Governance

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We think beyond today's production outcomes

and shape the future with sustainable solutions

Board of Directors

N

John McDonough CBE

Chairman

Appointed to the Board 31 October 2012
Nine years on the Board

- Proven strategic and leadership skills gained in a complex multinational business
- Strong engineering background and global commercial experience
- Clear leadership understanding of safety issues
- Operational and strategic understanding of a range of business environments gained from working in Asia-Pacific, EMEA and the UK
- Experience as CEO with an international listed company

Current external appointments

John is Chairman of Sunbird Business Services Limited and a Non-executive Director of Cornerstone Property Assets Limited and Inceptum2 Solutions Limited.

Career experience

John spent 11 years as Group Chief Executive Officer of Carillion plc until he retired in 2011. Prior to this, he spent nine years working for Johnson Controls. He served as Chairman of The Vitec Group plc for seven years, retiring from the board in 2019. He has also previously served as a Non-executive Director and Chairman of the Remuneration Committee of Tomkins plc, as a Non-executive Director of Exel plc and as a Trustee of Team Rubicon UK.

John was awarded a CBE in 2011 for services to industry.

Patrick André

Chief Executive

Appointed to the Board 1 September 2017
Four years on the Board

- Global career serving the steel industry
- Strong background in strategic development and implementation
- Customer focus and proven record of delivery, with strong commercial acumen
- Drive and energy in promoting his strategic vision

Current external appointments

None

Career experience

Patrick joined the Group as President of the Vesuvius Flow Control business unit in 2016, until his appointment as Chief Executive in September 2017.

Before joining the Group, Patrick served as Executive Vice President Strategic Growth, CEO Europe and CEO for Asia, CIS and Africa for Lhoist company, the world leader in lime production. Prior to this, he was CEO of the Nickel division, then CEO of the Manganese division of ERAMET group, a global manufacturer of nickel and special alloys.

Guy Young

Chief Financial Officer

Appointed to the Board 1 November 2015
Six years on the Board

- Extensive international experience gained in the mining and industrial sectors
- Qualified Chartered Accountant, with significant financial and business development experience
- Drive and energy in managing people and teams
- Focus on strategic execution and business optimisation

Current external appointments

None

Career experience

Guy was Chief Financial Officer of Tarmac and latterly Lafarge Tarmac, the British building materials company, between 2011 and 2015. Prior to this he spent 13 years working at Anglo American plc in various senior financial and business development positions, including as Chief Financial Officer of Scaw Metals Group, the South African steel products manufacturer.

Guy is qualified with the South African Institute of Chartered Accountants.

Changes to the Board during the year

The Directors named were in office during the year and up to the date of this Annual Report, with the exception of Dinggui Gao who was appointed to the Board on 1 April 2021.

Hock Goh and Holly Koeppel stepped down as Non-executive Directors at the close of the 2021 AGM, held on 12 May 2021. Kath Durrant took over as Chair of the Remuneration Committee when Jane Hinkley stepped down from that role at the close of the 2021 AGM. Jane remains a Non-executive Director.

A N R

Douglas Hurt

Senior Independent Director (SID)

Appointed to the Board 2 April 2015
Six years on the Board

- Qualified Chartered Accountant, with recent and relevant financial experience
- Highly knowledgeable in operational and corporate financial matters, with significant US and European experience
- Proven management and leadership skills

Current external appointments

SID and Chair of the Audit Committee of Countryside Partnerships PLC, and a Non-executive Director and Chair of the Audit Committees of Hikma Pharmaceuticals PLC and the British Standards Institution.

Career experience

Douglas was Finance Director of IMI plc, a UK listed company, until 2015. He spent 23 years at GlaxoSmithKline plc where he held senior finance and general management positions. Douglas served as SID and Chair of the Audit Committee of Tate & Lyle plc until 2019.

A N R

Kath Durrant

Non-executive Independent Director

Appointed to the Board 1 December 2020
One year on the Board

- 30 years' experience of people management
- Strong operational and strategic track record, gained working at a number of large global manufacturing companies
- Experienced UK governance professional

Current external appointments

Non-executive Director and Chair of the Remuneration Committee of SIG plc.

Career experience

Kath held various operational and specialist HR roles at GlaxoSmithKline plc and AstraZeneca plc and was Group HR Director of Rolls-Royce plc. She was most recently Group HR Director of Ferguson plc and Chief HR Officer of CRH plc. Kath served as a Non-executive Director and Chair of the Remuneration Committee of Renishaw plc from 2015 to 2018 and as a Non-executive Director and Chair of the Remuneration Committee of Calisen plc from 2020 to 2021.

A N R

Dinggui Gao

Non-executive Independent Director

Appointed to the Board 1 April 2021
Eleven months on the Board

- Strong operational experience driving performance at a range of multinational companies
- Proven track record of leadership and international commercial experience
- Strong focus on technology and in-depth knowledge of Asian markets

Current external appointments

Non-executive Director Intramco Europe B.V and Operating Partner CITIC Capital Holdings Ltd.

Career experience

Dinggui has nearly 40 years of operational experience having worked in a range of multinational companies including Bosch, Honeywell, Eagle Ottawa and Sandvik AB. He latterly served as Managing Director, China of Formel D Group, the German global service provider to the automotive and components supply industry, joining the company in 2017 and stepping down at the end of October 2021.

N

Friederike Helfer

Non-executive Director

Appointed to the Board 4 December 2019
Two years on the Board

- An experienced strategist, with strong analytic capability
- Commercial acumen and a strong track record of working with a portfolio of companies to identify scope for operational and strategic improvement

Current external appointments

Partner of Cevian Capital* and a Non-executive director of the Supervisory Board of thyssenkrupp AG.

Career experience

Friederike is a Partner of Cevian Capital. She joined Cevian in 2008 and from 2013 to 2017, served on the Board of Directors and the Audit Committee of Valmet, a Finnish engineering company, in which Cevian was also invested. Prior to joining Cevian, Friederike worked at McKinsey & Company. She is a CFA Charterholder.

A N R E

Jane Hinkley

Non-executive Independent Director

Appointed to the Board 3 December 2012
Nine years on the Board

- Proven track record of managing complex global trading businesses
- Qualified Chartered Accountant, with significant financial and operational experience in large multinational companies
- Leadership and global management skills

Current external appointments

None

Career experience

Jane is a Chartered Accountant and was Managing Director of Navion Shipping AS for three years until 2001. Prior to this, she spent her executive career as Chief Financial Officer and Managing Director of Gotaas-Larsen Shipping Corporation. She was previously Chairman of Teekay GP LLC, a Non-executive Director and Chairman of the Remuneration Committee of Premier Oil plc, and a Non-executive Director of Revus Energy ASA.

Key to Board Committee membership

A Audit Committee

N Nomination Committee

R Remuneration Committee

N Committee Chair

Engagement with the workforce

E Jane Hinkley serves as the designated Non-executive Director responsible for overseeing engagement with the workforce.

* Cevian Capital is a shareholder of Vesuvius plc and, at 3 March 2022, held 21.11% of Vesuvius' issued share capital.

Group Executive Committee

Patrick André

Chief Executive

Six years with the Group

For biographical details, please see the Board of Directors on page 104.

Thiago Avelar

President, Advanced Refractories

Three years with the Group

Appointed President, Advanced Refractories on 1 January 2020. Thiago joined Vesuvius in February 2019 as Regional VP Steel, South America, where he was responsible for Vesuvius' Steel Operations in South America. Prior to joining the Group, he worked for RHI Magnesita and ArcelorMittal in various technical and marketing roles based in Europe and Brazil.

Thiago is based in London, UK.

Patrick Bikard

President, Operations and Technology

14 years with the Group

Appointed President, Operations in January 2014, with responsibility for Technology since 2019. He was previously Vice President for Manufacturing, QHSE, Engineering and Purchasing and, prior to joining Vesuvius, he held senior operational roles at Renault, Alstom and Faurecia.

Patrick is based in Ghlin, Belgium.

Karena Cancilleri

President, Foundry

Two years with the Group

Appointed President, Foundry in October 2019. Karena joined the Group from Beaulieu International Group, where she served for six years as VP Engineered Products and latterly President Engineered Products. She has a broad breadth of managerial experience spanning various international leadership roles in companies such as FiberVisions, Kraton Corporation and Shell.

Karena is based in London, UK.

Pascal Genest

President, Flow Control

One year with the Group

Appointed President, Flow Control in January 2021. Pascal joined the Group from GFG Alliance where he held the position of CEO Liberty Ostrava in the Czech Republic. Prior to this he was CEO of SULB in Bahrain. Pascal has more than 15 years' experience working in the steel industry, mainly with ArcelorMittal. He has also worked in consulting, in private equity and in the aluminium industry.

Pascal is based in London, UK.

Henry Knowles

General Counsel and Company Secretary

Eight years with the Group

Appointed as General Counsel and Company Secretary in September 2013. Prior to joining Vesuvius, Henry spent eight years at Hikma Pharmaceuticals PLC, a generic pharmaceutical manufacturer with significant operations in the Middle East, North Africa and the US where he held the roles of General Counsel and Company Secretary. Henry is also responsible for the Group's Intellectual Property function.

Henry is based in London, UK.

Agnieszka Tomczak

Chief HR Officer

Three years with the Group

Appointed as Chief HR Officer in October 2018. Agnieszka has over 25 years of senior leadership experience in multinational companies spanning various business sectors and industries. Prior to joining Vesuvius, she spent 12 years at ICI, which was subsequently acquired by AkzoNobel, in regional and global HR roles.

Agnieszka is based in London, UK.

Guy Young

Chief Financial Officer

Six years with the Group

For biographical details please see the Board of Directors on page 104.

Corporate Governance Statement

Dear Shareholder,

On behalf of the Board, I am delighted to present the 2021 Corporate Governance Statement. The Board of Vesuvius plc is committed to maintaining high standards of governance and to continuous improvement to reflect best practice. This Statement provides investors and other stakeholders with an annual insight into the governance activities of the Board and its Committees. It describes how the Group has complied with the Principles of the UK Corporate Governance Code during 2021, except where we considered it more natural for us to describe the application of a Principle elsewhere in this Annual Report. The table on page 108 signposts where detailed information on each section of the Code (and associated Principles) can be found.

During 2021, the Nomination Committee gave significant focus to Board succession planning, overseeing the further strengthening of the Board with the appointment of Dinggui Gao as a new Non-executive Director on 1 April 2021. In addition, and led by the Senior Independent Director, Douglas Hurt, the Committee commenced the process to identify my successor. I am pleased to report that this process is progressing well.

During the year, the Nomination Committee also continued its work reviewing the pipeline of talent below Board level, to ensure that we maintain a pipeline of talented individuals to fill future leadership positions.

In 2021, the Remuneration Committee welcomed Kath Durrant as the new Chair, replacing Jane Hinkley who remains on the Board as an independent Non-executive Director. Kath commenced her tenure with a review of the Group's executive remuneration arrangements. She met with Board members as well as members of the senior management team to gather their perspectives on remuneration at Vesuvius. She undertook a detailed analysis of whether pay and performance at Vesuvius have been aligned over recent years and how executive pay levels compare to the market. The findings of this review will aid preparations for our 2023 Remuneration Policy submission. In the meantime, the Remuneration Committee resolved to make modest changes to the incentive structure in 2022, primarily focused on updating the performance conditions for the Annual Incentive and Vesuvius Share Plan. More details about these changes and the other work undertaken by the Committee in 2021 can be found in the Directors' Remuneration Report.

After handing over her stewardship of the Remuneration Committee, the Directors were very pleased that Jane Hinkley undertook to remain on the Board. Given her tenure, the Board considered whether she continued to display the independence of thought and constructive challenge to management required from her role. After careful review, we resolved that Jane continues to satisfy the criteria for independence.

In light of the ongoing impact of the COVID-19 pandemic, the Audit Committee continued to carefully monitor the Group's financial situation throughout 2021, undertaking particularly detailed analysis of the Group's impairment assessments and the going concern and viability statements. In addition, the Committee again spent time focusing on the Group's TCFD compliance, and cyber security measures, as well as receiving updates throughout the year on the implementation of changes to the Group's finance operating model and internal controls.

As detailed elsewhere in this report, the Directors take their responsibility to engage with the workforce seriously as a key part of their role. A number of site visits were conducted by the Board during 2021, enabling the Board to meet management and staff face-to-face, conduct 'town hall' meetings to receive direct feedback from our people, and explain the alignment of executive remuneration with wider Company pay policies. As COVID-19 travel restrictions hopefully recede further in 2022, the Board will continue with this critical part of its role.

The Board's formal evaluation process for 2021 was externally facilitated by the corporate advisory firm, Lintstock. Overall, the Board was considered to be diverse and seen to operate effectively with an open culture. The Non-executive Directors were deemed to have provided effective support and constructive challenge in their interactions with management and Board relationships were rated positively overall. The evaluation highlighted a number of ongoing Board priorities, including a continued focus on the development of the Group's Sustainability strategy and its integration into business planning, and ongoing work to develop robust succession plans for the Executive Directors and GEC members. The Board is progressing these in 2022.

Yours sincerely

John McDonough CBE
Chairman
3 March 2022

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Board leadership and Company purpose on **p108**
Division of responsibilities on **p112**
Audit Committee report on **p117**
Nomination Committee report on **p125**
Directors' Remuneration Report on **p130**
Also see:
Group's statement of purpose on **p1**
Strategic Report on **p1–101**

Corporate Governance Statement continued

Board Report

2018 UK Corporate Governance Code – Information Availability

Board Leadership and Company Purpose	The Corporate Governance statement (CG Statement) on pages 107–153 gives information on the Group's compliance with the Principles relating to the Board's Leadership and Company Purpose. More detailed information on: – the Group's statement of purpose can be found on page 1 – the Group's strategy, resources and the indicators it uses to measure performance can be found on pages 14 and 15, 20 and 21, and 38 and 39, respectively – the Group's engagement with stakeholders and the Group's Section 172(1) Statement is contained in the Section 172(1) Statement and Stakeholder Engagement section on pages 22–28 – the Group's approach to workforce matters can be found in the 'Our people' section on pages 82–96, with further details of the Group's approach to employee involvement and engagement contained in the Section 172(1) Statement on page 28 Details of the Group's framework of controls is contained in the Audit Committee report on pages 120–122 of the CG Statement and in the Risk, viability and going concern section on pages 31 and 32.
Division of Responsibilities	The CG Statement describes the structure and operation of the Board. The Nomination Committee report, describes on pages 128 and 129, the process the Company conducts to evaluate the Board, to ensure that it continues to operate effectively, that individual Directors' contributions are appropriate and that the oversight of the Chairman promotes a culture of openness and constructive yet challenging debate.
Composition, Succession and Evaluation	Details of the skills, experience and knowledge of the existing Board members can be found in the Board biographies contained on pages 104 and 105. Information on the Board's appointment process and approach to succession planning and Board evaluation is contained in the Nomination Committee report on pages 125–129 of the CG Statement.
Audit, Risk and Internal Control	Information on the policies and procedures the Group has in place to monitor the effectiveness of the Group's Internal and External Audit functions, and the integrity of the Group's financial statements is contained in the Audit Committee report on pages 117–124 of the CG Statement, along with an overview of the procedures in place to manage risk and oversee the internal control framework. Further information on the Group's approach to risk management is contained in the Risk, viability and going concern section of the Strategic Review on pages 29–35. The Board believes the 2021 Annual Report to be a fair, balanced and understandable assessment of the Company's position and prospects. A description of the Audit Committee's work in enabling the Board to reach this conclusion is contained in the Audit Committee report on page 120.
Remuneration	The Directors' Remuneration Report section of the CG Statement describes the Group's approach to Directors' remuneration, including the procedure for developing policy and the Remuneration Committee's discretion for authorising remuneration outcomes. Details of linkage of the Directors' Remuneration Policy with long-term strategy is contained on pages 131 and 132 and also highlighted on pages 38 and 39 in the section on Key Performance Indicators.

Board Leadership and Company Purpose

The Board is responsible for leading the Group in an efficient and entrepreneurial manner, establishing the Group's purpose, values and strategy and satisfying itself that these and the Group's culture are aligned. It focuses primarily on strategic and policy issues and is responsible for ensuring the long-term sustainable success of the Group. It sets the Group's strategy, oversees the allocation of resources and monitors the performance of the Group. It is responsible for effective risk assessment and management. In performance of these duties, the Board has regard to the interests of the Group's key stakeholders and is cognisant of the potential impact of the decisions it makes on wider society.

Purpose

Vesuvius' purpose is to be a global leader in molten metal flow engineering and technology, servicing process industries operating in challenging high-temperature conditions. We think beyond today to create the innovative solutions that will shape the future for everyone. We help our customers make their industrial processes safer, more efficient and sustainable. The Group aims to deliver sustainable, profitable growth, providing its shareholders with a superior return on their investment, whilst providing each of its employees with a safe workplace where they are recognised, developed and properly rewarded.

The Board has identified seven Strategic Objectives for achieving long-term sustainable success. It is currently pursuing five shorter-term key execution priorities, which encapsulate the Group's immediate aims, including its strategic focus on sustainability. Further information on these can be found on pages 14 and 15. The Board regularly reviews the Group's performance against a number of Key Performance Indicators (KPIs) which provide information on key aspects of the Group's financial and non-financial performance. This information assists the Board to assess progress with the execution of the Group's strategy and to determine any remedial action that needs to be taken. Detailed information on the Group's KPIs can be found on pages 38 and 39.

The Group has established a framework of controls to enable risk to be assessed and managed, and further information on this can be found in the Audit, risk and internal control section on page 116 of this Board Report.

Sustainability

Vesuvius recognises that lasting business success is measured not only in financial performance but in the way in which the Group deals with its customers, business associates, employees, investors and local communities. Our Sustainability strategy was launched in 2020. This supports the Group's key Strategic Objectives which are focused on creating a better tomorrow in a profitable and sustainable way. To drive change throughout the Group, the Board has set specific targets focused on ways in which the Group can improve its impact on our planet, our communities, our people and our customers. The Board monitors these and oversees the work of the Sustainability Council in spearheading new activities to enhance our performance. Further information can be found in the Sustainability section on pages 52–101.

Culture

The Board takes seriously its responsibility for shaping and monitoring the corporate culture of the Group. The Group's CORE Values – Courage, Ownership, Respect and Energy – define our behaviours across the business and are the practical representation of the culture we seek to foster, aligning with the Company's purpose and strategy, and supporting our governance and control processes. These Values are prominently displayed at all sites. Our CORE Values are reinforced in our performance management systems, which ensures that they are firmly embedded in our day-to-day conversations and behaviours. Further detail can be found on page 56.

The CORE Values are supported by the Group's Code of Conduct which sets out the standards of conduct expected, without exception, of everyone who works for Vesuvius in any of its worldwide operations. The Code of Conduct emphasises the Group's commitment to ethical behaviour and compliance with the law. It also covers every aspect of Vesuvius' approach to business, from the way that the Group engages with customers, employees, its markets and each of its other stakeholders, to the safety of its employees and places of work. Everyone within Vesuvius is individually accountable for upholding these requirements.

The Board seeks to ensure that the Group's workforce policies and practices are consistent with the Group's long-term sustainable success. Further information about the Group's remuneration practices for senior managers can be found in the Directors' Remuneration Report on pages 130–153, the Group's approach to diversity in the Nomination Committee report on page 127, the Group's approach to HR matters in the Our people section on pages 82–96. Information on the Group's Speak Up confidential employee concern helpline is set out below.

Whistleblowing policy

Speak Up

All Vesuvius employees can speak up without fear of retaliation, either to Vesuvius management or via independent channels. We have implemented a Speak Up whistleblowing policy, which is under the responsibility of our Board, and included in our Code of Conduct. It is available on the internal Vesuvius website, and communicated by local language posters in all our locations. A third-party operated confidential Speak Up Helpline is available 365 days per year, 24 hours per day, to all employees wishing to raise concerns anonymously or in situations where they feel unable to report internally. This independent facility supports online reporting through a web portal or reporting by phone or by voicemail. Ensuring global accessibility, employees can speak with operators in any of our 29 functional languages.

All reports received are reviewed and, where appropriate, investigated and feedback is provided to the reporter via the helpline portal. Vesuvius' Speak Up helpline is highlighted during internal compliance training and new joiner inductions.

No Vesuvius employee will ever be penalised or disadvantaged for reporting a legitimate concern in good faith.

Reports received via Speak Up channels are managed by the General Counsel and Compliance Director. When received, reports are assessed for risk and category of concern. All reports are considered in line with a protocol for review, investigation, action, closure and feedback, independent of management where necessary, but involving senior business unit or HR management as appropriate. For complex issues, formal investigation plans are drawn up, and support from external experts is engaged where necessary. Feedback is recognised as an important element of the Speak Up process and we aim to provide an update on all reports within 28 days of receipt.

In line with good practice, details of the Group's Speak Up channels, and the Group's approach to addressing such issues, was recommunicated in 2020. This relaunch included a recommunication on the channels available to employees including nominated individuals at each site who received training in relation to concerns raised in person at local sites. We continue to monitor the volume, geographic distribution and range of reports made to the Speak Up facility to ascertain not only whether there are significant regional compliance concerns, but also whether there are countries where access to this facility is less well understood or publicised. During 2021, the Board monitored and oversaw the Group's procedures for reporting allegations of improper behaviour, and throughout the year received updates on the nature and volume of reports received from the confidential Speak Up Helpline, key themes emerging from these reports and the results of any investigations undertaken. In 2021, we received 93 reports (2020: 95) through the Speak Up facility and 94 walk-in reports (2020: 32). Each one of these was reviewed and, where appropriate, investigated. Similar to 2020, a substantial majority of reports received in 2021 related to HR issues which indicated no compliance concerns, nor serious breaches of the Code of Conduct. Of the small number of reports received that contained allegations of a breach of our Code of Conduct, thorough investigations were performed and, where appropriate, disciplinary action was taken, including individuals leaving the Group as a result.

Corporate Governance Statement continued

During the year, the Board's assessment of the Group's culture focused on the Group's:

(1) Adherence to the CORE Values – The Board focused on ensuring that there was a consistent culture across the Group, underpinned by the CORE Values. The Board continued to receive regular feedback on the Group's response to the COVID-19 pandemic, and the efforts being made to support employees, customers and communities throughout the Group. During site visits, the Directors focused on the extent to which the Values are published, understood and motivate employee behaviour, and reported on their individual findings to the Board. Towards the end of the year, nominations were once again sought for the Group's Living The Values Awards. The Board was delighted that there were almost 1,000 nominations, showcasing examples of individuals and teams going the 'extra mile' to live the CORE Values. Members of the Group Executive Committee presented both regional and global awards as part of the process.

(2) Commitment to safety – At each meeting during the year, the Board received an update on the health and well-being of the Group's employees. The Board received regular updates on the Group's performance against safety targets, and a thorough analysis of all Lost Time Incidents – all of which were reported in detail at the next Board meeting. In addition, the Board received biannual reports on the progress of the Group's safety programmes. The Directors used individual site visits to assess each site's commitment to safety, and the Remuneration Committee set the Chief Executive a specific safety target as part of his personal objectives for the Annual Incentive Plan. A core tenet of the Group's Sustainability initiative is a focus on ensuring the Group affords a safe working environment for all its employees. A more challenging Group safety target of fewer than one lost time injury per million hours worked was implemented for 2021. This is equivalent to an average of less than two lost time work-related injuries or illnesses per month.

(3) Entrepreneurship – As part of the Board's rolling agenda, the Board received reports from each of the business unit Presidents on their business's strategy, new commercial initiatives and future technology trends. These were complemented by a presentation from the President, Operations and Technology on R&D activities throughout the Group, including the process of new product launches. The Board also received reports on the Group's progress on innovation as part of the quarterly reporting on strategic progress.

(4) Transparency – During the early part of the year, the Board was cognisant of the impact that severely reduced travel had on opportunities in the organisation for face-to-face interactions, with Board meetings again taking place online. As travel restrictions eased, the Board was once again able to undertake individual and collective site visits to meet employees face-to-face. The engagement and openness of the employees the Board met, both in person and virtually over the course of the year, was assessed in terms of the Group's culture. These first-hand reviews were supported by the Directors' review of the output of the Group's Speak Up processes. The Audit Committee sought qualitative feedback from External and Internal Audit on how transparent/engaged managers had been during audit interactions.

(5) Customer focus – The Chief Executive undertook customer visits where this was possible, and also held virtual meetings with customers in 2021. As travel restrictions eased the Board was able to incorporate a customer visit into its Vesuvius site visit programme during the latter part of the year. A continued critical focus of the Group's response to the pandemic and associated supply chain impacts, has been on continuity of supply to customers. The Board received regular reports on the impact of the pandemic on customer service and the state of the Group's markets. The Board also received regular updates on quality performance; these were supported by a full annual presentation on the Group's ongoing initiatives on quality and a review at each Board meeting of specific quality issues. At each Board meeting, the Board also considered the state of the Group's markets and the associated customer developments.

(6) Diversity and respect for local cultures – During 2021, the Board, through the work of the Nomination Committee, focused on progress with the achievement of the Group's gender diversity target seeking 30% female representation in Top Management (Group Executive Committee plus key direct reports) by 2025. Going forward, the Board has resolved to expand the Group to which the gender diversity target applies for 2022, to focus on the Senior Leadership Group of the Company which comprises c. 160 individuals.

In 2021, the Board also reviewed the results of the employee engagement survey and subsequent management actions to support its diversity initiatives.

The usual extensive schedule of individual site visits undertaken by the Executive and Non-executive Directors was again somewhat curtailed in 2021 by COVID-19-related travel restrictions. Towards the latter part of the year, the Chairman and each of the Non-executive Directors were able to visit a number of sites including Charlotte, Cleveland and Pittsburgh in the US, Krakow and Skawina in Poland, Borken in Germany, Ghlin in Belgium and Suzhou in China. The Non-executive Directors also held a 'virtual' Board visit with senior managers in China, India and the US during the year to hear more about the activities of the Group there. The visits and calls provided the Board with greater clarity on local organisation and management, along with providing updates on business performance. During the visits the Directors were able to interact with a cross-section of employees, from various functions and organisational levels. At most sites 'town hall' meetings were held, providing the Non-executive Directors with the opportunity to engage with the workforce to explain the function of the Board and also to explain how executive remuneration aligns with wider Company pay policies. These meetings also gave the Non-executive Directors the opportunity to hear the views of employees and answer their questions about the Company. The Directors engaged in first-hand discussions on culture and purpose, providing direct feedback to the Board on their perceptions of each site and potential areas for improvement, alongside highlighting examples of best practice that could be shared more widely.

Section 172 duties

The Directors are cognisant of the duty they have under Section 172 of the Companies Act 2006, to promote the success of the Company over the long term for the benefit of shareholders as a whole, having regard to a range of other key stakeholders. In performance of its duties throughout the year, the Board has had regard to the interests of the Group's key stakeholders and remained cognisant of the potential impact on these stakeholders of the Group's activities. The effects of business decisions on the broader stakeholder group continued to be brought into sharp focus by the impact of the pandemic. Details of the Board and the Company's engagement with stakeholders during the year can be found in the Section 172(1) Statement on pages 22–28.

