 shares of £0.000035913 each at 31 December 2021 and 31 December 2020. The Company had one deferred share of £1.00 in issue at 31 December 2021 and 31 December 2020. All shareholders enjoy the same rights in relation to these shares, including rights in relation to voting at General Meetings of the Company, distribution of dividends and repayment of capital.

The share premium of £0.1m (2020: £0.1m) arose as a result of the demerger of the Cookson Group plc in 2012, where certain executives were entitled to exercise share awards granted by the Company, and exchange their shares in the Company for shares in Vesuvius plc.

15 Other reserves

Other reserves at the year-end of £643.6m (2020: £643.6m) consist of £73.0m (2020: £73.0m) relating to dividends in specie on distribution of investments from subsidiaries and £570.6m (2020: £570.6m) relating to unrealised gains on the sale of demerged subsidiaries, where the consideration was left outstanding as a related party receivable, and will remain within non-distributable reserves until such time as qualifying consideration is received.

16 Bank loans and overdrafts

	2021 £ 000	2020 £ 000
Non-current Bank loans and overdrafts		
Bank borrowings	302,318	307,692
Capitalised arrangement fees	(2,139)	(1,056)
Lease liability	3,184	3,190
	303,363	**309,826**

	2021 £ 000	2020 £ 000
Current bank loans and borrowings		
Bank borrowings	97,841	32,403
Bank overdrafts	387	11
Lease liability	307	345
Capitalised arrangement fees	(1,074)	(303)
	97,461	**32,456**

16 Bank loans and overdrafts (continued)

As at 31 December 2021, the Company had committed borrowing facilities of £706.3m (2020: £586.6m), of which £308.1m (2020: £246.6m) were undrawn. These undrawn facilities are due to expire in July 2025. The Company's borrowing requirements are met by the USPP, a multi-currency committed syndicated bank facility of £385m (2020: £300.0m) and a bilateral bank facility of £19m (2020: £19.0m) which is fully collateralised a portion of the Group's cash balance in China.

USPP Notes issued as at 31 December 2021 amounted to £302.3m ($146.0m, €198.0m and £28.0m) and had a weighted average period to maturity of 6.2 years. $30.0m is repayable in December 2023, €15.0m and $60.0m in 2025, €100.0m and $26.0m in 2027, $30.0m in 2028, €50.0m in 2029 and €33.0m and £28.0m in 2031.

The loans and bank overdrafts are repayable as follows:

	2021 £ 000	2020 £ 000
On demand or within one year	98,534	32,759
In the second year	22,566	53,830
In the third year	362	22,287
In the fourth year	76,626	345
In the fifth year	281	76,646
After five years	205,666	157,774
Capitalised arrangement fees	(3,212)	(1,359)
	400,823	**342,283**

Lease repayments included in the table above is £1.8m up to and including the fifth year and £1.7m after five years.
Capitalised arrangement fees shown in the table above, which have been recognised as a reduction in borrowings in the financial statements, amounted to £3.2m as at 31 December 2021 (2020: £1.4m), of which £1.1m (2020: £1.2m) related to the USPP and £2.1m (2020: £0.2m) related to the syndicated bank facility.

17 Pension and other schemes
Defined contribution pension scheme

The company operates a defined contribution pension scheme. The pension cost charge for the year represents contributions payable by the company to the scheme and amounted to £603,294 (2020: £376,349).

Defined benefit pension schemes

Vesuvius Pension Plan
The Company also operates a defined benefit plan and accounts for it in accordance with IAS 19. The plan is closed to new members and to future benefit accrual and was established under a trust deed. It is subject to the Pensions Act 2004 and guidance issued by the UK Pensions Regulator.

The benefits of the UK plan are based upon the final pensionable salaries of plan members. The assets of these plans are held separately from the Company in trustee-administered funds. The trustees are required to act in the best interests of the plan's beneficiaries. The principal risks faced by these plans comprise: (i) the risk that the value of the plan assets is not sufficient to meet all plan liabilities as they fall due; (ii) the risk that plan beneficiaries live longer than envisaged, causing liabilities to exceed the available plan assets; and (iii) the risk that the market-based factors used to value plan liabilities change materially adversely to increase plan liabilities over the value of available plan assets.

