



A GLOBAL LEADER IN MOLTEN METAL ENGINEERING

Annual Report for the  
year ended 31 December 2012

Stock Code: VSVS

**VESUVIUS PLC**

# Welcome to Vesuvius

The Company was listed on the London Stock Exchange on 17 December 2012. For this, our first year of existence, we are pleased to introduce the Vesuvius business, its values and commitments and its strategy.

Vesuvius is a global leader in metal flow engineering, principally serving the steel and foundry industries with customised products, services and technologies that make demanding applications possible.

Our mission is to develop innovative solutions that enable our customers to improve the performance of their manufacturing process and reduce energy consumption, whilst providing each employee with a safe workplace where he or she is recognised, developed and properly rewarded.

Our ultimate goal is to deliver sustainable, profitable growth and provide our shareholders with a superior return on their investment.

Vesuvius is a community of experts. Present around the world, we deliver solutions to our customers to improve their efficiency. The services we offer encompass design and engineering, products and operations management. Our global network of manufacturing facilities brings us within reach of our customers, serving them in real time, with the capacity and flexibility they need to respond to their markets' demands. Our research and development effort allows us constantly to enhance the quality and effectiveness of our offerings.

The strategy we operate is to concentrate on our main field of historical expertise — molten metal casting technology — and to enlarge our offering through technological advancements, increased measurement and control of our customers' production processes, and innovative services. Serving principally the steel and foundry industries through our Vesuvius and Foseco brands respectively,

we also selectively participate in other industries where we can apply our unique capabilities to deliver profitable business.

Our proximity to customers around the world is driven by our commitment to support their operations on a continuous basis, supplying custom-made consumables on a real time basis — all aimed at never letting them down. From this support structure we have built a business model that brings continuous improvement solutions for our customers' processes over the long-term, evidenced by the long-standing relationships we have established with our major customers in our target markets across the world.

The trust of our customers is based on our unique technological capability to improve our customers' manufacturing processes. We continuously invest in technology to maintain and enrich this capability, with a balance between fundamental knowledge improvement and product development. This investment in research and development has placed Vesuvius and Foseco at the forefront of technological advancements driving the metal casting process, and we are the inventors of the majority of the solutions that are today's state of the art. We continue to work on the future breakthroughs of our industry.

Meanwhile we are developing our capability to supply additional technical services through real time data capture and interpretation based on our expertise in metal flow simulation. This will help our customers to improve the efficiency of their core technology, enabling them to produce better metal which not only has higher performance, but is more consistent and less costly, whilst at the same time producing lower greenhouse gas emissions.

Image: Microscopy sample — Vesuvius R&D

# Contents

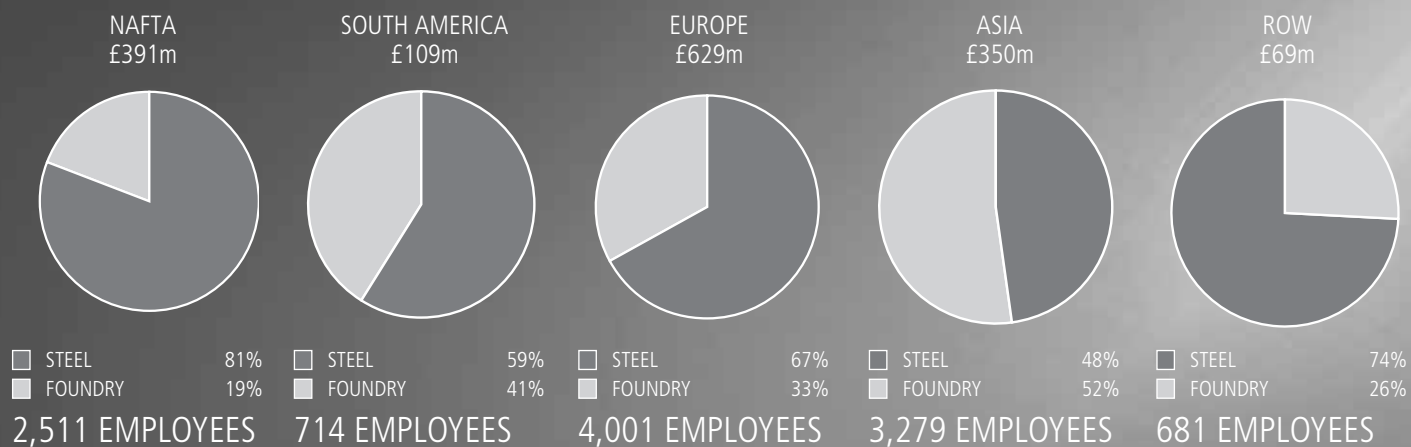
“The trust of our customers is based on our unique technological capability to improve our customers’ manufacturing processes.”

FRANÇOIS WANECQ,  
CHIEF EXECUTIVE

<b>Overview</b>	
Welcome to Vesuvius	ifc
Geographic location	02
Highlights of the year	03
Our businesses	04
Message from our Chairman	06
Message from our Chief Executive	09
The Vesuvius business model	13
<b>Performance</b>	
Operating review: Steel	17
Operating review: Foundry	23
Company Values and Commitments	29
Health & safety	31
Committed to people	35
Customer focused	39
Innovation	43
Sustainability	47
Financial review	51
Key performance indicators	57
Principal risks and uncertainties	58
<b>Governance</b>	
Board of Directors	62
Corporate governance report	64
Statement of Directors’ responsibilities	100
Independent Auditor’s report	101
<b>Financial Statements</b>	
Group income statement	102
Group statement of comprehensive income	103
Group statement of cash flows	104
Group balance sheet	105
Group statement of changes in equity	106
Notes to the consolidated financial statements	107
Company balance sheet	154
Notes to the Company financial statements	155
Five year summary — divisional results	160
Shareholder information	160

# Geographic location

## OF OUR OPERATIONS BY REVENUE AND HEADCOUNT





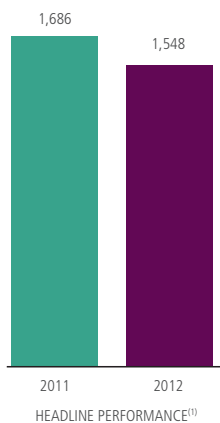
# Highlights of the year

- › COMPLETION OF DEMERGER OF ALENT PLC
- › SALE OF US PRECIOUS METALS PROCESSING BUSINESS
- › SALE ANNOUNCED ON 27 MARCH 2013 OF REMAINDER OF PRECIOUS METALS PROCESSING DIVISION
- › SIGNIFICANT RESHAPING OF PORTFOLIO, INCLUDING COMPLETE EXIT FROM SOLAR CRUCIBLES BUSINESS
- › INCREASED FLEXIBILITY IN COST BASE
- › RAPID RESPONSE TO ECONOMIC SLOWDOWN
- › REVENUE OF £1,548m FROM CONTINUING OPERATIONS (EXCLUDING ALENT AND PRECIOUS METALS PROCESSING DIVISION), DOWN 8%
- › TRADING PROFIT OF £133m FROM CONTINUING OPERATIONS, DOWN 28%; 23% AT CONSTANT EXCHANGE RATES
- › HEADLINE PERFORMANCE RESULTS<sup>(1)</sup>, PRO FORMA<sup>(2)</sup> FOR VESUVIUS AS A STAND-ALONE GROUP:

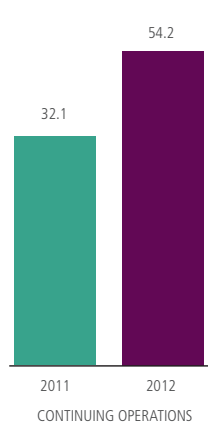
	2012	2011
REVENUE (£m)	<b>1,548</b>	1,686
TRADING PROFIT (£m)	<b>133.0</b>	183.5
RETURN ON SALES (%)	<b>8.6%</b>	10.9%
HEADLINE <sup>(2)</sup> PBT (£m)	<b>118.2</b>	162.1
EFFECTIVE TAX RATE (%)	<b>26.7%</b>	26.6%
HEADLINE <sup>(2)</sup> EPS (PENCE)	<b>29.4</b>	41.0

- › RECOMMENDED FINAL DIVIDEND OF 9.50p PER SHARE
- › STRONG BALANCE SHEET; NET DEBT OF £295m; LEVERAGE RATIO (NET DEBT TO EBITDA) OF 1.5 TIMES
- › SIGNIFICANT PENSION LIABILITY DE-RISKING

## REVENUE (£m)



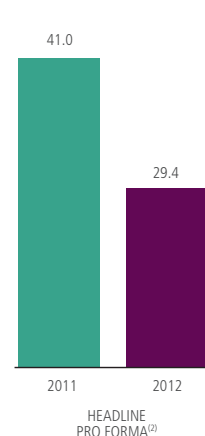
## FREE CASH FLOW (£m)



## EBITDA (£m)



## HEADLINE EPS (p)



(1) Headline Performance represents the results of Continuing Operations before all separately reported items.

(2) Pro forma results restate Headline Performance to remove an estimate of the interest charge incurred by Vesuvius, but which was attributed to Alent debt (see the Financial Review for further details).

# Our businesses



## STEEL

The continuous casting of steel is a highly demanding process that is critically dependent upon consistent product quality and optimised production. Vesuvius provides systems, products and services that allow steel mills to control the flow of metal and protect it from oxidation and chemical contamination, increasing productivity, enhancing the quality of steel and improving the safety of the casting process, while representing a fraction of the customer's total production costs (typically less than 1%).

Steel Flow Control products supplied by Vesuvius include: the Viso™ product range, which are isostatically pressed alumina graphite refractories to channel and control the flow of steel from ladle to tundish and from tundish to mould; slide-gate refractories for furnace, ladle and tundish slide gate systems; temperature measurement and slag level detection, tundish and mould fluxes and control devices to monitor and regulate steel flow into the mould. These products have been designed to resist extreme thermo-mechanical stresses and corrosive environments. They must withstand temperature changes from ambient to 1,600°C in just a few minutes, while resisting liquid steel and slag corrosion for many hours. The majority of these products are consumed during the process of making steel and some must be replaced frequently. Demand for Vesuvius' products is thus primarily linked to steel production volumes.

Products of the **Advanced Refractories** product line include specialist refractory materials for lining steelmaking vessels such as blast furnaces, ladles and tundishes. These are in the form of both monolithics and, to a lesser extent, refractory shapes (e.g. bricks, pads and dams). Vesuvius is one of the world's largest manufacturers of monolithic refractory linings for vessels subject to extreme temperatures, corrosion and abrasion. Key success factors in the Advanced Refractories product line are installation technologies, products adapted to fit customers' processes and effective and efficient logistics services, these factors being successfully combined by Vesuvius' R&D centres, its knowledge of customers' processes and its project management capability.

### STEEL FLOW CONTROL

2012 Revenue

**£542m**

End-Markets — 100% steel

Number of Employees

**4,595**

### ADVANCED REFRACTORIES

2012 Revenue

**£476m**

End-Markets — 75% iron & steel  
— 25% process industries

Number of Employees

**3,006**

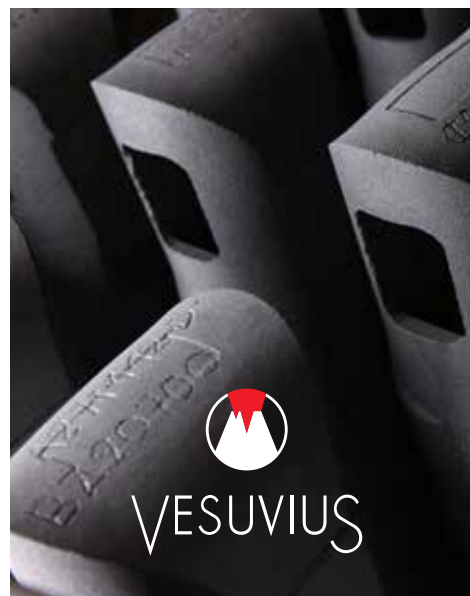


Image: Monobloc MTSP



### FOUNDRY

The foundry process is highly sequential and, similar to the continuous casting of steel, is critically dependent on consistency of quality and productivity optimisation. The Foundry division's solutions allow foundries to reduce defects (and hence reduce labour-intensive fettling and cleaning), minimise metal usage requirements (hence reducing cost, energy usage and mould size), influence the metal solidification process (increasing metal performance and reducing the weight of pieces) and automate the moulding and casting process for gains in productivity and ease of reproduction.

Vesuvius, trading as Foseco, is a world leader in the supply of consumable products for use in the foundry casting industry. Foundry consumables typically make up less than 5% of the total cost of manufacturing a final casting, yet they are vital to the overall quality and yield. The conditioning of molten metal, the nature of the mould used and, especially, the design of the way metal flows into the mould are key parameters in a foundry, determining both the quality of the finished castings and the labour, energy and metal usage efficiency of the foundry. Vesuvius provides consumable products and associated services to foundries that improve these parameters.

#### FOUNDRY

2012 Revenue  
**£530m**

Number of Employees  
**3,585**

- End-Markets — 40% vehicles  
 — 28% general engineering  
 — 18% agriculture & mining  
 — 14% other



Image: Foundry Sleeves

# Message from our Chairman



It gives me great pleasure to introduce the first Annual Report & Accounts of Vesuvius plc.

Our new company is the result of a detailed strategic review by the Board of Cookson Group plc, which concluded that a separation of Cookson's main businesses would be in the interests both of its shareholders and of those respective businesses. That separation took effect on 19 December 2012 resulting in the creation of Vesuvius plc, comprising the Engineered Ceramics and Precious Metals Processing businesses of the old Cookson. Alent plc, which comprises Cookson's other businesses, is now listed on the Stock Exchange in its own right and is run as an entirely separate business.

I was honoured to be asked to join the Board of Vesuvius and to serve as its first Chairman. Our company is a global leader in metal flow engineering, principally serving the steel and foundry industries. We enjoy clear market leadership in the majority of the industry segments we serve. We have operations in 30 countries worldwide, with almost half our revenues generated in developing markets. Our businesses are technology-led, innovation-focused, with an increasingly important service dimension. Our products and services are critical to our customers' efficiency and therefore profitability. Our financial profile is strong, with a robust balance sheet and a flexible business model that has enabled the delivery of good levels of profit and cash over the cycle and in the face of changing market conditions.

## RESULTS

End-market trends in Vesuvius' major steel and foundry markets were very challenging during the latter part of 2012. As a result, our performance in the second half was substantially below that of the first half, leading to pro forma headline earnings per share of 29.4 pence, down from the 41.0 pence for 2011. In response to those difficult conditions, decisive action was taken throughout the business, involving significant cost reduction and the permanent closure of three facilities. Our flexible business model allows management to continue to respond as necessary without affecting the underlying strength of our businesses, meaning that our competitive position entering 2013 remained very strong.

Since the year end we have announced the closure of our Solar Crucible business and also the disposal of our Precious Metals Processing division, enabling management to focus wholly on our core business of molten metal engineering serving the global steel and foundry industries.

## DIVIDENDS

Dividends will play an important part in delivering superior returns to our shareholders. Vesuvius is an inherently cash generative and well-invested business and we aim to deliver long-term dividend growth whilst taking account of underlying earnings, cash flows, capital expenditure requirements and the prevailing market outlook.

As set out in our documentation relating to the demerger, the Board has recommended a final dividend of 9.5 pence per share. The final dividend, if approved at the Annual General Meeting ("AGM"), will be paid on 27 June to shareholders on the register at 17 May.

"We have assembled a highly experienced Board of Directors, committed to the highest standards of corporate governance, and benefit from a very strong executive management team led by François Wanecq."

JOHN McDONOUGH



## RETURN OF CAPITAL

As a result of the disposal of our Precious Metals Processing division, the Board intends to return the majority of the net proceeds to shareholders through an on market repurchase of shares, demonstrating our desire to exercise strong capital discipline and generate superior returns. Our strong balance sheet and cash generation allows us to do this and remain able to fund attractive future growth opportunities.

## BOARD AND GOVERNANCE

Since my appointment as Chairman, I have undertaken a thorough induction to the Company and its products and services. I have visited many of our major manufacturing and R&D Centres in China, Poland, Germany, Belgium and the United States, and met large numbers of our people.

We have assembled a highly experienced Board of Directors, committed to the highest standards of corporate governance.

As previously announced, Jan Oosterveld and John Sussens will retire as Non-executive Directors at this year's AGM. Both served as Non-executive Directors of Cookson for over eight years, and I am very grateful to them for their contribution to the creation of Vesuvius plc and for the continuity that they have provided.

John Sussens will be succeeded as Senior Independent Director by Jeff Hewitt and as Chair of the Remuneration Committee by Jane Hinckley, who was appointed as a Non-executive Director in December 2012.