The Board is committed to communicating with shareholders and other stakeholders in a clear and open manner and seeks to ensure effective engagement through the Company's regular activities.

The Company undertakes an ongoing programme of meetings with investors, which is managed by the Investor Relations team. The majority of meetings with investors are led by the Chief Executive and the Chief Financial Officer. In advance of the 2021 AGM, we wrote to our largest shareholders inviting discussion on any questions they might like to raise and making the Chairs of the Board, the Audit Committee and the Remuneration Committee available to meet them should they so wish. In addition, the Chair of the Remuneration Committee wrote to our largest shareholders and key governance agencies early this year, to provide additional detail on the Group's executive remuneration proposals for 2022 and invite further engagement. Responses were received from the majority of shareholders and governance agencies, and further information provided as requested. As a result of this dialogue, the Remuneration Committee concluded that their proposals were well supported and proceeded to implement them. Further detail is contained in the Directors' Remuneration Report on page 133.

Statement on compliance with the UK Corporate Governance Code

Save as set out for Provisions 19 and 38 below, the Company was fully compliant with the Principles and Provisions of the 2018 UK Corporate Governance Code (the 'Code') for the year ended 31 December 2021. A copy of the Code can be found on the FRC website at: https://www.frc.org.uk/directors/corporate-governance-and-stewardship/uk-corporate-governance-code.

Provision 19: John McDonough CBE completed nine years' service as Chairman of the Board on 31 October 2021. During the year the Nomination Committee commenced the process to search for a new Chairman. The search is well advanced. On appointment of a new Chair, John McDonough will step down from the Board.

Provision 38: The Company has implemented plans to align the level of pension allowance for Executive Directors with that applicable to the majority of the workforce. Our incumbent Directors' pension contributions were frozen at the 1 January 2020 amount and will be reduced to 17% at the end of 2022, being the level of the majority of the workforce. Further details can be found on page 145.

Corporate Governance Statement continued

Division of responsibilities

The Board currently comprises eight Directors – the Non-executive Chairman, John McDonough CBE; the Chief Executive, Patrick André; the Chief Financial Officer, Guy Young; and five Non-executive Directors, Kath Durrant, Dinggui Gao, Friederike Helfer, Jane Hinkley and Douglas Hurt. Douglas Hurt is the Senior Independent Director. Henry Knowles is the Company Secretary. Dinggui Gao joined the Board on 1 April 2021.Holly Koeppel and Hock Goh also served as Non-executive Directors until they stepped down from the Board on 12 May 2021, at the close of the AGM.

The Board considers that, for the purposes of the UK Corporate Governance Code, 57% of the Board – four of the current Non-executive Directors (excluding the Non-executive Chairman), namely Kath Durrant, Dinggui Gao, Jane Hinkley and Douglas Hurt, are independent of management and free from any business or other relationship which could affect the exercise of their independent judgement.Jane Hinkley continues to be regarded as independent despite having completed nine years of service on the Board on 3 December 2021, as she continues to operate with an independent spirit and exhibits robust challenge at Board and Committee meetings.

Friederike Helfer is a Partner of Cevian Capital, which continues to hold 21.11% of Vesuvius' issued ordinary share capital. As a result Friederike Helfer is not considered to be independent. The Chairman satisfied the independence criteria on his appointment to the Board. The Board and its Committees have a wide range of skills, experience and knowledge, and further details of each Director's individual contribution in this regard can be found in their biographical details on pages 104 and 105.

The Chairman and Chief Executive

The division of responsibilities between the Chairman and the Chief Executive is set out in writing. These were reviewed during the year as part of the Company's annual corporate governance review. They are available to view on the Company's website: www.vesuvius.com.

Division of responsibilities

The Board
Responsible for Group strategy, risk management, succession and policy issues. Sets the purpose, Values and culture for the Group. Monitors the Group's progress against the targets set

Chairman
Provides leadership and guidance for the Board, promoting a high standard of corporate governance. Sets the Board agenda and chairs and manages meetings. Independent on appointment, he is the link between the Executive and Non-executive Directors

Chief Executive
Develops strategy for review and approval by the Board. Directs, monitors and manages the operational performance of the Company. Responsible for the application of Group policies, implementation of Group strategy and the resources for their delivery. Accountable to the Board for Group performance

Senior Independent Director
Acts as a sounding board for the Chairman, an alternative contact for shareholders and an intermediary for other Non-executive Directors. Leads the annual evaluation of the Chairman and recruitment process for the Chairman's replacement, when required

Non-executive Directors
Exercise a strong, independent voice, constructively challenging and supporting the Executive Directors. Scrutinise performance against objectives and monitor financial reporting. Monitor and oversee risks and controls, determine Executive Director remuneration and manage Board succession through their Committee responsibilities

The Non-executive Directors meet at least twice a year without the Executive Directors being present

Company Secretary
Advises the Chairman on governance, together with updates on regulatory and compliance matters. Supports the Board agenda with clear information flow. Acts as a link between the Board and its Committees and between Non-executive Directors and senior management

The Board

The Board has a formal schedule of matters reserved to it and delegates certain matters to its Committees. It is anticipated that the Board will convene on seven occasions during 2022, holding ad hoc meetings to consider non-scheduled business if required.

Board Committees

The principal governance Committees of the Board are the Audit, Nomination and Remuneration Committees. Each Committee has written terms of reference which were reviewed during the year. These terms of reference are available to view on the Company's website: www.vesuvius.com.

Committee composition is set out in the relevant Committee reports. No one, other than the Committee Chairman and members of the Committee, is entitled to participate in meetings of the Audit, Nomination and Remuneration Committees. However, as detailed in the Committee reports, where the agenda permits, other Directors and senior management regularly attend by invitation, supporting the operation of each of the Committees in an open and consensual manner.

The interactions in the governance process are shown in the schematic below.

Group Executive Committee

The Group also operates a Group Executive Committee (GEC), which is convened and chaired by the Chief Executive and assists him in discharging his responsibilities. The GEC comprises the Chief Executive, Chief Financial Officer, the business unit Presidents, the Chief HR Officer, the President Operations and Technology and the General Counsel/Company Secretary. The GEC continued its formal schedule of five meetings and two R&D reviews during 2021, and also, in response to the demands of the pandemic held weekly, or later in the year bi-weekly, virtual meetings to discuss the Group's business activities.

Board

Governance Committees

Audit Committee
To monitor the integrity of financial reporting and to assist the Board in its review of the effectiveness of the Group's internal controls and risk management systems

Chair
Douglas Hurt

Membership
All independent Non-executive Directors

Remuneration Committee
To determine the remuneration policy for the Executive Directors and set the appropriate remuneration for the Chairman, Executive Directors and senior management

Chair
Kath Durrant

Membership
All independent Non-executive Directors

Nomination Committee
To advise the Board on appointments, retirements and resignations from the Board and its Committees and to review succession planning and talent development for the Board and senior management

Chair
John McDonough, Chairman
(except when considering his own succession, in which case the Committee is chaired by the Senior Independent Director)

Membership
Chairman and the Non-executive Directors

Administrative Committees

In addition, the Board delegates certain responsibilities to a Finance Committee and Share Scheme Committee, which operate in accordance with the delegated authority agreed by the Board

Finance Committee
To approve specific funding and treasury-related matters in accordance with the Group's delegated authorities or as delegated by the Board

Chair
John McDonough, Chairman

Membership
Chairman, Chief Executive, Chief Financial Officer and Group Head of Corporate Finance

Share Scheme Committee
To facilitate the administration of the Company's share schemes

Chair
Any Board member

Membership
Any two Directors or any two Directors and the Company Secretary

Corporate Governance Statement continued

2021 Board programme

The Board discharges its responsibilities through an annual programme of meetings.

At each of the regularly scheduled meetings, a number of standard items were considered.

These included:

- Directors' duties, including those in respect of s172, and conflicts of interest
- Minutes of the previous meeting and matters arising
- Reports from the Chief Executive, the Chief Financial Officer and the General Counsel and Company Secretary on key aspects of the business

In 2021, the Board focused on key areas of strategy, performance and governance, including the matters outlined below:

Strategy

- Reviewing M&A opportunities and overseeing the negotiation of the acquisition terms for the assets of Universal Refractories, Inc.
- Receiving and reviewing reports on strategy from the Flow Control, Advanced Refractories, Sensors & Probes and Foundry business units
- Reviewing and approving significant items of capital expenditure
- Receiving and reviewing regular reports from the Chief Executive (CEO) on business highlights and the implementation of the Group's strategic objectives
- Reviewing the progress of the Group's Sustainability strategy, including receiving regular updates on the Group's quality, health, safety and environmental objectives and progress with the preparation of the Group's TCFD compliance
- Participation in a two-day off-site review of strategy presented by the CEO, CFO and the three main business unit Presidents and the Company's key financial advisers
- Receiving and considering reports on the Group's HR, Purchasing, IT, tax and treasury strategies, legal and compliance activities and the management of the Group's key pension liabilities
- Receiving and considering a progress report on the Group's R&D strategy and objectives
- Reviewing the Group's financing structure

Performance

- Receiving regular business reports from the CEO, including information on the ongoing impact of COVID-19 on the Group, its employees and customers
- Reviewing the measures being taken to mitigate the impact of raw material cost increases and supply chain disruption
- Receiving regular reports on the Group's financial performance against key indicators, including each of the Group's KPIs
- Receiving regular reports on progress against the Group's sustainability targets and regular updates from the CEO on the performance of the Group's businesses
- Receiving regular safety reports setting out performance against key indicators and summaries of the investigations conducted after any serious safety incident
- Receiving regular reports on performance against product quality targets
- Scrutinising the Group's financial performance and forecasts
- Reviewing and agreeing the annual budget and financial plans
- Approving trading updates, and preliminary and half-year results

Governance

- Receiving regular reports from the Board Committees
- Approving the Annual Report and Notice of AGM
- Approving the payment of the interim dividend, and approving the recommendation of the payment of the final dividend subject to shareholder approval
- Approving the appointment of Dinggui Gao as a new Non-executive Director and overseeing the process to identify a new Board chair
- Completing an evaluation of the Board and Committees' performance and regularly reviewing progress against the improvement actions identified in the 2020 evaluation
- Reviewing the Group's internal controls, risk management practices and risk appetite, monitoring the Group's key risks and approving the Group's risk register
- Reviewing and approving the Group's Modern Slavery Statement
- Receiving regular updates on corporate governance and regulatory developments
- Completing a formal annual review of the Group's governance arrangements
- Reviewing information received through the Group's Speak Up reporting processes
- Renewing the Group's delegated authorities
- Receiving reports from the Company's brokers on market issues and from the CEO and CFO on all investor meetings and feedback

Information and support

The Board ensures that it receives, in a timely manner, information of an appropriate quality to enable it adequately to discharge its responsibilities. Papers are provided to the Directors in advance of the relevant Board or Committee meeting to enable them to make further enquiries about any matters prior to the meeting should they so wish. This also allows Directors who are unable to attend to submit views to the relevant Chairperson in advance of the meeting.

In addition to the formal Board processes, the Chief Executive provides written updates on important Company business issues between meetings, and the Board is provided with a regular monthly report of key financial and management information, including information on safety and quality performance. Regular updates on shareholder matters are provided to the Directors, who also receive copies of analysts' notes issued on the Company. For the distribution of all information, Directors have access to a secure online portal, which contains a reference section containing relevant background information.

All Directors have access to the advice and services of the Company Secretary.

There is also an agreed procedure in place for Non-executive Directors, in the furtherance of their duties, to take independent legal advice at the Company's expense. The procedure was not utilised during the year under review.

Directors' conflicts of interest

The Board has established a formal system to authorise situations where a Director has an interest that conflicts, or may possibly conflict, with the interests of the Company (situational conflicts). Directors declare situational conflicts so that they can be considered for authorisation by the non-conflicted Directors.

In considering a situational conflict, these Directors act in the way they consider would be most likely to promote the success of the Company and may impose limits or conditions when giving authorisation, or subsequently, if they think this is appropriate.

The Company Secretary records the consideration of any conflict and any authorisations granted. The Board believes that the approach it has in place for reporting situational conflicts continues to operate effectively. No situational conflicts were presented to the Board for authorisation during the year under review.

Board and Committee attendance

The attendance of Directors at the Board meetings and at meetings of the principal Committees of which they are members held during 2021 is shown in the table below. The maximum number of meetings in the period during which the individual was a Board or Committee member is shown in brackets.

	Board	Audit Committee	Remuneration Committee	Nomination Committee	% attendance
Chairman					
John McDonough CBE	9 (9)	–	–	5 (5)	100%
Executive Directors					
Patrick André	9 (9)	–	–	–	100%
Guy Young	9 (9)	–	–	–	100%
Non-executive Directors					
Kath Durrant	9 (9)	4 (5)	5 (5)	5 (5)	96%
Dinggui Gao[1]	7 (7)	3 (3)	4 (4)	4 (4)	100%
Hock Goh[2]	3 (3)	2 (2)	1 (1)	1 (2)	88%
Friederike Helfer	9 (9)	–	–	5 (5)	100%
Jane Hinkley	9 (9)	5 (5)	5 (5)	5 (5)	100%
Douglas Hurt	9 (9)	5 (5)	5 (5)	5 (5)	100%
Holly Koeppel[2]	3 (3)	2 (2)	1 (1)	1 (2)	88%

1. Dinggui Gao was appointed to the Board on 1 April 2021 and the table reflects the number of Board and Committee meetings that he could attend following his appointment.
2. Hock Goh and Holly Koeppel stood down from the Board at the close of the 2021 AGM on 12 May 2021. The table reflects the number of Board and Committee meetings that they could attend prior to their departures.

Kath Durrant was unable to attend one Audit Committee meeting, and Hock Goh and Holly Koeppel one Nomination Committee meeting during the year due to clashes with other professional responsibilities that had been previously notified to the Chairman. Dinggui Gao, Hock Goh and Holly Koeppel attended meetings virtually as they were precluded from participating in person due to travel restrictions between the UK and their countries of residence, being China, Australia and the US, respectively.

To the extent that Directors were unable to attend scheduled meetings, they received the papers in advance and relayed their comments to the Chairman of the relevant Committee for communication at the meeting. The Committee Chairs followed up after the meeting in relation to the decisions taken.

The Chairman and Non-executive Directors each have a letter of appointment which sets out the terms and conditions of their directorship.

An indication of the anticipated time commitment is provided in recruitment role specifications, and each Non-executive Director's letter of appointment provides details of the meetings that they are expected to attend, along with the need to accommodate travelling time. Non-executive Directors are required to set aside sufficient time to prepare for meetings, and regularly to refresh and update their skills and knowledge. Copies of all contracts of service or, where applicable, letters of appointment of the Directors are available for inspection during business hours at the registered office of the Company and are available for inspection at the location of the Annual General Meeting (AGM) for 15 minutes prior to and during each AGM.

Corporate Governance Statement continued

All Non-executive Directors have agreed to commit sufficient time for the proper performance of their responsibilities, acknowledging that this will vary from year to year depending on the Group's activities, and will involve visiting operational and customer sites around the Group. The Chairman in particular dedicates a significant amount of time to Vesuvius in discharging his duties.

Directors are expected to attend all scheduled Board and Committee meetings and any additional meetings as required. Each Director's other significant commitments are disclosed to the Board during the process prior to their appointment and they are required to notify the Board of any subsequent changes.

The Company has reviewed the availability of the Chairman and the Non-executive Directors to perform their duties and considers that each of them can, and in practice does, devote the necessary amount of time to the Company's business.

Composition, evaluation and succession

Appointment and replacement of Directors

The Company's Articles of Association specify that Board membership should not be fewer than five nor more than 15 Directors, save that the Company may, by ordinary resolution, from time to time, vary this minimum and/or maximum number of Directors. Directors may be appointed by ordinary resolution or by the Board. The Board may appoint one or more Directors to any executive office, on such terms and for such period as it thinks fit, and it can also terminate or vary such an appointment at any time. The Articles specify that, at every AGM, any Director who has been appointed by the Vesuvius Board since the last AGM and any Director who held office at the time of the two preceding AGMs, and who did not retire at either of them, shall retire from office. However, in accordance with the requirements of the Code, all the Directors who wish to continue to serve on the Board, will offer themselves for re-election at the 2022 AGM. The Board believes that each of the current Directors is effective and demonstrates commitment to his or her respective role. Accordingly, the Board recommends that shareholders approve the resolutions to be proposed at the 2022 AGM relating to the re-election of the Directors. The biographical details of the Directors offering themselves for re-election, including details of their other directorships and relevant skills and experience, will be set out in the 2022 Notice of AGM. The biographical details of the Directors are also set out on pages 104 and 105.

Recommendations for appointments to the Board and rotation of the Board are made by the Nomination Committee. The Nomination Committee is also responsible for overseeing the maintenance of an effective succession plan for the Board and senior management. Further information on the activities of the Nomination Committee is set out in the Nomination Committee report on pages 125–129.

A comprehensive induction programme is available to new Directors. The induction programme is tailored to meet the requirements of the individual appointee and explains the dynamics and operations of the Group, and its markets and technology. The induction includes, as a minimum, a series of meetings with key Group executives and advisers, along with site visits to the Group's key strategic sites. During the COVID-19 travel restrictions, Dinggui Gao's induction has been limited to site visits in China, virtual meetings with the Group's executives and senior management, and a 'virtual' site visit to Vesuvius India. A more comprehensive plan of personal site visits is planned for 2022.

The Chairman, through the Company Secretary, continues to ensure that there is an ongoing process to review training and development needs. Directors are provided with details of seminars and training courses relevant to their role and are encouraged and supported by the Company to attend them. In 2021, regulatory updates were provided as a standing item at each Board meeting in a Secretary's Report. External input on legal and regulatory developments impacting the business was also given, with specialist advisers invited to the Board and Committee meetings to provide briefings on topics such as the changing landscape of Corporate Governance, particularly the latest FRC consultations and guidance, and material developments in the legal environment, including trends in M&A, changes in UK pension legislation and ESG disclosure requirements.

Performance evaluation

The Board carries out an evaluation of its performance and that of its Committees and individual Directors, including the Chairman, every year. Details of the evaluation conducted in 2021 can be found in the Nomination Committee report.

Audit, risk and internal control

The Board is responsible for ensuring that policies and procedures are in place to ensure the independence and effectiveness of the Internal and External Audit functions. The Audit Committee assists the Board in reviewing the effectiveness of the Group's Internal and External Audit functions, in addition to monitoring the integrity of the Group's financial and narrative statements. Further information about the work of the Audit Committee can be found in the Audit Committee report on pages 117–124.

The Board is also responsible for setting the Group's risk appetite and ensuring that appropriate risk management systems are in place. The Audit Committee assists the Board in reviewing the effectiveness of the system of internal control, including financial, operational and compliance controls, and risk management systems. The Group's approach to risk management and internal control is discussed in greater detail on pages 29–33 and the Group's principal risks and how they are being managed or mitigated are detailed on pages 34 and 35. The Viability Statement which considers the Group's future prospects is included on page 33. Risk management and internal control are also discussed in greater detail in the Audit Committee report.

All of the independent Non-executive Directors serve on both the Audit and Remuneration Committees. They therefore bring their experience and knowledge of the activities of each Committee to bear when considering critical areas of judgement. This means that, for example, the Directors are able to consider carefully the impact of incentive arrangements on the Group's risk profile and to ensure that the Group's Remuneration Policy and programme are structured to align with the long-term objectives and risk appetite of the Company.

Remuneration

The Directors' Remuneration Report on pages 130–153 describes the work of the Remuneration Committee in developing the Group's policy on executive remuneration, determining Director and senior management remuneration, reviewing workforce remuneration and related policies – including ensuring that these align with the Group's Strategic Objectives and culture, and overseeing the operation of the executive share incentive plans.

Audit Committee

Douglas Hurt – Committee Chairman

Kath Durrant

Dinggui Gao
Joined the Committee on his appointment to the Board on 1 April 2021

Hock Goh
Served on the Committee until his retirement from the Board on 12 May 2021

Jane Hinkley

Holly Koeppel
Served on the Committee until her retirement from the Board on 12 May 2021

The Company Secretary is Secretary to the Committee

Dear Shareholder,

On behalf of the Audit Committee, I am pleased to present the Audit Committee Report for 2021. The foundation of the Committee's work each year is a recurring and structured programme of activities which are defined in an annual rolling Audit Committee timetable. The Audit Committee then considers additional items as matters arise and priorities change. During 2021, the Committee continued to monitor the impact of the COVID-19 pandemic on the Group's activities, undertaking particularly detailed analysis of the Group's impairment assessments and the going concern and viability statements, along with the Group's TCFD reporting. In addition, the Committee again spent some time focusing on the Group's cyber security measures, as well as receiving updates throughout the year on the implementation of changes to the Group's Finance Operating Model.

The Audit Committee Report describes the work of the Committee during the year, including its role in monitoring the integrity of the Company's financial statements and the effectiveness of the internal and external audit processes. It provides an overview of the significant issues the Committee has considered during the year and its material judgements. It also describes how the Committee fulfilled its responsibilities to assist the Board in reviewing the effectiveness of the Group's system of internal financial controls and its internal control and risk management systems.

Yours sincerely

Douglas Hurt
Chairman, Audit Committee
3 March 2022

The Audit Committee

The Audit Committee comprises all the independent Non-executive Directors of the Company, who bring a wide range of financial and commercial expertise to the Committee's decision-making processes. Douglas Hurt is the Senior Independent Director and Chairman of the Audit Committee. He was the Finance Director of IMI plc for nine years prior to his appointment and has worked in various financial roles throughout his career. Douglas currently serves as the Chairman of the Audit Committees of Countryside Partnerships PLC, Hikma Pharmaceuticals PLC and the British Standards Institution. He is a Chartered Accountant. This background provides him with the 'recent and relevant financial experience' required under the Code.

The Code and Financial Conduct Authority Disclosure Guidance and Transparency Rules also contain requirements for the Audit Committee as a whole to have competence relevant to the sector in which the Company operates. Vesuvius' Non-executive Directors have significant breadth of experience and depth of knowledge on matters related to Vesuvius' operations, both from their previous roles and from their induction and other activities since joining the Vesuvius Board. The Directors' biographies on pages 104 and 105 outline their range of multinational business-to-business experience and expertise in fields such as engineering, manufacturing, services, logistics and human resources, as well as financial and commercial acumen. Biographies for Hock Goh and Holly Koeppel are available in the Company's 2020 Annual Report which can be viewed on our website: www.vesuvius.com. The Board considers that the Audit Committee as a whole has competence relevant to Vesuvius' business sector.

Meetings

The Committee met five times during 2021. The Committee has also met twice since the end of the financial year and prior to the signing of this Annual Report. The Board Chairman, the non-independent Non-executive Director, the Chief Executive, the Chief Financial Officer, the Head of Finance, the Group Head of Internal Audit and the External Auditors were all invited to each meeting. Other management staff were also invited to attend as appropriate.

Audit Committee meetings are conducted to promote an open debate, they enable the Committee to provide constructive challenge of significant accounting judgements, and guidance and oversight to management, to ensure that the business maintains an appropriately robust control environment. Between Audit Committee meetings, the Chairman of the Audit Committee encourages open dialogue between the External Auditors, the management team and the Group Head of Internal Audit to ensure that emerging issues are addressed in a timely manner.

Audit Committee continued

Activities in 2021

1. During 2021, the Committee's activities were once again focused on the impact of COVID-19 on the Group, as well as on the impact on raw material and freight availability, and inflation. The work of Internal Audit was adapted to accommodate the travel restrictions, and the Group's liquidity and cash generation remained under particular scrutiny. The Committee ensured that despite the continued changes in working patterns, critical resources in internal control and compliance functions worked effectively. The work of the External Auditors was carefully monitored given the continued use of virtual tools and where appropriate and possible, audit work was accelerated to reflect the potentially longer time frames for completion.
2. The Committee's agenda covered the usual standing items – the review of financial results, the effectiveness of the Group's internal financial controls, and the review of the internal control and risk management systems – as well as additional topics, including updates on cyber security and an in-depth review of the Group's European Shared Services function.
3. The Committee continued to receive feedback throughout the year on the implementation of the new finance operating model. This continued the transition of the business unit finance functions from purely accounting to forward-looking business support, with clearer accountabilities for controlling functions and a focus on further standardising core processes. The Committee monitored changes to the structure of finance roles and the roll-out of the new model.
4. The Audit Committee continued to devote time to ensure that initiatives to mitigate potential risks and financial exposure remained robust and appropriate.
5. The Committee challenged the assumed growth rates and discount rates used for asset impairment assessments.
6. The Committee considered the Company's going concern statement and challenged the nature, quantum and assessment of the significant risks to the business model, future performance, solvency and liquidity of the Group that were modelled as part of the scenarios and stress testing undertaken to support the viability statement made by the Company in the Annual Report and Financial Statements. In particular the Committee examined the criteria selected for enhanced stress testing, which included an unplanned drop in customer demand, debt recovery risk due to customer default, business interruption due to unplanned closure of several key plants and raw material cost inflation. The Committee also considered the potential effect of a combination of risk factors occurring at the same time. At the half year the Committee undertook another detailed look at the Company's going concern statement. The going concern and viability statements, which were also critically reviewed, are contained within the Strategic Report on page 33.
7. The Committee reviewed the resourcing and delivery of the 2021 Internal Audit plan, monitoring the effect of ongoing COVID-19 travel restrictions and approved the 2022 Internal Audit plan. The Committee monitored both the responses from and follow-up by management to Internal Audit recommendations arising during the year. The Committee discussed at length the significant issues raised, the root causes for those issues and the actions being taken to resolve the issues.
8. The Committee conducted regular, detailed reviews of provisions, challenging the reasonableness of underlying assumptions and estimates of costs and the quantum of any related insurance assets.
9. The Committee reviewed the accounting, disclosures and resulting impacts of the final buy-in for the UK pension plan. The buy-in did not impact the underlying terms on which the remaining surplus asset is deemed recoverable and recognised.
10. The Committee reviewed the accounting for the acquisition of the business of Universal Refractories, Inc. including determining the allocation of the purchase price and the identification and valuation of intangible assets.
11. The Committee reviewed the Group's work on TCFD reporting and the assurance received regarding the sustainability KPI data.
12. The Committee reviewed the effectiveness of the Internal and External Audit processes.
13. The Committee met with Internal and External Audit without management present and received valuable feedback on a range of topics.
14. The Committee reviewed the activities being undertaken to prepare for filing the 2021 annual financial report in European Single Electronic Format (ESEF). A dry run tagging the 2020 Annual Report was undertaken during the year to ensure the Company was ready to comply with its obligation in 2022.
15. The Committee conducted an evaluation of its performance and effectiveness, concluding that the Committee continued to work effectively across all key areas, with meetings remaining well managed and appropriately resourced.
16. The Committee reviewed and updated its terms of reference.