There is a 'long-term scheme-specific funding standard' in Part 3 of the Pensions Act 2004. In terms of Part 3, the UK plan is subject to a requirement ('the statutory funding objective') that it must have sufficient and appropriate assets to cover its technical provisions. Such technical provisions are determined as part of the triennial valuation. Under the rules of the UK Plan, the Trustees, after consultation with the company, have the power to set the funding contributions taking into account the results of the triennial valuation, and the Pension Act 2004 legislation. Contributions payable to the pension scheme at the end of the year are £Nil (2020: £Nil). The expected contributions to the UK Plan for the next reporting period are £nil.

17 Pension and other schemes (continued)

In November 2021, the Trustee of the Vesuvius Pension Plan signed a pension insurance buy-in agreement with Pension Insurance Corporation plc (PIC). This buy-in secures an insurance asset from PIC that matches the remaining pension liabilities of the UK Plan, with the result that the Company no longer bears any investment, longevity, interest rate or inflation risks in respect of the UK Plan. The insurance policies with PIC now cover over £450m of liabilities, and all benefits in the UK Plan (with the exception of a small amount of benefits expected to arise in future as a result of guaranteed minimum pensions (GMP) equalisation) are now insured with PIC.

A full actuarial valuation of the UK Plan is carried out every three years by an independent actuary for the UK Plan Trustee in line with the requirements of the Pensions Act 2004, and the last full valuation was carried out as at 31 December 2018. At that date, the market value of plan assets was £605.1m and this represented a funding level of 110% of the accrued plan benefits at the time of £552.0m. Calculated on a ‘buy-out’ basis (using an estimation of the cost of buying out the UK Plan benefits with an insurance company), the liabilities at that date were £626.7m, representing a funding level of 95%.

As at 31 December 2021, of the UK Plan’s total assets, 93.9% (2020: 45.8%) were represented by the annuity insurance contracts covering the UK Plan’s pension liabilities; 2.0% (2020: 4.8%) were allocated to equities; nil% (2020: 48.9%) to fixed income securities; and 4.1% (2020: 0.5%) to cash.

Reconciliation of scheme assets and liabilities to assets and liabilities recognised
The amounts recognised in the statement of financial position are as follows:

	2021 £ 000	2020 £ 000
Fair value of scheme assets	486,431	616,320
Present value of scheme liabilities	(465,172)	(502,641)
Defined benefit pension scheme surplus	**21,259**	**113,679**

Scheme assets

Change in the fair value of scheme assets are as follows:

	2021 £ 000	2020 £ 000
Fair value at start of year	616,320	581,543
Interest income	8,443	11,002
Return on plan assets, excluding amounts included in interest income	(113,666)	49,120
Employer contributions	61	0
Benefits paid	(24,027)	(24,124)
Administrative expenses paid	(700)	(1,221)
Fair value at end of year	**486,431**	**616,320**

Analysis of assets	2021 £ 000	2020 £ 000
Equities	9,853	29,648
Bonds	-	301,321
Insurance contracts	456,702	282,108
Other assets	19,876	3,243
	486,431	**616,320**

All equity securities and bonds have quoted prices in active markets.

Scheme liabilities

Changes in the present value of scheme liabilities are as follows:

	Defined benefit pension plans £ 000	Other post-retirement benefits £ 000	Total £ 000
Present value at 1 January 2021	501,741	900	502,641
Actuarial losses arising from changes in demographic assumptions	(414)	(5)	(419)
Actuarial losses arising from changes in financial assumptions	(24,782)	(14)	(24,796)
Actuarial gains arising from experience adjustments	5,023	(1)	5,022
Interest cost	6,852	12	6,864
Benefits paid	(24,027)	-	(24,027)
Benefits pai directly by employer	(59)	(54)	(113)
Present value at 31 December 2021	**464,334**	**838**	**465,172**