Nelda Connors was appointed to the Board as a Non-executive Director on 1st March 2013 and Rachel Fell was replaced as Company Secretary by Richard Malthouse with effect from 21 March 2013 whilst she takes maternity leave.

We will therefore go forward after the AGM in 2013 with a slimmed down Board of seven Directors.

I have got to know our executive management team led by François Wanecq and am confident that we have a talented team in place to deliver our strategy.

The Board is responsible for setting Group strategy and charging the executive with the delivery of that strategy, including the management of resources and associated risks and controls. The Board has implemented a robust governance structure to manage those risks as described in the Governance Report on pages 64 to 99. Good corporate governance is central to the delivery of sustainable long-term shareholder value.

We have complied with the UK Corporate Governance Code throughout 2012 and continue to strive to evolve our governance arrangements to comply with emerging best practice.

## ANNUAL GENERAL MEETING

Our 2013 AGM will be held on Tuesday 4 June 2013 and the Notice of the Meeting and explanatory notes accompany this Annual Report. I look forward to the opportunity to meet our shareholders at the AGM.

## OUR PEOPLE

The Company's long-term success is dependent upon the diversity, dedication and commitment of all our people. We have invested in the development of our people and in succession planning. We have ensured that all our people share a common set of values. Leadership from the Board on corporate responsibility is important and paramount amongst the Board's priorities is the safety and well-being of all our people and of the communities in which we operate. We have made further good progress on Health and Safety both in terms of safe working practices and the reporting of performance.

## PROSPECTS

After many years as a division of a diversified group, and following months of intensive work on the demerger process, Vesuvius now stands to benefit significantly from being a stand-alone, wholly focused global leader in metal flow engineering. The markets we serve have long-term growth dynamics, and we are strongly positioned to leverage our significant presence in the world's developing economies.

## JOHN McDONOUGH CBE

Chairman  
28 March 2013



Image: Cross section of ultra-high density refractory – Vesuvius R&D

# Message from our Chief Executive



The listing of Vesuvius plc on the London Stock Exchange, followed by the demerger of Alent plc, was the dominant event of 2012 for our company.

The demerger process involved a heavy workload and occupied much of the time of the corporate teams, but it did not affect the focus of the operational crews, who instead had to cope with a downturn in their markets, which started around the middle of the year. This led to major restructuring to adapt our cost structure and increase the flexibility of our business.

Meanwhile the new strategy for Vesuvius, involving an increased focus on providing technical services, principally to the steel and foundry industries, was presented to the investment community during the demerger process and was well received. We have a focused Board with a number of new Directors, and clearly stated objectives — the long-term future is very promising.

#### THE EMERGENCE OF VESUVIUS PLC

Vesuvius is a global leader in metal casting engineering. Our profitable business model derives from a presence across the world at all major customers' facilities. Vesuvius has established with them over the years a relationship of trust and partnership based on the true value we create in our customers' processes with our unique technological product and service offering.

This relationship of trust is essential, as we provide products and solutions that are on the critical path of the molten metal casting process with considerable impact on the safe and efficient performance of our customers' plants.

Our new existence as an independent company allows us to concentrate our considerable assets and talented workforce on the development of this service offering to our customers with a clear message and total focus. Our strategy will be consistent and clear and our commitment to it will now be more evident to our customers, as well as to our shareholders.

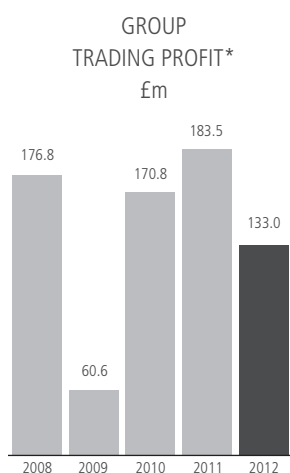
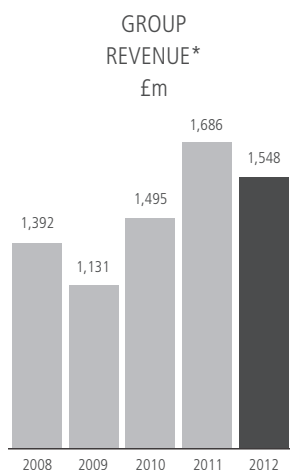
Our business is well prepared to cope with the cyclicity of our end-markets. While market growth rates were high for nearly a decade up to 2009, recent years have been more varied. Nonetheless, Vesuvius has been able to exceed the underlying growth rates of its end-markets over the long-term. This is due to our unique technological offering that brings value to our customers' process and allows us to make continuous improvements to the consumable products and related systems which we supply. To a certain extent, our customers are more in need of our market-leading solutions when the market conditions they face are more challenging, as we ultimately bring more efficient and therefore more cost-effective solutions to our customers.

“Our primary objectives for the coming two years will be to retain a strong balance sheet, to restore our margins, to grow our presence in China and to develop our strategy dedicated to providing superior technical services for the steel and foundry industries.”

FRANÇOIS WANECQ,  
CHIEF EXECUTIVE

# Message from our Chief Executive

continued



\* Headline performance

## 2012 MARKET EVOLUTION

After a promising start to the year, when the prospects of our steel and foundry end-markets appeared positive, by June there were clear signs that the economy was weakening. Whilst many commentators suggested this was due to a short-term inventory adjustment, we saw in September a clear deterioration that led us to reduce our expectations for the full year. The downturn was particularly marked in Foundry and was principally related to the weakness of the car market in Europe and the truck market globally. As expected, steel markets slowed down as well. Overall, for the entire year, world steel production increased marginally, as it did in 2011; however, the geographic split of world steel production since 2008 has now stabilised in three distinct groups: China, which has grown by 40% since 2008; Europe and NAFTA, which declined by close to 20% over the same period; and the rest of the world, which has stayed around the same level as seen in 2008.

## THE SOLAR MARKET

During 2012 the market for the production of solar panels did not recover. Whilst the installation of solar panels around the world, especially in Germany, continued at a high level, the inventories accumulated in previous years and the overcapacity affecting all segments of the supply chain have continued to weigh on prices for the moderate volumes of Solar Crucibles sold. In addition, the substantial reduction of government subsidies for renewable energy projects is expected to act as a drag on the market going forward. Furthermore, the decrease of energy prices in the USA due to increased shale gas availability may discourage the appetite for renewable energy supplies in the USA and elsewhere. As a result of these various market forces, early in 2013 the Board decided regretfully to exit the Solar Crucible business.

## A RAPID ADAPTATION TO MARKET CHANGES

When the first signs of a slowdown began appearing in June, we prepared an action plan that was triggered in September when the continued downward trend was confirmed. During the last four months of 2012 we closed or sold five plants (three manufacturing Solar Crucibles, and two in the Steel division) and secured the sale of one low-margin construction business. Headcount was reduced by 850 (close to 8%) in the second half of the year; we

also activated many flexible employment agreements which had been negotiated following the crisis of 2008/2009 to reduce employment costs whilst avoiding the permanent loss of skilled workers.

During the same period, we reduced capital expenditure and developed a Group-wide programme of inventory reductions that has allowed us to reduce our net working capital in the year. Cost control and cash generation will remain at the centre of our management actions in 2013 to maintain our flexibility and restore our margins.

## OVERVIEW OF GROUP RESULTS

With the trading results of Alent and the Precious Metals Processing division being reported as discontinued operations for 2012, Group revenue from continuing operations in 2012 of £1,548 million was 8% lower than 2011 on an as reported basis and 4% lower on an underlying basis, which adjusts for the SERT and Metallurgica acquisitions in 2011 and 2012 respectively, the sale in 2012 of the low-margin Andreco-Hurll business and foreign exchange differences. The underlying decline in revenue reflects the marked slowdown in trading in the second half of the year, when steel production in the key markets of the EU and North America fell by almost 10% compared to the first half; but also reflects the ongoing strategy to exit lower-margin business and a 2% reduction due to further erosion in Solar Crucibles revenue.

Trading profit from continuing operations of £133.0 million was 27% lower than that reported in 2011, reflecting the lower revenues, Solar Crucible losses and increased bad debts. Without Solar Crucibles and the higher bad debt charge, the reduction would have been 16%. The Group's reported return on sales margin from continuing operations was 8.6%, down from 10.9% in 2011.

## A NEW STRATEGIC INITIATIVE

In November we presented to the investor community our ambitions for Vesuvius plc, with a strategy designed to deliver superior returns to our shareholders built around five key objectives:

- maintaining our existing technology leadership position;
- enlarging our addressable market through the penetration of product and service solutions;

- leveraging our strong positions in developing markets to capture growth;
  - improving cost leadership and margins;
  - building a comprehensive offering in metal casting engineering;
- and to achieve these whilst maintaining a rigorous focus on cash flow generation.

This strategy is being rigorously implemented, as evidenced by a number of recent developments. For example, we will be building three new research centres in the next two years in Pittsburgh, US, Enschede, the Netherlands and Visakhapatnam, India.

We have also recently succeeded in achieving the first industrial installation of our innovative robotic tundish technology in Hyundai (Korea) and we have already introduced 12 of our Initek systems, for the computer-controlled inoculation of ductile iron, since bringing this new technology concept to market globally in 2010.

In China, we have completely reorganised our local structure to give more autonomy to our local management and to accelerate expansion whilst at the same time developing a business model based on the superior quality and performance with which Vesuvius has succeeded in all other parts of the world. In Brazil and in the Middle East we have gained significant market share.

Furthermore, we have reduced our cost base and improved our productivity through a Group-wide Lean Manufacturing initiative.

Overall, we are building a strategy directed towards providing superior technical services for the steel and foundry industries based on our constant presence at customers' sites, our intimate knowledge of all processes industry-wide and our growing expertise in real time data capture and interpretation. This fundamental business initiative is aimed at developing the Group to be less capital-intensive and with better margins, putting technology leadership at the core of everything we do.

**PRECIOUS METALS PROCESSING**

We have been exiting businesses that are not core to our strategy — Precious Metals Processing comes into that definition. It is a good business, with healthy market positions and a strong management team, but it is not

aligned with our future strategic direction. We are now in the process of disposing of this business to Possehl mbH, for whom the business will be more complementary. This will leave Vesuvius with a much clearer focus on its core areas of technological leadership and end-markets, with the objective to grow as the global leader in metal casting solutions and services.

**OUTLOOK**

We currently expect the trading environment during the first half of 2013 to be broadly similar to that experienced in the second half of 2012, with some improvement in general market conditions anticipated later in the year.

Following the significant restructuring of our operations and disposals, we anticipate that Group revenue in 2013 will be lower than in 2012. The expected disposal of Precious Metals Processing will enable Vesuvius to focus primarily on the steel and foundry markets.

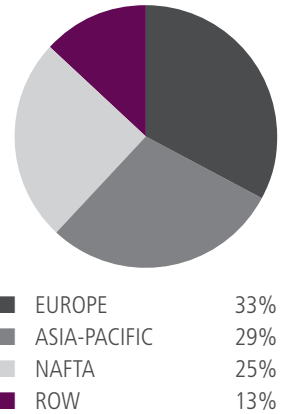
We have undertaken a range of self-help actions to adjust our business to the current trading environment and to increase our operational flexibility. We expect the benefits of these actions to start to drive a recovery in our trading margins towards the end of 2013.

Our primary objectives for the coming two years will be to retain a strong balance sheet, to restore our margins, to grow our presence in China and to develop our strategy dedicated to providing superior technical services for the steel and foundry industries.

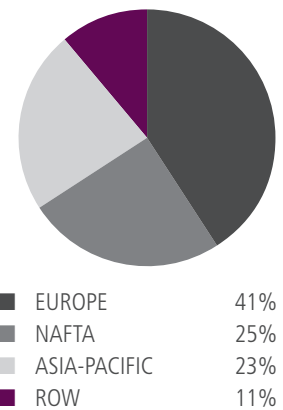
**FRANÇOIS WANECQ**

Chief Executive  
28 March 2013

2012 REVENUE BY CUSTOMER LOCATION\*



2012 REVENUE BY OPERATING LOCATION\*



\* Headline performance



1.2.3.4.



# The Vesuvius business model

We operate a profitable, flexible and growth-generating business model.

This model has been developed and refined over many years, within both Vesuvius and Fosco, to build the brand equity of our products through reliability, technology and service.

The foundation of our business model is our worldwide presence, with our industry experts embedded at most customer locations, ideally placed to identify potential process improvements in cooperation with customers.

Our model is supported by our technology centres which develop solutions involving engineered systems and high-value consumables.

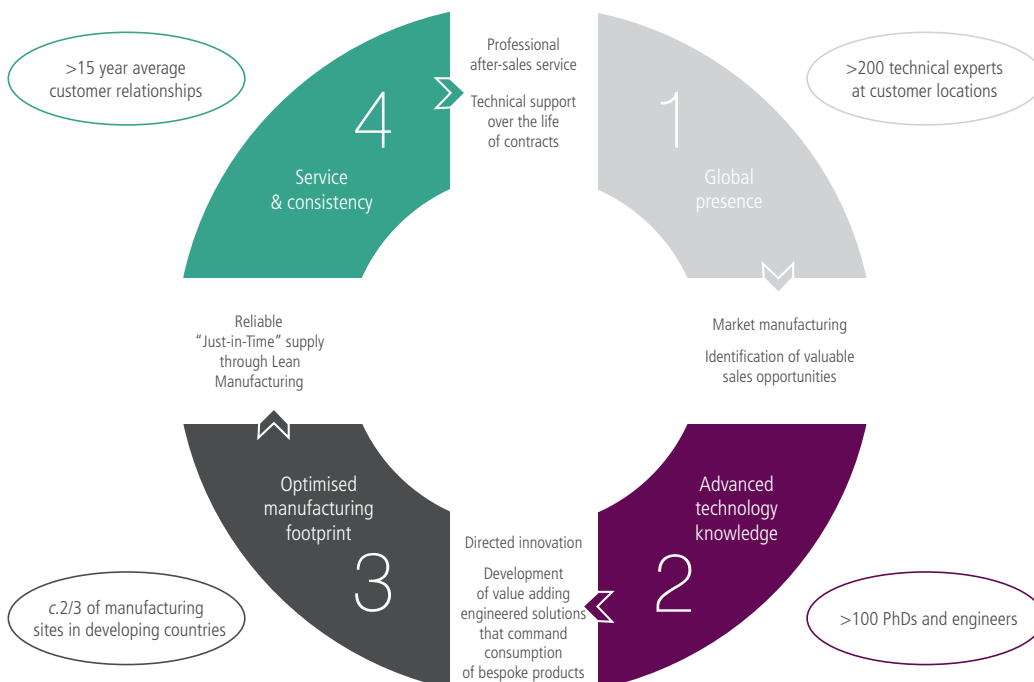
These solutions are industrialised in our low-cost, dispersed manufacturing system within which we are located close to our customers' facilities.

This allows us to supply customers on a reliable, just-in-time and highly competitive basis, essential for consumable goods involved on the critical path of our customers' process.

Thanks to our global presence, these products are serviced at our customers' facilities with the permanent presence of our industry experts.

Our business model:

- › is resilient to end-market cycles due to the flexibility of our diversified manufacturing footprint and adjustable cost base;
- › is profitable, as it allows value pricing for bespoke products; and
- › generates growth, as we can enlarge the accessible market with additional innovative products and solutions.



# 1. GLOBAL PRESENCE

Vesuvius is present in all six continents, with manufacturing capability within all the main steel and foundry markets. As we sell consumables that are critical to the processes of our customers, we commit to supply into our major end-markets from trucking distance. For the last forty years, Vesuvius has supported the development of global steel and foundry manufacturing processes with new technologies. Everywhere in the world, new steel and foundry plants have been commissioned with Vesuvius and Foseco products to create the best conditions for a successful start. To facilitate this, Vesuvius has established manufacturing plants in emerging countries from the very beginning of their industrialisation. The breadth and depth of the experience and expertise we have developed over these years with our customers is peerless.

Our knowledge of end-market processes, specifications and techniques around the world gives our experts a unique ability to support our customers no matter what their required configurations. This has contributed to the trust built with our customers in the reliability of our service and assistance. Local manufacturing, local expertise, and leveraging a global knowledge of our customers' processes gives Vesuvius a special relationship with its customers, to help them optimise their process and their product performance.

To support our global presence, we hire and train local engineers in most developing countries, who are then progressively integrated within the Vesuvius network of experts and offered international careers. These technical experts become partners of their local customers and help them meet their aims for continuous improvement, whilst maintaining the utmost level of reliability. Through this close technical relationship, we can identify together new development opportunities to create value in the customer's process.