During the year, as is the Audit Committee's established practice, the Committee members met and discussed business and control matters with senior management during Board presentations. The Committee also met privately with the Group Head of Internal Audit and the External Auditors without any executives present.

The outcomes of Audit Committee meetings were reported to the Board, and all members of the Board received the agenda, papers and minutes of the Committee.

Statement of compliance with the Competition and Markets Authority (CMA) Order

The Committee considers that the Company has complied with the Statutory Audit Services for Large Companies Market Investigation (Mandatory Use of Competitive Tender Processes and Audit Committee Responsibilities) Order 2014 (Article 7.1), published by the CMA on 26 September 2014, including with respect to the Audit Committee's responsibilities for agreeing the audit scope and fees and authorising non-audit services.

Role and responsibilities

During 2021, the main role and responsibilities of the Committee continued to be to:

– Monitor the integrity of the Financial Statements of the Company and the Group, and any formal announcements relating to the Group's financial performance, reviewing significant financial reporting judgements contained in them
– Provide advice, as requested by the Board, on whether the Annual Report and Financial Statements, taken as a whole, are fair, balanced and understandable and provide the information necessary for the shareholders to assess the Group's position and performance, business model and strategy
– Review and monitor the effectiveness of the Company's internal financial controls, and internal control and risk management systems
– Review procedures for detecting fraud, and systems and controls for the prevention of bribery and ensure that a thorough review is carried out of all alleged instances of fraud notified to the Committee
– Monitor and review the role and effectiveness of the Company's Internal Audit function and audit programme, ensuring that the function is adequately resourced and operates free from management or other restrictions
– Make recommendations to the Board on the appointment, reappointment and removal of the External Auditors and negotiate and agree the fees and terms of engagement of the External Auditors
– Monitor and review with the External Auditors the findings of their work, including key accounting and audit judgements, how any risks to audit quality were addressed and the External Auditors' views of their interactions with senior management
– Review and monitor the External Auditors' independence, objectivity and effectiveness, taking into consideration relevant law, regulation, the Ethical Standard, other professional requirements and any FRC audit inspection findings
– Oversee the operation of the policy on the engagement of the External Auditors to supply non-audit services
– Report to the Board on how the Committee has discharged its responsibilities

The Committee operates under formal terms of reference approved by the Board. These were reviewed during the year and a minor amendment made to update a legislative reference. They are available to view in the Investors/Corporate Governance/Board Committees section of the Company's website: www.vesuvius.com. Within these terms, the Committee and its individual members are empowered to obtain outside legal or other independent professional advice at the cost of the Company. These powers were not utilised during the year. The Committee may also secure the attendance at its meetings of any employee or other parties with relevant experience and expertise should it be considered necessary.

The Committee members believe that they received sufficient, relevant and reliable information throughout the year from management and the Internal and External Auditors to enable the Committee to fully discharge its responsibilities. The work of the Audit Committee is further elaborated in the remainder of this report.

Financial reporting

The Committee fulfilled its primary responsibility to review the integrity of the half year and annual Financial Statements and recommended their approval to the Board.

In forming its views, the Committee assessed:

– The quality, acceptability and consistency of the accounting policies and practices
– The clarity and consistency of the disclosures, including compliance with relevant financial reporting standards and other reporting requirements
– Significant issues where management judgements and/or estimates had been made that were material to the reporting or where discussions had taken place with the External Auditors in arriving at the judgement or estimate
– In relation to the overall Annual Report, whether the Annual Report and Financial Statements taken as a whole were fair, balanced and understandable, taking into consideration all the information available to the Committee
– The Group's compliance with the new requirements in respect of TCFD Reporting, including the assurance received regarding the sustainability KPI data. The Committee also reviewed and approved the completed climate-related risk and opportunities register and the work undertaken by the Group to formulate the scenario analyses
– The application of the FRC's guidance on clear and concise reporting and the key takeaways from the Thematic Reviews issued by the FRC throughout the year on themes such as Interim Results, Going Concern and Viability Statements, Streamlined Energy and Carbon Reporting and IAS 37 – Provisions, Contingent Liabilities and Contingent Assets
– The disclosure and presentation of alternative performance measures, in view of the guidelines issued by the FRC

The Committee actively deliberated and challenged reports from the Chief Financial Officer and the Head of Finance. These were well prepared and, for areas of judgement and/or estimation, set out the rationale for the accounting treatment and disclosures, and the pertinent assumptions and the sensitivities of the estimates to changes in the assumptions. The External Auditors also delivered memoranda for the half-year and year-end, stating its views on the treatment of significant issues. The External Auditors provided a summary for each issue, including its assessment of the appropriateness of management's judgements or estimates.

Significant issues and material judgements

The Committee considered the following significant issues in the context of the 2021 Financial Statements. It identified these areas to be significant, taking into account the level of materiality and the degree of judgement exercised by management.

The Committee resolved that the judgements and estimates made on each of the significant issues detailed below were appropriate and acceptable.

Impairment of intangible assets

The 2021 year-end carrying value of goodwill of £614.2m was tested against the current and planned performance of the Steel Flow Control, Steel Advanced Refractories, Steel Sensors & Probes and Foundry CGUs. The Committee considered the

Audit Committee continued

Board-approved medium-term business plans, medium-term and terminal growth assumptions, as well as the discount rates used in the assessments. Relevant sensitivities using reasonably possible changes to key assumptions were evaluated. The detailed assumptions are provided in Note 17 to the Group Financial Statements.

Given that the models indicated, even with the application of reasonable sensitivities to the assumptions, that there remains significant headroom between the value in use and the carrying value, the Committee concurred that no goodwill impairment charges were required.

Other provisions

The Committee continues to monitor the implications of a number of potential exposures and claims arising from ongoing litigation, product quality issues, employee disputes, restructuring, vacant sites, environmental matters, legacy matter lawsuits, indirect tax disputes and indemnities or warranties outstanding for disposed businesses. Due to the long gestation period before settlement for a number of these issues can be reached, provisioning for these items requires careful judgement in order to establish a reasonable estimate of future liabilities. The Committee also assessed the strength of any insurance coverage for certain of these liabilities and challenged the accounting treatment for any amounts deemed to be recoverable from insurers. After due consideration and challenge, and having considered legal advice obtained by the Company, the Committee is satisfied that there are appropriate levels of provisions set aside to settle third-party claims and disputes (Note 30 to the Group Financial Statements) and that adequate disclosure has been made. Where no reliable estimate of the potential liability can be made for the outcome of an existing issue, no provision has been made and appropriate disclosure is included under contingent liabilities (Note 32 to the Group Financial Statements).

Operating segments for continuing operations

The Committee considered the aggregation of the Steel Flow Control, Steel Advanced Refractories, and Steel Sensors & Probes operating segments into the Steel reportable segment, noting the economic characteristics of these operating segments which include a similar nature of products, customers, production processes and margins. The Committee concluded that this segmentation remained appropriate.

Impairment of investment in subsidiaries

The Committee has also reviewed management's impairment analysis of the parent company's investment in subsidiaries. Following this review it concurred that no impairment was required.

Defined benefit pensions

The Committee carefully reviewed the accounting for, and valuation of, the UK pension assets, following the purchase by the Trustees of an insurance contract to match the remaining pension liabilities.

Fair, balanced and understandable reporting

The Committee considered all the information available to it in reviewing the overall content of the Annual Report and Financial Statements and the process by which it was compiled and reviewed, to enable it to provide advice to the Board that the Annual Report and Financial Statements are fair, balanced and understandable. In doing so, the Committee ensured that time was again dedicated to the drafting and review process so that internal linkages were identified and consistency was tested. Drafts of the Annual Report and Financial Statements were also reviewed by a senior executive not directly involved in the year-end process who reported to the Committee on his impressions of their clarity, comprehensiveness, and the balance of disclosure in the document. On completion of the process, the Committee was satisfied that it could recommend to the Board that the Annual Report and Financial Statements are fair, balanced and understandable.

Risk management and internal controls

As highlighted in the reviews of strategy and principal risks in the Strategic Report, risk management is inherent in management's thinking and is embedded in the business planning processes of the Group. The Board has overall responsibility for establishing and maintaining a system of risk management and internal control, and for reviewing its effectiveness. The Audit Committee assists the Board in reviewing the effectiveness of the Group's system of internal control, including financial, operational and compliance controls, and risk management systems. This framework is consistent with the Code.

In 2021, Committee members fully participated in the Board review of existing risks and ongoing mitigating actions, further details of which are given on pages 34 and 35. The Committee believes that the Group's process for identifying and understanding its principal risks and uncertainties remains robust and appropriate.

The Committee considered the Company's going concern statement and challenged the nature, quantum and effects of the combination of the unlikely but significant risks to the business model, future performance, solvency and liquidity of the Group. These were all modelled as part of the scenarios and stress testing undertaken to support the viability statement. As part of this review, the Committee considered the Group's forecast funding requirements over the next three years and analysed the impact of key risks faced by the Group with reference to the Group's debt covenants; these included stress testing for an unplanned drop in customer demand, debt recovery risk due to customer default, business interruption due to unplanned closure of several key plants and raw material cost inflation. The scenarios considered the impact of multiple risks occurring simultaneously and the additional mitigating actions that the Group could take. The Committee noted that the Group's debt headroom was sufficient to accommodate the modelled stress scenarios. As a result of its review, the Committee was satisfied that the going concern statement and viability statement had been prepared on an appropriate basis. The 2021 going concern statement and the 2021 viability statement are contained within the Risk, viability and going concern section on page 33.

The key features of the Group's internal control system, which provides assurance on the accuracy and reliability of the Group's financial reporting, are detailed in the Risk, viability and going concern section on pages 29–35. During 2021, the Committee considered the process by which management evaluates internal controls across the Group. The Group Head of Internal Audit provided the Committee with a summary overview of the assurance provided by the Group's control framework and the testing of these controls. PwC also reports if there are any significant control deficiencies identified during the course of their audit.

The Group is made up of several large operating units, but also many small units in geographically diverse locations. Consequently, segregation of duties, overlapping access controls on systems and remote management oversight can give rise to control vulnerabilities and fraud opportunities. The Group has not adopted a common Enterprise Resource Planning system as a Group-wide standard. Over time, the Group is moving towards a shared services model, enabled by control, process and systems standardisation between businesses. This is expected to enhance the overall internal control environment in the smaller operating units.

The Group undertakes a range of activities to mitigate the risk of fraud. This framework is regularly reviewed to determine areas for improvement. Eliminating the risk of fraud remains one of the key areas of focus for Internal Audit, forming a fundamental part of 'full scope' and financial audits. These assess the quality of the balance sheet reconciliations, review key judgement matters, consider ERP access rights, review tenders and quotations, review the entity's controls over master data changes, and review controls over payments, journals and associated applications, along with travel and expense reimbursements.

Any control issues identified by management locally or as a result of the work performed by Internal Audit are escalated as appropriate. Internal Audit rate all control issues they identify in terms of their significance and agree remediation plans with the auditee and an action owner, establishing a target date for remediation. For significant issues, management at all levels within the business are engaged to agree the actions and remediation dates. The status of the remediation is monitored and overdue issues are escalated appropriately with management, and reported at Audit Committee meetings. The Audit Committee continues to challenge management on the root cause where issues arise on the progress of remediation activities.

Cyber risks continue to be a significant area of focus for the Group, with Vesuvius like most other companies, receiving a large number of 'phishing' emails presenting fake credentials and subject to repeated attempts at social engineering fraud. The Group has an IT Committee that meets on a regular basis to review and progress the Group's plans for tackling cyber issues, and the Audit Committee receives regular updates on the Group's activities in this area.

During 2021, the Group continued to enhance its infrastructure and networks to improve its IT security. A holistic approach is taken to addressing cyber challenges, focusing on the improvement of the Group's overall IT procedures and framework. The Group continues to run regular training programmes on cyber/IT security.

During 2021, the Group continued its review of third-party representatives and intermediaries. This included detailed due diligence for new third parties and ongoing monitoring of our sales agents. The Committee also continued its assessment of the Group's potential exposure to bribery and corruption risks, noting the ongoing work conducted by the Group in this context. The face-to-face visits to operations usually conducted to assist with the work were curtailed by the COVID-19 pandemic. In 2020 we undertook a detailed review of the existing compliance programme and resources, and in 2021 the output of this review, combined with previous risk assessments, was used to further develop the Group's framework, policies and procedures for the management of anti-bribery and corruption risk, to ensure they reflect a continued appropriate level of control for the business.

In line with the requirements of the Code, responsibility for the oversight and monitoring of the Group's Speak Up helpline, which collates allegations of improper behaviour and employee concerns, has passed from the Audit Committee to the full Board. The Committee is kept apprised of any complaints received by the Company regarding fraud, accounting, internal accounting controls and auditing matters. Further details of the operation of the Group's Speak Up policy and helpline can be found on page 109.

Each year, the senior financial, operational and functional management of the businesses self-certify compliance with Group policies and procedures for the areas of the business under their responsibility and confirm the existence of adequate internal control systems throughout the year. The Committee reviews any exceptions noted in this bottom-up exercise.

Cyber security

The Board places significant emphasis on operational security, of which Information and Communication Technology and Cyber awareness are a vital part. Cyber resilience continues to be a significant area of focus for the Group.

Cyber risks are integrated into our wider risk-management, including forming part of the Business Continuity Plan (BCP) undertaken to counteract business interruption – either in loss of production capacity or supply chain disruption due to physical site damage (accidents, fires, natural disasters, terrorism), industrial action, cyber attack or global health crises.

Integration between BCP and cyber security is done in several areas. We constantly conduct cyber security risk assessments, analysing business impact to mitigate potential downtime. We have an Incident Handling and Response Policy, which sets out how we improve visibility and monitoring of all network infrastructure. These processes give us an effective way to proactively manage risk and mitigate business continuity concerns. Furthermore, IT has developed a Disaster Recovery Plan for inclusion in wider business continuity plans to address network, data centre and infrastructure issues.

Vesuvius has a multi-year strategy for maintaining and developing cyber security based on best practices and standards, and monitoring trends and cyber threats against appropriate indicators. This also encompasses in-house vulnerability testing and analysis, using external reports and benchmarks to develop our processes. Our cyber security work therefore supports and protects our production capacity, and invests in appropriate resources in this fast-changing environment. The Group's IT Security Strategy and Roadmap is based on the ISO 27001 standard and NIST frameworks, implementing best practices in the area, but currently without ISO accreditation.

In 2021, against the increasing trend in phishing emails and ransomware attacks affecting operational capabilities, we carried out disaster recovery tests to assess the resilience of our systems and continuity both for suppliers and customers. In 2021, Vesuvius experienced no such interruptions or service denials.

During the year, the Group worked to strengthen IT security, through the development of operational technologies, the optimisation of the Group's overall IT procedures and framework, and the continuation of regular cyber security training programmes. We also focused on staff development to increase operational capacity. We continued to improve our Incident Handling and Response Policy, which was used successfully to handle minor incidents as they occurred. This demonstrates that we have the correct building blocks for responding to cyber incidents.

Audit Committee continued

The work undertaken during the year indicated the existence of an appropriate control environment, albeit with some areas for improvement, for which clearly defined improvement actions have been identified, particularly in respect of the Group's cyber risks. No significant control issues were raised by our External Auditors, PwC and Mazars, and no material issues were identified in 2021. After considering these various inputs, the Committee was able to provide assurance to the Board on the effectiveness of internal financial control within the Group, and on the adequacy of the Group's broader internal control systems.

Internal Audit

The Group's Internal Audit function operates on a global basis through professionally qualified and experienced individual members located in the UK and Poland. They report to the Group Head of Internal Audit, based in London, who in turn reports directly to the Chairman of the Audit Committee.

Throughout 2021, Internal Audit continued to perform a programme of audits focusing on internal financial controls and key Board compliance issues.

The Committee received, considered and approved the 2021 Internal Audit plan which was constructed using a risk-based approach to cover the Group's control environment. The plan was based on the premise that all operating units are audited at least once every three to four years, including the smaller operating units. Internal Audit annually audits each of the large operating entities located in Germany, the US, China, Mexico and Brazil. Due to the travel restrictions arising from the COVID-19 pandemic, the 2021 plan focused on European financial controls audits and remote desktop audits in the first half, with no long haul international travel before June 2021. Some on-site long haul audits were performed in the second half of the year but these continued to be severely limited due to COVID-19 restrictions. As a result, the remainder were performed remotely.

Whilst the scope of the audit work was modified to facilitate remote testing, the entities tested remained aligned with the original risk-based plan. On-site controls-based testing was replaced with remote financial controls health check audits supplemented by the continued use of trial balance deep dive testing which involved a detailed review of the trial balance and its underlying transactions. The health check audits required entities to submit evidence of the operation of key balance sheet reconciliations and key financial controls which were then reviewed remotely. This approach continued to allow the identification of areas for control improvement. The actions being taken to address these issues have been discussed at length at the Audit Committee with regular updates on the progress made. Internal Audit reported significant progress made against issues reported in previous years.

In 2021, a total of 34 audit assignments were undertaken (27 in 2020). The Committee received a report from the Group Head of Internal Audit at each of its meetings detailing progress against the agreed plan. Key trends and findings and an update on the progress made towards resolving open issues was also given. Common themes emerging from Internal Audit reports coupled with Internal Audit and management's assessment of risk have informed the development of the 2022 Internal Audit plan.

When necessary, Internal Audit contracts auditors from other audit firms to supplement internal resources on an ad hoc basis. This process provides valuable learning opportunities and we expect to continue to use external resources in specialist areas and geographies in the future.

Control issues continue to be recorded in a live web-based database into which management is required to report progress towards addressing any open issues. Internal Audit monitors the progress made and frequent meetings continue to be held with each business unit President to ensure that engagement on the resolution of issues is clearly understood at all levels of the business and responsibility for remediation has been appropriately assigned. The results are communicated to the Audit Committee which also involves senior management as necessary to provide an update against any high-priority actions. Internal Audit undertakes follow-up reviews as required. In situations where audit findings require longer-term solutions, the Committee oversees the process for ensuring that adequate mitigating controls are in place.

An internal review was undertaken of the effectiveness of the Internal Audit function in 2021, canvassing the views of the divisional finance Vice Presidents, business unit Presidents and other key stakeholders. This concluded that the function remains effective in adding value to the organisation and provides appropriate challenge to the Group's businesses and functions. Going forward the need for the more timely escalation and reporting of findings were noted as key areas for improvement.

Having considered the work of the Internal Audit function during 2021, including progress against the 2021 Internal Audit plan, the quality of reports provided to the Committee, and the results of the review of the function's effectiveness, the Committee concluded that the Internal Audit function operated effectively during 2021.

External Audit

Auditors' appointment

In 2017, the Company appointed PricewaterhouseCoopers LLP (PwC) as External Auditors to the Company and the Group, and Mazars LLP (Mazars) to audit the non-material entities within the Group. PwC has nominated Darryl Phillips as the audit partner responsible for the Group audit. Darryl assumed this role following the completion of the 2020 half year review.

Under the Statutory Audit Services for Large Companies Market Investigation (Mandatory Use of Competitive Tender Processes and Audit Committee Responsibilities) Order, the Audit Committee is required to report in which year the Company proposes to complete a competitive tender process in respect of the statutory external auditor, and the reasons why the proposed year for the competitive tender process is in the best interests of the shareholders. In compliance with the Order, the Audit Committee confirms that a competitive tender process for the appointment of a statutory auditor will, subject to satisfactory annual reviews of the effectiveness of the External Auditors and its costs in the intervening period, be conducted during 2026 with a view to recommending the appointment of a new statutory auditor or the reappointment of the incumbent auditor, for the financial year ending December 2027. The Audit Committee believes that conducting a competitive tender process during 2026 for the appointment of a new statutory auditor for the financial year ending December 2027 is appropriate, and in the best interests of the shareholders.

2021 Audit plan

PwC's 2021 year-end audit plan was based on agreed objectives. The audit focused on areas identified as representing significant risk and requiring significant judgement. PwC maintained an ongoing dialogue with the Audit Committee throughout the year providing regular updates, including commentaries on significant issues and its assessment of consistency and appropriateness in the judgements and estimates made by management. Private sessions were held with PwC without management being present. PwC confirmed that its work had not been constrained in any way and that it was able to exercise appropriate professional scepticism and challenge throughout the audit process. The Chairman of the Audit Committee met on a number of occasions with PwC to monitor the progress of the audit and discuss questions as they arose.

The Independent Auditors' Report provided by PwC on pages 161–169 includes PwC's assessment of the key audit matters. These key audit matters are discussed in the significant issues and material judgements comments above. The report also summarises the scope, coverage and materiality levels applied by PwC in its audit. As part of the audit planning process and based on a detailed risk assessment, the Committee agreed a materiality figure of £6.3m for Group financial reporting purposes which is 10% lower than last year (£7.0m) and is set at 4.6% of headline profit before tax of £137.3m. Importantly, much lower levels of materiality are used in the audit fieldwork on the individual businesses across the Group and these lower figures drive the scope and depth of audit work. Any misstatement at or above £0.35m was reported to the Committee.

There were no significant changes this year to the coverage of the audit which stood at 70% of the Group's revenue, 67% of profit before tax and 69% of headline profit before tax. This coverage was considered to be sufficient by the Committee. The audit coverage is reflective of the long tail of smaller businesses within the Group that individually are not 'material' to the Group result.

The Committee also received a report from Mazars during the year which noted that there were no findings or recommendations in respect of its statutory audits of the non-material Group subsidiaries for the year ended 31 December 2020, that Mazars deemed sufficiently material or significant to bring to the attention of the Audit Committee.

During the year the Committee evaluated the PwC Group audit scope for 2021. This included additional components audited by Mazars. Along with responsibility for the statutory audits of the non-material Group subsidiaries for the year ended 31 December 2021 Mazars were also tasked with undertaking specific audit procedures for certain component entities that were within PwC's Group audit scope. This latter work was directed, supervised and reviewed by PwC. The PwC audit fee approved by the Audit Committee was £1.8m. This was constructed bottom up on a local currency basis and was assessed in light of the audit work required by the agreed materiality level and scope. The fee agreed with Mazars for the audit of the non-material entities and three material entities was £0.8m, resulting in a combined audit fee for 2021 of £2.6m, compared with £2.4m in 2020.

Independence and objectivity

The Committee is responsible for safeguarding the independence and objectivity of the External Auditors in order to ensure the integrity of the external audit process. In discharging this responsibility during 2021, the Committee:

- Sought regular confirmation from the incumbent External Auditors that they considered themselves to be independent of the Company in their own professional judgement, and within the context of applicable professional standards
- Assessed the work of the External Auditors and considered whether they were exercising an appropriate level of professional scepticism
- Evaluated all the relationships between the External Auditors and the Group, including compliance with the Group's policy on the employment of former employees of the External Auditors, to determine whether these impaired, or appeared to impair, the Auditors' independence
- Reviewed compliance against the policy on the provision of non-audit services by the External Auditors
- Reviewed details of the non-audit services provided by the External Auditors and associated fees

As a result of its review, the Committee concluded that the External Auditors remained appropriately independent.

Non-audit services

Vesuvius operates a policy for the approval of non-audit services. A copy of the current policy is available to view in the Audit Committee section of the 'Investors/Corporate Governance' pages of the Company's website: www.vesuvius.com.

The use of the External Auditors for the provision of non-audit services is strictly prohibited except for specific permitted audit related services. These comprise: Category 1 services which the External Auditors are obliged to perform due to law or regulation, such as regulatory and solvency reports; and Category 2 services which could be provided by others (albeit there are typically significant efficiencies to be had when done in combination with the audit such as interim reporting). An annual budget for the additional Category 2 service fees proposed to be paid to the External Auditors in the following year is presented for pre-approval to the Audit Committee each year. Audit Committee approval is required for expenditure in excess of this approved budget.

All audit-related and permissible non-audit services proposed to be carried out for any Group company worldwide by the External Auditors must be pre-approved before an engagement is agreed. Pre-approval must be obtained from the Head of Finance or the Chief Financial Officer, who will confirm that the Audit Committee has approved the engagement. Any assignment proposed to be carried out by the External Auditors must also have been cleared by the External Auditors' own internal pre-approval process, to assess the firm's ethical ability to do the work.

In 2021, the fees for non-audit services payable to PwC amounted to £0.1m (2020: £0.1m). The 2021 fees represent payment for assurance services related to the review of the Group's half-year financial statements, quarterly reviews and tax form audits in India (as required by regulation), and assistance with an R&D certificate in Italy. In each of the past four years the non-audit related fees have represented <6% of the statutory audit fees.

Audit Committee continued

Effectiveness of the External Audit process

The Committee and the Board are committed to maintaining the high quality of the external audit process. Each year the Committee carries out a formal assessment of the performance of the External Auditors in carrying out their work and of the audit process in general. Input into the evaluation in 2021 was obtained from management and other key Company personnel, members of the Audit Committee and the External Audit team. The review focused on the External Auditors' mindset and culture, skills, character and knowledge, and the quality of its controls, as set out in the guidance for audit committees prepared by the FRC.

The evaluation of the External Auditors included the following steps:

- A survey of key finance and non-finance stakeholders in Head Office and in-scope countries
- A commentary-based survey of Audit Committee members focused on their experience of working with PwC
- Consideration of PwC's approach to assessing the risks to its audit quality and an evaluation of the actions it had taken to mitigate these
- A review of other external evidence on PwC audit quality (e.g. report on PwC by the FRC)
- An assessment against the objectives outlined in PwC's Audit Objectives report
- Discussions with PwC and key finance and non-finance personnel

The evaluation concluded that the audit process had been suitably rigorous, with PwC providing an effective, objective and challenging audit process for the 2020 financial year. The learnings from previous audits and the resultant actions taken had had a positive impact on the overall efficiency and effectiveness of the audit. The continuity of PwC team members had greatly enhanced the audit. PwC had further improved their audit approach and communications, challenging the team in the right areas and providing strong technical expertise. The PwC team was also seen as independent by the Audit Committee and management. To further improve the process it was agreed that update meetings continue to be held in 2021. Debrief meetings were held at a local level to discuss the 2020 audit and to constructively share feedback that would facilitate further improvements to the audit planning for the 2021 audit and an improved understanding of the audit approach and requirements.

Reappointment of PwC for 2022

The Committee is responsible for making recommendations to the Board in relation to the appointment, reappointment and removal of the External Auditors. In undertaking this duty, the Committee takes into consideration a number of factors concerning the External Auditors and the Group's current activity, including:

- The results of its most recent review of the effectiveness of the Auditors
- The results of its review of the independence and objectivity of the Auditors, particularly in light of the provision of non-audit services
- Its ability to coordinate a global audit, working to tight deadlines
- The cost-competitiveness of the Auditors in relation to the audit costs of comparable UK companies
- The tenure of the incumbent Auditors
- The periodic rotation of the senior audit management assigned to the audit of the Company
- External reviews of the performance and quality of the Auditors, including:
  - The annual report issued by the Audit Quality Review team of the Financial Reporting Council on the work of the Auditors
  - The Auditors' own annual Transparency Report

Having considered the aforementioned factors, the Committee recommended to the Board that PwC be reappointed for 2022. It confirms that its recommendation is free from the influence of any third party and that there are no contractual restrictions on the choice of auditor. A resolution proposing the reappointment of PwC will be included in the notice of AGM for 2022.