17 Pension and other schemes (continued)

	Defined benefit pension plans	Other post-retirement benefits	Total
	£ 000	**£ 000**	**£ 000**
Present value at 1 January 2020	481,948	909	482,857
GMP equalisation charge	829	-	829
Actuarial gains arising from changes in demographic assumptions	2,132	5	2,137
Actuarial gains arising from changes in financial assumptions	38,216	26	38,242
Actuarial losses arising from experience adjustments	(6,237)	23	(6,214)
Interest cost	9,065	17	9,082
Benefits paid	(24,124)	-	(24,124)
Benefits paid directly by employer	(88)	(80)	(168)
Present value at 31 December 2020	**501,741**	**900**	**502,641**

Analysed as	2021	2020
	£ 000	**£ 000**
Present value of scheme liabilities arising from unfunded schemes	2,470	2,659
Prevent value of scheme liabilities arising from wholly or partly funded schemes	462,702	499,982
	465,172	**502,641**

Principal actuarial assumptions

The significant actuarial assumptions used to determine the present value of the defined benefit obligation at the statement of financial position date are as follows:

	2021	2020
	%	%
Discount rate	2.00	1.40
Future pension increases	3.15	2.80
Inflation - RPI	3.25	2.90
Inflation CPI	2.45	2.20

Post retirement mortality assumptions	2021	2020
	Years	**Years**
Current UK pensioners at retirement age - Male	87.20	87.10
Current UK pensioners at retirement age - Female	88.90	89.40
Future UK pensioners at retirement age - Male	87.50	87.50
Future UK pensioners at retirement age - Female	90.40	90.80

Amounts recognised in the profit and loss account

	2021	2020
	£ 000	**£ 000**
Amounts recognised in operating (loss)/ profit		
Administrative expenses paid	700	1,221
GMP equalisation charge	-	829
Recognised in arriving at operating (loss)/ profit	**700**	**2,050**
Amounts recognised in Other interest receivable and similar income		
Net interest	(1,579)	(1,920)
Total recognised in the profit and loss	**(879)**	**130**

17 Pension and other schemes (continued)

Amounts taken to the Statement of Comprehensive Income

	2021 £ 000	2020 £ 000
Actuarial gain and losses arising from changes in demographic assumptions	419	(2,137)
Actuarial gain and losses arising from changes in financial assumptions	24,796	(38,242)
Actuarial gain and losses arising from experience adjustments	(5,022)	6,214
(Charge)/ Return of plan assets, excluding amounts included interest income/(expense)	(113,666)	49,120
Amounts recognised in the Statement of Comprehensive Income	**(93,473)**	**14,955**

Sensitivity analysis

A sensitivity analysis for the principal assumptions used to measure scheme liabilities is set out below:

	2021		2020	
Adjustment to discount rate	**0.10%** **£ 000**	**-0.10%** **£ 000**	**0.10%** **£ 000**	**-0.10%** **£ 000**
Increase / (decrease) in present value of obligation	-7,700	7,700	-8,200	8,200
Increase / (decrease) in fair value of plan assets	-7,700	7,700	-3,400	3,400

	2021		2020	
Adjustment to rate of inflation	**0.10%** **£ 000**	**-0.10%** **£ 000**	**0.10%** **£ 000**	**-0.10%** **£ 000**
Increase / (decrease) in present value of obligation	5,100	-5,100	5,700	-5,700
Increase / (decrease) in fair value of plan assets	5,100	-5,100	2,300	-2,300

	2021		2020	
Adjustment to mortality age rating assumption	**+ 1 Year** **£ 000**	**- 1 Year** **£ 000**	**+ 1 Year** **£ 000**	**- 1 Year** **£ 000**
Increase / (decrease) in present value of obligation	23,900	-23,900	27,000	-27,000
Increase / (decrease) in fair value of plan assets	23,900	-23,900	19,000	-19,000

The main assumptions used in calculating the costs and obligations of the Group's defined benefit pension plans, as detailed below, are set by the Directors after consultation with independent professionally qualified actuaries and include those used to determine regular service costs and the financing elements related to the plans' assets and liabilities. It is the Directors' responsibility to set the assumptions used in determining the key elements of the costs of meeting such future obligations. Whilst the Directors believe that the assumptions used are appropriate, a change in the assumptions used could affect the Group's profit and financial position.