# 2. ADVANCED TECHNOLOGY KNOWLEDGE

The ability to support our customers' development and to anticipate their future needs results from the capacity of our Research and Development centres to leverage their knowledge in the most advanced ceramic and metallurgical techniques. Our laboratories are equipped with state-of-the-art equipment and utilise the most advanced technologies of simulation and finite element analysis to simulate the behaviour of molten metal in a customer's specific equipment configuration. Our three central laboratories explore the fundamental aspects of the casting process with the most sophisticated equipment, whilst our eight local development centres feed on these fundamental findings and elaborate custom-designed, customer-specific solutions that will create value for our customers and help them differentiate from competition.

SIX RESEARCH CENTRES AND  
EIGHT DEVELOPMENT LABORATORIES  
EMPLOYING MORE THAN 100 PhDs  
AND ENGINEERS

These innovations can then be tested at the customer's facility with the highest level of confidence in their suitability, based on Vesuvius experience and on past success.

# 3 OPTIMISED MANUFACTURING FOOTPRINT

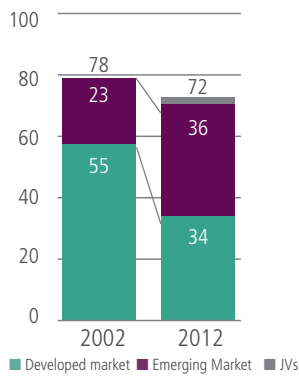
# 4 SERVICE & CONSISTENCY

When successfully tested, our products can be manufactured at a short distance from our customers' plants, guaranteeing just-in-time delivery and a competitive cost. To enable us to supply most customers from trucking distance, we optimize our cost competitiveness by investing in the lowest cost production site in a given area and, together with the large volume of pieces we produce, this provides our customers with the best balance between value and cost for our high technology solutions.

Being global, we can ensure a local service to our customers, including the management of an optimal level of inventories at their location, high quality technical support and a unique capacity to be reactive in modifying our production and supply of product and service to reflect any unexpected change in customers' requirements.

This high level of service relies on our technicians' presence permanently on the customers' shop floor, leveraging their worldwide expertise accumulated in Vesuvius over many years.

EVOLUTION OF NUMBER OF PLANTS AND PEOPLE OVER TEN YEARS SITE LOCATIONS



## RECENT RECOGNITION

**SSAB** SSAB EMEA most valued supplier award 2011

**AK Steel** AK Steel sets world casting record — Vesuvius valued partner in this achievement

**SIEMENS VAI** Vesuvius is key partner of the world's first automated ladle operation

EVOLUTION OF NUMBER OF PLANTS AND PEOPLE OVER TEN YEARS HEAD-COUNT







Image: Continuous Slab Caster in operation



# Steel

## OPERATING REVIEW



Image: Robotic Casting Technology (RCT)



Image: SERT Stopper Rigging & Stopper

### VESUVIUS IN THE STEEL INDUSTRY

Vesuvius assists steel makers to enhance the quality of their products, increase their competitiveness and reduce their environmental footprint. We achieve this by working closely with our customers to develop customised refractory systems, services and technologies that enable them to improve their performance.

Vesuvius supplies the global steel industry with consumable ceramic 'flow control' and 'advanced refractory' materials.

Flow control products are used to contain and control the flow of molten steel in the enclosed continuous casting and ingot casting processes. The continuous casting process enables steel manufactured in a blast furnace or electric arc furnace to be cast directly into blooms or slabs without interruption (i.e. be continuously cast) and to remain protected from the atmosphere between tundish and mould (i.e. be enclosed).

Vesuvius products have a short service life (often a matter of a few hours) due to the significant wear caused by the high temperature, high thermal cycling and the erosive and corrosive environment in which they operate. The quality of these products impacts both on the quality of the finished metal being produced and also the productivity, profitability and safety of the customer's process. They represent a relatively small proportion of the input costs of our customers (e.g. less than 1% for a steel producer) but their performance is critical to their production processes. Therefore, customers demand high quality and consistent products for these most demanding applications to ensure maximum safety, quality and productivity. Vesuvius is a clear global leader in the 'metal flow' market.

Vesuvius also supplies the steel industry and other process industries with advanced refractory materials used for lining vessels such as blast furnaces, ladles and tundishes to enable them to withstand high temperatures and/or corrosive attack. These refractory lining materials may be supplied in the form of powder mixes, which are spray-applied onto the vessels to be lined ("monolithics") or in pre-cast shapes and bricks.

As both flow control and advanced refractory products are consumables, steel production volumes and, in particular, production of higher quality steels using the enclosed continuous casting process, is the critical driver of demand for Vesuvius steel-related products. Further, steel producers are continually striving to enhance the enclosed continuous casting process in order to improve production through less downtime and reduced labour costs, increased steel quality, reduced reworking through thinner slab casting and reduced energy usage.

Vesuvius has developed close, collaborative relationships with industry-leading customers and OEMs and, due to the specialised nature of its products and the high volume in which they are consumed, has developed a global network closely aligned with its customers' locations, with 72 major manufacturing facilities across the world.

Customers of the Steel business are principally steel producers themselves, but also include the manufacturers of steel production equipment. Around 10% to 15% of revenues in the Steel division arise from non steel-related process industries supplied by the Advanced Refractories product line.

# Steel

## OPERATING REVIEW

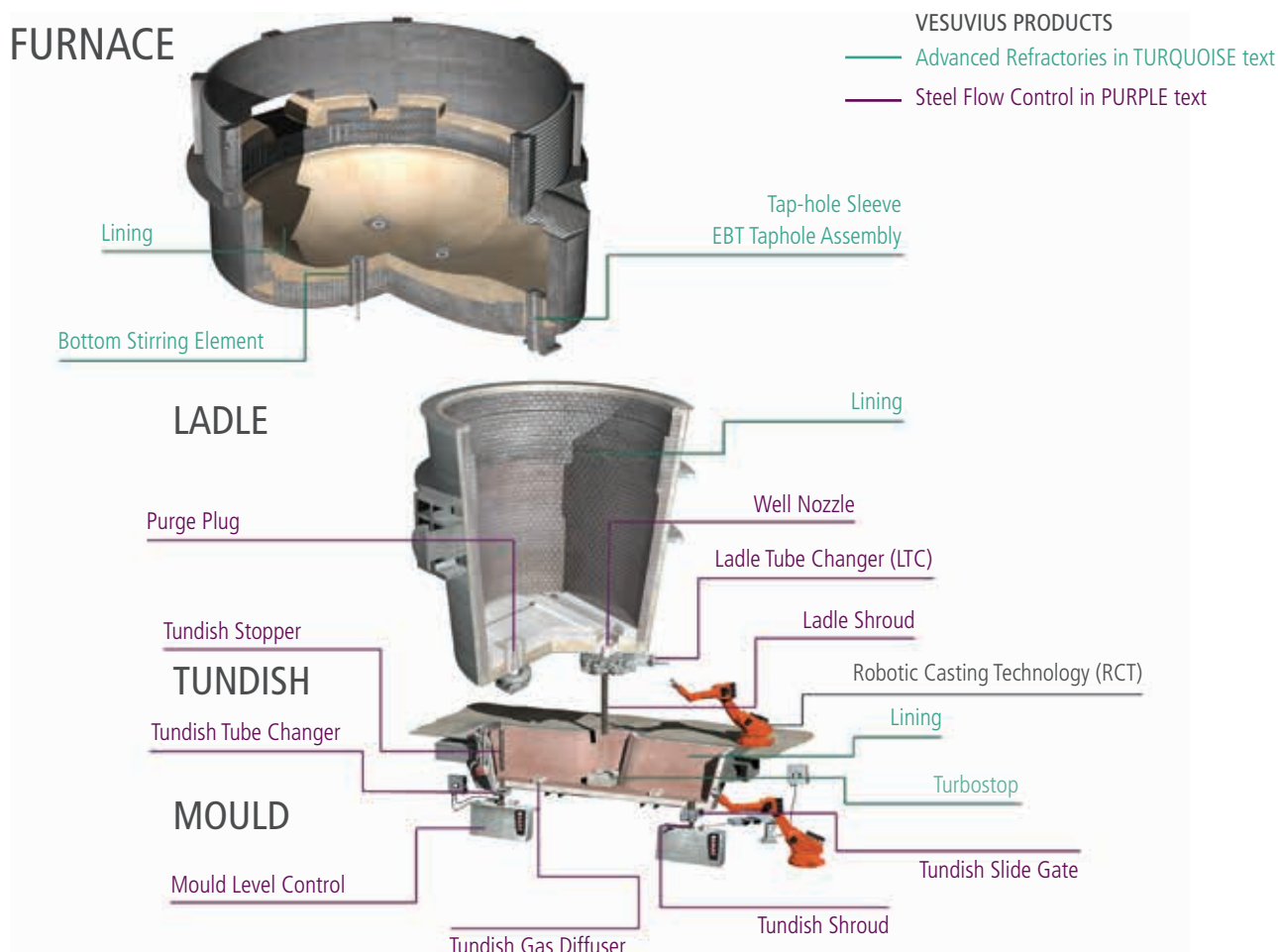


### THE VESUVIUS PRODUCT OFFERING

Vesuvius' products are highly specialised ceramics, including shrouds, stoppers, nozzles, slide gates, lining refractories (monolithic and pre-cast) and fluxes for the steel production industry. The two product lines which comprise the Steel division are Steel Flow Control and Advanced Refractories. In addition, technical and application expertise is a significant part of the product offering.

### STEEL FLOW CONTROL

Steel Flow Control products supplied by Vesuvius include: the Viso™, isostatically pressed alumina graphite and VAPEX® extruded clay graphite product ranges, including ladle shrouds, stopper rods, submerged entry nozzles and shrouds to channel and control the flow of steel from ladle to tundish and from tundish to mould; slide-gate refractories, including nozzles, plates and speciality shapes for furnace, ladle and tundish slide gate systems; Accumetrix® temperature measurement and RADAR™ slag level detection, tundish and mould fluxes, purging systems and control devices to monitor and regulate steel flow into the mould. These products have been designed to resist





extreme thermo-mechanical stresses and corrosive environments. They must withstand temperature changes from ambient to 1,600°C in just a few minutes, while resisting liquid steel and slag corrosion for many hours. In addition, the ceramic parts in contact with the liquid steel must not in any way contaminate it. To bring all of these characteristics together in the same products, Vesuvius has designed composite parts combining a variety of special materials. The majority of these products are consumed during the process of making steel and some must be replaced frequently. Demand for Vesuvius' products is thus primarily linked to steel production volumes.

**ADVANCED REFRACTORIES**

Products include specialist refractory materials for lining steelmaking vessels such as blast furnaces, ladles and tundishes. These are in the form of both monolithics and, to a lesser extent, refractory shapes (e.g. bricks, pads and dams). These linings have applications in coke ovens, hot blast stoves, blast furnaces, transfer ladles, basic oxygen furnaces, tundishes, reheating furnaces and electric arc furnaces.

Vesuvius is one of the world's largest manufacturers of monolithic refractory linings for vessels subject to extreme temperatures, corrosion and abrasion. Their outer shell needs to be protected, either by water cooling or by a layer of refractory material. The latter is more energy-efficient and therefore the most widespread solution.

Key success factors in the Advanced Refractories product line are installation technologies, products adapted to fit customers' processes and effective and efficient logistics services, these factors being successfully combined by Vesuvius' R&D centres, its knowledge of customers' processes and its project management capability.

**INDUSTRY OVERVIEW IN 2012**

According to the World Steel Association ("WSA") global steel production grew 1.2% in 2012 to 1,548 megatonnes ("Mt"), with China experiencing growth of 4.7% to 717Mt; global production excluding China shrank by 0.2%. The growth came mainly from Asia and North America while crude steel production in the European Union and South America decreased compared with 2011. Asia's share of world steel production, driven predominantly by China, increased slightly from 64.5% to 65.4% in 2012.

**STEEL DIVISION PERFORMANCE IN 2012**

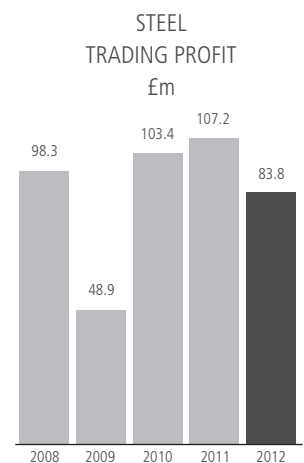
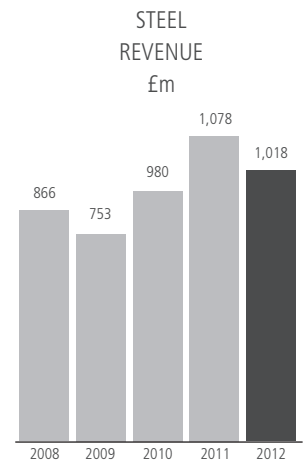
Within the Steel division, there are two principal product lines, Steel Flow Control and Advanced Refractories. In 2012, the Steel division's revenue of £1,018 million comprised £542 million for Steel Flow Control and £476 million for Advanced Refractories.

**STEEL FLOW CONTROL**

Global steel production represents almost 100% of the end-market for Steel Flow Control products and services. There is therefore a strong correlation between steel production and Steel Flow Control revenues. Whilst global steel production in the first half of the year was approximately 1% higher than the first half of 2011, from September onwards there was a weakening in steel production. This resulted in lower Steel Flow Control revenues, particularly in Europe, Brazil and the USA.

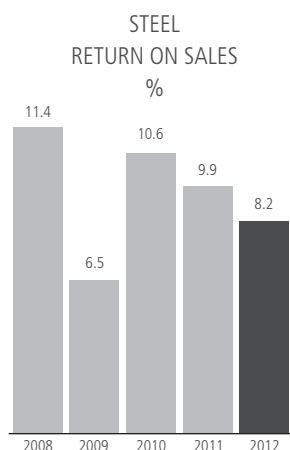
Revenue of £542 million was 2% higher compared with 2011. On an underlying basis (being revenue at constant exchange rates and adjusted for the acquisitions of SERT in November 2011 and Metallurgica in March 2012), revenue was down 2% on the prior year.

Price increases were implemented in 2012, but these increases have still not fully compensated for the escalation of raw material prices in 2011. However, whilst the latter prices are still higher, particularly for graphite and zirconia, they have remained relatively stable during 2012.



# Steel

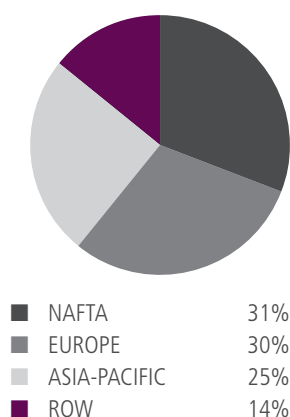
## OPERATING REVIEW



The Steel Flow Control results have been negatively impacted by reserves for specific potential bad debts totalling £3 million, including £2 million relating to one of its US customers, which filed for Chapter Eleven bankruptcy protection in May 2012.

The acquisition of Metallurgica was completed on 29 March 2012. Metallurgica is one of the world's leading suppliers of mould flux used alongside refractory products in the enclosed continuous steel casting process. The business has been integrated into the Steel Flow Control product line and made a positive contribution in 2012, in line with expectations.

STEEL REVENUE BY LOCATION OF CUSTOMER



Integration of both SERT and Metallurgica continues with increasing benefits from the elimination of agents and commercial responsibility being absorbed by the Vesuvius commercial organisation. In the USA this has allowed us to secure a number of upgrades to Flow Control Systems at thin slab casters.

We have continued to focus our efforts on developing innovative technical solutions around the continuous caster. The latest robot compatible Tundish Tube Changer (SEM3085) and the first products of our new Robotic Casting Technology ("RCT") range have been launched with contracts already secured in Europe, Asia, South America and the USA.

We have also successfully launched our innovative new concept Ladle Slidegate (LT80) which offers a 'Plug & Play' replacement for existing Flow Control Systems.

Construction associated with the project to double the capacity of the existing facility in Trinec, Czech Republic to service more effectively the Eastern Europe and CIS steel market is complete. Equipment installation, commissioning and production ramp-up is ongoing. The new facility in Brazil to improve the efficiency of raw material processing and sourcing is also progressing well and is on schedule to be operational during 2013.

### ADVANCED REFRACTORIES

Global iron and steel production represents more than 75% of the end-markets for Advanced Refractory's products and services, with the remainder arising from a variety of non-steel markets including the cement, lime, aluminium, power generation, petrochemical and waste incineration industries.