The Committee has noted the ruling by the Securities Exchange Board of India (SEBI) regarding the prohibition placed on PwC network companies performing audits of listed entities in India for two years from 1 January 2018. PwC subsequently won the appeal at the Securities Appellate Tribunal (SAT) allowing PwC to continue with existing audits of listed companies. SEBI appealed against the SAT order in November 2019 and this was stayed by the Supreme Court pending final disposal of the appeal. For the rest of the order, dealing with the ban, there has not been any hearing and no date has been fixed. The Committee continues to monitor developments on this matter in the context of the Group's two listed Indian subsidiaries, Foseco India Limited and Vesuvius India Limited.

Audit Committee evaluation

The Audit Committee's performance was evaluated as part of the overall externally facilitated Board and Committee performance evaluation, which is described in depth on pages 128 and 129. The review concluded that the Committee continued to function well, with the Committee judged to effectively monitor the work of the internal and external auditors. The level of engagement between the Audit Committee and the Chief Financial Officer and his team, the Head of Internal Audit and the External Audit Partner was considered to be appropriate, open and candid. The Committee noted that work continued to improve the Group's internal control systems through further standardisation of processes.

A number of priorities were identified for the Audit Committee over the coming year, including supporting the internal audit function as it re-focused its work to align with the lifting of Covid-19 travel restrictions, continuing the focus on the implementation of the financial operating model, maintaining oversight of the Group's cyber risk mitigation actions and monitoring the outcome of the BEIS consultation and any resultant actions that needed to be taken by the Group.

On behalf of the Audit Committee

Douglas Hurt
Chairman, Audit Committee
3 March 2022

Nomination Committee

John McDonough CBE – Committee Chairman

Kath Durrant

Dinggui Gao
Joined the Committee on his appointment to the Board on 1 April 2021

Hock Goh
Served on the Committee until his retirement from the Board on 12 May 2021

Friederike Helfer

Jane Hinkley

Douglas Hurt

Holly Koeppel
Served on the Committee until her retirement from the Board on 12 May 2021

Dear Shareholder,

On behalf of the Nomination Committee, I am pleased to present the Nomination Committee Report for 2021. The primary responsibility of the Nomination Committee is to focus on Board composition and succession planning, to ensure that the Board is composed of individuals with the appropriate drive, abilities, diversity and experience to lead the Company in the delivery of its strategy. As part of this work, the Committee is also responsible for overseeing succession plans for senior management to ensure that the Group has a consistent pool and pipeline of diverse talent for future potential progression to the Board.

In early 2021, the Committee progressed with the appointment of new non-executive expertise on the Board, with the appointment of Dinggui Gao to the Board on 1 April 2021. This followed the announcement of the departures of Hock Goh and Holly Koeppel, who stepped down at the close of the 2021 AGM. Subsequently, the Committee, led by the Senior Independent Director, Douglas Hurt, commenced the process for the appointment of a new Chair. The Committee is well advanced in this process.

Alongside this focus on Board recruitment, the Committee also spent a considerable amount of time during the year reviewing senior management succession. This included the recruitment and development of additional talent in our business unit executive committees, as well as further progress on the Group's diversity strategy.

Yours sincerely

John McDonough CBE
Chairman, Nomination Committee
3 March 2022

Meetings

The Committee met five times during the year.

Key activities during the year

Board composition: The Committee reviewed the structure, size and composition of the Board, including the skills, knowledge and experience required for the Board to continue to function effectively and support the delivery of our strategy. This analysis took into consideration the need to ensure an appropriate balance of independence and diversity among Board members. The Committee then evaluated the current Board composition against an assessment of future business needs.

Board succession: The Committee considered the anticipated rotation of Directors from the Board and future requirements for Board composition, with a focus on ensuring that the Board continues to be resourced by a group of Directors with the skills, diversity and experience necessary to support the future accomplishment of the Group's Strategic Objectives. As part of this review the Committee considered the Company's ongoing compliance with the Board Diversity Policy. The Committee engaged recruitment consultants to assist in the search for new Board members and oversaw the successful recruitment process to identify Dinggui Gao, as a Non-executive Director. During the year Jane Hinkley succeeded Holly Koeppel as the designated Non-executive Director responsible for overseeing engagement with the workforce.

Senior management development and succession: The Committee reviewed the Group's succession processes and candidates for the Group Executive Committee and the management cadre below this level, focusing particularly on the recruitment and retention of talent in the business unit executive committees. It also examined how the Group's talent management processes were developing, how the senior management cadre was performing and how the mentoring programme established for the development of individuals flagged as 'high potential' was proceeding – all aimed at providing a pipeline of experienced and talented managers to succeed to roles at the highest level of the business. In this process, the Committee focused both on the bench strength in key skills and expertise as well as the talent pipeline in critical geographies.

Diversity: The Committee reviewed the Group's progress in achieving its diversity targets, with a particular focus on the recruitment of women to the senior management tiers.

Directors' elections: The Committee considered the Directors' annual elections and re-elections at the AGM.

Nomination Committee continued

Committee evaluation: The Committee reviewed its performance and effectiveness during 2021, including evaluating whether each Non-executive Director was spending sufficient time fulfilling their duties.

Committee terms of reference: The Committee reviewed its terms of reference.

The Nomination Committee

The Nomination Committee is made up of me, as Chairman of the Company, and the Non-executive Directors. During the year, I was Chairman of the Committee, though I did not act as Chairman when the Committee was discussing issues surrounding my succession, in these instances Douglas Hurt our Senior Independent Director served as Chairman in my place. The Company Secretary is Secretary to the Committee. Members' biographies are set out on pages 104 and 105.

Role and responsibilities

The Nomination Committee's foremost priorities are to ensure that the Company has the best possible leadership, to oversee the process for Board appointments, to ensure that plans are in place for orderly succession to both the Board and Group Executive Committee positions, and to oversee the development of a diverse pipeline for succession. The Committee ensures that the procedure for the selection of potential candidates for Board appointments – either as an Executive Director or independent Non-executive Director – is formal, rigorous and transparent and undertaken in a manner consistent with best practice. It also ensures that appointments to the Board are made on merit, against objective criteria and with due regard for the benefits of diversity of gender, social and ethnic backgrounds, and cognitive and personal strengths. The Nomination Committee advises the Board on appointments, retirements and resignations from the Board and its Committees.

The Committee operates under formal terms of reference. A copy of these terms of reference, which were reviewed during the year, is available on the Group's website:www.vesuvius.com.

The Committee and its members are empowered to obtain outside legal or other independent professional advice at the cost of the Company in relation to its deliberations. These rights were not exercised during the year. The Committee may also secure the attendance at its meetings of any employee or other parties it considers necessary.

Process for Board appointments

The Committee follows formal, rigorous and transparent procedures for the appointment of new Directors. When considering a Board appointment, the Nomination Committee draws up a specification for the role, taking into consideration the balance of skills, knowledge and experience of its existing members, the diversity of the Board, the independence of continuing Board members, and the ongoing requirements and anticipated strategic developments of the Group. The search process is then able to focus on appointing a candidate with the necessary attributes to enhance the Board's performance.

During 2021, the Committee oversaw the selection process to identify and recruit a new independent Non-executive Director, as part of the Group's planned Director rotation and also commenced the process to identify a new Chair for the Board.

The Senior Independent Director chaired the Committee for all matters pertaining to the recruitment of the new Chair. The Committee reviewed the skills and attributes required for the roles and agreed individual job specifications. The Committee approached three agencies to submit applications to assist the Company with the recruitment of a new Chair. After careful consideration, the global specialist recruitment agency, Spencer Stuart, was retained to undertake the brief, having also assisted with the successful search for Dinggui Gao during the year. Spencer Stuart has adopted the Voluntary Code of Conduct addressing gender diversity and best practice in search assignments. It does not have any other connection with the Group, other than in respect of management recruitment work undertaken during normal trading activities. It was selected for these assignments following a review of potentially qualified agencies, based on its skills and expertise.

The searches for these new Directors were conducted globally and long-lists of potential appointees were produced by Spencer Stuart. For each appointment, the Committee reviewed a long-list of candidates, from which a short-list of candidates for interview was drawn up, based upon the objective criteria identified at the inception of each process.

In the case of the appointment of Dinggui Gao, members of the Committee conducted initial interviews with the short-listed candidates. He then met with all other Board members by videoconference, given that travel restrictions from China prohibited face-to-face meetings. Detailed external references were taken up and, following this, the Committee made formal recommendations to the Board for the appointment of Dinggui Gao as a new Non-executive Director. Dinggui was required to demonstrate that he had sufficient time available to devote to his role and to identify any potential conflicts of interest. No conflicts were identified.

A similar process is well advanced for the identification of a new Chair under the guidance of Douglas Hurt our Senior Independent Director.

A comprehensive induction programme was put in place for Dinggui Gao, although the Committee's desire that he should be able to visit a selection of our global manufacturing sites has been hampered by travel restrictions. Nonetheless, Dinggui has visited several of the Group's sites in China and he has visits planned to many of our other global sites in 2022.

Board composition

On an ongoing basis, the Committee reviews the current and future needs of the Board and its Committees – reflecting on the balance of skills, knowledge and experience of the current Directors and comparing this against the Board's list of key skills needed to support the delivery of the Company's strategy. The independence and diversity of the Board and the balance of skills, experience and development needs of Board members are also examined as part of the Group's annual corporate governance review. The Committee's key skills matrix is reviewed annually and the Committee considers the existing tenure and the prospective rotation and retirement of Board members, so that it can plan succession accordingly. Alongside the recruitment of a new Non-executive Director in 2021, and the progression of plans for a new Chair, the Committee considered the tenure of all members of the Board, noting that, on 3 December 2021, Jane Hinkley had served nine years on the Board. Following detailed discussions Jane has agreed to remain on the Board and has undertaken to continue to support the Group, including acting as the Board Non-executive Director responsible for overseeing workforce engagement, until a successor is recruited following the appointment of the new Chair, at which point she will step down from the Board. In the meantime, the Board undertook a thorough and robust review of Jane's independence. It considered her skills and contribution to the Board, noting that she now no longer serves on any other external boards and does not have any business or relationships that could materially influence or interfere with her ability to exercise objective or independent judgement or her ability to act in the best interests of the Group. The Board concluded that she continues to be independent of management and a strong and valuable contributor to the Board's work.

Diversity

The Group Diversity and Equality Policy outlines Vesuvius' commitment to encouraging a supportive and inclusive culture among its global workforce, promoting diversity and eliminating any potential discrimination in our work environment. Vesuvius' Board Diversity Policy explains how this commitment manifests in relation to the Board. Vesuvius recognises the value of a diverse and skilled workforce and is committed to creating and maintaining an inclusive and collaborative workplace culture that will provide sustainability for the organisation into the future. We believe that the dedication and professionalism of our people is the most significant contributor to our success. Having a balance of cultures, ethnicities and genders helps to promote innovation, creativity and engagement. The diversity of our employees is one of the core strengths of the Group. Copies of the Group's Diversity policies can be found on the Group's website: www.vesuvius.com.

As an organisation, Vesuvius has a global, multicultural operational and customer base, which we wish to reflect inside our organisation with a multicultural, diverse community of excellent professionals from all backgrounds. This starts by focusing on broad diversity of gender and nationality, with an aim to ensure that all employees and job applicants are given equal opportunity and that our organisation is representative of all sections of society where we operate. Each employee is respected and valued and as a result they are all able to give their best. All employees are given help, training and encouragement to develop their full potential and utilise their unique talents.

In line with the Group's global commitment to diversity, the Nomination Committee focuses on ensuring that the Board and its Committees also have the appropriate range of diversity, skills, experience, independence and knowledge of the Company and the markets in which it operates, to discharge their duties and responsibilities effectively. We continue to look at diversity in its broadest sense – reflected in the range of backgrounds and experience of Board members who are drawn from different nationalities and have managed a variety of complex global businesses. The Nomination Committee recognises that diversity is a key ingredient in creating a balanced culture for open discussions at Board level and in minimising 'groupthink'.

The Board's overall skills and experience, as well as the Non-executive Directors' independence, were reviewed during the year. The Board's composition also formed part of the Board evaluation process. The Board considers its diversity, size and composition to be appropriate for the requirements of the business. In 2019, it achieved its target of at least 33% female Board membership, and at the end of 2021, 38% of the Directors were women. Three Directors are non-UK citizens and two of the Directors (25%) identify as having BAME heritage.

The Board Diversity Policy confirms the Group's commitment to maintaining a Board comprising at least 33% female membership, while continuing to appoint candidates based on merit and recognising that over time the proportion of female Directors will fluctuate naturally as Board members retire and new Directors are appointed.

In 2021, 14% (2020: 14%) of our workforce were women, which was stable versus 2020. The Group previously set a target of ensuring that 30% of the Top Management (members of the Group Executive Committee plus their key direct reports) are female by 2025. The number of women in the Top Management team increased by 1 percentage point in 2021 to 21%. Looking forward, the Board has resolved to expand the scope of this gender diversity target to encompass the broader Senior Leadership Group of the Company, which comprises c. 160 individuals. This KPI has also been incorporated into the long-term incentives of our senior management. The Committee will continue to monitor the Group's ongoing progress towards achieving its diversity targets. Each of the Group's four business units has put in place strategies to address gender diversity.

Further information on the Group's approach to promoting diversity can be found on page 95.

As at 31 December 2021, the gender balance of the Group's employees was as follows:

	Female	Male	Total	Female	Male
Group Executive Committee member	2	6	8	25%	75%
Senior Management	10	39	49	20%	80%
Top Management[1]	**12**	**45**	**57**	**21%**	**79%**
Middle Management	63	427	490	13%	87%
All other employees	1,544	9,113	10,657	14%	86%
Grand total	**1,619**	**9,585**	**11,204**	**14%**	**86%**
Directors of subsidiaries included in consolidation[2]	35	371	406	9%	91%

1. Top Management comprises key leadership roles reporting directly to members of the Group Executive Committee.
2. There are 406 directors of Group subsidiaries, 9% of whom are women. This disclosure is made to comply with regulatory requirements. It includes directors of dormant companies. Some individuals hold multiple directorships.

Nomination Committee continued

Board evaluation

The Board carries out an evaluation of its performance and that of its Committees every year. This year's evaluation was again externally facilitated by the corporate advisory firm, Lintstock. The Group uses Lintstock's Insider List database tool but has no other connection with the organisation and Lintstock does not have a connection with any of the Directors.

Each evaluation was conducted via a series of targeted questionnaires. As with previous years, the evaluation process not only covered the performance of the Board but also that of its Committees, along with individual reviews of each Director and an analysis of the performance of the Chairman. Narrative reports were prepared for the Board, the Audit, Nomination and Remuneration Committees, and in respect of the Chairman.

In 2021, rather than targeting a specific action or processes, the Board evaluation was focused on providing an overall 'health-check' for the Board's performance, so that this could act as a baseline for an incoming Chair. Thus, the Board assessment focused on seven core areas: Board composition, oversight of stakeholders, Board dynamics, Board support and focus of meetings, Board oversight, risk management, and priorities for change. It also covered the conduct of the Board's strategy meetings.

Overall, the Board was seen to operate effectively with an appropriate composition. It was noted that the recent Board changes had affected the Board dynamics but that Board relationships were rated positively overall. The Non-executive Directors' engagement with management in providing effective support and constructive challenge also received high ratings. Meetings were considered to be well managed and the use of virtual meetings as appropriate, was considered beneficial. The balance of the Board's focus was generally viewed favourably although the continued tension between completing a broad agenda and spending more time concentrating on key issues and discussion, was highlighted. The Board's understanding of the views and requirements of stakeholders was rated highly with regard to investors and positively with regard to customers and employees, but scope for improving the Board's understanding of our supply chain was identified. The Board's effectiveness in setting and monitoring culture throughout the organisation was rated positively, although the opportunities for engagement with the workforce had been hampered in 2021 by the COVID-19 pandemic.

In terms of longer-term strategy, Vesuvius' capacity to deliver on this was rated highly overall, with emphasis placed on the need to ensure that the Group continued to recruit and retain sufficient high calibre talent to support such delivery in the future. This would be an area of focus in 2022, along with the continued roll-out of the Group's Sustainability strategy agenda. In addition, the Board resolved to again further its understanding of competitor dynamics in 2022 and gain further insights on specific customer and supplier dynamics. With the forthcoming changes in Non-executive Directors, succession planning and induction were again highlighted as an area of focus.

The Group's off-site strategy session was positively regarded with a high quality of debate and good level of participation. The top priority for the Board's next strategy session was identified as sustainability and the continuing need to ensure this was fully integrated into the business strategy and operations.

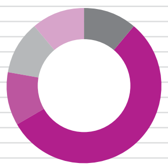
In addition to the primary focus on safety, and the issues highlighted above, the top priorities for Vesuvius as a business over the coming year were identified by the Board as being improving margins, capturing organic and where possible inorganic growth, and managing market volatility.

The individual assessment of Directors concluded that all of the Directors continued to contribute effectively, providing expert and strategic advice as appropriate and holding management to account in an open and constructive manner. They were considered to devote adequate time to their duties and to be engaged and proactive in debate at all meetings. The Chairman was viewed to operate with objective judgement, and his approach to chairing meetings was deemed to be inclusive and to facilitate debate. Each of the Committees was also considered to have operated effectively during the year.

As in previous years, a set of action points was compiled from the output of the evaluation to ensure that its findings are included in the Board's activities. These will be implemented by the Board in 2022, with progress reviewed by the Board throughout the year.

Board nationalities

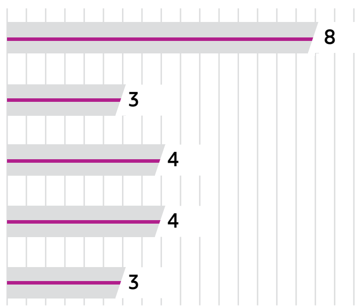
1 Austrian
5 British
1 French
1 South African
1 Chinese



Further information on the Group's approach to promoting diversity 95

Board composition

International business experience
Experience managing a finance function
Prior experience of serving as a director of a listed plc
Independent Directors
Female Directors



The 2020 evaluation identified the following Board priorities for future Board attention; these were addressed during 2021 as follows:

Area	Issue	Action taken in 2021
Strategy	Oversee the implementation of the Group's sustainability initiative ensuring it is fully embedded in the Group's strategy	Throughout the year the Board received briefings from the Chief Executive and VP Sustainability on the activities of the Group's Sustainability Council, which is tasked with immediate oversight of the Group's sustainability activity. The Board monitored progress against the Group's targets and noted the more detailed work that had been undertaken to identify and assess the implications of long-term climate-related risks and opportunities, as well as the Group's assumptions on the potential impact of those changes.
	Enhance the Board's awareness of competitors' activities	More detailed information on the Group's key global competitors, Vesuvius' differentiation and comparative strengths and weaknesses was included during the Strategy meeting.
	Maintain the Board's understanding of customers' requirements	The Board received updates at each Board meeting on the issues impacting our customers and Vesuvius' response. A comprehensive presentation covering long-term customer trends was presented at the October Board meeting. The Board visited a customer of our Steel business in 2021.
People and organisation	Group Executive Committee succession	Throughout the year the Nomination Committee received updates on the actions being taken to recruit, develop and retain individuals in the senior management cadres, and the impact of these actions on the talent pipeline for Group Executive Committee roles in the Group.
	Enhance the Board's understanding of senior talent throughout the organisation	Although opportunities to visit the Group's sites were curtailed by the COVID-19 pandemic in the first half of 2021, during the latter part of the year, the Chairman and Non-executive Directors were able to visit eight Vesuvius sites in person along with a number of 'virtual' Board visits. The visits enabled the Board to interact with senior managers and 'high potential' staff at each of these sites, with social functions arranged to provide the opportunity for informal discussions.

Senior management succession

The Committee's succession planning activities do not exclusively relate to the Board but encompass the senior management levels immediately below the Board, aiming to support and encourage the growth of a pool of talent able to step up to the top roles in future years. The Committee considers succession plans for all the senior functional and business unit positions, assessing the availability of candidates who could cover the roles on a short-term contingency basis should the need arise, along with the pool of medium-term and long-term talent available for future development into specific roles. The Committee continued to focus on the Group's talent development and succession planning processes in 2021, with a continuing emphasis on the recruitment, development and retention of candidates within this senior management cadre. The Committee considered the activities being undertaken to fill the gaps in this talent pool, and to develop and recruit new executives.

Committee evaluation

The Committee's activities were part of the externally facilitated evaluation of Board effectiveness during the year, with Committee members completing individual questionnaires. The results of these submissions were collated and a written report tabled and discussed by the Committee. The management of Nomination Committee meetings was highly rated overall, with the quality of information provided also rated positively. The process for the recruitment of a new Non-executive Director was considered to have been conducted appropriately with all necessary rigour, despite the challenging circumstances posed by international travel restrictions.

In 2021, the evaluation rated highly the information provided to the Committee, noting a significant improvement in the quality of discussions and information on Executive Director and senior management succession, with greater transparency on bench strength and the activities under way to support further development. The evaluation noted that the succession planning process for the Non-executive Directors was functioning well but that work was still needed to ensure that there were sufficient internal candidates to adequately resource the pool of talent needed to ensure internal succession for all Group Executive Committee roles.

On behalf of the Nomination Committee

John McDonough CBE
Chairman, Nomination Committee
3 March 2022

Directors' Remuneration Report

Remuneration overview

Kath Durrant – Committee Chair

Dinggui Gao
Joined the Committee on his appointment to the Board on 1 April 2021

Hock Goh
Served on the Committee until his retirement from the Board on 12 May 2021

Jane Hinkley

Douglas Hurt

Holly Koeppel
Served on the Committee until her retirement from the Board on 12 May 2021

Dear Shareholder,

I was delighted to be appointed as Chair of the Remuneration Committee following the 2021 AGM and I would like to express my gratitude to my predecessor, Jane Hinkley, for her leadership of the Committee over many years.

I am pleased to present our Directors' Remuneration Report (Remuneration Report) for 2021 which is divided into two sections:

- Our Directors' Remuneration Policy (Policy) which was approved by shareholders at our 2020 AGM.
- The Annual Report on Directors' Remuneration. This outlines how we implemented the Policy in 2021 and how we intend to apply it in 2022.

The Remuneration Report (excluding the Policy) will be subject to an advisory vote by shareholders at the 2022 AGM.

2021 saw a busy agenda for the Remuneration Committee. Aside from fulfilling our statutory obligations, we have undertaken a comprehensive review of executive remuneration to further align it with our shareholders' expectations. We also welcomed Dinggui Gao to the Committee and thanked Hock Goh and Holly Koeppel who stepped down at the 2021 AGM, for their services to the Committee.

The key matters the Remuneration Committee considered during its five meetings in 2021 included:

- Reviewing and approving achievement against performance targets for the 2020 Annual Incentive arrangements
- Setting performance targets and approving the structure of the 2021 Annual Incentive arrangements
- Reviewing and assessing the Company's attainment of performance conditions applicable to the Vesuvius Performance Share awards made in 2018
- Setting the performance measures and targets, and authorising the grant of new awards in 2021 under the Vesuvius Share Plan (VSP), the Deferred Share Bonus Plan and the Medium-Term Incentive Plan
- Considering the Company's ongoing share sourcing requirements to meet obligations under the Company's share plans, and funding of the Employee Benefit Trust (EBT)
- Reviewing the Annual Incentive Plan structure applicable to the Group and approving changes to this structure for executives below the Board to incorporate regional trading performance at business unit level into the bonus plan structure
- Approving the 2020 Directors' Remuneration Report and reviewing the 2021 Directors' Remuneration Report
- Reviewing the Committee's Terms of Reference
- Reviewing the overall structure of annual incentive plans and long-term incentive plans, and consulting with the Company's top 20 shareholders
- Approving the 2022 salaries for the Chairman, Chief Executive, Chief Financial Officer and senior management

Performance

Health & Safety

As the Chairman and Chief Executive outlined in their statements, the Company again operated a range of safety protocols to protect our teams against the transmission of COVID-19 in 2021, as we continued to place the highest priority on health and safety. We are pleased that our businesses continued to operate effectively, serving our customers despite the continuing pandemic. The Company received no financial support from the UK government during the year.

Operational

Revenue for the year increased to £1,642.9m (+18.1% on an underlying basis vs 2020), marking the bounce back in key markets. Trading profit at £142.4m was 50.4% greater than 2020 (on an underlying basis) and return on sales increased by 190bps, on an underlying basis, to 8.7%. These results exceeded expectations in what has been a challenging year for Vesuvius and many industrial businesses. Extensive supply chain disruptions for raw materials and logistics services, added significant challenge and complexity to each area of our operations. The management of pricing and the ability to pass on frequent price increases has been a critical area of focus both centrally and in our decentralised operations requiring extensive customer interaction.

The Flow Control, Foundry and Sensors & Probes business units all outperformed their underlying markets and grew market share. Deliberate decisions were taken in Advanced Refractories to protect pricing over volumes, and as a result some market share erosion occurred.

The continued focus on operational effectiveness enabled our trade working capital to sales ratio to improve further to 20.9%, an improvement of 230 bps vs 2020. These results demonstrate disciplined leadership at multiple levels of the organisation. Product quality metrics also continued to improve.

Strategic

The focus on R&D continued in the period with further investment in mechatronics and product development, and a focus on supporting our customers to reduce their CO_2 emissions. 27 new products were launched in 2021, with revenue from new products launched in the past five years now at 15.3% (vs 12.4% in 2020).

Significant focus on the Sustainability initiative launched in 2020 has enabled a continued improvement in Scope 1 & 2 emissions reduction, with 2021 emissions 16.5% lower than the 2019 base year, improvements in diversity with women now representing 21% of Top Management (vs 12.5% in 2019), and succession candidates identified for the majority of critical roles. Health and Safety performance improved further towards our zero accident goal with a Lost Time Injury Frequency Rate (LTIFR) of 1.06 per million hours worked, the best performance achieved to date.

Strategic alignment

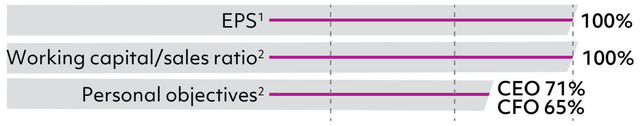
Deliver profitable growth | Generate value for our shareholders | Maintain an efficient capital structure | Always put safety first | Think beyond in innovation | Run best-in-class sustainable operations | Foster talent, skill and motivation in our people

See more about **Our strategy** on **p14** and **p15**

The Chief Executive led the Board through extensive strategy discussions exploring options for both organic and inorganic growth. Significant investments in both Poland and India were approved in 2021 and at the end of the year the acquisition of the business of Universal Refractories, Inc in the United States was announced. The Company's debt position remains well controlled at 1.4x EBITDA.