For the UK Plan, the assumptions used have been derived from the Self-Administered Pension Schemes ('SAPS S3') All table, with future longevity improvements in line with the 'core' mortality improvement tables published in 2020 by the Continuous Mortality Investigation (CMI), with a long-term rate of improvement of 1.25% per year. The discount rate used to determine the liabilities of the UK Plan for IAS 19 accounting purposes is required to be determined by reference to market yields on high-quality corporate bonds. The UK discount rate in the above table is based on analysis using the expected future cashflows of the Vesuvius Pension Plan and the AON Hewitt AA yield curve. The assumptions for UK price inflation are set by reference to the difference between yields on longer-term conventional government bonds and index-linked bonds, except for CPI, for which no appropriate bonds exist, which is assumed to be 0.8 points lower (2020: 0.7 points lower) than RPI-based inflation.

The average duration of the obligations to which the liabilities of the Company's principal pension plans relate is 16 years (2020:17 years).

GMP equalisation

A UK High Court ruling was made on 26 October 2018 in respect of the gender equalisation of guaranteed minimum pensions (GMPs) for occupational pension schemes. The impact of GMP equalisation as at 31 December 2018 was estimated to be £4.5m.

A second UK High Court GMP equalisation ruling was issued on 20 November 2020. This second ruling considered the treatment of historic transfers out, i.e. those members who had transferred out before 26 October 2018. The 2020 ruling covers both individual and bulk transfers out. It does not revisit any of the issues addressed in the 2018 ruling. The impact of GMP equalisation for the second ruling is estimated to be £0.8m at 31 December 2020. The increase in pension liabilities resulting from these judgements have been treated for IAS 19 purposes as plan amendments and resulted in an increase in the pension deficit in the balance sheet and a corresponding past service cost in the Income Statement. These amendments have been treated as separately reported items so that there has been no impact on headline performance.

17 Pension and other schemes (continued)

We are working with the trustees of our UK pension plan and our actuarial and legal advisers to understand the extent to which these judgements crystallise additional liabilities for the UK pension plan.

Risks to which the defined benefit pension plans expose the Company
The principal risks faced by these plans comprise: (i) the risk that the value of the plan assets is not sufficient to meet all plan liabilities as they fall due; (ii) the risk that plan beneficiaries live longer than envisaged, causing liabilities to exceed the available plan assets; and (iii) the risk that the market-based factors used to value plan liabilities and assets change materially adversely to increase plan liabilities over the value of available plan assets. Further details are given below:

Asset volatility
> the liabilities are calculated using a discount rate set with reference to corporate bond yields; if assets underperform against this yield, this will create a deficit. To reduce this risk, the pension plans are largely invested in government and corporate bonds.

Counterparty risk
> There are a number of other risks of running the UK Pension Fund including counterparty risks from using derivatives. These are mitigated by using a diversified range of counterparties of high standing and ensuring positions are collateralised as required.

Changes in bond yields
> a decrease in corporate bond yields will increase the scheme liabilities, although this will be partially offset by an increase in the value of the schemes' bond holdings.

Inflation risk
> much of the UK scheme's benefit obligations are linked to inflation and higher inflation will lead to higher liabilities (although, in most cases, caps on the level of inflationary increases are in place to protect against extreme inflation). The UK scheme also holds index-linked government bonds to provide protection against this risk.

Life expectancy
> the majority of the plans' obligations are to provide benefits for the life of the member and in some cases their spouse on death of the member, so increases in life expectancy will result in an increase in the liabilities.
> in July 2012 Vesuvius entered into an agreement with the Pension Insurance Corporation (PIC) to insure pensions in payment for the pensioners in the UK main Plan. These annuities are owned by the UK Pension Plan. Further annuity purchases have taken place at regular intervals since then and the plan now holds annuity contracts to cover the majority of pensions in payment thereby removing substantially all risks in respect of these pensions.