Revenue of £476 million represented a 10% decrease compared with 2011 at constant exchange rates. The decrease in revenue was wholly due to a reduction in revenue in Andresco-Hurll, the refractory lining installation operation based in Australia, and a conscious effort to exit low-margin business in other regions. As part of the division's strategy of exiting low-margin businesses, on 24 July 2012, Andresco-Hurll was sold to Veolia Environmental Services for a cash consideration of approximately Aus\$8 million (£5 million). In the first half of 2012, Andresco-Hurll had revenue of £12 million and a trading profit of £0.6 million. Andresco-Hurll revenue in 2011 was £57 million. Excluding the Andresco-Hurll business, revenue in 2012 decreased 1% over 2011. While the installation market has been exited, a refractories manufacturing and sales business has been retained in Australia, with investment being made in a new production facility.

Raw material prices, notably for dead-burned magnesite — the single most important raw material for Advanced Refractories — were largely stable during 2012, following large increases in 2011. The stability of the pricing was due to a large strategic purchase of magnesite, with some of the increase in inventory offset by negotiated extended payment terms.

In addition to the new investment in Australia, a new monolithic Advanced Refractory facility was completed towards the end of 2012 in Ras Al Khaimah, United Arab Emirates at a total cost of £4 million and will serve the fast-growing Middle East market. Local production will facilitate greater penetration of the Advanced Refractories product line allowing short lead times and production flexibility.

An investment was made in the USA to increase capacity by 50% in ELBY production, the revolutionary patented concept of producing cleaner steel and improving customer output yield by up to 2%, as well as reducing the endemic problem steel mills face downgrading steel when producing short-run specialised steels.



Image: ELBY™ (Enhanced Ladle Bottom Yield)

In addition, restructuring of the sales and marketing teams in South America, North America and Europe was introduced towards the end of the year, which will bear fruit in 2013. As well as restructuring and management changes, technical and marketing training was also reinvigorated.

Selling price increases were achieved in line with inflation and no margin loss was experienced due to cost increases. Overall, margin percentage for the business increased, although some of this increase was offset as a result of sales reducing by £53 million. The first half of 2012 had shown very positive results, but the sudden downturn in the second half of the year affected overhead recovery and thus reduced second half margins. Operating costs include a bad debt charge of £6 million.



Image: Turbostop™





Image: Vesuvius foundry Research and Development centre – Borken Germany

# Foundry

## OPERATING REVIEW

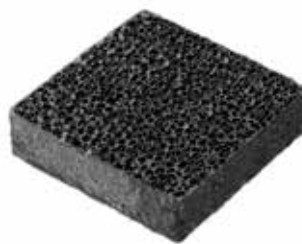


Image: Foundry filter



Image: Foundry sleeve

### VESUVIUS IN THE FOUNDRY INDUSTRY

The Foundry division has two principal product lines: Foundry Technologies and Fused Silica.

Foseco, the Foundry Technologies business of Vesuvius generating 32% of total Group revenue, is focused on the global foundry industry which produces castings used in a wide variety of engineered products. Some 40% of castings (and a similar percentage of the revenue for the Foundry Technologies product line) is produced for the vehicle sector, comprising approximately 25% for cars and light trucks ("automotive") and 15% for heavy trucks. Other end-markets for foundry castings include construction, agriculture, mining machinery, power generation equipment, railroad and general engineering. Foseco is a world leader in the supply of consumable products and services to the foundry industry. These products typically represent less than 5% of a foundry's production cost, but contribute

significantly to improving both product quality and manufacturing efficiency whilst reducing the environmental impact of the casting process. Customers of the Foundry division include the world's major automotive OEMs, truck producers and manufacturers of construction, railroad and mining equipment. The foundry market is highly fragmented and Vesuvius' 15 largest foundry customers represented 12% of the division's revenue in 2012.

Potential revenue per customer and per tonne of casting produced is strongly influenced by the technical sophistication of the casting and the process used in its production. These factors tend to correlate with the level of industrial development of the market and therefore Vesuvius sees significant growth opportunities as industrial development occurs in certain parts of Eastern Europe and Asia.

# Foundry

## OPERATING REVIEW



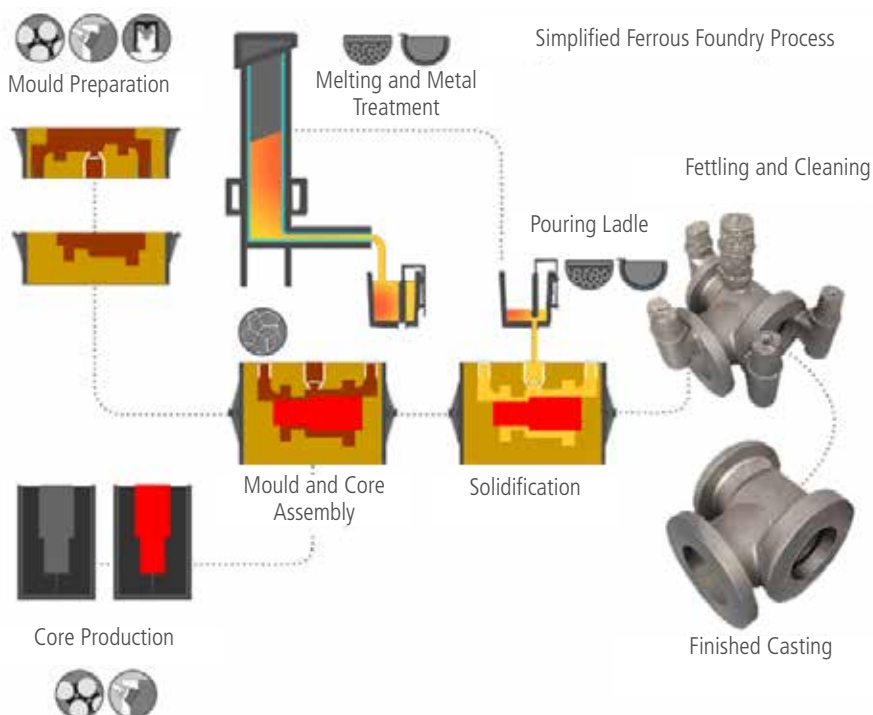
### THE VESUVIUS PRODUCT OFFERING

#### FOUNDRY TECHNOLOGIES

Foseco's products are largely single-use by nature, as they are either consumed or transformed during contact with the molten metal during casting. In a typical foundry process, these products may be used in the melting shop, core shop, moulding line and pouring stages. Using the chemical binders and refractory "paints" of Foseco, the customer foundries prepare the sand moulds and cores, the quality of which determines the precision and surface finish of the final casting. As liquid metal is transferred from the melting furnace to the casting line, it may be in contact with the molten metal transfer products of Vesuvius, such as insulating ladle linings, and be modified and conditioned by metal treatment equipment and additives. Foseco's ceramic filters are used within the

mould to remove impurities and reduce turbulence during pouring, thereby reducing scrap and improving the mechanical properties of the finished casting. Its feeding systems are also important in the reduction of material waste and improvement of casting quality: its exothermic feeding aids may be employed in the mould to provide secondary heat sources that can control cooling, minimising the adverse effects of shrinkage during solidification, helping to optimise the yield and the quality of the finished casting.

Revenue for the Foundry Technologies product line is broadly split by end-market as follows: general engineering 28%, light vehicles 25%, construction, agriculture and mining 18%, medium and heavy vehicles 15%, railroad 4%, pipes and fittings 2% and other 8%.



#### FUSED SILICA

Vesuvius is one of the world's leading manufacturers of fused silica refractory products. Its Zyarock® fused silica product range is used in a wide variety of highly - demanding industrial applications, such as glass melting and transformation and steel and aluminium casting.

Vesuvius also supplies a wide range of fused silica refractories for the manufacture of flat glass and the shaping of safety glass for the automotive and architectural industries.



## INDUSTRY OVERVIEW IN 2012

The foundry market has historically grown broadly in line with GDP.

In 2012, following a relatively strong first quarter, a general slowdown in the foundry market started to become evident towards the end of the second quarter and there were indications of a further general slowdown through the third quarter. More specifically, after a strong first half the NAFTA railroad foundry industry began to slow down. The Brazilian foundry industry had a weak first-half – the truck industry upgraded from Euro III to Euro V environmental specification engines. However, it took time for excess inventory of Euro III engines to be sold and, at the same time, the higher specification diesel fuel for Euro V engines was not widely available, with the result that sales of Euro V trucks fell significantly. However, by the second half inventory was being reduced and fuel availability improved, resulting in a gradual recovery of the truck foundry sector.

In Europe, after a firm first quarter, truck and wind power activity reduced with an adverse impact on the foundries reliant on those end-markets. The situation did not improve throughout the remainder of the year, but some improvements are expected in the second half of 2013.

The Indian foundry industry, largely reliant on domestic demand and automotive component exports to Europe, stagnated as power availability in the southern states reduced industrial activity and the government dramatically scaled back infrastructure projects, historically a strong driver of construction activity.

The Japanese automotive market, having suffered badly in 2011 from the effects of the tsunami in March of that year, followed by supply chain disruption in the fourth quarter from severe flooding in Thailand, which is the principal source of wiring harnesses for Japanese automotive OEMs, recovered with a total production of 8.5 million cars up from 7.2 million in 2011. However, the construction equipment segment suffered a severe downturn during the second half of 2012, as political tension between Japan and China, as well as a reduction in China infrastructure spend, reduced machinery and component exports to China.

The Chinese foundry industry suffered a contraction starting mid-2011 across all segments, as government attempts to restrain an overheated economy took effect. Increases in both fuel and interest rates further reduced car and truck sales. Some recovery was evident during 2012 as automotive production picked - up and, following the change in political leadership at the end of 2012, the indications are for a recovery in industrial activity during 2013.

## FOUNDRY DIVISION PERFORMANCE IN 2012

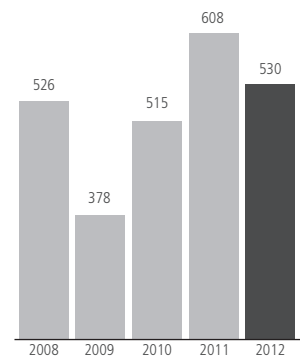
The division comprises principally the Foundry Technologies product line, together with the much smaller Fused Silica product line. In 2012, the division's revenue of £530 million was split – £488 million for Foundry Technologies and £42 million for Fused Silica.

## FOUNDRY TECHNOLOGIES

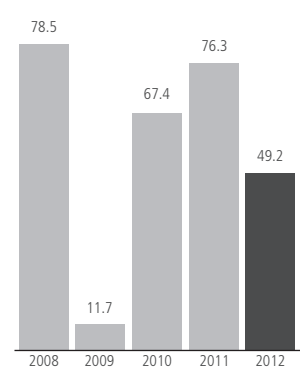
Revenue of £488 million represented a 7% reduction compared with 2011 (down 3% at constant exchange rates). Overall the year was one in which the end-markets served by the division's customers deteriorated with the result that foundry industry profit ratios and cash flows suffered. Selling prices throughout the supply chain came under intense pressure, but the strength of Foseco's differentiated offering and customer relationships protected the business from its worst effects. However, some margin dilution did occur due to the difficulties in transferring the input cost increases of 2011 into selling price increases.

In a number of markets, China, India and Southern Europe in particular, weakened customer liquidity lengthened payment terms. However, once again, the strength of Foseco's market position and its disciplined receivables management systems meant that the effect was modest.

FOUNDRY REVENUE  
£m



FOUNDRY TRADING PROFIT  
£m





# Foundry

## OPERATING REVIEW

Image: Foundry crucible



On a more positive note, the year witnessed many important steps forward in the implementation of the Foundry strategy:

- ▶ The project to expand manufacturing operations in China continued with the purchase of a greenfield site in the Changshu chemical park (55 miles north-west of Shanghai) expected to be completed by the second quarter of 2013. On this site a new feeding systems and coatings plant will be constructed for commissioning in 2014. The total investment in these new facilities is around £13 million, spread over the next two and a half years.
- ▶ Molten metal filter manufacturing was established in the existing site in Suzhou, China to serve both the domestic market and South East Asia.
- ▶ The Board approved the establishment of a dedicated central research and development facility in Enschede, the Netherlands, close to the Group's existing manufacturing facilities in the Netherlands and Germany. The site will be established as a dedicated R & D facility for foundry consumables and will include molten metal test facilities.
- ▶ The central marketing & technology team was significantly strengthened during the year with the objectives of increasing the level of research and development activity, of ensuring the rapid commercialisation of new products and of providing greater support to emerging markets.
- ▶ The Foundry division is led by the Foundry Executive Committee ("FEC") and during the year a number of changes took place. The chief executive of the China business took on the role of global Foundry Finance Director, bringing valuable knowledge of emerging markets to the FEC. A new FEC position of Vice President Greater China was created to ensure that this most important growth opportunity is represented in the FEC — the position was filled by the Area Director of Central Europe/Middle-East, which in turn brought to the Chinese business someone with strong connections to the European foundry industry — the origin of a considerable proportion of foreign direct investment into the Chinese foundry industry. The Vice President Europe was promoted into a position in the Steel division and was replaced by a senior executive transferring from the Fused Silica product line with considerable experience of technology-based industrial businesses. These changes highlight an important strength of Vesuvius — a cadre of geographically mobile senior executives whose skills are transferable across the Group, thereby facilitating the transfer of best practices and the Group's value-based culture.



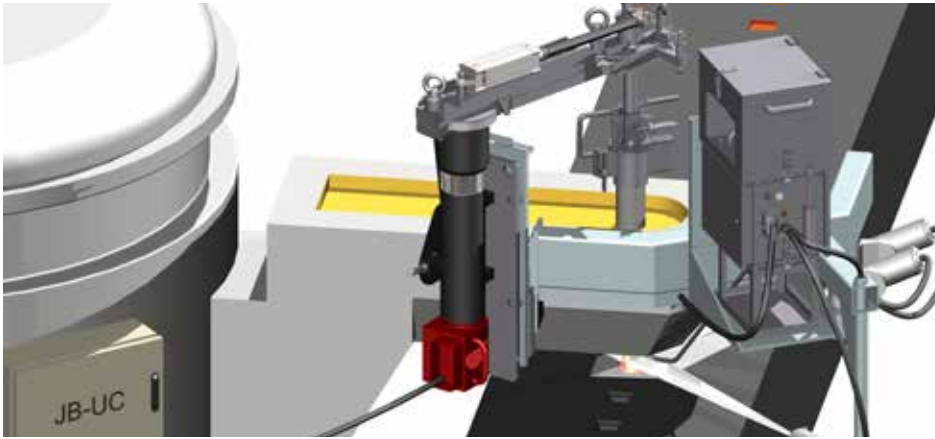


Image: SERT UCERAM Pouring System for automated iron foundries

**FUSED SILICA**

The Fused Silica product line represents less than 3% of Vesuvius' continuing revenue. Revenue of £42 million represented a 46% decrease compared with 2011.

For glass tempering rollers and other speciality products used in the manufacture of glass, revenue decreased 8% compared to the first half of 2011.

The reduction in demand for Solar Crucibles led to the trading losses in the Fused Silica product line in the second half of 2011 continuing into 2012. Since mid-2011 customers have, as previously reported, significantly cut production in response to excess global inventories of finished solar panels. In particular, the product line's largest customer in Europe announced in April 2012 the permanent closure of its Norwegian production facilities.

Although steps were taken during the period to adapt to these market conditions by removing temporary workers, adopting some short-time working arrangements in Europe and by some permanent workforce reductions in the Chinese operations, the Solar Crucible product line incurred trading losses of £6 million in the first half of 2012 compared to a trading profit of £6 million in the first half of 2011.

In July, the Solar Crucible production facility in Moravia in the Czech Republic was closed. This restructuring involved a headcount reduction of approximately 100 and resulted in total costs of £12 million. In October, in view of the continued weakness in the end-market, it was also decided to close one of the two Chinese Solar Crucible production facilities, which resulted in a total restructuring charge of £20 million. Further action was taken in December 2012, with the decision to close the Solar Crucible manufacturing facility in Poland, resulting in a restructuring charge of £9 million.

Subsequent to the year-end, the Board decided to close its remaining Solar Crucible manufacturing operations. The impairment of the Group's remaining Solar Crucible assets which this decision brought about was reported in 2012 as an additional exceptional restructuring charge of £5 million.

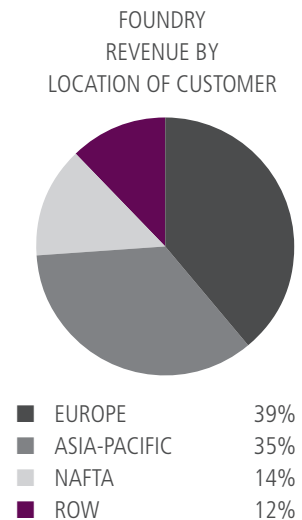
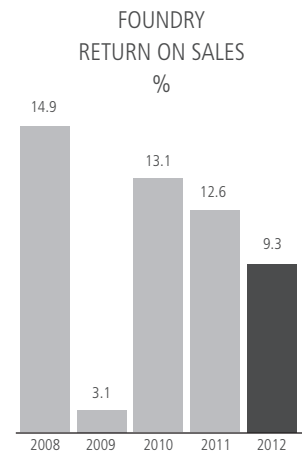




Image: Levi Wu – Suzhou China

#### CREATIVITY

Our commitment to technology and quality is the basis for our competitive advantage: our creativity is what allows us to develop innovative solutions that generate value through performance enhancements and continuous improvements.