Incentive outturns

In 2021, the Annual Incentive Plan (AIP) was based 60% on Group headline earnings per share (EPS), 20% on the Group's working capital to sales ratio (based on the 12-month moving average) and 20% on specified personal objectives. Performance against these measures is illustrated below and full detail of the targets are detailed on page 146.



1. 60% weighting.
2. 20% weighting.

Our adjusted headline earnings per share of 38.8 pence was above the maximum annual incentive plan target of 36.9 pence and above the 2020 outturn of 27.6 pence.

The Group's working capital to sales ratio of 20.9% also exceeded the maximum annual incentive plan target of 21.7%, and was above the 2020 outturn of 23.2%.

The Committee agreed personal objectives for the Chief Executive and CFO at the start of 2021 and assessed their performance to merit 71% and 65% of maximum targets respectively.

The overall formulaic outcome of the bonus scorecard was 94.2% of maximum for the Chief Executive and 93.0% of maximum for the CFO. The Committee gave careful consideration to these outcomes and was satisfied that they were consistent with the strong financial and operational performance and strategic progress outlined above. The Committee noted that similar and complementary KPIs exist in the incentive programmes for managers and employees and was mindful of the outturns for the wider workforce in confirming its decisions for Executive Directors and the Executive Committee. Consequently, the Committee concluded that no discretionary adjustment was required.

Remuneration overview continued

The performance period for the awards made under the Vesuvius Share Plan (VSP) in 2019 was completed at the end of 2021. Performance was measured equally by reference to total shareholder return (TSR) relative to the FTSE 250 (excluding investment trusts) and headline EPS growth over the three-year period. This has been a particularly challenging period for the global economy and, by extension, a cyclical business like Vesuvius. Consequently, relative TSR performance (measured against the constituents of the FTSE 250 and so including companies operating in many different sectors and impacted by different macro-economic drivers to Vesuvius) was below median and headline EPS growth was below the threshold target of a range set prior to the COVID-19 pandemic. These results mean that none of the shares potentially available to the Chief Executive and CFO under this award will vest. The Committee has not applied any discretion with respect to this nil vesting of the 2019 VSP awards, mindful of the experience of shareholders and other stakeholders in what has been a difficult period for many.

Review of executive remuneration arrangements

Following my appointment as Committee Chair, the Committee and I decided it was an opportune moment to undertake a review of executive remuneration arrangements to understand our competitive positioning, the alignment of pay and performance over time, recent feedback from shareholders and the views of all Board and Executive Committee members.

In relation to incentives, central themes emerging from the review were:

- The challenge of setting long-term EPS targets in a cyclical business, as highlighted by the second consecutive cycle of VSP awards delivering zero vesting as outlined above.
- That alignment with strategy may be improved through the selection of alternative KPIs; in this we noted the request from several shareholders to consider a returns metric.
- A desire to incorporate ESG KPIs more explicitly into incentive arrangements. In this we noted the support of the executive team and the broad investor sentiment expressed by a range of shareholders regarding ESG and pay.
- A desire to ensure both the incentivisation and retention of an executive team that is now fully formed and focused.

Reshaped 2022 performance measures

In light of these findings, we have made some modest changes to the performance measures in our incentive structure for 2022 whilst maintaining our focus on key financial metrics.

1 The introduction of a returns measure

A returns measure has been introduced into the AIP and VSP in 2022. This change is in response to shareholder feedback and is designed to provide fairer and better alignment between delivery of our strategic and financial goals, and the incentive outturns. Its introduction into the VSP in place of EPS allows us to maintain focus on long-term profitability whilst removing the historic difficulty in setting robust three-year EPS targets.

A range of returns measures were considered and post-tax ROIC was selected as the most complete measure during both steady state and periods of inorganic growth. Post-tax ROIC targets will be set by reference to a number of relevant factors including: our strategy, market conditions and anticipated cost of capital, which is less volatile and easier to forecast than other financial metrics. It is also consistent with a philosophy of management being rewarded for value generating activity. As an important driver of post-tax ROIC is the return generated on our capital base, delivering sustainable profits will continue to be an important element in our remuneration arrangements.

2 The introduction of ESG measures of most importance to the Company and aligned with our Sustainability strategy

Energy: Reduction in Scope 1 & 2 CO_2e emissions per metric tonne of product packed and shipped. Energy intensity is a key measure for the Group and validation of data over time provides confidence to set targets aligned with our goal to achieve net zero status at the latest by 2050.

Safety: A reduction in the Lost Time Incident Frequency Rate. The industry in which we work poses significant risks, not least due to the large numbers of staff working at customer locations around the world. Safety remains a priority and continued improvement towards zero accidents remains management's top operational priority.

Diversity: An improvement in the gender representation in our senior management population; whilst improvements have been made in the number of women serving amongst our Top Management of c. 60 individuals in recent years, there remains a significant task to continue this progress further down the organisation.

The resulting structure of performance measures in 2022 is summarised in the table below.

KPI	2021	2022	Strategic rationale
Annual Incentive Plan: one-year performance			
EPS	60%	**40%**	Consistent with our strategic aim of sustainable, profitable growth. Maintains the primary focus on a profit measure in short-term incentivisation
Working capital/sales	20%	**20%**	Consistent with our strategic aim of maintaining strong cash generation and an efficient capital structure
Post-tax ROIC	–	**20%**	Consistent with our strategic aim of generating sustainable profitability and creating shareholder value
Personal measures	20%	**20%**	Enables a focus on specific personal deliverables, managed through the performance management system
Vesuvius Share Plan: three-year performance			
Relative TSR	50%	**40%**	Consistent with our strategic aim of delivering shareholders a superior return on their investment
EPS	50%	**–**	Removal of EPS reflects the difficulty in setting long-term targets for a cyclical business
Post-tax ROIC	–	**40%**	Consistent with our strategic aim of generating sustainable profitability and creating shareholder value
ESG	–	**20%**	Provides a specific focus on the three priority long-term ESG measures for the Group. CO_2 intensity (10%), Safety (5%) and Diversity (5%)

Other changes in 2022 executive remuneration

Another theme that emerged from our review was the importance of retaining key senior executives and ensuring that their remuneration appropriately reflected their performance, development in the role and importance to the business.

In that context, the Remuneration Committee has particularly focused on the remuneration of our CFO, Guy Young. When Guy joined Vesuvius in 2015, his salary was set well below that of his predecessor given his then lack of experience as a Group CFO and Executive Director. After six years in the role, he is now an experienced FTSE plc CFO. The Committee believes that his current remuneration package still positions him below market compared to less experienced sector peers, and does not accurately reflect his value to the business. It is also inconsistent with his sustained performance and role criticality. Accordingly, Guy's salary has been increased in 2022 by 9% to £420,000 which we believe more fairly reflects his level of experience and importance to the Group.

The Committee has also reviewed the salary of our Chief Executive, Patrick André, and agreed an increase of 4% in 2022 to £643,000. This is a lower increase than our budgeted Group global workforce salary increase for 2022 of 5.2%.

There will be no change in 2022 in AIP opportunity (150% of salary) or VSP award level (CE: 200% of salary; CFO: 150% of salary) for either Executive Director. As outlined in last year's Remuneration Report, these Directors' pension allowances are frozen at the 1 January 2020 amount and will be reduced to 17% of salary from the end of 2022 in line with the average of that received by the majority of the workforce.

Chairman and Non-Executive Directors' fees

During the year, the Committee reviewed the Chairman's annual fee, taking account of factors including the time commitment associated with the role and the need to continue to attract talented candidates as the Board plans for an orderly succession once John completes his term as Chairman. Following that review, the Committee set the Chairman's fee for 2022 at £240,000. Separately, the Board considered Non-executive Director fees, taking into account similar factors and made a number of consequent adjustments to the fee structure that are detailed on page 145. Those adjustments include the introduction of a new supplementary fee for the Non-executive Director responsible for workforce engagement which reflects the significant time commitment associated with this role. These are the first increases in fee levels since 2019.

Workforce remuneration and employee engagement

The Group's operations are geographically diverse in nature. The Group does not operate a central workforce engagement mechanism. However, in spite of travel restrictions brought about by COVID-19, visits to operations by the Non-executive Directors enabled all Committee members to host discussions explaining corporate governance and specifically the area of executive remuneration with large groups of employees in Poland, Germany, India, China and Belgium. Copies of the Company's Annual Report detailing the Executive Directors' remuneration are also widely disseminated throughout the Group and available for employees to view on the Company's website.

In 2021, despite the ongoing challenges caused by the COVID-19 pandemic, and thanks to a tremendous effort by local management, supported by an effective communication campaign, we again achieved a very high participation level in the Company's employee engagement survey with 92% participation, the same participation as in 2020. Following improvements across all survey categories in 2020, the overall engagement score remained stable.

Shareholder engagement

At the 2021 AGM, the Directors' Remuneration Report was supported by 99.32% of voting shareholders and I am very grateful for this demonstration of broad-based support for our executive remuneration arrangements.

The Company's top 20 shareholders were consulted on the changes to the KPIs for the AIP and VSP, and on the proposed salary increase for our CFO. We are grateful for the responses received and discussions had, and appreciate the support expressed by many of our shareholders.

I welcome feedback at any point in time from our entire shareholder base regarding our remuneration arrangements and I hope that we will earn your support at the forthcoming AGM.

Kath Durrant
Chair of the Remuneration Committee
3 March 2022

Directors' Remuneration Report

2020 Remuneration Policy

At the 2020 AGM, held on 13 May 2020, the Company obtained shareholder support for a new Remuneration Policy which took effect from the close of that meeting. The previous policy has been applied in its entirety up until this date. A copy of it is contained within the 2019 Annual Report which can be viewed in the Investors section (Results, Reports and Presentations) of the Vesuvius website: www.vesuvius.com. The elements of the previous policy that relate to remuneration that remained extant on this date (such as outstanding share awards) continue to apply until these commitments cease. The Policy operated as intended in 2021. For the benefit of shareholders, we have reprinted the Policy below.

To ensure that the Policy is relevant to the 2022 financial year, we have made minor textual changes to refer to the applicable financial year in the following sections: 'Illustration of the Application of the Remuneration Policy for 2022' (which also contains, as described, 2022 data); 'Consideration of conditions elsewhere in the Group in developing policy'; and 'Consideration of Shareholder Views'. The Policy notes that vesting of awards under the Vesuvius Share Plan will be subject to performance conditions as determined by the Remuneration Committee ahead of each award. The performance conditions for awards made in 2020 and 2021 were based on Group EPS and relative TSR. In 2022 these are based on relative TSR, post-tax ROIC and ESG measures. The 'VSP section' of the Policy table and the section on 'Performance measures' note this application of the Policy in 2022. Finally, the 'Terms of service' section refers to the dates of appointment of the current Non-executive Directors.

The Remuneration Committee reserves the right to make any remuneration payments and payments for loss of office (including exercising any discretions available to it in connection with such payments), notwithstanding that they are not in line with the Policy set out here, where the terms of the payment were agreed: (i) before the date the Company's first Remuneration Policy approved by shareholders in accordance with Section 439A of the Companies Act came into effect; (ii) before the Policy set out here came into effect, provided that the terms of the payment were consistent with the shareholder-approved Remuneration Policy in force at the time they were agreed; or (iii) at a time when the relevant individual was not a Director of the Company and, in the opinion of the Remuneration Committee, the payment was not in consideration for the individual becoming a Director of the Company. For these purposes, 'payments' include the Remuneration Committee satisfying awards of variable remuneration and, in relation to an award over shares, the terms of the payment are 'agreed' at the time the award is granted.

Remuneration Policy Table for Executive Directors

Alignment/purpose	Operation	Opportunity	Performance
Base salary Helps to recruit and retain key employees. Reflects the individual's experience, role and contribution within the Company	Base salary is normally reviewed annually, with changes effective from 1 January. Base salary is positioned to be market competitive when considered against other global industrial companies, and relevant international and FTSE 250 companies (excluding Investment Trusts). Paid in cash, subject to local tax and social security regulations.	Salary increases will normally be in line with the average increase awarded to other employees in the Group, although increases may be made above this level at the Committee's discretion in appropriate circumstances. In considering any increase in base salary, the Committee will also take into account: (i) the role and value of the individual (ii) changes in job scope or responsibility (iii) progression in the role (e.g. for a new appointee) (iv) a significant increase in the scale of role and/or size, value or complexity of the Group (v) the need to maintain market competitiveness. No absolute maximum has been set for Executive Director base salaries. Current Executive Directors' salaries are set out in the Annual Report on Directors' Remuneration section of this Remuneration Report.	Any increase will take into account the individual's performance, contribution and increasing experience.
Other benefits Provides normal market practice benefits	A range of benefits including, but not limited to: car allowance, private medical care (including spouse and dependent children), life insurance, disability and health insurance, expense reimbursement (including costs if a spouse accompanies an Executive Director on Vesuvius business), together with relocation allowances and expatriate benefits, in some instances grossed up for tax, in accordance with the Group's policies, and participation in any employee share scheme operated by the Group.	There is no formal maximum as benefit costs can fluctuate depending on changes in provider, cost and individual circumstances.	None.
Pension Helps to recruit and retain key employees. Ensures income in retirement	An allowance is given as a percentage of base salary. This may be used to participate in Vesuvius' pension arrangements, invested in own pension arrangements or taken as a cash supplement (or any combination of the above options).	Maximum of 25% of base salary for incumbent Executive Directors at the date that this policy is adopted. This was frozen at the 1 January 2020 amount and will be reduced to 17% from the end of 2022 in line with the average of that received by the majority of the workforce. The level of allowance for Executive Directors appointed following the adoption of this policy will be aligned with the post-retirement benefits applicable to the majority of the workforce or, where appropriate, to the majority of the workforce of the relevant geography.	None.
Annual Incentive Incentivises Executive Directors to achieve key short-term financial and strategic targets of the Group Additional alignment with shareholders' interests through the operation of bonus deferral	Normally 33% of any Annual Incentive earned by Executive Directors will be deferred into awards over shares under the Vesuvius Deferred Share Bonus Plan which normally vest after at least three years, other than in specified circumstances outlined elsewhere in this Policy. These may be cash or share settled. The Committee has the discretion to determine that actual incentive payments should be lower than levels calculated by reference to achievement against targets if it considers this to be appropriate. The Committee has the discretion to award participants the equivalent value of dividends accrued during the vesting period on any shares that vest. Subject to malus and clawback.	Below threshold: 0%. On-target: 50% of the applicable maximum opportunity in any year. Maximum: Up to 150% of base salary. The Remuneration Committee will set the level of maximum bonus opportunity for each Executive Director at the start of each year, with 50% of the applicable maximum payable for on-target performance. Payments start to accrue on meeting the threshold level of performance, with payments between threshold and on-target and between on-target and maximum made on a pro rata basis.	The Annual Incentive is measured on targets set at the beginning of each year. The Committee establishes threshold and maximum performance targets for each financial year. The majority of the Annual Incentive will be determined by measure(s) of Group financial performance. The remainder of the Annual Incentive will be based on financial, strategic or operational measures appropriate to the individual Director. Performance is measured over a one-year period. Actual performance targets will be disclosed after the performance period has ended. They are not disclosed in advance due to their commercial sensitivity.
Vesuvius Share Plan (VSP) Aligns Executive Directors' interests with those of shareholders through the delivery of shares. Rewards Executive Directors for achieving the strategic objectives of growth in shareholder value and earnings Assists retention of Executive Directors over a three-year performance period	VSP awards to Executive Directors are granted as Performance Share awards. These may be cash or share settled. Awards vest three years after their award date, other than in specified circumstances outlined elsewhere in this Policy, subject to the achievement of specified conditions. All vested shares, net of any tax liabilities, are then subject to a further two-year holding period after the vesting date, which will continue to apply notwithstanding the termination of employment of the participants during this holding period, except at the Committee's discretion in exceptional circumstances, including a change of control or where the participant dies or has left employment due to ill health, injury or disability. The Committee has the discretion to award participants the equivalent value of dividends accrued during the vesting period and further two-year holding period on any shares that vest. Subject to malus and clawback.	Executive Directors are eligible to receive an annual award with a face value of up to 200% of base salary in Performance Share awards. Vesting at threshold performance is at 25% of the award, rising to vesting of the full award at maximum.	Vesting will be subject to performance conditions as determined by the Remuneration Committee ahead of each award. Those conditions will be disclosed in the Annual Report on Directors' Remuneration section of the Remuneration Report. The performance conditions for awards made in 2020 and 2021 were Group EPS and relative TSR, and in 2022 will change to Relative TSR, post-tax ROIC and ESG measures as discussed elsewhere in this report. The Remuneration Committee will retain discretion for future awards to include additional or alternative performance conditions which are aligned with the corporate strategy. At its discretion, the Committee may elect to add additional underpinning performance conditions. The Company reserves the right only to disclose certain of the performance targets after the performance period has ended, due to their commercial sensitivity. Prior to any vesting, the Remuneration Committee reviews the underlying financial performance of the Group over the performance period, and the non-financial performance of the Group and participants, to ensure that the vesting is justified. Following this review, the Committee has the discretion to amend the final vesting level if it does not consider that it is justified.

2020 Remuneration Policy continued

Malus/clawback arrangements

The Executive Directors' variable remuneration is subject to malus and clawback provisions. These provide the Committee with the flexibility, if required, to withhold or recover payments made to Executive Directors under the Annual Incentive Plan (including deferred awards) and/or to withhold or recover share awards granted to Executive Directors under the Vesuvius Share Plan, including any dividends granted on such awards. The circumstances in which the Committee could potentially elect to apply malus and clawback provisions include: a material misstatement in the Group's financial results; an error in the calculation of the extent of payment or vesting of an incentive; gross misconduct by an individual; or significant financial loss or serious reputational damage to Vesuvius plc resulting from an individual's conduct, a material failure of risk management or a serious breach of health and safety. These malus and clawback provisions apply for a period of up to three years after the end of a performance period (or end of the deferral period in respect of awards made under the Vesuvius Deferred Share Bonus Plan).

Performance measures

In selecting performance measures for the Annual Incentive, the Committee seeks to reflect key strategic aims and the need for a rigorous focus on financial performance. Each year, the Committee agrees challenging targets to ensure that underperformance is not rewarded. The Company will not be disclosing the specific financial or personal objectives set until after the relevant performance period has ended because of commercial sensitivities. The personal objectives are all job-specific in nature and track performance against key strategic, organisational and operational goals.

In selecting performance measures for the Vesuvius Share Plan, the Committee seeks to focus Executive Directors on the execution of long-term strategy and also align their rewards with value created for shareholders. On this basis, the performance conditions for the Vesuvius Performance Share awards initially included measures based on TSR and EPS performance and for 2022 will include measures based on TSR and Return on Invested Capital (post-tax ROIC) and ESG.

Remuneration Policy Design

The Committee is satisfied that the Remuneration Policy is designed to promote the long-term success of the Company in accordance with the requirements of the Code with regard to:

Clarity

There is complete transparency on the executive remuneration arrangements with full disclosure in the Annual Report. The Annual Incentive bonus structure for the Executive Directors is based on the same structure utilised for annual bonus arrangements for senior executives throughout the Group. The focus of incentive arrangements on long-term sustainable growth clearly aligns the interests of executives with those of the Group's shareholders. The Vesuvius Share Plan, with its emphasis on the retention of shares for a period of at least five years, clearly aligns the long-term objectives of the Directors with that of its investors.

Simplicity

The new Policy with its focus on three core elements: fixed pay, Annual Incentive and Long-Term Incentive is clear, simple and easy to understand.

Risk

The Committee has carefully analysed the range of possible outcomes of awards and believes the Policy to be fair and proportionate, with the clear linkage to Group profitability mitigating the potential for excessive rewards and the reliance on audited profit numbers and externally verified TSR targets serving to mitigate behavioural risk. The Committee has discretion under the Vesuvius Share Plan to determine the vesting of awards in accordance with the Code requirement and malus and clawback provisions also apply.

Predictability

The charts on page 137 provide estimates of the total remuneration for the Executive Directors for 2022 for minimum, on-target and maximum performance, showing the split between fixed and variable remuneration. The charts also indicate the maximum potential remuneration assuming 50% share price appreciation. Prior to any vesting under the Vesuvius Share Plan the Committee reviews the underlying financial performance of the Company over the performance period, and the non-financial performance of the Group and participants, to ensure that the vesting is justified. Following this review, the Committee has the discretion to amend the final vesting level if it does not consider that it is justified.

Proportionality

The Committee believes that the performance-related elements of remuneration have financial targets which are transparent, stretching and clearly align the Executive Directors' remuneration with the delivery of the Group's strategy. The Vesuvius Share Plan rewards long-term performance directly linked with the Group's strategy and results, ensuring that only strong performance is rewarded.

Alignment to culture

The Executive Directors' incentive arrangements are consistent with the Group's core strategic objective of delivering long-term sustainable and profitable growth and support our performance-orientated culture. The inclusion of personal objectives in the Annual Incentive Plan affords the opportunity for attention to be focused on key non-financial strategic objectives each year.

Within the Policy period, the Committee will continually review the performance measures used to ensure that awards are made on the basis of challenging targets that clearly support the achievement of the Group's strategic aims.

The Committee may vary or waive any performance condition(s) if circumstances occur which cause it to determine that the original condition(s) have ceased to be appropriate, provided that any such variation or waiver is fair, reasonable and not materially less difficult to satisfy than the original condition (in its opinion). In the event that the Committee were to make an adjustment of this sort, a full explanation would be provided in the next Remuneration Report.

The Committee may: (a) in the event of a variation of the Company's share capital, demerger, special dividend or any other corporate event which it reasonably determines justifies such an adjustment, adjust; and (b) amend the terms of awards granted under the share schemes referred to above in accordance with the rules of the relevant plans.

Share awards may be settled by the issue of new shares or by the transfer of existing shares. In line with prevailing best practice at the time this Policy was approved, any issuance of new shares is limited to 5% of share capital over a rolling ten-year period in relation to discretionary employee share schemes and 10% of share capital over a rolling ten-year period in relation to all employee share schemes.

Illustration of the application of the Remuneration Policy for 2022

The charts below show the total remuneration for Executive Directors for 2022 for minimum, on-target and maximum performance. The fixed elements of remuneration comprise base salary, pension and other benefits, using 2022 salary data. The assumptions on which they are calculated are as follows:

Minimum: Fixed remuneration only.

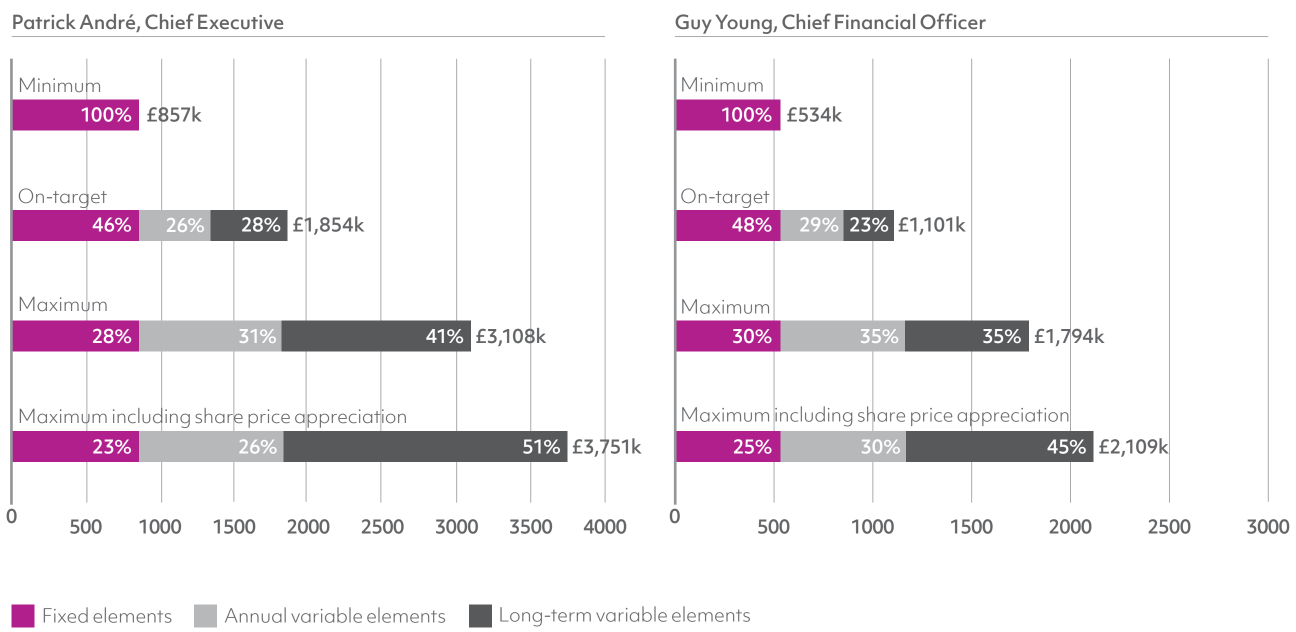
On-target: Fixed remuneration plus on-target Annual Incentive (made at 75% of base salary for Patrick André and Guy Young); and for the Performance Share awards (made at 200% of base salary for Patrick André and 150% of base salary for Guy Young) under the Vesuvius Share Plan, median performance for the TSR element and the mid-point between threshold and maximum performance for the post-tax ROIC and ESG performance conditions. No share price appreciation is assumed.

Maximum: Fixed remuneration plus maximum Annual Incentive (being full achievement of financial and personal targets, made at 150% of base salary for Patrick André and Guy Young) and 100% vesting for Performance Share awards (made at 200% of base salary for Patrick André and 150% of base salary for Guy Young) under the Vesuvius Share Plan. No share price appreciation is assumed.

Maximum including assumed 50% share price appreciation: This shows the value of the maximum scenario if 50% share price appreciation is assumed over the three-year performance period of the Performance Share awards.

Note: In addition, the Committee retains the discretion to award dividends (either shares or their cash equivalent) on any shares that vest.

Remuneration illustrations £000



2020 Remuneration Policy continued

Service contracts of Executive Directors

The Committee will periodically review the contractual terms for new Executive Directors to ensure that these reflect best practice. Service contracts currently operate on a rolling basis and are limited to a 12-month notice period.

Patrick André is employed as Chief Executive of Vesuvius plc pursuant to the terms of a service agreement made with the Company dated 17 July 2017. Guy Young is employed as Chief Financial Officer pursuant to the terms of a service agreement with Vesuvius plc dated 16 September 2015. Each Executive Director's appointment is terminable by Vesuvius on not less than 12 months' written notice, and by each Executive Director on not less than six months' written notice.

External appointments of Executive Directors

The Executive Directors do not currently serve as Non-executive Directors of any other quoted company. Subject always to consent being granted by the Company for them to take up such an appointment were they to so serve, the Company would allow them to retain any fees they received for the performance of their duties.