18 Financial assets and financial liabilities

The Company holds the following financial assets at amortised cost:

	2021 £ 000	2020 £ 000
Amounts due from other group companies - non current (Note 13)	1,726,648	1,648,711
Amounts due from other group companies - current (Note 13)	849	585
Cash at bank and in hand	651	43,997
Other receivables - current (Note 13)	913	648
	1,729,061	**1,693,941**

The Company holds the following financial liabilities at amortised cost:

	2021 £ 000	2020 £ 000
Non-current bank loans and overdrafts (Note 16)	303,363	309,826
Current bank loans and overdrafts (Note 16)	97,461	32,456
Amounts due to other group companies - non current (Note 19)	991,932	960,104
Amounts due to other group companies - current (Note 19)	695	187
Accrued expenses and other payables - current (Note 19)	7,015	3,612
	1,400,466	**1,306,186**

19 Trade and other payables

	2021 £ 000	2020 £ 000
Non-current trade and other payables		
Amounts due to other group companies	991,932	960,104

Interest on loans from other companies within the Vesuvius Group are typically interest free between dormant companies, Libor +2% for loans between UK companies, Libor + 2.5% for loans from UK to non-UK companies and Libor +1.05% for loans from non-UK to UK companies. As a result of risk-free rate reform, with effect from 1st June 2021 GBP Libor was replaced with the Bank of England base rate for GBP denominated loans. Repayment dates across all loans are variable and include loans repayable on demand but able to be renewed as required.

	2021 £ 000	2020 £ 000
Current trade and other payables		
Accrued expenses and other payables	7,015	3,613
Amounts due to other group companies	695	187
Other Taxes and Social security	693	393
	8,403	**4,192**

20 Financial risk review

The Company's exposure to financial risk is managed as part of the Group. Full details about the Group's exposure to financial risks and how these risks could affect the Group's future financial performance are given in Note 25 to the 2021 Annual Report and Financial Statements.

Foreign currency risk
The Company Income Statement is exposed to currency risk on monetary items that are denominated in currencies other than sterling. Derivatives are only used for economic hedging purposes and not as speculative investments. The fair value of the derivatives designated for hedge accounting purposes is £2.3m liability (2020: liability £7.0m).

In June 2020, the Company issued US$86m of US Private Placement Notes. The Company also executed a US$86m cross-currency interest rate swap (CCIRS) with three of its relationship banks. The effect of this is to convert the $86m Private Placement Notes into €76.6m. The timing and amount of the US dollar cash flows under the CCIRS exactly mirror those of the Private Placement Notes and the maturity date of the CCIRS also matches the repayment date of the Notes. The CCIRS would by default be revalued through the Income Statement; however, as it is in a designated hedging relationship it is instead revalued through other comprehensive income. More specifically, the US dollar exposure is designated as a cash flow hedge of the underlying Private Placement Notes and the euro exposure is designated as a cash flow hedge of foreign exchange gains and losses on €76.6m intercompany loan receivables. The CCIRS is presented as a non-current liability as it is expected to be settled more than 12 months after the end of the reporting period.

Hedge effectiveness is determined at inception of the hedge relationship and through periodic effectiveness assessments, to ensure that an economic relationship exists between the hedged item and hedging instrument. As all principal and interest amounts under the CCIRS exactly mirror those under the USPP Notes and the intercompany loans, the cash flow hedges are each 100% effective with no ineffectiveness. It is noted that hedge ineffectiveness would arise in the event there was a change in the contractual terms of either the USPP Notes, the CCIRS or the intercompany loan. The amounts recognised in the cash flow hedge reserve are £4.7m in respect of the change in the fair value of the CCIRS excluding the basis spread, cost of hedging attributable to the foreign currency basis spread of £4,000 and £(4.7)m in respect of foreign exchange translation on US$86m Private Placement Notes (£0.7m) and €76.6m intercompany loan receivables £(4.7)m reclassified from the income statement.