#### COOPERATION

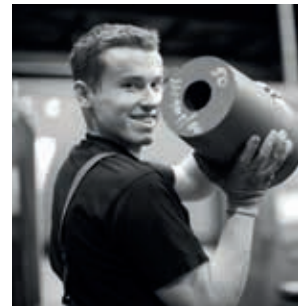
Encouraging internal and external cooperation is an effective tool which enables us to create unique solutions with our partners. Each Vesuvius employee is committed to the success of its community of colleagues and customers.

# Company Values and Commitments

Images below:  
TOP: Sławomir Wcis – Skawina Poland  
MIDDLE: Lisa Lee – Champaign USA  
BOTTOM: Leon Banks Jr. and  
Melvin Bond – Chicago Heights USA



Image: Renee Bell – Chicago Heights USA



## RELIABILITY

Our solutions involve us in critical aspects of our customer's manufacturing processes. Our commitment to consistently deliver quality products and services gives them the level of confidence they require.

## INTEGRITY

At the heart of our promise lies the trustworthiness of all Vesuvius employees in their acts and words. Integrity, honesty and transparency are essential in all our exchanges.

## EMBRACING DIVERSITY

Vesuvius is a global company built upon a true respect for local customs and experience. We recognise and embrace the potential for creativity that comes from the coexistence of so many different cultures.





**Work safely,  
remember he needs you.**

**SΔFETYBREAKTHROUGH**

Image: Safety Internal Communications Campaign

# Health & safety

We will operate all business activities in a manner which aims to ensure the health and safety of employees, contractors, visitors, customers and any other person affected by these activities.

## VESUVIUS HEALTH AND SAFETY POLICY

### SAFETYBREAKTHROUGH

Vesuvius is undertaking an ongoing global safety initiative, SafetyBreakthrough, across all businesses and all activities, including those undertaken at customer locations. It is driven by top management, cascaded and engaging all employees throughout global work activities.

The current phase of this programme, **Turbo.S** features:

- › The implementation and sharing of best practices through Vesuvius standards and other tools.
- › A commitment to become a true Learning Organization, avoiding repeat accidents and sharing lessons learned.
- › Total employee involvement, with the need for safety improvement being driven by the shared learning of our management teams, who are leading by example.

We set ourselves demanding but achievable improvement targets in the area of safety, realised by promoting standardised safe working procedures based upon thorough and detailed risk assessments.

We make use of auditing to support the need for ongoing safety improvements in all areas in which our people work. All executives are committed to undertake executive safety tours as part of their

regular responsibilities, leading by example and demonstrating ongoing management commitment to safety in all parts of the business.

We continuously work in partnership with our customers and suppliers to deliver improved safety standards in all our workplaces.

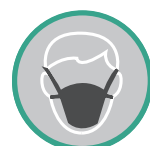
### Our Beliefs:

- › Good Health and Safety is good business
- › Safety is everybody's responsibility
- › Working safely is a condition of employment
- › All work-related injuries and work-related ill-health are preventable

### Our Aims:

- › No Accidents
- › No Repeat Injuries
- › No Harm to People

Our Health and Safety Policy clearly defines our commitments and responsibilities, applying to all stakeholders in all aspects of our business. The Group's Health & Safety policy and related information can be found on the Group's website — [www.vesuvius.com](http://www.vesuvius.com).





# Health & safety continued

Images:  
LEFT: Peter Strengers –  
Borken Germany  
RIGHT: Shande Wang –  
Suzhou China



## SAFETY PERFORMANCE

Vesuvius' ultimate goal is zero work-related injuries and illnesses. To achieve this, a number of annual objectives have been agreed for the Lost-Time Injury Frequency Rate ("LTIFR") — the number of work-related illnesses or injuries which resulted in an employee being absent from work for at least one day, per million hours worked. Vesuvius operations worldwide report the LTIFR and we also track the "recordable" incident rate — the number of work-related injuries and illnesses which resulted in medical treatment beyond first aid, per million hours worked.

Whether our employees and contractors are working in manufacturing, research and development, offices or customer locations, we recognise and respect the need to ensure that their safety remains our first priority. To ensure that risks and dangers are fully controlled, pragmatic systems and processes must be supported by appropriate behaviours which respect the risks present. Maintaining high levels of safety

and risk awareness remains essential to the effective reduction and elimination of workplace accidents, whatever the workplace.

Additional key drivers which we adopt to achieve our reduction in workplace accidents include:

- High levels of employee participation in all work-related safety and improvement opportunities, including participation in safety audits and identifying Safety Improvement Opportunities which focus upon eliminating the workplace risks that could contribute towards an accident happening.
- Taking a consistent risk-based approach in all that we do which clearly defines significant risks associated with any work-related activities our people, contractors or visitors are expected to undertake safely.

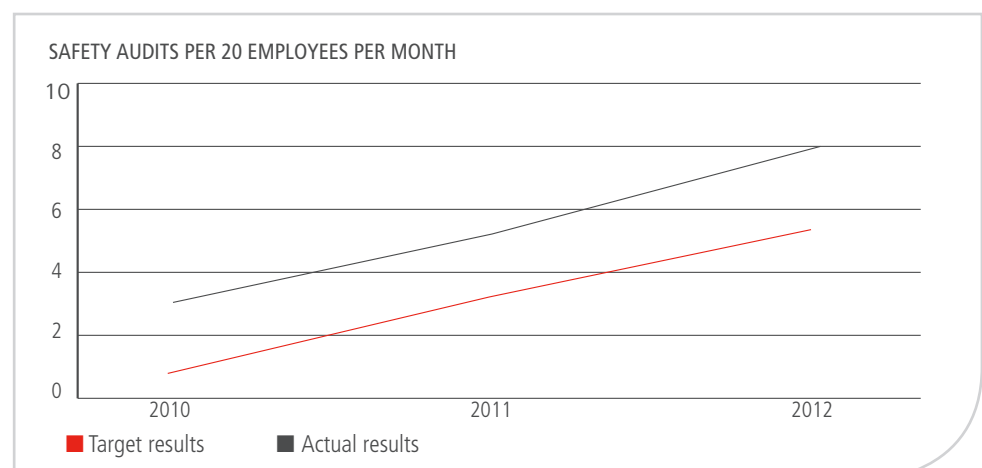




Image:  
Berthold Scheipers –  
Borken Germany

- A global commitment to development and implementation of world-class health and safety standards across high-risk business areas and activities.
- Introducing clear and concise visual Standardised Work instructions, which optimise the safest and most efficient way for repetitive tasks to be completed.
- Introducing a Permit to Work system based upon a risk identification carried out prior to work commencing for all non-standard work activities that involves all affected employees and contractors in the process.

Vesuvius' "days away" injury and illness rate has fallen from 9.9 in 2007 to 1.8 in 2012. Clear targets exist with the intention of the LTIFR target for 2014 being 1.0 per million hours worked or less.

Since the launch of SafetyBreakthrough, the level of lost time injuries has declined substantially (as shown below) year on year.

A reporting system is in place to collect details and investigate all H&S-related incidents on a timely basis throughout the Group and to produce routine management reports including the KPI covering work-related injury and illness rates, along with lead indicators covering safety audit engagement and safety improvement opportunities. These reports and related performance improvement plans are regularly reviewed by the Chief Executive with divisional management as part of the normal business review cycle.

The Chief Executive's regular report to the Board includes an overview of Group H&S performance as the first agenda item. All significant incidents are reported to the Chief Executive and the Board as they occur.

Where local business management teams feel it is appropriate, a number of sites have already achieved accreditation to OHSAS 18001 (Occupational Health and Safety Management System), further reflecting the strong systems we have developed in these areas.

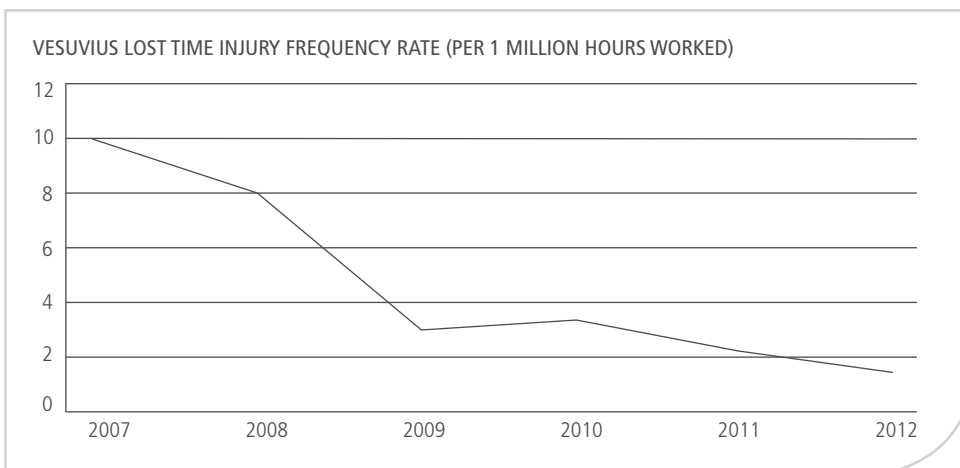




Image: Ann Smith – Champaign - USA

# Committed to people

Vesuvius' ambitious business plan is supported by a three-legged Human Resources strategy: **HR**

For each strategic focus area, examples of the most recent HR programme implemented at Vesuvius are described below.

## H – "HIRE AND RESOURCE"

Vesuvius looks at diversity in its broadest sense, recognising the importance of getting the right balance of independence, skills, knowledge and experience, both on the Board and across the business.

As a global business Vesuvius employs some 11,000 people (excluding those employed in joint ventures) in 30 countries; our management grades alone comprise over 50 nationalities. Diversity is therefore an integral part of how Vesuvius does business. The benefits that different perspectives can bring are widely recognised and in recruiting employees Vesuvius draws on a varied range of backgrounds and expertise, benefiting from all dimensions of diversity including cultural and gender diversity.

For the third consecutive year, the Columbus programme has helped rejuvenate our employment base by encouraging promising young graduates, from emerging countries, to join Vesuvius and start an international career. This graduate intake is a corporate resource and is funded centrally.

In 2011, five graduates from Poland and one from the Czech Republic commenced their careers in China.

In 2012, a graduate exchange programme was introduced and three graduates from both India and China exchanged places. In 2013 a similar programme is planned with Brazil and India.



"Vesuvius is a well-established and highly respected company where I will have a chance to develop my skills and be trained to become a professional engineer. The Columbus project is a great opportunity to work in a professional environment and it is an interesting cross-cultural experience."



Michal Smola, graduate from the department of Chemical Technology, Krakow's University of Technology (Politechnika Krakowska), participant in the

2011 Columbus programme. In January 2012, Michal was appointed as Project Engineer with the Foundry Business Unit in Hengelo (Netherlands).

# Committed to people continued

## T — TRAIN AND DEVELOP

We aim to grow our technical expertise and strengthen our learning organisation. For this we rely on local training initiatives as well as well-developed Corporate Training programmes and heaTt, the Vesuvius technical university.

# HEATT

heaTt courses, all internally developed, were delivered to 340 customer-facing employees in 2012 by our own specialists. Each Business Unit offers different levels of courses suitable for beginners right through to the expert.

Our technical university ensures that Vesuvius maintains its competitive advantage in delivering an enhanced technical service to our customers. In 2012, we developed an additional seven courses and can now offer 32 technical modules for delivery worldwide.

“heaTt is a very powerful training platform. Experienced colleagues gave me a detailed insight into our products and their applications. I am better positioned now to successfully partner with our customers and elaborate solutions for their specific needs. heaTt significantly contributed to raise my confidence in front of the customers.”



Emiel Herdenberg, Account Manager, for Advanced Refractories in the Netherlands, after attending the heaTt Advanced Refractories training in Oxselosund, Sweden.



In 2012, we delivered the third and final session of our industrial marketing programme, Pulse, developed in cooperation with INSEAD. As a logical follow-up to our Boost! programme, developed with INSEAD for 120 senior managers, a new programme for middle managers was designed with the Vlerick Business School: Wings.

The pilot was successfully delivered in April 2012 covering a wide range of business management topics including the strengthening of leadership capabilities and skills. The programme will run for four years to allow all of our middle-managers with people-management responsibilities to attend the course.

### ANOTHER 2012 INITIATIVE CENTRED AROUND THE UK BRIBERY ACT.

In response to the UK Bribery Act, the Company's Code of Conduct was revised and recommunicated to all employees in 2011. New policies on anti-bribery & corruption have been developed. Together they require that employees and others working on behalf of the Company do not engage in any form of bribery or corruption.

An anti-bribery and corruption compliance programme has been established throughout the Group, and is being implemented through a targeted face-to-face training programme. An e-learning module has been developed and is being rolled out globally, as local language versions become available, to relevant office-based individuals. New employees, if relevant, will go through the training as part of their induction process. The compliance programme includes undertaking risk assessments and engaging with others working on behalf of the Company to ensure that their standards comply with Vesuvius' policies.



# R — RETAIN AND MOTIVATE



Image: Living the Values Awards Ceremony — Bruges, Belgium — April 2012

Award winners from Belgium, Brazil, China, Egypt, France, Germany, Spain, Thailand, the United Kingdom, the USA and Vietnam

As a way to optimise the talents of our employees and provide continued development opportunities, several HR programmes have been deployed worldwide.

During the People Review process, local, regional and global management personnel discuss their people in a structured format, they identify the strengths of their organisation and define the areas for improvement.

The Performance Management Process contributes to formalising the career aspirations of our employees and assists in structuring training plans.

High Potentials are identified at local, regional and global level and individual development plans are devised by their managers to support their career development.

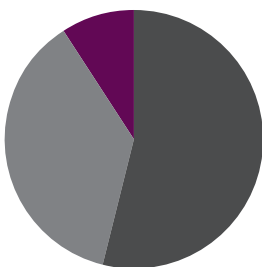
More recently, Vesuvius has launched the Living The Values Awards, a worldwide initiative to

encourage nominations for the colleagues who have best demonstrated the five Group Values at work: Embracing Diversity, Cooperation, Creativity, Reliability and Integrity.

The Awards process culminated in a ceremony, held in Bruges, Belgium, in April 2012 during which the fifteen award winners, seven individuals and eight teams, were presented with their awards by the Vesuvius Executive Committee. Each winner nominated their preferred charity to receive a donation.

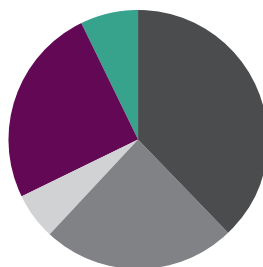
“People are judged according to their results but our Group Values should be at the core of everything we do — and the key to helping us deliver positive results”, François Wanecq, Chief Executive, Vesuvius plc

SPLIT  
'SALARIED/HOURLY'



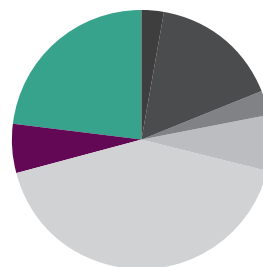
■ HOURLY 54%  
■ SALARIED 37%  
■ TEMPS 9%

HEADCOUNT  
PER PRODUCT LINE



■ FLOW CONTROL 38%  
■ FOUNDRY TECH. 24%  
■ FUSED SILICA 6%  
■ ADV REFRACTORIES 25%  
■ SHARED SERVICES 7%

HEADCOUNT  
PER REGION



■ NORTH ASIA 3%  
■ CHINA 16%  
■ SOUTH ASIA 3%  
■ INDIA 7%  
■ EUROPE 42%  
■ SOUTH AMERICA 6%  
■ NAFTA 23%



Image: Troy Price – Champaign USA

# Customer focused

We will operate all business activities to ensure the quality of the products and services we deliver to our customers. VESUVIUS QUALITY POLICY

## QUALITY ASSURED

Our Quality Policy clearly defines our commitments and responsibilities which apply to all aspects of the business. The implementation of our Quality Plan is driven throughout the organisation by top management.

Our Quality Plan features:

- › The application of the Vesuvius 8D methodology to resolve customer, supplier and internal issues. This methodology is built upon the eight Disciplines to follow in order to eliminate problems permanently. It is focused on determining the root cause, implementing effective corrective actions and preventing repeat issues.
- › A commitment to become a true Learning Organisation. Every problem is welcomed as an opportunity for improvement where lessons learned are created and shared in order to leverage the benefits across the Group.
- › The application of Lean Principles to improve shop floor quality, responsiveness, and flexibility. Lean manufacturing methods, such as those successfully utilised in the automotive industry, are adopted throughout the Group.