Remuneration Policy for Non-executive Directors

The Company seeks to appoint Non-executive Directors who have relevant professional knowledge and have gained experience in a relevant industry and geographical sector, to support diversity of expertise at the Board and match the wide geographical spread of the Company's activities.

Non-executive Directors attend Board, Committee and other meetings, held mainly in the UK, together with an annual strategy review to debate the Company's strategic direction. All Non-executive Directors are expected to familiarise themselves with the scale and scope of the Company's business and to maintain their specific technical skills and knowledge.

The Board sets the level of fees paid to the Non-executive Directors after considering the role and responsibilities of each Director and the practice of other companies of a similar size and international complexity. The Non-executive Directors do not participate in Board discussions on their own remuneration.

Alignment/purpose	Operation	Opportunity	Performance
Fees To attract and retain Non-executive Directors of the necessary skill and experience by offering market-competitive fees	Fees are usually reviewed every year by the Board. Non-executive Directors are paid a base fee for the performance of their role plus additional fees for roles that involve significant additional time commitment and/or responsibility. Such roles could include, but are not limited to, Committee chairmanship (and, where appropriate, membership) or acting as the Senior Independent Director. Fees are paid in cash. The Chairman is paid a single cash fee and receives administrative support from the Company.	Non-executive Directors and the Chairman will be paid market-appropriate fees, with any increase reflecting changes in the market or adjustments to a specific Non-executive Director's role. No eligibility for bonuses, retirement benefits or to participate in the Group's employee share plans. Base fees paid to Non-executive Directors will in aggregate remain within the aggregate limit stated in our Articles, currently being £500,000.	None.
Benefits and expenses To facilitate execution of responsibilities and duties required by the role	All Non-executive Directors are reimbursed for reasonable expenses incurred in carrying out their duties (including any personal tax owing on such expenses).	Non-executive Directors' expenses are paid in accordance with Vesuvius' expense procedures.	None.

Terms of service of the Chairman and other Non-executive Directors

The terms of service of the Chairman and the Non-executive Directors are contained in letters of appointment. Each Non-executive Director is appointed subject to their election at the Company's first Annual General Meeting following their appointment and re-election at subsequent Annual General Meetings. During the first year of his/her appointment, the Chairman is entitled to 12 months' notice from the Company; thereafter, he/she is entitled to six months' notice from the Company. None of the other Non-executive Directors is entitled to receive compensation for loss of office at any time. All Non-executive Directors are subject to retirement, and election or re-election, in accordance with the Company's Articles of Association. The current policy is for Non-executive Directors to serve on the Board for a maximum of nine years, with review at the end of three and six years, subject always to mutual agreement and annual performance evaluation. The Board retains discretion to extend the tenure of Non-executive Directors beyond this time, subject to the requirements of Board balance and independence being satisfied.

The table below shows the date of appointment for each of the Non-executive Directors:

Non-executive Director	Date of appointment
John McDonough CBE	31 October 2012
Kath Durrant	1 December 2020
Dinggui Gao	1 April 2021
Friederike Helfer	4 December 2019
Jane Hinkley	3 December 2012
Douglas Hurt	2 April 2015

Recruitment policy

On appointment or promotion of a new Executive Director, the Committee will typically use the Remuneration Policy in force at the time of the Committee's decision to determine ongoing remuneration.

Base salary levels will generally be set in accordance with the Remuneration Policy current at the time of the Committee's decision, taking into account the experience and calibre of the appointee. If it is appropriate to appoint an individual on a base salary initially below what is adjudged to be market positioning, contingent on individual performance, the Committee retains the discretion to realign base salary over the one to three years following appointment, which may result in a higher rate of annualised increase than might otherwise be awarded under the Policy. If the Committee intends to rely on this discretion, it will be noted in the first Remuneration Report following an individual's appointment. Other than in exceptional circumstances, other elements of annual remuneration will, typically, be set in line with the Remuneration Policy, including a limit on awards under the Annual Incentive and Vesuvius Share Plan of 350% of salary in aggregate. The Committee retains the discretion to make the following further exceptions:

- In the event that an internal appointment is made, or where a Director is appointed as a result of transfer into the Group on an acquisition of another Company, the Committee may continue with existing remuneration provisions for this individual, where appropriate
- If necessary and appropriate to secure the appointment of a candidate who has to move locations as a result of the appointment, whether internal or external, the Committee may make additional payments linked to relocation, above those outlined in the policy table, and would authorise the payment of a relocation allowance and repatriation, as well as other associated international mobility terms. Such benefits would be set at a level which the Committee considers appropriate for the role and the individual's circumstances
- If appropriate the Committee may apply different performance measures and/or targets to a Director's first incentive awards in his/her year of appointment

Service contracts will be entered into on terms similar to those for the existing Executive Directors, summarised in the service contracts of Executive Directors section above.

In addition to the annual remuneration elements noted above, the Committee may consider buying out terms, incentives and any other compensation arrangements forfeited on leaving a previous employer that an individual forfeits in accepting an appointment with Vesuvius. The Committee will have the authority to rely on Listing Rule 9.4.2R(2) or to apply the existing limits within the Vesuvius Share Plan to make Restricted Share awards on recruitment. In making any such awards, the Committee will review the terms of any forfeited awards, including, but not limited to, vesting periods, the expected value of such awards on vesting and the likelihood of the performance targets applicable to such awards being met, while retaining the discretion to make any buy-out award the Committee determines is necessary and appropriate. The Committee may also require the appointee to purchase shares in Vesuvius to a pre-agreed level prior to vesting of any such awards. The value of any buy-out award will be capped, to ensure its maximum value is no higher than the value of the awards that the individual forfeited on joining Vesuvius. Any such awards will be subject to malus and clawback.

With respect to the appointment of a new Chairman or Non-executive Director, appointment terms will be consistent with those applicable at the time the appointment is agreed. Variable pay will not be considered. With respect to Non-executive Directors, fees will be consistent with the Policy at the time the appointment is agreed. If, in exceptional circumstances, a Non-executive Director was asked to assume an interim executive role, the Company retains the discretion to pay them appropriate executive compensation, in line with the Policy.

2020 Remuneration Policy continued

Exit payment policy

Vesuvius has the option to make a payment in lieu of part or all of the required notice period for Executive Directors. Any such payment in lieu will consist of the base salary, pension contributions and value of benefits to which the Director would have been entitled for the duration of the remaining notice period, net of statutory deductions in each case. Half of any payments in lieu of notice would be made in a lump sum, the remainder in equal monthly instalments commencing in the month in which the midpoint of their foregone notice period falls (and are reduced or extinguished by salary from any role undertaken by the departing Executive in this time). Executive Directors are subject to certain non-compete covenants for a period of nine months, and non-solicitation covenants for a period of 12 months, following the termination of their employment. Their service agreements are governed by English law.

Executive Directors' contracts do not contain any change of control provisions; they do contain a duty to mitigate should the Director find an alternative paid occupation in any period during which the Company must otherwise pay compensation on early termination.

The table below summarises how the awards under the annual bonus and Vesuvius Share Plan are typically treated in different leaver scenarios and on a change of control.

Whilst the Committee retains overall discretion on determining 'good leaver' status, it typically defines a 'good leaver' in circumstances such as retirement with agreement of the Company, ill health, disability, death, redundancy, or part of the business in which the individual is employed or engaged ceasing to be part of the Group. Final treatment is subject to the Committee's discretion.

Event	Timing	Calculation of vesting/payment
Annual Incentive Plan – during period prior to payment		
Good leaver	Paid at the same time as to continuing employees.	Annual bonus is paid only to the extent that any performance conditions have been satisfied and is pro-rated for the proportion of the financial year worked before cessation of employment. In determining the level of bonus to be paid, the Committee may, at its discretion, take into account performance up to the date of cessation or over the financial year as a whole based on appropriate performance measures as determined by the Committee. The bonus may, at the Committee's discretion, be paid entirely in cash.
Bad leaver	Not applicable.	Individuals lose the right to their annual bonus.
Change of control	Paid on the effective date of change of control.	Annual bonus is paid only to the extent that any performance conditions have been satisfied and is pro-rated for the proportion of the financial year worked.
Annual Incentive Plan – in respect of any amount deferred into awards over shares under the Vesuvius Deferred Share Bonus Plan		
Good leaver	On the date of the event.	Deferred awards vest in full.
Bad leaver	On the date of the event.	Other than dismissal for cause, deferred awards will vest in full.
Change of control[2]	Within seven days of the event.	Deferred awards vest in full.
Vesuvius Share Plan		
Good leaver[1]	On normal release date (or earlier at the Committee's discretion).	Unvested awards vest to the extent that any performance conditions have been satisfied and a pro rata reduction applies to the value of the awards to take into account the proportion of vesting period not served, unless the Committee decides that the reduction in the number of vested shares is inappropriate.
Bad leaver	Unvested awards lapse.	Unvested awards lapse on cessation of employment.
Change of control[2]	On the date of the event.	Unvested awards vest to the extent that any performance conditions have been satisfied and a pro rata reduction applies for the proportion of the vesting period not served, unless the Committee decides that the reduction in the number of vested shares is inappropriate.

1. Under the rules of the Vesuvius Share Plan, any vested shares, net of any tax liabilities, are subject to a further two-year holding period after the vesting date. The holding period may be terminated early at the Committee's discretion in exceptional circumstances, including a change of control or where the award holder dies or leaves employment due to ill health, injury or disability.
2. In certain circumstances, the Committee may determine that unvested awards under the Vesuvius Deferred Bonus Plan and Vesuvius Share Plan will not vest on a change of control but will instead be replaced by an equivalent grant of a new award, as determined by the Committee, in the new company.

Benefits normally cease to be provided on the date employment ends. However, the Committee has the discretion to allow some minor benefits (such as health insurance, tax advice and repatriation expenses) to continue to be provided for a period following cessation where this is considered fair and reasonable, or appropriate on the basis of local market practice. In addition, the Committee retains discretion to fund other expenses for the Executive Director; for example, payments to meet legal fees incurred in connection with termination of employment, or to meet the costs of providing outplacement support, and de minimis termination costs up to £5,000 to cover transfer of mobile phone or other administrative expenses.

The Committee reserves the right to make any other payments in connection with a Director's cessation of office or employment where the payments are made in good faith in discharge of an existing legal obligation (or by way of damages for breach of such an obligation) or by way of a compromise or settlement of any claim arising in connection with the cessation of a Director's office or employment.

In certain circumstances, the Committee may approve new contractual arrangements with departing Executive Directors, including (but not limited to) settlement, confidentiality, restrictive covenants and/or consultancy arrangements. These would be used only where the Committee believed it was in the best interests of the Company to do so.

Comparison of Remuneration Policy for Executive Directors with that for other employees

The Remuneration Policy for Executive Directors is designed in line with the remuneration philosophy set out in this report – which also underpins remuneration for the wider Group. Remuneration arrangements for Executive Directors draw on the same elements as those for other employees – base salary, fixed benefits and retirement benefits – with performance-related pay extending to the management cadres and beyond. However, given that remuneration structures for other employees need to reflect both seniority and local market practice, they differ from the policy for Executive Directors. In particular, Executive Directors receive a higher proportion of their remuneration in performance-related pay and share-based payments. Individual percentages of variable versus fixed remuneration and participation in share-based structures increase as seniority increases.

As for Executive Directors, all employees receive an annual performance appraisal, and receive salary reviews on an annual basis. Middle and senior managers participate in the Annual Incentive Plan. For functional members of the Group Executive Committee, the award is predominantly based on Group performance, with the remainder focused upon the achievement of personal objectives. For business unit Presidents and other operational business unit employees, any potential award is based upon four separate measures relating to Group performance, business unit performance, regional performance, where relevant, and achievement of personal objectives.

All members of the Group Executive Committee participate in the Vesuvius Share Plan and receive awards of Performance Shares, which vest on the basis of the same performance targets set for the Executive Directors. The level of awards granted to members of the Group Executive Committee who don't serve on the Board are lower than those payable to the Executive Directors.

For certain senior and middle managers, awards are made under the Vesuvius Medium Term Plan (MTP).

These managers participate in the MTP at varying percentage levels, and awards are based on the same measures and targets as the Annual Incentive Plan. The senior management cadre receives MTP awards made over Vesuvius shares, whilst other managers who participate in the MTP receive their awards in cash. In each case, awards are granted following the end of the relevant financial year. The MTP share awards vest on the second anniversary of the date of grant, subject to continuing employment.

Consideration of conditions elsewhere in the Group in developing policy

The Non-executive Directors participated in a number of 'town hall' meetings during the year which provided the opportunity to engage with the workforce to explain how executive remuneration aligns with wider Company pay policies. The Remuneration Committee takes into account the pay and employment conditions of other Group employees when determining Executive Directors' remuneration, particularly when determining base salary increases, when the Committee will consider the salary increases for other Group employees in the same jurisdiction.

Consideration of shareholder views

Vesuvius is committed to open and transparent dialogue with its shareholders on remuneration as well as other governance matters. As Chair of the Committee, Kath Durrant welcomes shareholder engagement and is available for any discussions investors wish to have on remuneration matters. In early 2022, the Committee wrote to the top 20 shareholders and key governance agencies outlining its proposals for the 2022 incentive structure for the Executive Directors. We have received responses from around 80% of respondents and we responded to all questions that were raised.

Shareholding guidelines

The Remuneration Committee encourages Executive Directors to build and hold a shareholding in the Company equivalent in value to at least 200% of base salary.

Compliance with the shareholding policy is tested at the end of each year for application in the following year, with the valuation of any holding being taken at the higher of: (1) the share price on the date of vesting of any shares derived from a share award, in respect of those shares only; and (2) the average of the closing prices of a Vesuvius ordinary share for the trading days in that December.

Unless exceptionally the Committee determines otherwise, under the post-employment shareholding guideline the Executive Directors will remain subject to their shareholding requirement in the first year after their cessation as an Executive Director and to 50% of the shares retained in the first year during the second year after such cessation, recognising that there is no requirement to purchase additional shares if the shares held when they cease to be an Executive Director are less than the applicable shareholding guideline.

General

The Committee may make minor amendments to the Policy set out in this Policy Report (for regulatory, exchange control, tax or administrative purposes or to take account of a change in legislation) without obtaining shareholder approval for that amendment.

Directors' Remuneration Report

Annual Report on Directors' Remuneration

Directors' Remuneration at a glance

Our remuneration for Executive Directors

The table below sets out the phasing of receipt of the various elements of Executive Director remuneration for 2022.

	2022	2023	2024	2025	2026	2027	Description and link to strategy
Base salary							Salaries are set at an appropriate level to enable the Company to recruit and retain key employees, and reflect the individual's experience, role and contribution within the Company.
Benefits							Provides normal market practice benefits.
Pension							The pension benefit helps to recruit and retain key employees and ensures income in retirement.
Annual Incentive							The Annual Incentive incentivises the Executive Directors to achieve key short-term financial and strategic targets of the Group.
Deferred Annual Incentive							The deferral of a portion of the Annual Incentive increases alignment with shareholders.
Vesuvius Share Plan					Holding period		Awards under the Vesuvius Share Plan align Executive Directors' interests with those of shareholders through the delivery of shares and assist in the retention of the Executive Directors. The VSP rewards the Executive Directors for achieving the strategic objectives of growth in shareholder value and earnings.

2022 Directors' Remuneration

The table below sets out how the Remuneration Policy will be applied to the Executive Directors' remuneration for 2022. Further details about each of the elements of remuneration are set out in the Remuneration Policy and the Annual Report on Directors' Remuneration.

Remuneration element	Remuneration structure
Base salary	Current salaries as follows: – Patrick André – £643,000 (2021: £618,000) – Guy Young – £ 420,000 (2021: £385,000) The CEO was awarded a 4% increase and the CFO a 9% increase, effective 1 January 2022.
Benefits	Benefits for Executive Directors include car allowance, private medical care, relocation expenses, tax advice and tax reimbursement, commuting costs, school fees, Directors' spouse's travel and administrative expenses.
Pension	Pension allowance is frozen at the 1 January 2020 amount (which amounts to 24% of salary for the CEO and 23% of salary for the CFO) and will be reduced to 17% from the end of 2022 in line with the average of that received by the majority of the workforce.
Annual Incentive	For 2022, the maximum Annual Incentive potential for the Executive Directors will be 150% of base salary with target Annual Incentive potential being 75% of base salary. Their incentives are based 40% on Group headline earnings per share, 20% on the Group's working capital to sales ratio (based on the 12-month moving average), 20% on post-tax Return on Invested Capital (ROIC) and 20% on specified personal objectives. 33% of any Annual Incentive earned will be deferred into awards over shares, which will vest after a holding period of three years.
Vesuvius Share Plan (VSP)	Performance Share awards with a maximum value of 200% of salary will be awarded to Patrick André and 150% for Guy Young. Vesting of 40% of shares awarded will be based upon the Company's TSR performance relative to that of the constituent companies of the FTSE 250 (excluding investment trusts), and 40% on post-tax Return on Invested Capital (ROIC) and 20% ESG. Performance will be measured over three years with awards vesting after three years. There will then be a further two-year holding period applicable to the awards.

Remuneration Committee structure

The current members of the Remuneration Committee are all the independent Non-executive Directors of the Company.

The Committee Chair is Kath Durrant, who assumed the role when Jane Hinkley stepped down from the position at the 2021 AGM. Kath Durrant, Jane Hinkley and Douglas Hurt have served on the Committee throughout 2021. Hock Goh and Holly Koeppel stepped down from the Committee at the 2021 AGM, the Committee thanks each of them for their service. Dinggui Gao was appointed as a member of the Remuneration Committee on 1 April 2021. The Committee complies with the requirements of the UK Corporate Governance Code for the composition of remuneration committees. Each of the members brings a broad experience of international businesses and an understanding of their challenges to the work of the Committee. The Company Secretary is Secretary to the Committee. Members' biographies are on pages 104 and 105.

Meetings

The Committee met five times during the year. The Group's Chairman, Chief Executive and Chief HR Officer were invited to each meeting, together with Friederike Helfer, Vesuvius' non-independent Non-executive Director, though none of them participated in discussions regarding their own remuneration. The Company's Chief Financial Officer was invited as appropriate. In addition, a representative from Deloitte, the Remuneration Committee adviser, attended the meetings. The attendees supported the work of the Committee, giving critical insight into the operational demands of the business and their application to the overall remuneration strategy within the Group. In receiving views on remuneration matters from the Executive Directors and senior management, the Committee recognised the potential for conflicts of interest to arise and considered the advice accordingly. The Chair of the Committee reported the outcomes of all meetings to the Board.

The Committee operates under formal terms of reference which were reviewed during the year. The terms of reference are available on the Group website: www.vesuvius.com. The Committee members are permitted to obtain outside legal advice at the Company's expense in relation to their deliberations. These powers were not exercised during the year. The Committee may also secure the attendance at its meetings of any employee or other parties it considers necessary.

Role and responsibilities

The Committee is responsible for:

- Determining the overall remuneration policy for the Executive Directors, including the terms of their service agreements, pension rights and compensation payments
- Setting the appropriate remuneration for the Chairman, the Executive Directors and Senior Management (being the Group Executive Committee)
- Reviewing workforce remuneration and related policies, and the alignment of incentives and rewards with culture, taking these into account when setting the policy for Executive Director remuneration
- Overseeing the operation of the executive share incentive plans

Advice provided to the Remuneration Committee

Deloitte is appointed directly by the Remuneration Committee to provide advice on executive remuneration matters, including remuneration structure and policy, updates on market practice and trends, and guidance on the implementation and operation of share incentive plans. The Committee appointed Deloitte, a signatory to the Remuneration Consultants Group Code of Conduct in relation to Executive Remuneration Consulting in the UK, following a formal tender process in 2014. Deloitte also provides the Remuneration Committee with ongoing calculations of total shareholder return (TSR) to enable the Committee to monitor the performance of long-term share incentive plans. Deloitte does not have any other connection with any individual Director.

In addition, in 2021, Deloitte provided the Group with IFRS 2 calculations for the purposes of valuing the share plan grants and, within the wider Group, was engaged in various jurisdictions to provide tax and treasury advisory work, and some consultancy services. During 2020, Deloitte's fees for advice to the Remuneration Committee, charged on a time spent basis, amounted to £138,110. These were larger than in previous years reflecting the work Deloitte did to assist the remuneration review conducted during the year. The Committee conducted a review of the performance of Deloitte as remuneration adviser during the year and concluded that Deloitte continued to provide effective, objective and independent advice to the Committee. No conflict of interest arises as a result of other services provided by Deloitte to the Group.

Activities of the Remuneration Committee

In addition to the activities outlined within the Chair's letter, the Committee was the subject of an externally moderated performance evaluation in 2021. The review noted that with the appointment of the new Committee Chair there was an opportunity to redefine the support the Committee required from internal and external sources. The management of the Committee was rated highly with regard to the annual cycle of work, the agenda for meetings and time management in meetings. The Committee members were also positive about the remuneration review undertaken by the new Chair.

Regulatory compliance

The Remuneration Policy, which is set out on pages 134–141, was prepared in accordance with the Companies Act 2006 and the Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008 (as amended). It also meets the requirements of the Financial Conduct Authority's Listing Rules and the Disclosure Guidance and Transparency Rules.

This Remuneration Report sets out how the principles of the Code are applied by the Company in relation to matters of remuneration. Save as set out below, the Company was compliant with the provisions of the Code for the year under review in relation to remuneration matters.

Provision 38: The Company is progressing with its plans to align the level of pension allowance for Executive Directors with that applicable to the majority of the workforce. Our incumbent Directors' pension contributions were frozen at the 1 January 2020 amount and will be reduced to 17% at the end of 2022, being the level of the majority of the workforce.

A statement of the Company's compliance with the Code is set out on page 111.

Annual Report on Directors' Remuneration continued

Share usage

Under the rules of the VSP, the Company has the discretion to satisfy awards either by the transfer of Treasury shares or other existing shares, or by the allotment of newly issued shares. Awards made under the Deferred Share Bonus Plan to satisfy shares awarded to Directors in respect of their Annual Incentive, and awards made to management of the Company over shares pursuant to the Medium-Term Incentive Plan, must be satisfied out of Vesuvius shares held for this purpose by the Company's Employee Benefit Trust (EBT).

The decision on how to satisfy awards is taken by the Remuneration Committee, which considers the most prudent and appropriate sourcing arrangement for the Company.

At 31 December 2021, the Company held 7,271,174 ordinary shares in Treasury and the EBT held 884,856 ordinary shares. Following the EBT's purchase of an additional 332,596 ordinary shares in the market to satisfy future vestings, the EBT now holds 1,217,452 ordinary shares as at the date of this report.

The EBT can be gifted Treasury shares by the Company, can purchase shares in the open market or can subscribe for newly issued shares, as required, to meet obligations to satisfy options and awards that vest.

The VSP complies with the current Investment Association guidelines on headroom which provide that overall dilution under all plans over a rolling ten-year period should not exceed 10% of the Company's issued share capital, with a further limitation over a rolling ten-year period of 5% for discretionary share schemes. More than 9.9% of the 10% limit and more than 4.9% of the 5% limit remains available as headroom for the issue of new shares or the transfer of Treasury shares for the Company. No Treasury shares were transferred, or newly issued shares allotted under the VSP during the year under review.

Policy implementation

The following section provides details of how the Company's current Remuneration Policy was implemented during the financial year 2021 and how it will be implemented in the financial year 2022.

Directors' Remuneration, single total figure table – audited

The table below sets out the total remuneration received by Executive Directors in the financial year under review:

	Patrick André		Guy Young	
	2021 (£000)	2020 (£000)	2021 (£000)	2020 (£000)
Total salary[1]	618	556	385	347
Taxable benefits[2]	60	88	18	17
Pension[1,3]	154	139	96	87
Total fixed pay[4]	832	783	499	451
Annual Incentive[5]	874	153	537	99
Long-Term Incentives[6,7]	0	0	0	0
Total variable pay[8]	874	153	537	99
Total[9]	1,706	936	1,036	550

1. For 2020 this figure included a voluntary 20% reduction in salary and pension benefits for six months due to the impact of COVID-19.
2. Standard benefits for the Executive Directors include car allowance and private medical care. As an expatriate, Patrick André also receives relocation benefits under Vesuvius' applicable expatriate localisation policy, as detailed in the 18 July 2017 RNS announcement of Mr André's appointment. Those relocation benefits (totalling £27,782 in 2021) comprise housing costs, tax advice and school fees.
3. Patrick André and Guy Young currently receive a pension allowance of 25% of base salary capped at the January 2020 level. The figures for 2020 in the table represent the value of all cash allowances and contributions received in respect of pension benefits, at voluntarily reduced rates.
4. The sum of total salary, taxable benefits and pension.
5. This figure includes the Annual Incentive payments to be made to the Executive Directors in relation to the year under review. 33% of these Annual Incentive payments will be deferred into awards over shares, to be held for a period of three years. See pages 145 and 146 for more details.
6. The 2021 figures represent the Performance Share awards granted to Patrick André and Guy Young in 2019 under the VSP that will lapse in 2022.
7. The 2020 figures represent the Performance Share awards granted to Patrick André and Guy Young in 2018 under the VSP that lapsed in 2021.
8. The sum of the value of the Annual Incentive and the Long-Term Incentives where the performance period ended during the financial year.
9. The sum of base salary, benefits, pension, Annual Incentive and Long-Term Incentives where the performance period ended during the financial year.

Directors' Remuneration – audited

The table below sets out the total remuneration received by Non-executive Directors in the financial year under review:

	2021			2020		
	Total fees (£000)	Taxable benefits[2] (£000)	Total (£000)	Total fees[1] (£000)	Taxable benefits[2] (£000)	Total (£000)
John McDonough CBE	205	9	214	185	6	191
Kath Durrant[3]	60	3	63	4	–	4
Dinggui Gao[4]	38	0	38	–	–	–
Hock Goh[5]	18	0	18	45	2	47
Friederike Helfer	50	3	53	45	0	45
Jane Hinkley	56	2	58	59	1	60
Douglas Hurt	70	1	71	63	1	64
Holly Koeppel[5]	18	0	18	45	0	45
Total 2021 Non-executive Director remuneration	515	18	533	446	10	456
Total 2021 Executive Director remuneration	2,742					
Total 2021 Director remuneration[6]	3,257					

1. For 2020 this figure included a voluntary 20% reduction in fees for six months due to the impact of COVID-19.
2. The UK regulations require the inclusion of benefits for Directors where these would be taxable in the UK on the assumption that the Director is tax resident in the UK. The figures in the table therefore include expense reimbursement and associated tax relating to travel, accommodation and subsistence for the Director (and, where appropriate, their spouse) in connection with attendance at Board meetings and other corporate business during the year, which are considered by HMRC to be taxable in the UK.
3. Kath Durrant became Chair following the AGM in 2021 and therefore received additional fees for a proportion of the year.
4. Dinggui Gao joined the Board on 1 April 2021.
5. Hock Goh and Holly Koeppel retired from the Board following the 2021 AGM. The figures listed are the actual fees paid in 2021 until their retirement

Additional note:

6. Total 2020 Directors' Remuneration for the Directors who served during 2020 was £1,942m.

Base salary and fees – audited

As outlined in the Chair's letter and in line with the Group's Remuneration Policy, the base salaries for each of the Executive Directors was reviewed in 2021. It was resolved the Chief Executive's salary would be increased to £643,000 and the Chief Financial Officer's salary would be increased to £420,000, effective 1 January 2022.