All of the fair values shown in the table above are classified under IFRS 13 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 not designated for hedge accounting purposes reported in the table above will mature within a year of the balance sheet date

The Group previously arranged a rolling short-dated euro/sterling foreign exchange swap in respect of €100m of its Private Placement fixed rate financial liabilities. This had the effect of reducing the currency exposure of the Group’s net debt by €100m. Following a review of this exposure, and in combination with issuing the CCIRS, this arrangement was stopped on 30 April 2020.

20 Financial risk review (continued)

Credit risk
Credit risk arises from cash and cash equivalents, favourable derivative financial instruments and deposits with banks and financial instruments, as well as credit exposures to outstanding receivables.

Risk management
Credit risk is managed on a Group basis. For banks and financial institutions, Group policy is such that only independently rated parties with a minimum rating of 'A' are accepted.

Impairment of financial assets
The Company subjects receivables from other group companies to the expected credit loss model. While cash and cash equivalents are also subject to the impairment requirements of IFRS 9, the identified impairment loss was immaterial.

Receivables from other group companies are subject to IFRS 9's expected credit loss model. Impairment provision has been determined using a 12-month expected credit loss model and the identified impairment loss was immaterial. Receivables from other group companies are considered to have low credit risk. Management consider 'low credit risk' to be when they have a low risk of default and the issuer has strong capacity to meet its contractual cash flow obligations in the near term.

Liquidity risk
Liquidity risk is the risk that the Company might have difficulties in meeting its financial obligations. This risk is integrated with the principal risks of Vesuvius plc and its subsidiary and joint venture companies ('the Group') and are not managed separately. Details of how the Group manages this risk is set out in Note 25 'Financial Risk Management' in the 2021 Annual Report and Financial Statements of Vesuvius plc.

Interest rate risk
The Company's interest rate risk principally arises in relation to its borrowings. Where borrowings are held at floating rates of interest, fluctuations in interest rates expose the Company variability in the cash flows associated with its interest payments, and where borrowings are held at fixed rates of interest, fluctuations in interest rates expose the Company to changes in the fair value of its borrowings. This risk is integrated with the principal risks of the Group and it is the Group's policy to maintain a mix of fixed and floating rate borrowings, within certain parameters agreed from time to time by the Board, in order to optimise interest cost and reduce volatility in reported earnings.

21 Dividends

A dividend for the year ended 31 December 2021 totalling £55.5m (2020: £8.4m) composed of £38.7m and £16.8m was paid in May and September 2021 respectively to the parent company, Vesuvius plc. Additionally, a dividend of £40.5m was declared, approved, and paid on 23 May 2022.

22 Contingent liabilities

Where the Company enters into financial guarantee contracts to guarantee the indebtedness of other companies within its Group, the Company considers these to be insurance arrangements and accounts for them as such. In this respect, the Company treats the guarantee contract as a contingent liability until such time as it becomes probable that the Company will be required to make a payment under the guarantee. Guarantees provided by the Company as at 31 December 2021 in respect of the liabilities of its subsidiary companies amounts to £25.1m (2020: £18.3m).

The Company's subsidiaries has extensive international operations and is subject to various legal and regulatory regimes, including those covering taxation and environmental matters. Certain subsidiaries are subject to legacy matter 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. Each year, a number of these lawsuits are withdrawn, dismissed or settled.

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.

23 Related party transactions

As the Company is a wholly owned subsidiary of Vesuvius plc, the Company has taken advantage of the exemption contained in FRS 101 and has therefore not disclosed transactions or balances with entities which form part of the Vesuvius plc group.

Notes to the Financial Statements for the Year Ended 31 December 2021 (continued)

24 Parent and ultimate parent undertaking

The company's immediate parent and ultimate parent is Vesuvius plc.

The most senior parent entity producing publicly available financial statements is Vesuvius plc. These financial statements are available upon request from the Company Secretary, Vesuvius plc, 165 Fleet Street, London EC4A 2AE.

25 Post balance sheet events

There are no material events after the reporting period to disclose.