These principles drive implementation of:

- strong control plans to detect any defects as close as possible to their point of occurrence to facilitate immediate problem solving;
- accelerated product flow to allow quicker detection of issues and impact rejects/rework;
- standardised production methods to ensure excellent quality.

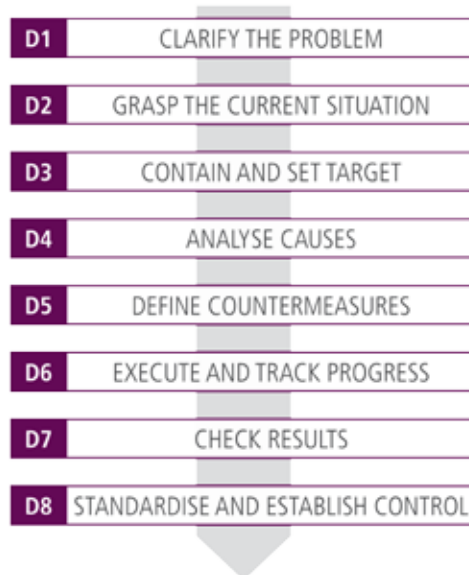


Image: The Vesuvius 8D

# Customer focused continued

8D problem solving involves a team approach and requires strict adherence to the eight Disciplines.

## 8D IN ACTION

Recently a customer had a problem with the shoulder dimensions of glass tempering rolls supplied from one of our North American plants. A multifunctional team was assembled that included the Plant Manager, Production Manager, Maintenance Technician, shop floor Team Leader, Quality Manager and Lab Technician. Each of the eight Disciplines was applied to quickly contain the issue, allowing time to focus on the root cause, determined to be a problem with one piece of equipment. Corrective actions were then implemented to solve the problem and no further complaints were received for this issue. Lessons learned were shared with other similar operations around the world further to capture the benefits.

ISO 9001:2008 certification is an important part of our quality strategy; however, we strive to surpass these requirements in the implementation of the Quality Plan.



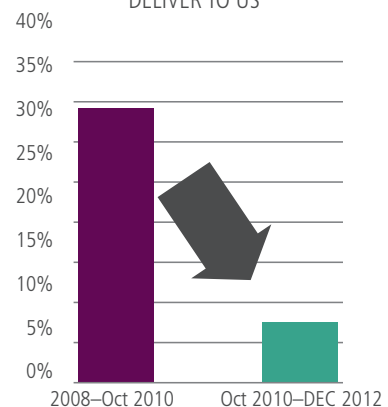
Image: Left to right, Marshall Davis, James Caulder, Todd Miller, John McColl, Wilbert Hunt, Brian Hays

Working with our suppliers, we create partnerships to ensure that our requirements, and those of our customers, are met consistently.

## PARTNERSHIP - A CASE STUDY

One raw material supplier in China had a repeat issue delivering non-conforming materials, leading us to reject over 30% of their supply. Through assessments, coaching and implementing agreed quality improvement actions, the supplier's defect level was significantly improved in a short period of time.

### WORKING WITH A SUPPLIER TO REDUCE THE REJECT RATE OF THE RAW MATERIAL THEY DELIVER TO US



## RELIABILITY IS ESSENTIAL

Reliability is vital to our customers as they use Vesuvius' products in critical areas of their own processes. The level of risk attached to a catastrophic failure is often such that, for people and equipment, no compromise can be taken and reliability therefore is a primary commitment of Vesuvius.

Vesuvius strives to deliver reliability and consistency through best-in-class quality management in its 72 major production sites.



Reliability also results from our close cooperation with customers' operations, from the permanent presence of our engineers and technicians at our customers' locations and from the level of service and expertise we provide.

Reliability is maintained within our global process of innovation and continuous improvement through strict testing procedures and total transparency with our customers on the protocols we follow to validate any change in our products.

Our experts are in permanent contact with our customers' operations to provide support with creative solutions and new technologies, based on their access to the unrivalled experience acquired across the world and throughout the industry.

Maintaining our high level of service is part of our commitment to reliability.



Image: Linna Sun – Suzhou China

#### RELIABILITY - A CASE STUDY

In a blast furnace application in Western Europe, our customer was suffering from variable iron stream quality with a competitor's material and was preparing to revamp their furnace. Vesuvius' technical service experts proposed a new high grade taphole clay optimised for the new operating conditions of the furnace to address the current problems and make the process more reliable. The results:

- safety improved due to a reduction in splashing and spraying
- over £150,000 savings per year in reduced maintenance
- overall furnace productivity improved as casting speeds were stabilised with the improved stream

#### SERVICE IS PART OF THE VESUVIUS CULTURE

The quality of our service delivery derives from our deep understanding of our customers' process and expectations, our intimate knowledge of their needs and our efforts to increase their performance at all levels of their value chain.

Vesuvius' plants are close to the customers they serve and can deliver goods and technical service at very short notice.

#### SERVICE - A CASE STUDY

One steel plant was looking to increase the performance of their casting operation (more output, higher product quality, and more operational flexibility).

Vesuvius recommended the Shroud Exchange Mechanism, SEM85 with VPC (Vesuvius Precision Control). This solution combines a system to exchange the tundish shroud without cast interruption and without raising the tundish, automatic mould level control with +/- 1.5 mm accuracy, and automatic clogging prevention (stopper oscillation) with mould level set point modulation (to increase tube life).

As a result, annual caster production rose from 790,000 tonnes to 870,000 tonnes. Quality improved thanks to better accuracy in mould level control (95% of the time working in automatic), and as a result, there was a 56% reduction in diverted slabs on thin plate steel grades. Safety was also improved with the new ability to stop steel flow with a "blank" plate and better working conditions for operators.





Image: Determination of melting point of aggressive slags – Vesuvius R&D

# Innovation

Innovation is at the core of all our activities. To stimulate this innovative strength we value creativity in all aspects of our processes and practices. Innovation in technology within Vesuvius is fuelled by:

## AN INTIMATE KNOWLEDGE OF OUR CUSTOMER PROCESSES AND NEEDS

Our customer-specific knowledge comes from having over 200 field applications engineers working in active partnership with our customers. However, it is also essential to understand in depth the interaction of our products and systems with our customers' processes and products. Most of Vesuvius' products come into direct contact with our customers' end-products and all of the systems provided play an integral part in their manufacturing processes. The end result is that Vesuvius products and systems play a crucial role in determining the quality of the end-product and the efficiency of our customers' processes.

The impact which Vesuvius products and processes have on our customers' product quality and process efficiency is a responsibility which we take seriously and it is with a focus on the maintenance and improvement of this quality and efficiency that we are developing and using state-of-the-art modelling tools to innovate new products and systems. Computational Fluid Dynamics ("CFD"), coupled with physical water modelling, is used to simulate our customers' process flow patterns, including temperature, pressure and velocity distribution. The use of advanced simulation software for the casting and solidification process allows the prediction of final product quality. We have also developed a thermo-chemical simulation to predict interactions of our products in corrosive environments. Finally, newly - developed products are evaluated in our pilot testing facilities, which reproduce the difficult conditions of on-site applications.

## STATE-OF-THE-ART TECHNOLOGIES IN PRODUCTS, SYSTEMS AND SERVICES

Vesuvius' fundamental expertise, developed in six R&D centres and supported by eight development units employing over 150 high level graduates, is focused on ceramic materials designed to withstand extreme usage conditions. Application temperatures regularly exceed 1,500°C in aggressive molten metal, glass or slag, resulting in considerable thermomechanical and thermochemical stresses.

Vesuvius is developing, specific to the materials used in its products, state-of-the-art Finite Element Analysis ("FEA") simulations in order to more accurately determine thermal distribution and stress gradients, so as to be able to optimise the properties of its products. The outstanding performance gained by using these refractory products is further enhanced by being used in combination with the complementary technically advanced systems developed by Vesuvius to optimise the safety, productivity and quality of our customers' processes.

Three recent major innovations (two in the field of steel continuous casting and one in ductile iron foundries) illustrate well Vesuvius innovation providing quality service to our customers:

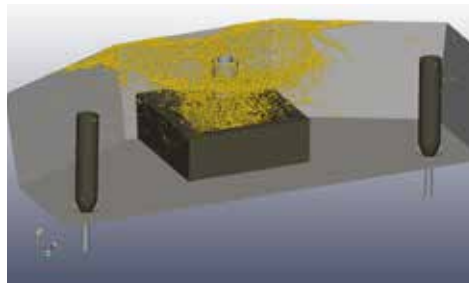


Image: Turbostop™ Modelling

# Innovation continued



Image: Ladle and tundish with Robotic Casting Technology

## 1. IMPROVED STEEL YIELD AND PRODUCTIVITY WITH TOTAL TUNDISH TECHNOLOGY SOLUTIONS ("T<sup>3</sup>")

A fully engineered, customised T<sup>3</sup> solution to improve yield and productivity has significantly improved steel producing operations at one of the most modern thin slab casting plants in the world.

By working with steel plant engineers using computational fluid design of the ladle and tundish and water modelling and physical design of the tundish, Vesuvius engineers were able to recommend changes to the existing ladle and tundish refractory design.

By incorporating a combined ladle and tundish solution using ELBY™ and Yield Enhancing Systems ("YES") in conjunction with a complete Turbostop™ tundish flow design the steel plant was able to justify a prolonged evaluation of the technology and practise change recommendations to verify the improved ladle and tundish yield. In addition, they were also able to modify their grade mix model to allow for a significant reduction in the mix grade casting losses to scrap.

Using the Vesuvius ITI process monitoring system, a rapid, online, sophisticated, infra-red, optical monitoring system, coupled with novel software that allows a quantitative evaluation of slag and steel in conjunction with normal steel plant accounting processes, they were able to verify the accuracy of all of the model predictions. This enabled the steel plant to accelerate full implementation in less than six months to take immediate advantage of the large cost savings, scrap reduction and productivity improvements.

As a result, the steel plant has been able to increase yield by 33.25 tons per casting sequence, which

translates to a reduction of 242 ladles of steel being melted per year or an increase in prime yield of approximately 40,000 tons per annum or 1.2% productivity improvement.

## 2. ROBOTIC CASTING TECHNOLOGY ("RCT") WITH LADLE TUBE CHANGER ("LTC") AND SHROUD EXCHANGE MECHANISM (SEM 3085)

Vesuvius has focused its efforts at developing innovative technical solutions around the continuous caster targeted to achieve not one, but all of the steel industries' critical objectives of improved Productivity, Flexibility, Yield, Quality, Safety, Cost and Environmental impact.

As a consequence, Vesuvius has recently launched the first products of our new Robotic Casting Technology range. The Ladle Tube Changer ("LTC") is a significant move in technology away from the traditional ladle shroud and collector nozzle joint to a flat plate joint with the ladle shroud no longer held in place by a manipulator, but becoming an integral part of the ladle slide gate system. This arrangement provides an improved yield of prime quality steel through the reduced possibility of reoxidation with a tighter joint and the ability to safely guarantee 100% submerged opening into the tundish. The system has also been designed to be robot compatible allowing the entire ladle shroud operation, including shroud cleaning, to be achieved without human intervention, thereby removing the operators from the most exposed and dangerous environment still existing in the steel plant today.



Image: Ladle with ELBY™

The latest robot-compatible tundish tube changer (SEM3085) has also been designed to reduce air aspiration and therefore also enhance quality, to increase flexibility and safety through the double stroke concept, allowing for an emergency shut-off at any moment in any situation and to maximise productivity and yield through a more robust refractory design allowing significantly longer sequences to be cast.

For devices such as the SEM3085 to achieve their maximum potential in terms of quality and yield it is also essential to provide extremely precise steel flow regulation. We achieve this with our SERT M type electric stopper valve and the new generation of Avermis ledge type eddy current mould level sensors. Ledge sensors are fully compatible with all other electromagnetic actuators employed in the mould, such as electromagnetic stirrers and brakes, and do not interfere with the tube change function, as is the case for the conventional suspended sensors. The Avermis ledge sensor coupled with the precise SERT stopper control system therefore allows for accurate continuous fully automatic mould level control for the entire casting sequence maintaining prime quality steel production.

### 3. INITEK — AN IMPROVED METHOD OF PRODUCING DUCTILE IRON

The production of magnesium-treated ductile iron castings is witnessing a radical change in the way liquid metal treatment practices are performed. Foundries, worldwide, are fundamentally reviewing current processes in light of findings embodied in a revolutionary, patented, Fosco technology described simply as “an improved method of producing ductile iron”. Fosco has branded the metal treatment process as “INITEK”. INITEK dramatically improves the level of process control in foundries and the overall quality and cost for producing ductile iron castings. To achieve this, Fosco, together with key business partners, has developed a unique combination of new metallurgical products, analytical tools, process know-how, and a state-of-the-art metallurgical treatment vessel.

At the heart of the INITEK process is the patented, prism-shaped vessel commonly referred to as a “converter”; a specially - designed containment vessel for liquid iron used in the foundry as a reaction chamber in the production of ductile iron. The interior wall of the converter vessel is lined with a novel KALTEK ISO refractory system, patented by Fosco, which promotes a high level of metallurgical process consistency and metal temperature control.



Image: INITEK\* Ladle

A unique ferro-alloy called INODEX is placed inside the converter vessel to “initialise” or remove unwanted elements from the iron, thus promoting an efficient chemical transition from liquid “base” iron to ductile iron with NODULANT ferro-silicon-magnesium alloy. Results are validated using a class-leading ITACA\* thermal analysis system in combination with other conventional metallographic and physical tests.

Successful adoption of the INITEK process requires a detailed understanding of metallurgical processes and the ability to deliver highly customised, engineering solutions, to foundries. Fosco application experts work closely with foundry operations and engineers to design, fabricate, and install specialised equipment that when used together with Fosco products deliver value both in terms of financial savings and enhanced capabilities to foundries.

The many benefits of the advanced metal treatment technology for ductile iron castings are centred on a considerable reduction in liquid iron process temperatures in the foundry. Not only is a substantial energy saving obtained, but further benefits related to productivity, casting quality, and the consumption rate of refractories and metallurgical alloys are also achieved, delivering net savings to foundries in the range of €40–€120 per tonne of liquid iron.

\*ITACA is a trademark of ProService Technologies (Italy). Fosco is the exclusive distributor of ITACA systems, worldwide.





# Sustainability

We will operate all work and business activities in a manner which ensures appropriate care and protection of the environment. VESUVIUS ENVIRONMENT POLICY

## BACKGROUND

Vesuvius has a relatively large number of small and medium sized facilities located in 30 countries throughout the world's major economic regions. Thanks to this network, we are located close to our customers. We can operate in just-in-time supply chains with short lead times from order to delivery and reduced transport times to our customers located in more than 100 countries.

Our manufacturing processes are not energy intensive (total energy costs are less than 3% of revenue) and do not produce large quantities of hazardous or other wastes and emissions.

Our businesses deliver, under the Vesuvius and the Fosco brands, a large range of solutions that help our customers improve not only the productivity but also the quality of their products, the environmental footprint of the processes and employee safety.

Vesuvius' products are used in molten metal handling and at extreme temperatures. Our first commitment to our customers is the reliability of our solutions that help to protect their employees' safety through the prevention of failures that could have catastrophic consequences for employees or equipment.

Reducing the impact of our activities on the environment is a constant priority at Vesuvius. Vesuvius targets the highest standards of quality, safety and sustainability in its own operations and endeavours to meet the global expectations of its customers and stakeholders.

Thermal optimisation, slag and reject reduction are key factors in the processes for which we supply solutions. Vesuvius contributes to the reduction of its customers'

energy usage and subsequent CO<sub>2</sub> emissions reduction through insulating materials, laminar flow management, extended sequences and reduced downtime.

## ENERGY CONSERVATION PLAN

Energy consumption and CO<sub>2</sub> emissions are regularly monitored and taken into account in all our investment programmes. All our factory emissions are proactively managed in accordance with local regulations. Regular analysis of our operations enables us to take appropriate actions to reduce our emissions.

The Vesuvius Energy Conservation Plan was launched in 2011 with the objective of reducing our normalised energy consumption by 10% over the following three years. Managing our energy intensity is part of enhancing our cost competitiveness. It also contributes to improving the total environmental impact of our customers. It is part of our commitment to the communities in which we operate.