The fee for the Chairman was also reviewed by the Committee during the year and the fees for the Non-executive Directors by the Board. Following an assessment of time commitment, roles and responsibilities it was decided that the fees would increase with effect from 1 January 2022. The Chairman's fee was increased to £240,000; the Non-executive Directors' fees were increased to £60,000. The supplementary fee for the Senior Independent Director was increased to £10,000 and the supplementary fee for the Chairs of the Audit and Remuneration Committees remained unchanged at £15,000. The Board also resolved to introduce a fee of £10,000 for the Non-executive Director responsible for workforce engagement.

Pension arrangements – audited

In accordance with their service agreements, Patrick André and Guy Young are entitled to pension allowances of 25% of base salary. This allowance can be used to participate in Vesuvius' pension arrangements, be invested in their own pension arrangements or be taken as a cash supplement (or any combination of these alternatives). The Remuneration Committee has determined that this level of pension allowance be frozen at the 1 January 2020 amount and will be reduced to 17% from the end of 2022, in line with the average pension allowance received by the majority of the workforce.

Annual Incentive – audited

The Executive Directors are eligible to receive an Annual Incentive calculated as a percentage of base salary, based on achievement against specified financial targets and personal objectives. Each year, the Remuneration Committee establishes the performance criteria for the forthcoming year. The financial targets are set by reference to the Company's financial budget. The target range is set to ensure that Annual Incentives are only paid out at maximum for significantly exceeding performance expectations. The Remuneration Committee considers that the setting and attainment of these targets is important in the context of achievement of the Company's longer-term strategic goals.

The Annual Incentive has a threshold level of performance below which no award is paid, a target level at which 50% of the maximum opportunity is payable, and a maximum performance level at which 100% of the maximum opportunity is earned, on a pro rata basis.

2021 Annual Incentive – audited

For 2021, the maximum Annual Incentive potential for the Executive Directors was 150% of base salary and their target Annual Incentive potential was 75% of base salary.

For the financial year 2021, the Executive Directors' Annual Incentives were based 60% on Group headline EPS, 20% on the Group's working capital to sales ratio (based on the 12-month moving average) and 20% on specified personal objectives.

Annual Report on Directors' Remuneration continued

Financial targets in 2021

The 2021 Vesuvius Group headline EPS performance targets set out below were set at the December 2020 full-year average foreign exchange rates, being the rates used for the 2021 budget process:

Threshold:	On-target:	Maximum:
26.4p	31.6p	36.9p

The 2021 Group's working capital to sales ratio targets were set as follows:

Threshold:	On-target:	Maximum:
23.7%	22.7%	21.7%

In assessing the Group's performance against these targets, the Committee uses a constant currency approach. Thus, the 2021 full-year EPS performance was retranslated at December 2020 full-year average foreign exchange rates to establish performance. This is consistent with practice in previous years.

In 2021, Vesuvius' EPS performance at the December 2020 full-year average foreign exchange rates was 38.8 pence and the working capital to sales ratio was 20.9%. Consequently, EPS performance was above the maximum target, and the Group working capital to sales ratio was above the maximum target.

As a result, in respect of the financial performance metrics of the 2021 Annual Incentive, 100% is due on both the EPS and Working Capital targets (related to a maximum bonus opportunity of 90% and 30% of salary respectively).

Personal objectives

In 2021, a proportion (20%) of the Annual Incentive for Executive Directors (representing 30% of salary) was based on the achievement of personal objectives.

Patrick André

Summary of objective	Summary outcome
Drive performance and deliver results	– Robust performance on quality, market share gains and R&D productivity measures
Reinforce talent management and prepare succession plans	– During 2021 there was a significant increase in the identification of suitable successors to key management positions and a further deepening of the talent pool throughout the organisation's leadership
Review and implement the Group strategy	– Delivered a clear strategy to increase profitability both organically and inorganically (closed acquisition of the business of Universal Refractories, Inc)
Improve Vesuvius' sustainability performance	– Delivered strong reductions of CO_2 energy emissions compared to 2019 levels; improvement of gender diversity in Top Management

In summary, after considering performance as outlined above, the Committee approved an Annual Incentive pay-out of 21.36% of contractual base salary, out of the maximum potential 30%, in respect of the personal objectives of Patrick André.

Guy Young

Summary of objective	Summary outcome
Optimise cash management	– Significant improvement in trade creditors and tax management
Optimise the Group's liquidity position	– Successfully concluded renegotiation of Group revolving credit facility and US private debt placement
Drive IT performance	– Significant improvement in IT performance especially in the area of cyber security
Drive Opex reductions	– Delivered reductions in line with the operating plan
Improve Vesuvius' sustainability performance	– Delivered strong reductions of CO_2 energy emissions compared to 2019 levels; improvement in gender diversity in Top Management

In summary, after considering performance as outlined above, the Committee approved an Annual Incentive pay-out of 19.5% of contractual base salary, out of the maximum potential 30%, in respect of the personal objectives of Guy Young.

The total Annual Incentive awards payable to Patrick André and Guy Young in respect of their service as Directors during 2021 are therefore 141.4% and 139.5% of salary, respectively. Of these Annual Incentive payments, 33% will be deferred into awards over shares, to be held for a period of three years.

The Committee considered the appropriateness of these overall AIP payments in the context of the experience of our various stakeholders during 2021 and was satisfied that no discretionary adjustments were required.

2022 Annual Incentive

The Annual Incentive opportunity for the Executive Directors in 2022 will remain unchanged at 150 % of salary, with potential pay-outs of 75% of base salary for the achievement of target performance in all elements. Pay-outs will commence and increase incrementally from 0% once the threshold performance for any of the elements has been met. The structure of the Annual Incentive will change in 2022, with 40% of the Executive Directors' Annual Incentives based on Group headline EPS, 20% on the Group's working capital to sales ratio (based on the 12-month moving average), 20% on post-tax Return on Invested Capital (ROIC) and 20% on the achievement of personal objectives. The Company will not be disclosing the targets set until after the relevant performance period has ended because of commercial sensitivities. The personal objectives for 2022 are focused on long-term strategic objectives, or are job-specific in nature and track performance against the Group's key strategic, organisational and operational goals with a specific focus on ESG outcomes. 33% of any Annual Incentive earned will be deferred into awards over shares, to be held for a period of three years.

Deferred Share Bonus Plan allocations – audited

33% of the Annual Incentives earned by Patrick André and Guy Young in respect of their periods of service as Directors of Vesuvius plc during 2018, 2019 and 2020 were deferred into shares under the Company's Deferred Share Bonus Plan. The following table sets out details of these awards:

Grant and type of award	Total share allocations as at 1 Jan 2021	Additional shares allocated during the year	Allocations lapsed during the year	Shares vested during the year	**Total share allocations as at 31 Dec 2021**	Market price of the shares on the day before award (p)	Earliest vesting/ release date
Patrick André							
15 March 2018[1] Deferred Bonus Shares	10,128	–	–	(10,128)	**0**	605.5	15 Mar 2021
14 March 2019[2] Deferred Bonus Shares	29,646	–	–	–	**29,646**	608	14 Mar 2022
12 March 2020[3] Deferred Bonus Shares	7,044	–	–	–	**7,044**	391.8	12 Mar 2023
18 March 2021[4] Deferred Bonus Shares	–	9,430	–	–	**9,430**	538	18 Mar 2024
Total	46,818	9,430	–	(10,128)	**46,120**		
Guy Young							
15 March 2018[1] Deferred Bonus Shares	18,118	–	–	(18,118)	**0**	605.5	15 Mar 2021
14 March 2019[2] Deferred Bonus Shares	19,028	–	–	–	**19,028**	608	14 Mar 2022
12 March 2020[3] Deferred Bonus Shares	5,345	–	–	–	**5,345**	391.8	12 Mar 2023
18 March 2021[4] Deferred Bonus Shares	–	6,093	–	–	**6,093**	538	18 Mar 2024
Total	42,491	6,093	–	(18,118)	**30,466**		

1. In 2018, Patrick André and Guy Young received Annual Incentive bonuses in respect of their service as Directors of Vesuvius plc in 2017 of £185,544 and £331,906 respectively. 33% of each bonus was awarded in deferred shares (conditional awards) under the Vesuvius Deferred Share Bonus Plan. The shares vested on 15 March 2021.In addition, Messrs André and Young were given cash payments of £4,213 and £7,537 respectively, equivalent to the value of the dividends that would have been paid on the number of shares that vested in respect of dividend record dates occurring during the period between the award date and the date of vesting.
2. In 2019, Patrick André and Guy Young received Annual Incentive bonuses in respect of their service as Directors of Vesuvius plc in 2018 of £546,131 and £350,525 respectively. 33% of each bonus was awarded in deferred shares (conditional awards) under the Vesuvius Deferred Share Bonus Plan. The allocations of shares were made on 14 March 2019 and were calculated based upon the average closing mid-market price of Vesuvius' shares on the five dealing days before the award was made, being £6.079. The total value of these awards based on this share price was £180,218 and £115,671, respectively. There are no additional performance conditions applicable to these awards, therefore these shares will vest in full on the third anniversary of their award date.
3. In 2020, Patrick André and Guy Young were awarded Annual Incentive bonuses in respect of their service as Directors of Vesuvius plc in 2019 of £83,775 and £63,569 respectively. 33% of each bonus was awarded in deferred shares (conditional awards). The allocations of shares were made on 12 March 2020 and were calculated based upon the average closing mid-market price of Vesuvius' shares on the five dealing days before the award was made, being £3.9248. The total value of these awards based on this share price was £27,646 and £20,978 respectively. There are no additional performance conditions applicable to these awards, therefore these shares will vest in full on the third anniversary of their award date.
4. In 2021, Patrick André and Guy Young were awarded Annual Incentive bonuses in respect of their service as Directors of Vesuvius plc in 2020 of £153,419 and £99,138 respectively. 33% of each bonus was awarded in deferred shares (conditional awards). The allocations of shares were made on 18 March 2021 and were calculated based upon the average closing mid-market price of Vesuvius' shares on the five dealing days before the award was made, being £5.3690. The total value of these awards based on this share price was £50,628 and £32,715 respectively. There are no additional performance conditions applicable to these awards, therefore these shares will vest in full on the third anniversary of their award date.

Additional note:

5. The mid-market closing price of Vesuvius' shares during 2021 ranged between 414 pence and 590 pence per share, and on 31 December 2021, the last dealing day of the year, was 450.2 pence per share.

Annual Report on Directors' Remuneration continued

Longer-term Pay (LTIPs) – audited

Performance Share awards are allocated to the Executive Directors under the Vesuvius Share Plan (VSP). In accordance with the Remuneration Policy and the rules of the VSP, they are eligible to receive, on an annual basis, a Performance Share award with a face value of up to 200% of salary. The vesting of awards is subject to performance conditions determined by the Remuneration Committee ahead of each award. For the outstanding 2019, 2020 and 2021 awards, vesting of 50% of shares awarded is based upon the Company's three-year TSR performance relative to that of the constituent companies of the FTSE 250 (excluding investment trusts), and 50% on headline EPS performance. For the 2022 awards, the Remuneration Committee has decided to amend the performance conditions with the introduction of a post-tax ROIC target along with ESG targets. As a result vesting of 40% of shares awarded under the 2022 VSP will be based on post-tax ROIC performance, 40% on the longstanding relative TSR targets, and the remaining 20% on ESG targets.

Each of the VSP performance measures operates independently. The use of these measures is intended to align Executive Director remuneration with shareholders' interests. Prior to the vesting of Performance Shares, the Remuneration Committee reviews the underlying financial performance of the Company and non- financial performance of the Company and individuals over the performance period to ensure that the vesting is justified, and to consider whether to exercise its discretion including consideration of any potential windfall gains. UK executives receive awards in the form of nil-cost options with a flexible exercise date and non-UK executives receive conditional awards which are exercised on the date of vesting. Performance Share awards vest after three years and, commencing with awards made in 2019, are then subject to a further two-year holding period.

2022 Performance Share Award

The Remuneration Committee has determined that Patrick André will again receive a Performance Share award in 2022 equivalent in value to 200% of his base salary and Guy Young an award equivalent in value to 150% of his base salary. The Committee considered the risk of windfall gains in making the awards for 2022. The Committee resolved to use a share price for the award which is the higher of:

- the average closing price on the five days prior to the date of the Committee decision (£4.02)
- the average closing price on the five days prior to the grant of the award

thereby mitigating the risk of windfall gains.

2021 Performance Share Award

In 2021, Patrick André and Guy Young received allocations of Performance Shares worth 200% and 150% of their base salaries, respectively.

2019 Performance Share Award (vesting in 2022)

The performance period applicable to the awards made in 2019 ended on 31 December 2021. These awardswill lapse as the threshold performance level was not met for either the TSR or EPS performance conditions.

Targets for the Performance Share Awards for the year 2022 – unaudited

TSR ranking relative to FTSE 250 excluding investment trusts Weighting 40%	Vesting percentage (of total LTIP)
Below median	0%
Median	10%
Between median and upper quintile	Pro rata between 10% and 40%
Upper quintile and above	40%

Post-tax ROIC: Weighting 40%	Vesting percentage (of total LTIP)[1]	Average ROIC over three year performance period
Threshold and below	0%	7.5%
Maximum	40%	10.0%

1. Vesting between these points will be on a straight-line basis.

New post-tax ROIC target

Definitions

ROIC is defined as Net Operating Profit After Tax (NOPAT), divided by invested capital (IC).

NOPAT is defined as Group trading profit, plus post-tax share of JV results, less amortisation of intangible assets calculated as an average over the target period. (The inclusion of amortisation charges serves to reduce the calculation of ROIC returns though we believe this to be the most appropriate definition.)

Invested capital is defined as total assets excluding cash and non-interest bearing liabilities, calculated as the average of IC at the start and the end of the target period.

ROIC target range

A 250bps spread is seen by the Remuneration Committee as a reasonable range for the first award using this metric. The Committee will review targets annually for future awards.

The Committee has considered the Group strategy over the period, market conditions, and historic and current estimates of WACC provided by JP Morgan in determining the target range. To achieve the maximum pay-out representing 40% of the award, the Group would need to improve its ROIC performance over that achieved in any of the prior five years, and by a significant margin over the average achieved in the past five years. Post-tax ROIC in 2021 was calculated as 7.5%, an improvement on 4.9% in 2020.

The target range starts at the ROIC achieved in 2021 and as a result the Committee has determined that threshold payments will change from a starting threshold payment of 25% used under the previous EPS KPI to a 0% threshold payment using ROIC.

The Committee has satisfied itself by looking backwards that the application of this ROIC range would not have resulted in more generous pay-out levels overall, but that the vesting would have been less volatile in nature.

Adjustments to ROIC targets

Adjustments to the ROIC target range may be required should the Board approve certain mergers, acquisitions or disposals. For any such event that requires Board approval then management will assess the potential impact on ROIC as part of their broader submission, and the Committee will determine whether any adjustment to targets should be made. In general, the Committee will have regard to the materiality of the event and the timing in the life of the award cycle. The intention will be to maintain fair, stretching but achievable targets, whilst not providing a disincentive to management to bring forward proposals for mergers, acquisitions or disposals that are in the Company's interest.

Environment, Social, Governance: Weighting: 20%

Safety: Average Lost Time Injury Frequency Rate (LTIFR)[1] 2022–2024	Vesting percentage (of total LTIP)[2]	Range
Threshold and below	0%	1.1
Maximum	5%	0.9

Energy: CO_2e: Reduction Scope 1 and 2 energy CO_2e emissions/tonne (vs 2019 baseline) in 2024[3]	Vesting percentage (of total LTIP)[2]	Range[4]
Threshold and below	0%	-14%
Maximum	10%	-20%

Diversity: Gender diversity in senior leadership group[5] on 31 Dec 2024	Vesting percentage (of total LTIP)[2]	Range
Threshold and below	0%	20%
Maximum	5%	26%

1. LTIFR is the Lost Time Injury Frequency Rate, the number of lost time injuries that occur during the performance period. The calculation rate is LTIFR per million hours worked.
2. Straight line vesting between threshold and maximum.
3. Reduction of energy CO_2e emissions per metric tonne of product packed for shipment.
4. The target range has been determined using a re-stated level of current performance (-13% vs -16.5% in the sustainability report) and has factored in investments approved that will come on stream during the life of the award that have a negative effect on achievements to date.
5. Senior Leadership Group is defined as the Group Executive Committee plus the most senior Vesuvius managers worldwide, in terms of their contribution to the Group's overall results and to the execution of the Group's strategy. This group comprises between 150 and 160 members (number may slightly fluctuate from one year to the next based on organisational changes).

The Environment, Social and Governance targets for the 2022 awards represent key strategic priorities for the management team as well as the Board.

Safety is culturally important and progressive improvement has been made in recent years. The targets are considered stretching in the context of an operationally challenging environment with many employees working remotely at customer sites. Lost Time Injury Frequency Rate is a recognised metric, and is measured per million hours worked.

Energy, the reduction in Scope 1 and 2 emissions is a key feature of the Company's sustainability strategy (see pages 52–77) and a measure of energy intensity is used – CO_2e emissions per tonne of product shipped. Baseline and current emissions have been validated with the assistance of Carbon Footprint Ltd. Vesuvius has committed to achieve a net zero status by 2050 at the latest, and work continues to understand how this can be achieved, and the type of technological advances that will be required. Restated performance of -13% vs the 2019 baseline has been considered reasonable by the Committee in setting the forward target range. This restatement takes into account expansion projects in Skawina, Poland and Kolkata, India which will have a deleterious effect on the -16.5% (vs 2019 baseline) reported elsewhere.

Diversity, a focus on gender diversity has seen improvements in the Top Management of c. 50–60 individuals in recent years. Mindful of the need and desire to develop a diverse pipeline the targets have been extended to cover the top 150–160 leaders in Vesuvius.

Targets for the Performance Share awards for the years 2019 and 2020 – audited

TSR ranking relative to FTSE 250 excluding investment trusts	Vesting percentage
Below median	0%
Median	12.50%
Between median and upper quintile	Pro rata between 12.50% and 50%
Upper quintile and above	50%

Annual compound headline EPS growth	Vesting percentage
Less than 3%	0%
3%	12.50%
Between 3% and 6%	Pro rata between 12.50% and 25%
6%	25%
Between 6% and 15%	Pro rata between 25% and 50%
15% or more	50%

Targets for the Performance Share awards for 2021 – audited

TSR ranking relative to FTSE 250 excluding investment trusts	Vesting percentage
Below median	0%
Median	12.50%
Between median and upper quintile	Pro rata between 12.50% and 50%
Upper quintile and above	50%

Headline EPS for the Financial Year 2023	Vesting percentage
Less than 35 pence	0%
35 pence	12.50%
Between 35 pence and 47.5 pence	Pro rata between 12.50% and 25%
47.5 pence	25%
Between 47.5 pence and 60 pence	Pro rata between 25% and 50%
60 pence or more	50%

The Committee is mindful of the present geopolitical environment and the existing energy crisis. In this context it reserves its discretion to amend targets for both the AIP and VSP should major industrial market disruption prevail.

Annual Report on Directors' Remuneration continued

Vesuvius Performance Share award allocations – audited

The following table sets out the Performance Share awards that were allocated in 2018, 2019, 2020 and 2021 under the VSP:

Grant and type of award	Total share allocations as at 1 Jan 2021	Additional shares allocated during the year	Allocations lapsed during the year	Shares vested during the year	**Total share allocations as at 31 Dec 2021**	Market price of the shares on the day before award (p)	Performance period	Earliest vesting date	End of holding period[1]
Patrick André									
15 March 2018[2] Performance Shares	173,697	–	(173,697)	–	**0**	605.5	1 Jan 18–31 Dec 20	15 Mar 2021	n/a
14 March 2019[3] Performance Shares	197,400	–	–	–	**197,400**	608	1 Jan 19–31 Dec 21	14 Mar 2022	14 Mar 2024
12 March 2020[4] Performance Shares	282,772	–	–	–	**282,772**	391.8	1 Jan 20–31 Dec 22	12 Mar 2023	12 Mar 2025
18 March 2021[5] Performance Shares	–	230,210	–	–	**230,210**	538	1 Jan 21–31 Dec 23	18 Mar 2024	18 Mar 2026
Total	653,869	230,210	(173,697)	0	**710,382**				
Guy Young									
15 March 2018[2] Performance Shares	86,848	–	(86,848)	–	**0**	605.5	1 Jan 18–31 Dec 20	15 Mar 2021	n/a
14 March 2019[3] Performance Shares	86,362	–	–	–	**86,362**	608	1 Jan 19–31 Dec 21	14 Mar 2022	14 Mar 2024
12 March 2020[4] Performance Shares	132,120	–	–	–	**132,120**	391.8	1 Jan 20–31 Dec 22	12 Mar 2023	12 Mar 2025
18 March 2021[5] Performance Shares	–	107,562	–	–	**107,562**	538	1 Jan 21–31 Dec 23	18 Mar 2024	18 Mar 2026
Total	305,330	107,562	(86,848)	0	**326,044**				

1. Performance shares granted from 2019 onwards are subject to a further two-year holding period.
2. In 2018, Patrick André and Guy Young received allocations of Performance Shares worth 200% and 150% of their base salaries. Following an assessment of the performance conditions, these awards lapsed in full during 2021.
3. In 2019, Patrick André and Guy Young received allocations of Performance Shares worth 200% and 150% of their base salaries. These allocations were calculated based upon the average closing mid-market price of Vesuvius' shares on the five dealing days before the award was made, being £6.079. The total value of these awards based on this share price was £1,199,994 and £524,994 respectively. Following an assessment of the performance conditions, these awards will lapse in full during 2022.
4. In 2020, Patrick André and Guy Young were entitled to receive allocations of Performance Shares worth 200% and 150% of their base salaries respectively. In light of the volatile share price, the Committee applied its discretion so that the number of shares in these allocations were capped at a level based upon the average closing mid-market price of Vesuvius' shares on the five dealing days before the February 2020 Remuneration Committee meeting of £4.371. As a result, Patrick André received an award of 282,772 shares which, at grant, was equivalent in value to 180% of his base salary (£1,109,823*) and Guy Young received an award of 132,120 shares which, at grant, was equivalent in value to 135% of his base salary (£518,544*).
   * Grant values are based on the average closing mid-market price of Vesuvius' shares on the five dealing days prior to grant (£3.9248).
5. In 2021, Patrick André and Guy Young were entitled to receive allocations of Performance Shares worth 200% and 150% of their base salaries respectively. These allocations were calculated based upon the average closing mid-market price of Vesuvius' shares on the five dealing days before the award was made, being £5.3690. The total value of these awards based on this share price was £1,235,997 and £577,500 respectively.

Additional notes:

6. If the respective performance conditions for Patrick André's and Guy Young's awards are not met, then the awards will lapse. If the threshold level of either of the two performance conditions applicable to the awards is met, then 12.50% of the awards will vest.
7. The Remuneration Committee also has the discretion to award cash or shares equivalent in value to the dividend that would have been paid during the vesting period on the number of shares that vest.
8. The mid-market closing prices of Vesuvius' shares during 2021 ranged between 414 pence and 590 pence per share, and on 31 December 2021, the last dealing day of the year, was 450.2 pence per share.

Malus/clawback arrangements in 2022

Vesuvius has malus and clawback arrangements in respect of Executive Directors' variable remuneration. The structure of those arrangements is outlined in our Remuneration Policy.

Statement of Directors' shareholding – audited

The interests of Directors and their closely associated persons in ordinary shares as at 31 December 2021, including any interests in share options and shares provisionally awarded under the VSP, are set out below:

	Beneficial holding in shares	Beneficial holding %	Outstanding share incentive awards: With performance conditions[1]	Outstanding share incentive awards: Without performance conditions[2]
Executive Directors				
Patrick André	111,160	0.04	710,382	46,120
Guy Young	134,802	0.05	326,044	30,466
Non-executive Directors				
John McDonough CBE (Chairman)	120,000	0.04	–	–
Kath Durrant	–	0.00	–	–
Friederike Helfer[3]	–	0.00	–	–
Dinggui Gao	–	0.00	–	–
Hock Goh[4]	5,000	<0.01	–	–
Jane Hinkley	12,000	<0.01	–	–
Douglas Hurt	18,000	0.01	–	–
Holly Koeppel[5]	27,500	0.01		–

1. These are Performance Shares granted under the VSP. The awards were all granted subject to performance conditions.
2. These are awards granted under the Deferred Share Bonus Plan. These awards are not subject to any additional performance conditions.
3. Friederike Helfer is a Partner of, and has a financial interest in, Cevian Capital which held 21.11% of Vesuvius' issued share capital as at 31 December 2021 and at the date of this report.
4. Hock Goh stepped down from the Board following the 2021 AGM and this was his shareholding at the time of stepping down.
5. Holly Koeppel stepped down from the Board following the 2021 AGM and this was her shareholding at the time of stepping down.

Additional notes:

6. None of the other Directors, nor their spouses, nor their minor children, held non-beneficial interests in the ordinary shares of the Company during the year.
7. There were no changes in the interests of the Directors in the ordinary shares of the Company in the period from 1 January 2022 to the date of this Report.
8. All awards under the VSP are subject to performance conditions and continued employment until the relevant vesting date as set out on pages 148 and 149.
9. Full details of Directors' shareholdings and incentive awards are given in the Company's Register of Directors' Interests, which is open to inspection at the Company's registered office during normal business hours.

Payments to past Directors and loss of office payments – audited

There were no payments made to any Director for loss of office during the year ended 31 December 2021, and no payments were made to any other past Directors of the Company during the year ended 31 December 2021.

Shareholding guidelines

The Remuneration Committee encourages Executive Directors to build and hold a shareholding in the Company. Under the 2020 Remuneration Policy, the required holding is 200% of salary for all Executive Directors. Executive Directors are required to retain at least 50% (measured as the value after tax) of any shares received through the operation of share schemes; in addition, permission to sell shares held – whether acquired through the operation of share schemes or otherwise – will not be given, other than in exceptional circumstances, if, following the disposal, the shareholding requirement is not achieved or is not maintained.

Compliance with the shareholding policy is tested at the end of each year for application in the following year. Under the 2020 Remuneration Policy, the valuation of any holding is taken at the higher of: (1) the share price on the date of vesting of any shares derived from a share award, in respect of those shares only; and (2) the average of the closing prices of a Vesuvius ordinary share for the trading days in that December.