## ENERGY EFFICIENCY AND CO<sub>2</sub> IMPACT INITIATIVE

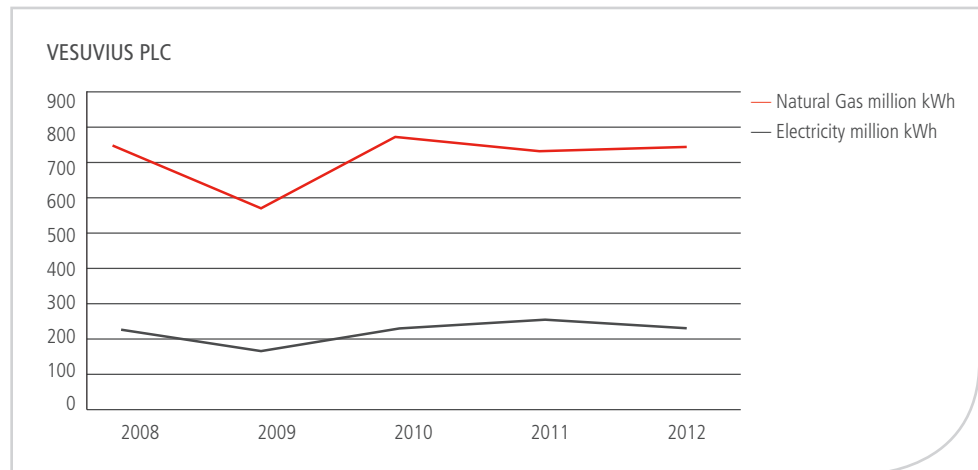
Vesuvius' specialised expertise in molten metal handling and casting provides assistance to customers both by reducing the energy intensity of their existing and new breakthrough processes, and through the manufacture of new products that improve the energy efficiency of metal-using products in society.

The Energy Efficiency and CO<sub>2</sub> Impact project is a corporate initiative launched to foster the deployment of energy efficiency and sustainable solutions engineered by our technology departments. A CO<sub>2</sub> Impact stamp, launched in 2011, highlights the most energy efficient solutions in our portfolio of products and services.



# Sustainability

## ENERGY SAVING



As shown by the above chart, energy use has been stable in the last three years. Our fuel consumption is not directly related with quantities produced, as some energy-consuming tools operate continuously. In 2012, electricity use decreased by 3% compared with 2011 and gas usage increased marginally.

### CASE STUDY — OVEN OPTIMISATION FOR SLEEVE FIRING AT IZURZA, SPAIN



Image: Back row, left to right: Igor Cenigaonaindia, Angel Quintanilla, Jesus Ortiz, Juan Carlos Cruz, Javier Salcines.

Front row, left to right: Ruben Marcos, David Gomez, Demetrio Maruri.

Lean aims to eliminate non value-adding activities and waste from business processes.

Izurza has two main lines for manufacturing sleeves, each line is equipped with machines which feed an oven. The bottlenecks in both lines were the machines, as the ovens have more capacity than the machines, even when they are operating at 100%.

There are also times when the machines are not manufacturing, so it appeared there was room for improvement. Juan Carlos Cruz tells us about this project:

“The objective is to combine both lines into one, running into one oven. In Lean, the aim is that the product should continuously move towards the customer, so that the customer should never be kept waiting. Therefore we studied different options that do not stop the flow of products. The selected option called for the installation of rollers from Line 1 to Line 2. Oven temperature and process speed were adjusted. When the machines are working at 100%, it is necessary to have a buffer to ‘store’ some trays; time when one machine is stopped for a tool change is enough to empty the buffer, so no issues arise regarding drying times for different recipes and no HSE issues have been detected.”

#### RESULTS

- One oven runs at 100% capacity, the second oven is turned off
- Annual saving of €33,000
- Energy intensity of the firing process reduced by 20%

### INNOVATIVE VESUVIUS REFRACTORY SOLUTION ALLOWS MORE ENERGY EFFICIENT SLAB REHEATING



"For a customer in Romania, increasing the overall thermal efficiency with a safe and cost-effective solution was the objective for the relining of their pusher reheat furnace. For the side walls, Vesuvius opted for a combination of products selected on the basis of a thermal simulation and of field proven mechanical resistance to scale and slag. The main product is TRIAD® 70. This is a 70% Alumina, Mullite based "no cement" product. It was applied using an innovative shotcreting technology.

For the hearth design, the choice was driven by health and safety issues generated by the manipulation of heavy refractory blocks and by the overall short life performance of these blocks. The product of choice is the HYDRA PLUS® SPINEL C-2. This is an ultra-low, coarse-grained high alumina product fortified with spinel to resist the harsh reheat hearth environment. The pumpable installation is safer and faster than the former cast block technology.

After more than two years of service, the hearth is unmarked. The customer reported energy savings of €743,000 per annum. This corresponds to 15% energy saving per tonne of finished product."

George PLATT, Marketing and Technology Director  
Advanced Refractories Europe

### KALPUR FEEDING SOLUTIONS FOR FERROUS FOUNDRIES



"Ferrous foundries supplying the automotive industry use feeding systems to provide liquid metal to the casting cavity during solidification. This ensures that the castings produced are free from shrinkage defects in all critical areas.

Customers' key objectives are to reduce the weight of the feeder, to maximise the amount of castings per mould and to minimise the contact area between the feed reservoir and the casting. A customer in Italy asked for a technical solution to produce two 94kg ductile iron axle supports in one mould.

The only way to locate the two castings within one mould was to use the direct pouring or KALPUR approach. This system is a unique combination of metal filtration and feeding system products. Foseco demonstrated the viability of this solution by the use of MAGMASOFT casting process simulation software to model the filling and solidification processes. Since implementation of this solution, the customer has produced this casting successfully for almost two years.

In this example the customer was able to double their production capacity without capital investment, reduce energy consumption and maximise the efficiency of their manufacturing process."

Christof VOLKS, International Product Manager  
Feeding Systems



Image: X Ray Fluorescence – Vesuvius R&D

# Financial review



## INTRODUCTION

We start our journey as a new company in a very strong financial position. We are a well funded company, with net debt of £295 million and committed debt facilities of £580 million with maturities out to 2020. Gearing, with net debt representing slightly over one and one half times EBITDA, is healthy and well within our debt covenants. Our business is strongly cash generative with a relatively low capital intensity. In short, we are well positioned to provide superior returns to shareholders, invest in organic projects, and fund attractive acquisition opportunities as they arise.

Vesuvius has a well invested manufacturing base, having spent £260 million of capital expenditure over the last five years. We have aligned our production footprint to match customer locations and improve cost leadership. Since 2002, the number of operations in emerging markets has increased from 23 to 38, whereas the number of sites in developed markets has decreased from 55 to 34 over the same period. As part of this alignment, we have established a cost-effective manufacturing presence in lower cost countries such as Mexico, Poland, the Czech Republic, India and China, with investment in state-of-the-art facilities benefiting from lower operating costs. We intend to maintain our cost leadership position and will continue to ensure our production footprint is closely aligned with customer locations in lower cost countries.

In addition to a drive for cost leadership, we have also focused, in recent years, on improving our financial and operational flexibility. We have a robust balance sheet with ample liquidity headroom under long-term financing arrangements. We also have a flexible workforce, with almost half of our European workforce either being employed on temporary contracts or members of government-subsidised working hour reduction schemes.

We will continue to focus on improving our financial and operational flexibility in order to ensure that we are able to react appropriately, and quickly, to changes in end-market conditions. These continued cost and working capital management actions, combined with our strategy of further penetration of our value pricing model, selected bolt-on acquisitions in high margin segments and selected disposals of low margin activities should further improve margins and position Vesuvius well to take advantage of growth in our markets.

## BASIS OF PREPARATION

The creation of Vesuvius plc on 17 December 2012, and the subsequent demerger of Alent plc on 19 December 2012 gives rise to some complications in the presentation of financial information for 2012. The income statement and cash flow statement both include the results of Alent plc from 1 January 2012 to 18 December 2012; the balance sheet at 31 December 2012 does not include any assets or liabilities relating to the demerged Alent plc business.

The 2012 income statement, together with the 2011 comparatives, shows the results of Alent plc as discontinued operations, together with the results of the whole of the Precious Metals Processing division, as management anticipates a 2013 disposal of the remainder of the division not disposed of in 2012. Most items within the income statement are reasonably attributable to the Vesuvius and Alent operations, with the principal exception being finance income and costs. The majority of external debt in 2012 was held by companies

"Following the demerger of Cookson, Vesuvius has a strong balance sheet and a determination to improve its financial and operational flexibility."

CHRIS O'SHEA,  
CHIEF FINANCIAL OFFICER



# Financial review continued

remaining within the Vesuvius Group and accordingly, finance income and costs are shown principally within Vesuvius results from continuing operations. Vesuvius has adopted a columnar presentation format to separately identify Headline Performance results, as it is considered that Headline Performance gives a better view of the underlying results of the ongoing business.

The pro forma results shown in the table below include only the finance income and costs that would have been incurred by Vesuvius as a stand-alone entity in 2012, using the 66:34 split of net debt between Vesuvius plc and Alent plc adjusted for the fact that all US Private Placement notes ("USPP") remained with Vesuvius; the remaining costs are those which Vesuvius management believe are attributable to the demerged Alent plc business.

The cash flow statement (including note 14) separately identifies cash flows from operations and free cash flows relating to continuing operations.

The balance sheet at 31 December 2011 represents the Cookson Group plc balance sheet, including assets and liabilities relating both to the demerged Alent plc and the Precious Metals Processing division (the discontinued operations), and the continuing Vesuvius business. The balance sheet as at 31 December 2012 comprises the continuing Vesuvius plc business with the Precious Metals Processing division classified as held for sale. The additional disclosure in the income statement and the notes to the cash flow statement have been provided to help readers better understand the drivers of the movements between the balance sheets.

## TRADING RESULTS — HEADLINE AND PRO FORMA PERFORMANCE

2012 was a difficult year, with a marked slowdown in trading experienced in the second half of the year. Total revenue of £1,548 million was weighted towards the first half, with a fall of 11% in revenues experienced in the second half of the year when compared with the first half. The fall in trading profit was more pronounced in the same period with a 33% reduction in the second half.

On an underlying basis, adjusting for the effects of acquisitions, disposals and foreign exchange movements, revenue fell by 4%.

In our Steel division, revenues fell 6% to £1,018 million with the fall principally related to the Australian Andresco-Hurl business disposed of in the year. Trading profit fell by 22% reflecting the lower revenues and increased provisions for doubtful debts.

Overall margins in the Steel division fell from 9.9% in 2011 to 8.2% in 2012 (and from 10.4% to 8.7% on an underlying basis, adjusted for exchange rates, acquisitions and disposals).

Foundry revenues fell by 9% to £530 million at constant exchange rates, largely due to a continued decline in the selling price of our Solar Crucibles products, together with a 3% reduction in other foundry revenue. Trading profit fell by 36% (31% at constant rates), reflecting losses in the Solar Crucibles business and a 15% reduction in profitability in other foundry products.

PRO FORMA HEADLINE PERFORMANCE		2012	2011	Variance	
				Reported rates	Constant rates
Revenue (£m)	— Steel	<b>1,018</b>	1,078	(5)%	(2)%
	— Foundry	<b>530</b>	608	(13)%	(9)%
	— Group	<b>1,548</b>	1,686	(8)%	(5)%
Trading profit (£m)	— Steel	<b>83.8</b>	107.2	(21)%	(19)%
	— Foundry	<b>49.2</b>	76.3	(36)%	(30)%
	— Group	<b>133.0</b>	183.5	(27)%	(23)%
Return on sales (%)	— Steel	<b>8.2</b>	9.9	(1.7)pts	(1.5)pts
	— Foundry	<b>9.3</b>	12.6	(3.3)pts	(3.0)pts
	— Group	<b>8.6</b>	10.9	(2.3)pts	(2.1)pts
Profit before tax (£m)		<b>118.2</b>	162.1	(27)%	
Effective tax rate (%)		<b>26.7</b>	26.6	0.1pts	
Earnings per share (p)		<b>29.4</b>	41.0	(28)%	
Dividend per share (p)	— Final	<b>9.5</b>	n/a		
	— Interim	<b>7.5</b>	n/a		

Margins in the Foundry division fell from 12.6% in 2011 to 9.3% in 2012 (and from 13.1% to 11.6% on an underlying basis, adjusted for exchange rates, acquisitions and disposals).

Headline earnings per share ("EPS") from continuing operations before separately reported items were 27.5 pence for 2012 (2011: 39.4 pence). After the pro forma interest charge adjustment referred to above, pro forma headline EPS were 29.4 pence for 2012 (2011: 41.0 pence).

#### TRADING RESULTS — DISCONTINUED OPERATIONS

Reported as discontinued operations are the consolidated results of the Alent plc group of businesses up to 18 December 2012, plus the results of the Precious Metals Processing division; the latter comprising the results of the US Precious Metals operations up to their disposal on 1 May 2012 in addition to the full year results of the European operations which are held for sale at the end of 2012.

Total revenue of Alent plc for the period up to the demerger was £698 million, compared with £814 million in the full year 2011. Trading profit for the period was £99.8 million, compared with £99.6 million in the full year 2011.

Revenue of the Precious Metals division for 2012 was £190 million, down from £326 million in 2011, due to the sale, on 1 May 2012, of the US operations of the division. Excluding the results of the US operations, revenue of the European businesses was £148 million in 2012, down 19% on the prior year (15% at constant exchange rates), which reflected continuing weak retail jewellery markets, partially offset by good levels of precious metals recycling. Trading profit for the year of £17.2 million showed an increase of £10.1 million on the prior year, principally due to the removal of the loss-making US business.

#### RESTRUCTURING

The majority of the restructuring charge in the year relates to the Solar Crucibles product line where, due to a severe downturn in the market, the decision was taken in 2012 to close manufacturing facilities in the Czech Republic, Poland and China, leaving one plant in China producing Solar Crucibles. Subsequent to the end of the year, the decision was taken to exit the Solar Crucibles product line completely as it became clear that, despite the substantial restructuring measures implemented in 2012, the business would remain loss-making for the foreseeable future.

In addition, the Steel Flow Control plant at Tianjin in China was closed in 2012 as production was absorbed within other Chinese plants.

Of the total restructuring charge of £57.0 million, £46.3 million related to the closure of the Solar Crucibles operations, £40.8 million of which related to non-cash asset write-offs. The remaining £16.2 million of restructuring charge represents cash costs, some of which will be incurred in 2013 and later years, related mainly to redundancy programmes initiated during the year.

#### DIVESTMENTS

On 19 December 2012, the Company demerged the Alent business (formerly the Performance Materials division of Cookson Group plc), at which date the fair market value of Alent plc was £862.4 million. The net assets of the Alent group of businesses as at the date of the demerger, 19 December 2012, was £307.0 million, resulting in a profit on disposal of £555.4 million.

As part of the strategy to exit low margin businesses, principally in the Advanced Refractories product line of the Steel division, Andresco-Hurll, a construction business in Australia was disposed of on 24 July to Veolia Environmental Services for a cash consideration of Aus\$8 million (£5 million). In 2012, Andresco-Hurll had revenue of Aus\$19 million (£12 million; 2011: £57 million) and a trading profit of Aus\$0.7 million (£0.4 million).

On 22 February 2012 we entered into an agreement to sell our loss-making US Precious Metals business to Richline Group, Inc. a subsidiary of Berkshire Hathaway Inc. for a cash consideration of £18 million. The sale completed on 1 May 2012. Following the decision, in late 2012, to completely exit the Precious Metals Processing business, the results of this entire division is reported within discontinued operations. As announced on 27 March 2013, we have reached agreement with Heimerle + Meule GmbH, a subsidiary of L. Possehl & Co, mbH ("Possehl") to sell the European Precious Metals Processing business for a consideration of €56.8 million. The cash consideration will be subject to closing balance sheet adjustments. Completion, which is expected by the end of the first half of 2013, will be subject to conditions including approval by the European Commission and by the Supervisory Board of Possehl.

# Financial review continued

## ACQUISITIONS

During the year Metallurgica was purchased for £28 million. Metallurgica, headquartered in Germany, is one of the world's leading suppliers of fluxes, a range of powders used alongside refractory products in the enclosed continuous casting technology for steel production. As well as absorbing impurities in the molten steel, these powders also help lubricate the mould and prevent oxidation of the molten steel during the production process. In 2011, Metallurgica had revenue of approximately £40 million and trading profit of approximately £3.8 million. Gross assets as at 31 December 2011 were approximately £20 million.

## CAPITAL EXPENDITURE

Capital expenditure in the year, excluding acquisitions, comprised £57.2 million on continuing businesses, with £38.5 million invested in our Steel division and £18.7 million invested in Foundry. This represents a reinvestment rate of 1.3 times depreciation of £43.1 million.

## NET FINANCE COSTS

Interest payable on borrowings fell by £2.8 million reflecting the reduction in the Group's overall interest rate on borrowings following the repayment in May of US\$190 million of the Group's US Private Placement loan notes which attracted an interest rate of 8.1%.