Executive Directors' shareholdings – audited

As at 31 December 2021, the Executive Directors' shareholdings against the shareholding guidelines contained in the Directors' Remuneration Policy in force on that date (using the Company's share price averaged over the trading days of the period 1 December to 31 December 2021, of 432.59 pence per share) were as follows:

Director	Actual share ownership as a percentage of salary at 31 Dec 2021	Policy share ownership as a percentage of salary	Policy met?
Patrick André	78%	200%	In the build-up period
Guy Young	151%	200%	In the build-up period

Annual Report on Directors' Remuneration continued

Annual changes in Executive Directors pay versus employee pay

Executive Directors' pay comparison

The London headquartered salaried employee workforce is presented as a voluntary disclosure of the representative comparator group for the Vesuvius Group parent company as there are only two non-Director employees in the parent company.

Year-on-year change in pay for Directors compared to the London headquartered employee average

	2021			2020		
	Salary[2,3]	Bonus[3]	Benefits[4]	Salary[2,3]	Bonus[3]	Benefits[4]
London headquartered employee average[1]	**19%**	**236%**	**120%**	0%	165%	18%
Executive Directors						
Patrick André	**11%**	**469%**	**6%**	(7%)	183%	(25%)
Guy Young	**11%**	**442%**	**9%**	(1%)	155%	(14%)
Non-executive Directors[9]						
John McDonough CBE	**11%**	**–**	**(35%)**	(10%)	–	(46%)
Kath Durrant[5]	**19%**	**–**	**100%**	n/a	–	n/a
Friederike Helfer	**11%**	**–**	**502%**	(10%)	–	(60%)
Dinggui Gao[6]	**n/a**	**–**	**n/a**	n/a	–	n/a
Jane Hinkley[7]	**(5%)**	**–**	**(56%)**	(10%)	–	(60%)
Douglas Hurt	**11%**	**–**	**(22%)**	(10%)	–	–
Hock Goh[8]	**(60%)**	**–**	**(100%)**	(10%)	–	(60%)
Holly Koeppel[8]	**(60%)**	**–**	**(100%)**	(10%)	–	(100%)

1. This is the average change calculated by dividing the staff cost related to salaries, median bonus and benefits by the average number of full-time equivalent employees in the Vesuvius headquarters in London, excluding the Executive Directors. Salaries, bonus and benefits relate to the relevant financial reporting year.
2. During 2020 all Executive and Non-executive Directors took a voluntary 20% pay reduction for six months. Other senior employees in London headquarters also took between a 10-20% pay reduction, depending on their level of seniority. Therefore, the total percentage increase for the Executive Directors between 2021 and 2022 will be higher than their agreed salary increases as these increases are based on the salary as at 31 December 2021.
3. Calculated using data from the single figure table in the Annual Report.
4. Calculated using data from the audited Directors' Emoluments. Benefits relate to taxable travel benefits and is calculated as the percentage increase or decrease on the actual figures year-on-year and not annualised or pro-rated for any new starters. Travel was restricted during 2020 due to the COVID-19 pandemic.
5. Kath Durrant joined on 1 December 2020 and then became the Remuneration Committee Chair following the 2021 AGM, it is this change that accounts for the proportionally higher increase on her salary.
6. Dinggui Gao joined on 1 April 2021.
7. Jane Hinkley stood down as the Remuneration Committee Chair following the 2021 AGM, which accounts for her net reduction in year-on-year change.
8. Hock Goh and Holly Koeppel stepped down from the Committee at the 2021 AGM, their salaries have been calculated based on actual earnings in 2020 and 2021.
9. The Non-executive Directors' fees were reviewed and increased in 2015, 2019 and 2022.

CEO pay ratio

The UK salaried employee workforce is the representative comparator group to the Chief Executive, Patrick André, who is based in the UK (albeit with a global role and responsibilities). Levels of pay vary widely across the Group depending on geography and local market conditions.

Year	Method	25th percentile pay ratio	50th percentile (median) pay ratio	75th percentile pay ratio
2019	Option A	35:1	28:1	17:1
2020	Option A	32:1	24:1	13:1
2021	Option A	53:1	41:1	21:1
2021	Total pay and benefits (£)	33,216	43,233	82,829
2021	Salary (£)	29,018	40,363	73,000

The table above shows the Chief Executive pay ratios versus our UK employees for 2019, 2020 and 2021. The pay ratios compare amounts disclosed in the single total figure table for the Group Chief Executive to the annual full-time equivalent remuneration of our UK employees for 2019, 2020 and 2021. The data has been calculated in accordance with 'Option' A in The Companies (Miscellaneous Reporting) Regulations 2018, because it allows the Company to show the total annualised full-time equivalent remuneration (salary, incentives, allowances, fees, taxable benefits) and percentiles across the financial year as at 31 December 2019, 2020 and 2021.

Amounts have been annualised for those who joined part way through the year or who are on part-time arrangements and exclude those who left the organisation during the reporting period.

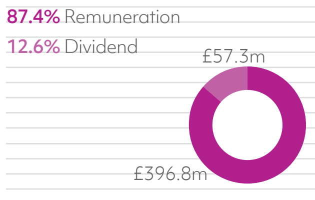
The approach to calculating the pay ratios is consistent with the prior year and there have not been any changes to the compensation models in the reporting period.

The Committee is comfortable that the principles applied and the quantum of compensation are appropriate across the Group's employee base. These are regularly benchmarked to ensure market competitiveness. There is a consistent approach of measuring against both business and personal performance for all those who participate in incentive programmes. The Group continues to monitor the effectiveness of all compensation practices to identify future opportunities to ensure they remain fair, consistent and in line with best practice.

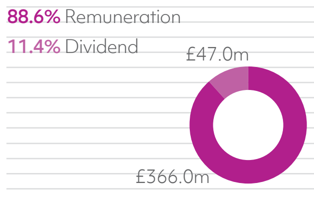
Annual spend on employee pay[1] versus shareholder distributions[2]

The charts below show the annual spend on all employees (including Executive Directors) compared with distributions made and proposed to be made to shareholders for 2020 and 2021:

Relative importance of spend on pay (2021) £m



Relative importance of spend on pay (2020) £m



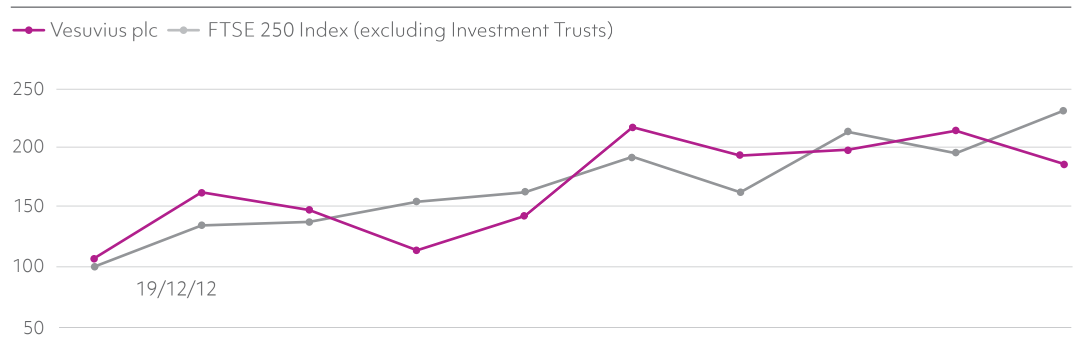
	2021 (£m)	2020 (£m)	Change
Employee pay[1]	**396.8**	366.0	8.5%
Dividends[2] (based on final proposed dividend)	**57.3**	47.0	22.0%

1. Employee pay includes wages and salaries, social security, share-based payments and pension costs, and other post-retirement benefits. See Note 8 to the Group Financial Statements.
2. Shareholder distributions/dividends includes interim and final dividends paid in respect of each financial year. See Note 24 of the Group Financial Statements.

TSR performance and Chief Executive pay

The TSR performance graph compares Vesuvius' TSR performance with that of the same investment in the FTSE 250 Index (excluding investment trusts). This index has been chosen as the comparator index to reflect the size, international scope and diversity of the Company. TSR is the measure of the returns that a company has provided for its shareholders, reflecting share price movements and assuming reinvestment of dividends. The demerger of Vesuvius plc was effective on 19 December 2012 and therefore the graph shows the period from 19 December 2012 to 31 December 2021.

Vesuvius' total shareholder return compared against total shareholder return of the FTSE 250 (excluding investment trusts) index since demerger



Chief Executive pay – financial year ended	François Wanecq[1]						Patrick André[2]			
	31/12/12	31/12/13	31/12/14	31/12/15	31/12/16	31/12/17	31/12/18	31/12/19	31/12/20	**31/12/21**
Total remuneration (single figure (£000))	£1,227	£2,447	£1,519	£752	£1,173	£1,675[1] £465[2]	£2,022	£1,220	£936	**£1,706**
Annual variable pay (% of maximum)	0%	100%	64%	0%	50%	81%[1] 85%[2]	83%	11%	20%	**94%**
Long-term variable pay (% of maximum)	67%	28%	27%	0%	0%	43.7%[1] n/a[2]	100%	63%	0%	**0%**

1. Amounts shown in respect of François Wanecq for 2017 reflect payments in respect of his service as Chief Executive from 1 January 2017 to 31 August 2017 and the full value of his VSP award in relation to the performance period 2015–2017.
2. Amounts shown in respect of Patrick André for 2017 reflect payments in respect of his service as Chief Executive from 1 September 2017 to 31 December 2017.

Shareholder voting on remuneration resolutions

	Votes for	Votes against	Votes withheld
Approval of the Directors' Remuneration Policy 2020 AGM	244,618,671 (97.2%)	7,105,663 (2.8%)	3,640
Approval of the Annual Report on Remuneration 2021 AGM	244,223,260 (99.32%)	1,673,458 (0.68%)	11,480

The Directors' Remuneration Report has been approved by the Board and is signed on its behalf by

Kath Durrant
Chair of the Remuneration Committee
3 March 2022

Directors' Report

The Directors submit their Annual Report together with the audited financial statements of the Group and of the Company, Vesuvius plc, registered in England and Wales No. 8217766, for the year ended 31 December 2021.

The Companies Act 2006 requires the Company to provide a Directors' Report for Vesuvius plc for the year ended 31 December 2021.

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 following sections of the Annual Report:

- The Section 172(1) statement
- The Non-financial information statement (the Sustainability section)
- The Governance section, including the Corporate Governance Statement
- Financial instruments: the information on financial risk management objectives and policies contained in Note 25 to the Group Financial Statements

This Directors' Report and the Strategic Report contained on pages 1 to 101 together represent the management report for the purpose of compliance with DTR 4.1.8R of the Financial Conduct Authority's Disclosure and Transparency Rules.

Going concern	Information on the business environment in which the Group operates, including the factors that are likely to impact the future prospects of the Group, is included in the Strategic Report. The principal risks and uncertainties that the Group faces throughout its global operations are shown on pages 34 and 35. The financial position of the Group, its cash flows, liquidity position and debt facilities are also described in the Strategic Report. In addition, the Group's viability statement is set out within the Strategic Report on page 33. Note 25 to the Group Financial Statements sets out the Group's objectives, policies and processes for managing its capital; financial risks; financial instruments and hedging activities; and its exposures to credit, market (both currency and interest rate related) and liquidity risk. Further details of the Group's cash balances and borrowings are included in Notes 13, 14 and 25 to the Group Financial Statements. The Directors have prepared profit and loss, balance sheet and cash flow forecasts for the Group for a period in excess of 12 months from the date of approval of the 2021 financial statements. On the basis of the exercise described above, the Directors have prepared a going concern statement which can be found on page 33.
Events since the balance sheet	Since 31 December 2021, there have been no material items to report.
Future developments	A full description of the activities of the Group, including performance, significant events affecting the Group in the year and indicative information in respect of the likely future developments in the Group's business, can be found in the Strategic Report.
Financial instruments	Information on Vesuvius' financial risk management objectives and policies can be found in Note 25 to the Group Financial Statements.
Research and development	The Group's investment in research and development (R&D) during the year under review amounted to £30.3m (representing approximately 1.8% (2020: 1.9%) of Group revenue). Further details of the Group's R&D activities can be found in the Operating Reviews and Sustainability section of the Strategic Report.
Political and charitable donations	In accordance with Vesuvius policy, the Group did not make any political donations or incur any political expenditure in relation to any UK or non-UK political parties during 2021 (2020: nil). The Company made no charitable donations of more than £2,000 in the UK in 2021.
Task Force on Climate-Related Financial Disclosures (TCFD)	The Group has reported its climate-related information in accordance with the TCFD disclosure framework. The majority of this information is included in the Sustainability section of the Strategic Report. A schedule of disclosure is included on page 58.

Energy consumption and efficiency/greenhouse gas emissions	Information on our reporting of greenhouse gas emissions, and the methodology used to record these, is set out on page 69 of the Strategic Report. Details of the Group's energy usage for 2021, and the efficiency initiatives currently being undertaken, can be found in the Sustainability section on pages 68–73.
Branches	A number of the Group's subsidiary undertakings maintain branches; further details of these can be found in Note 33.1 to the Group Financial Statements.
Dividends	An interim dividend of 6.2 pence (2020: 3.1 pence) per Vesuvius ordinary share was paid on 17 September 2021 to shareholders on the register at the close of business on 6 August 2021. The Board is recommending a final dividend in respect of 2021 of 15.0 pence (2020: 14.30 pence) per ordinary share which, if approved, will be paid on 27 May 2022 to shareholders on the register at 19 April 2022.
Accountability and audit	A responsibility statement of the Directors and a statement by the auditor about its reporting responsibilities can be found on pages 160, and 161–169, respectively. The Directors fulfil the responsibilities set out in their statement within the context of an overall control environment of central strategic direction and delegated operating responsibility. As at the date of this report, so far as each Director of the Company is aware, there is no relevant audit information of which the Company's auditors are unaware and each Director hereby confirms that 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 auditor is aware of that information.
Auditors' reappointment	PricewaterhouseCoopers LLP (PwC) were reappointed as External Auditors for Vesuvius plc for the year ended 31 December 2021, at the 2021 AGM. PwC have been Vesuvius' External Auditors since 2017 and have expressed their willingness to continue in office as Auditors of the Company for the year ending 31 December 2022. Consequently, resolutions for the reappointment of PwC as External Auditors of the Company and to authorise the Directors to determine their remuneration are to be proposed at the 2022 AGM.
Directors	The current Directors of the Company are Patrick André, Kath Durrant, Dinggui Gao, Friederike Helfer, Jane Hinkley, Douglas Hurt, John McDonough CBE and Guy Young. Dinggui Gao joined the Board on 1 April 2021 and Hock Goh and Holly Koeppel served on the Board until they stepped down at close of the AGM on 12 May 2021. All the current Directors will retire at the 2022 AGM and offer themselves for re-election. Biographical information for the Directors is given on pages 104 and 105. Further information on the remuneration of, and contractual arrangements for, the Executive and Non-executive Directors is given on pages 130–153 in the Directors' Remuneration Report. The Non-executive Directors do not have service agreements.
Directors' indemnities	The Directors have been granted qualifying third-party indemnity provisions by the Company and the Directors of the Group's UK Pension Plans Trustee Board (none of whom is a Director of Vesuvius plc) have been granted qualifying pension scheme indemnity provisions by Vesuvius Pension Plans Trustees Limited. The indemnities for Directors of Vesuvius plc have been in force since the date of their appointments. The Pension Trustee indemnities were in force throughout the last financial year and remain in force.

Directors' Report continued

Annual General Meeting

The Annual General Meeting of the Company will be held at the offices of Linklaters LLP, One Silk Street, London EC2Y 8HQ on Wednesday 18 May 2022 at 11.00 am.

Amendments of Articles of Association

The Company may make amendments to the Articles by way of special resolution in accordance with the Companies Act. The Articles were amended at the 2021 AGM, to reflect changes in the law and developments in market practice and technology since the previous Articles had been adopted in November 2012.

Share capital

As at the date of this report, the Company had an issued share capital of 278,485,071 ordinary shares of 10 pence each; 7,271,174 of these ordinary shares are held in Treasury. Therefore, the total number of Vesuvius plc shares with voting rights is 271,213,897.

Further information relating to the Company's issued share capital can be found in Note 9 to the Company Financial Statements.

The Company's Articles specify that, subject to the authorisation of an appropriate resolution passed at a General Meeting of the Company, Directors can allot relevant securities under Section 551 of the Companies Act up to the aggregate nominal amount specified by the relevant resolution. In addition, the Articles state that the Directors can seek the authority of shareholders in a General Meeting to allot equity securities for cash, without first being required to offer such shares to existing ordinary shareholders in proportion to their existing holdings under Section 561 of the Companies Act, in connection with a rights issue and in other circumstances up to the aggregate nominal amount specified by the relevant resolution.

At the AGM on 12 May 2021, the Directors were authorised to issue relevant securities up to an aggregate nominal amount of £9,040,463, and, in connection with a rights issue, to issue relevant securities up to a further nominal value of £9,040,463. In addition, the Directors were empowered to allot equity securities, or sell Treasury Shares, for cash on a non pre-emptive basis up to an aggregate nominal amount of £1,356,069, and for the purposes of financing (or refinancing, if the authority is to be used within six months after the original transaction) a transaction which the Board of the Company determines to be an acquisition or other capital investment, to allot equity securities, or sell Treasury Shares, for cash on a non pre-emptive basis up to an additional nominal amount of £1,356,069. Each of the authorities given in these resolutions expires on 30 June 2022 or the date of the AGM to be held in 2022, whichever is the earlier. The resolutions were all tabled in accordance with the terms of the Pre-Emption Group's Statement of Principles. The Directors propose to renew these authorities at the 2022 AGM for a further year. In the year ahead, other than potentially in respect of Vesuvius' ability to satisfy rights granted to employees under its various share-based incentive arrangements, the Directors have no present intention of issuing any share capital of Vesuvius plc.

Authority for purchase of own shares

Subject to the provisions of company law and any other applicable regulations, the Company may purchase its own shares. At the AGM on 12 May 2021, Vesuvius shareholders gave authority to the Company to make market purchases of up to 27,121,389 Vesuvius ordinary shares, representing 10% of the Company's issued ordinary share capital as at the latest practicable day prior to the publication of the Notice of AGM. This authority expires on 30 June 2022 or the date of the AGM to be held in 2022, whichever is the earlier. The Directors will seek renewal of this authority at the 2022 AGM.

In 2013, the Company acquired 7,271,174 ordinary shares, representing a nominal value of £727,117 and 2.6% of the entire called-up share capital of the Company prior to the purchase. These shares were purchased pursuant to the Board's commitment to return the majority of the net proceeds of the disposal of the Precious Metals Processing Division to shareholders. These shares are currently held as Treasury shares. The Company has not subsequently disposed of any of the repurchased shares. During the year, the Company did not make any further acquisitions of shares nor did it dispose of any shares previously acquired. The Company does not have a lien over any of its shares.

Share plans

Vesuvius operates a number of share-based incentive plans. Under these plans, the Group can satisfy entitlements by the acquisition of existing shares, the transfer of Treasury shares or by the issue of new shares. Existing shares are held in an employee benefit trust (EBT). The Trustee of the EBT purchases shares in the open market as required to enable the Group to meet liabilities for the issue of shares to satisfy awards that vest. The Trustee does not register votes in respect of these shares at the Company's Annual General Meetings and has waived the right to receive any dividends.

At 31 December 2020, the EBT held 1,093,098 ordinary shares of 10p each in the Company. During the year, the EBT sold/transferred 475,646 shares to satisfy the vesting of awards under the Company's share-based incentive plans. It also purchased 267,404 ordinary shares in Vesuvius with a nominal value of £26,740 at a total cost, including transaction costs, of approximately £1.14m, to hold to satisfy the future vesting of awards under the Company's share incentive plans. As at 31 December 2021, the EBT held 884,856 ordinary shares. The total purchases during the year represented <0.5% of the Company's called-up share capital. Since the year end the EBT has purchased an additional 332,596 ordinary shares (<0.2% of called up share capital), with a nominal value of £33,260 at a total cost of £1,587,367. As at the date of this report the EBT held 1,217,452 ordinary shares.

Restrictions on transfer of shares and voting

The Company's Articles do not contain any specific restrictions on the size of a holding or on the transfer of shares. The Directors are not aware of any agreements between holders of the Company's shares that may result in restrictions on the transfer of securities or voting rights.

No person has any special rights with regard to the control of the Company's share capital and all issued shares are fully paid. This is a summary only and the relevant provisions of the Articles should be consulted if further information is required.

Change of control provisions

The terms of the Group's committed bank facility and US Private Placement Loan Notes contain provisions entitling the counterparties to exercise termination or other rights in the event of a change of control on takeover of the Company. A number of the arrangements to which the Company and its subsidiaries are party, such as other debt arrangements and share incentive plans, may also alter or terminate on a change of control in the event of a takeover. In the context of the Group as a whole, these other arrangements are not considered to be significant.

Interests in the Company's shares

The Company has been notified in accordance with DTR 5 of the Disclosure and Transparency Rules of the following interests of 3%, or more, of its issued ordinary shares:

	As at 31 Dec 2021	As at 3 Mar 2022
Cevian Capital	21.11%	**21.11%**
abrdn	9.81%	**9.81%**
Martin Currie	below 5%	**5.33%**
Franklin Templeton	5.10%	**below 5%**
Aberforth Partners	4.93%	**4.93%**

The interests of Directors and their connected persons in the ordinary shares of the Company as disclosed in accordance with the Listing Rules of the Financial Conduct Authority are as set out on page 151 of the Directors' Remuneration Report and details of the Directors' Deferred Share Bonus Plan and Long-Term Incentive awards are set out on pages 147 and 150.

Suppliers, customers and others

Information summarising how the Directors have regard to the need to foster the Company's business relationships with suppliers, customers and others is included in the Group's Section 172(1) Statement on pages 22–27. This also details how that regard impacted the principal decisions taken by the Directors during the year.

Our approach to business places a significant number of Vesuvius Steel employees at customer sites on a permanent basis. In the Foundry Division, our success is built on our deep understanding of customer processes and technical requirements, and our ability to assist them in delivering the greatest efficiency from their operations.

During the year, our supplier audit programme covered the operations of 138 suppliers. This approach allows Vesuvius to gain a deep understanding of our suppliers' operations to ensure sustainability and quality of supply.

Vesuvius agrees payment terms with its suppliers and seeks to pay in accordance with those terms.

Directors' Report continued

Equal opportunities employment

Vesuvius is an equal opportunities employer, and decisions on recruitment, development, training and promotion, and other employment-related issues are made solely on the grounds of individual ability, achievement, expertise and conduct. These principles are operated on a non-discriminatory basis, without regard to race, colour, nationality, culture, ethnic origin, religion, belief, gender, sexual orientation, age, disability or any other reason not related to job performance or prohibited by applicable law. In cases where employees are injured or disabled during employment with the Group, support, including appropriate training, is provided to those employees and workplace adjustments are made as appropriate in respect of their duties and working environment, supporting recovery and continued employment.

Employee engagement

Information on the mechanisms through which Vesuvius engages with its workforce is included in the Section 172(1) Statement on pages 22–28 and in the Sustainability section on pages 91–93.

Pensions

In each country in which the Group operates, the pension arrangements in place are considered to be consistent with good employment practice in that particular area. Independent advisers are used to ensure that the plans are operated in accordance with local legislation and the rules of each plan. Group policy prohibits direct investment of pension fund assets in the shares of Vesuvius plc. Outside the UK, the US, Germany and Belgium, the majority of pension plans in the Group are of a defined contribution nature.

In 2016, the main German defined benefit plan was closed for new entrants and existing members were offered a buy-out of their benefits under this plan. Those who accepted this buy-out then joined the new defined contribution plan. The Group's UK defined benefits plan (the 'UK Plan') and the main US defined benefits plans are closed to new entrants and have ceased providing future benefits accrual, with all eligible employees instead being provided with benefits through defined contribution arrangements.

For the Group's closed UK Plan, a Trustee Board exists comprising employees, former employees and an independent trustee. The Board currently comprises six trustee Directors, of whom two are member-nominated. The administration of the UK Plan is outsourced. The Company is mindful of its obligations under the Pensions Act 2004 and of the need to comply with the guidance issued by the Pensions Regulator. Regular dialogue is maintained between the Company and the Trustee Board of the UK Plan to ensure that both the Company and Trustee Board are apprised of the same financial and other information about the Group and the UK Plan. This is pertinent to each being able to contribute to the effective functioning of the UK Plan.

Vesuvius continues to seek ways to de-risk its existing pension plans through a combination of asset matching, buy-in opportunities and, where prudent, voluntary cash contributions.

The total gross defined benefit obligations at 31 December 2021 were £565.9m funded (2020: £610.0m funded) and £77.2m unfunded (2020: £88.3m unfunded). After asset funding there was a net deficit of £77.0m (2020: £2.1m) representing an increase of £74.9m. The increase is largely due to a reduction in surplus on the UK pension plan as a result of the final 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 decrease in surplus on the UK plan has been partially offset by a decrease in liabilities due to an increase in bond yields resulting in a reduction in the value of German and US liabilities.

The majority of the ongoing pension plans are defined contribution plans, where our only obligation is to make contributions, with no further commitments on the level of post-retirement benefits. During 2021, cash contributions of £10.2m (2020: £9.7m) were made into the defined contribution plans and charged to trading profit.

Listing Rule 9.8.4C R Disclosures

The following disclosures are made in compliance with the Financial Conduct Authority's Listing Rule 9.8.4C R:

Disclosure requirement under LR 9.8.4R	Reference/Location
(1) Interest capitalised by the Group during the year	None
(2) Publication of unaudited financial information	Not applicable
(3) Details of any Long-Term Incentive schemes	Pages 148–150
(4) Director waiver of emoluments	Not applicable
(5) Director waiver of future emoluments	Not applicable
(6) Allotment for cash of equity securities made during the year	Not applicable
(7) Allotment for cash of equity securities made by a major unlisted subsidiary during the year	Not applicable
(8) Details of participation of parent undertaking in any placing made during the year	Not applicable
(9) Details of relevant material contracts in which a Director or controlling shareholder was interested during the year	Not applicable
(10) Contracts for the provision of services by a controlling shareholder during the year	Not applicable
(11) Details of any arrangement under which a shareholder has waived or agreed to waive any dividends	Vesuvius plc holds 7,271,174 of its 10 pence ordinary shares as Treasury shares. No dividends are payable on these shares. The Trustee of the Company's EBT, has agreed to waive, on an ongoing basis, any dividends payable on shares it holds in trust for use under the Company's Employee Share Plans, details of which can be found on pages 144,147, 148,149, 150 and 157
(12) Details of where a shareholder has agreed to waive future dividends	See above
(13) Statements relating to controlling shareholders and ensuring company independence	Not applicable

The Directors' Report has been approved by the Board and is signed, by order of the Board, by the Secretary of the Company.

Henry Knowles
Company Secretary
3 March 2022