	2012 £m	2011 £m
Continuing operations		
Net interest payable on borrowings	<b>20.6</b>	23.4
Finance costs — pensions	<b>0.6</b>	1.4
Other finance costs	<b>1.0</b>	1.0
Headline Performance Separately reported	<b>22.2</b>	25.8
Total net finance costs	<b>22.2</b>	27.7
Of which:		
Pro forma stand-alone equivalent	<b>14.9</b>	20.2

The pro forma finance costs noted above, as described under Basis of Preparation, represent the estimated finance costs attributable to the Vesuvius continuing operations had they been a stand-alone entity throughout 2011 and 2012.

The average interest rate on the aggregate bank debt and US Private Placement loan notes was 3.6% in 2012 (2011: 4.2%). The average interest rate expected in 2013 is 3.7%.

## TAXATION

The Group's effective tax rate, based on the tax charge on ordinary activities from continuing operations of £29.6 million (2011: £41.9 million), was 26.7% in 2012 (2011: 26.6%).

At the end of the year the Group had an unrecognised deferred tax asset of £336.6 million (see note 12), which principally comprises unutilised tax losses.

## PENSIONS

Substantial progress was made in 2012 to de-risk the Group's pension liabilities in both the UK and the USA and substantially reduce the Group's exposure to future volatility in pension funding.

The offer of enhanced transfer values to deferred members of the UK defined benefit pension plan ("the UK Plan"), launched in 2011, was successfully completed in the first half of 2012. In total 550 members took advantage of the scheme and, as a result, longevity and investment risk has been eliminated in respect of £50 million (c.10%) of the Group's total UK pension liabilities.

On 19 July 2012, the Trustee of the UK Plan and Pension Insurance Corporation announced that they had signed a pension insurance buy-in agreement covering all of the pensioner members of the UK Plan. This eliminates inflation, interest rate, investment and longevity risk in respect of around 60% of Vesuvius' total UK pension liabilities for a premium of £319 million.

In 2012, 67% of the deferred pensioners in the US defined benefit pension plan accepted an offer of a lump sum payment in full and final settlement of the Group's pension liability to them, thus eliminating all future risks relating to these liabilities.

The net pension deficit at 31 December 2012 was £69 million (31 December 2011: £32 million, excluding deficits of £26 million in plans which were demerged with Alent plc). The net increase in the deficit on an accounting basis under IAS 19 arose principally as a result of the liabilities insured by the UK pension buy-in agreement being valued some £50 million lower for accounting purposes than the premium paid.

On a funding basis, which uses more conservative discount rate assumptions to value future pension liabilities, the liabilities insured under the pension buy-in were valued around £10 million higher than the premium paid. Accordingly, the pension buy-in has simultaneously increased the funding surplus of the UK plan by £10 million whilst increasing the accounting deficit by £50 million.

In connection with the demerger, a cash injection of £38 million was agreed with the UK Plan Trustee to be paid into the UK Plan in mitigation for the liabilities of the two Alent plc participating employers being discharged in full on the demerger. This mitigation payment did not represent a charge to the income statement under IFRS, but is in effect an accelerated funding payment into the UK Plan, and as such is neutral when looking at total enterprise value. Of the total £38 million, £34 million was paid in December 2012, with the remaining £4 million paid in January 2013.

For the year ended 31 December 2013 the Group is required to adopt IAS 19 (revised), Employee Benefits. Whilst we do not expect there to be a material change in the Group pension deficit as a result of the adoption, it will impact the Group's income statement and the impact on the 2012 pension charge had the revised standard been in force is summarised in the table below.

	2012 Current £m	Reclassify admin costs £m	Discount Rate adj £m	2012 Revised £m
Operating costs	3.3	1.6	—	4.9
Net finance charge	0.6	(1.6)	1.2	0.2
Total IAS 19 charge	3.9	—	1.2	5.1

The £1.6 million increase in operating costs in 2012 results from the requirement to reclassify pension scheme administration costs from net finance charge to operating costs, reducing trading profit and net finance costs by the same amount and thus not impacting earnings. In addition, the revised standard requires the expected return on assets to be calculated by applying a corporate bond yield discount rate to the balance sheet pension-related assets, which has the effect of increasing the net interest charge. This would have given rise to an additional charge, and therefore reduction in pre-tax earnings, of £1.2 million in 2012. The latter change, combined with the reduction in 2012 of the

net accounting surplus in the UK Plan, is projected to increase the net finance charge in 2013 by some £2 million.

#### WORKING CAPITAL

We have embarked on a focused effort to reduce the level of working capital in our businesses and in 2012 we saw a reduction in trade and other working capital of £11.2 million. Average working capital to sales for the year was 27.3% (2011: 26.4%), reflecting the fact that the fall in revenue in the fourth quarter was steeper than the more continuous programme of structural working capital reductions.

#### CASH FLOW

Free cash flow from continuing operations of £54.2 million was generated in 2012 (2011: £32.1 million).

Cash generated from continuing operations, after capital expenditure but before outflows for restructuring, demerger costs and additional pension funding contributions, was £131.8 million in 2012 (2011: £95.8 million); which represents a cash conversion rate of 99% (2011: 52%) in relation to trading profit from continuing operations.

#### FUNDING POSITION AND LIQUID RESOURCES

£ million	2012	2011
USPP Notes	153.8	283.7
Drawn credit facility	267.3	260.5
Other debt	3.7	7.8
Cash deposits	(129.5)	(188.1)
Net Debt	295.3	363.9

The Group is well funded, with £580 million of committed debt facilities available, of which £158 million was undrawn at year end. Of this, £425 million is a syndicated revolving credit facility with 16 banks which expires in 2016. The remainder comprises the US Private Placement notes, of which US\$110 million are repayable in 2017, with the remaining US\$140 million repayable in 2020.

Net debt at 31 December of £295.3 million was well within existing banking covenants of three times EBITDA.

# Financial review continued

## DIVIDEND

Dividends relating to 2012 amount to 17 pence per share. This represents the whole of the 7.5 pence per share Cookson Group plc interim dividend declared during the year and the 9.5 pence per share dividend recommended for approval by the Board to the Annual General Meeting in June 2013.

Dividends paid in 2012 of £61.2 million (2011: £51.8 million) relate to the entire Cookson Group plc 2011 final dividend of 14.5 pence per share (2010 final dividend: 11.5 pence per share) in addition to the entire Cookson Group plc 2012 interim dividend of 7.5 pence per share (2011 interim dividend: 7.25 pence per share).

## SHARE BUY-BACK

Subject to the successful completion of the disposal of the Precious Metals Processing division, the Board has decided to return the majority of the net sales proceeds to shareholders through an on market share buy-back. This demonstrates a desire to exercise strong capital discipline and generate superior returns to shareholders. The strength of our balance sheet and the cash generative nature of our business allows us to return this capital to shareholders whilst retaining the ability to fund attractive growth opportunities as they arise.

## DEMERGER COSTS

The cash costs associated with the preparation and execution of the demerger of the Alent group of businesses from Vesuvius plc, to the extent that they have been allocated to Vesuvius, have been reported as an exceptional item in the income statement. Costs totalling £15.7 million have been charged in the year (£10.0 million for Alent), primarily relating to professional advisor fees for financial, audit, accounting, legal and pensions advice. Fees in connection with the negotiated changes to the debt arrangements in order to provide Vesuvius with ongoing borrowings facilities were £2.0 million and have, as required by IFRS, been capitalised against the associated borrowings and are being amortised over the expected life of those debt arrangements. Tax-related costs of £11.4 million were incurred by Vesuvius (£2.9 million by Alent) in connection with the transactions necessary to reorganise the legal entity structure to facilitate the demerger.

## SHARE CAPITAL AND RESERVES

On 14 December 2012, Vesuvius plc issued 278,448,752 ordinary shares of 638.5 pence each (£1,777.9 million) to the public shareholders of Cookson Group plc in exchange for the entire share capital of Cookson Group plc.

On 19 December 2012, the Company demerged the Alent business (formerly the Performance Materials division of Cookson Group plc), whereby the share capital of the Company was reduced, with £862.4 million repaid by way of the transfer by the Company to Alent plc of the entire share capital of Alent Investments Limited, in consideration of the allotment and issue by Alent plc of one Alent plc share for each Vesuvius plc share held by the Vesuvius plc shareholders at the date of the demerger; and the balance of £887.7 million was retained and transferred to the reserves of the Company to be available for future distributions, leaving issued share capital of £27.8 million.

## CHRIS O'SHEA

Chief Financial Officer

28 March 2013



# Key performance indicators

Vesuvius' Board and executives monitor a large number of financial and non-financial performance indicators, reported on a periodic basis, to measure the Group's performance over time.

Non-financial KPIs	Purpose	2012 performance vs 2011
Lost time injury frequency	➤ Measured to monitor progress towards the Group's goal of zero work-related injuries and illness	➤ The number of work-related illnesses or injuries which resulted in an employee being absent from work for at least one day, per million hours worked, reduced to 1.8 from 2.5 in 2011
Research and development ("R&D") spend	➤ Monitored to ensure that adequate resources are being invested to maintain the Group's strong pipeline of new products and services	➤ R&D spend: £24.5m vs £23.2m in 2011
Total energy consumption	➤ Measured as part of the Group's programme to reduce usage and the associated carbon emissions	➤ Energy usage in manufacturing operations: — Gas use up 0.5% — Electricity use down 3.2%
<b>Financial KPIs</b>		
Underlying revenue growth	➤ Provides an important indicator of organic or "like-for-like" growth of Group businesses between reporting periods. This measure eliminates the impact of exchange rates, acquisitions, disposals and significant business closures	➤ Underlying revenue growth: — Group down 4% — Steel down 2% — Foundry down 9%
Trading profit, return on sales ("RoS")	➤ Used to assess the underlying trading performance of Group businesses	Continuing operations: ➤ Group trading profit: £133.0m, down 27% ➤ RoS: — Steel 8.2% down 1.7pts — Foundry 9.3% down 3.3pts
Headline profit before tax ("PBT") and headline earnings per share ("EPS")	➤ Used to assess the underlying financial performance and earnings capacity of the Group as a whole	➤ Headline PBT: £110.9m down 29% ➤ Headline EPS: 27.5p down 30%
Free cash flow and average working capital to sales ratio	➤ Free cash flow is used to assess the underlying cash generation of the Group. One of the factors driving the generation of free cash flow is the average working capital to sales ratio, which indicates the level of working capital used in the business	Continuing operations: ➤ Free cash flow: £54.2m vs £32.1m in 2011 ➤ Average working capital to sales of 27.3% (2011: 26.4%)
Return on net assets ("RONA")	➤ Used to assess the underlying financial performance of the Group's divisions and the Group as a whole	➤ Group RONA*: 20.0%
Interest cover ratio and ratio of net debt to EBITDA	➤ Both ratios are used to assess the financial position of the Group and its ability to fund future growth	➤ Interest cover*: 14.5 times ➤ Net debt to EBITDA*: 1.5 times

\* The 2011 balance sheet represents total Cookson Group, making comparative indicators not meaningful.

# Principal risks and uncertainties

As described in the Corporate Governance Report, there is a continuous process for identifying, evaluating and managing significant risks faced by Vesuvius. Group management operates a risk management process designed to identify the key risks facing each business and reports to the Audit Committee on the process of how those risks are being managed. The Board is responsible for the Group's risk management and also reviews the role of insurance and other measures used in managing risks across the Group. The Board receives regular reports on any major issues that have arisen during the year and makes an annual assessment of how the risks have changed over the period under review.

Throughout its global operations, Vesuvius faces various risks, both internal and external, which could have a material impact on the Group's long-term performance. Vesuvius manages the risks inherent in its operations in order to mitigate exposure to all forms of risk, where practical, and to transfer risk to insurers, where cost-effective. The risks below are not the only ones that the Group will face. Some risks are not yet known and some that are not currently deemed material could later become material. All of these risks could materially affect the Group, its businesses, results of future operations or financial condition.

Risk and impact

Mitigation

---

*The financial performance and financial position of Vesuvius may be adversely affected by a significant weakening in demand in its core end-markets.*

---

The global macroeconomic environment remains uncertain.

In 2012, following a decline in average monthly steel production volumes at the beginning of the second half of the year, the normal seasonal strengthening did not occur and, indeed, in September, rather than our businesses experiencing the normal seasonal strengthening, there were signs of some further weakening in steel production volume trends, particularly in the US, Europe and Brazil. The downturn was particularly marked in the Foundry division and was principally related to the weakness of the car market in Europe and the truck market globally.

Vesuvius supplies predominantly consumable products, on short lead times, to the global steel and foundry industries. As such, Vesuvius' expectations of future trading are based upon the Directors' assessment of end-market conditions, which conditions are subject to some uncertainty. In the event that end-market conditions suffer significant deterioration, Vesuvius may experience reductions in trading activity, a lower share price, the financial failure of one or more of its key customers and suppliers, asset impairments, lower profitability and/or a material adverse impact on its financial position.

---

The Board regularly reviews Group strategy, which determines the markets in which the Group operates. The current spread of the Group's major businesses, both geographically and by end-market served, provides some protection to the Group should conditions, in particular markets, deteriorate. Further, the reduction in the Group's cost base during the last three years provides additional insulation to the adverse impact of any near-term market downturn and this, together with the level and tenor of the Group's debt facilities, leads the Directors to believe that the Group is well positioned financially to sustain a further downturn in end-market activity should this occur.

## Risk and impact

## Mitigation

*The Group's financial position and trading results may be adversely affected by fluctuations in exchange rates, interest rates or the rate of inflation.*

In the normal course of business, many transactions are carried out by Group businesses in currencies other than their reporting currency, leading to transactional foreign exchange risk, although this is not material for the Group overall. The Group is exposed to the effect of translating the results and net assets of its overseas subsidiaries into sterling. Significant fluctuations in the value of currencies in which it operates, in interest rates, or in rates of inflation may adversely impact the Group's financial position, results of operations and ability to comply with its financial covenants.

The Group seeks to manage transactional and balance sheet translation risks associated with currency exchange rate fluctuations through its hedging and funding policies and it is Group policy that foreign currency transaction exposures that are material at an individual operating unit level are hedged using appropriate instruments such as forward foreign exchange contracts. For its key operating currencies, the Group broadly matches the currency profile of its borrowings with the currencies of its asset base, but does not hedge translational impact on the income statements of overseas subsidiaries. Where appropriate, the Group manages its interest rate exposures using interest rate swaps or other instruments.

*The Group may lose customers to competitors with new or alternative technologies if its businesses either do not adequately adapt to market developments or are unable to protect, maintain and enforce their intellectual property.*

The markets in which many of Vesuvius' businesses operate can experience rapid changes due to the introduction of new technologies. The continued success of Vesuvius depends upon its ability to continue to develop and produce new and enhanced products and services on a cost-effective and timely basis in accordance with customer demands. In addition, the markets for Vesuvius' products are competitive in terms of pricing, product and service quality, product development and introduction time, customer service, financing terms and other similar factors. If Vesuvius fails adequately to adapt to market developments related to new products and technology, it could lose customers to suppliers with better or less costly products.

Vesuvius invests significant amounts in research and development and endeavours to sustain its competitive advantage and take appropriate action to ensure that its cost base remains competitive. In 2012, total research and development spend was £24.5 million, equivalent to 1.6% of revenue.

The Group applies for patents over its major products, technologies and processes in a number of jurisdictions, including in Europe and the US. New product and service offerings by competitors are regularly monitored and any perceived breach of a Group patent is vigorously challenged. To the extent possible, the Group avoids holding key intellectual property in countries which do not afford an acceptable degree of legal protection to the Group.

Throughout its operations, Vesuvius relies on a combination of trade secrets, patents, confidentiality procedures and agreements, and copyright and trade mark laws to protect its proprietary rights. If Vesuvius fails to or is unable to protect, maintain and enforce its existing intellectual property, this may result in the loss of the Group's exclusive right to use technologies and processes which are included or used in its businesses. In addition, the laws of certain foreign countries in which Vesuvius operates may not protect proprietary rights to the same extent as those of, for example, the UK or the USA.

# Principal risks and uncertainties continued

## Risk and impact

*The Group's financial condition may be materially adversely affected by any significant liabilities for any defects of its products or services.*

If a product of the Group or of one of the Group's industrial customers does not conform to agreed specifications or is otherwise defective, the Group may be subject to claims by its customers arising from end-product defects, injury to individuals or other such claims. Legal claims have been brought against certain Group companies by third parties alleging that persons have been harmed by exposure to hazardous materials used by those companies in the manufacture of industrial and consumer products, and further claims may be brought in the future. Certain of the Group's subsidiaries are subject to suits, predominantly in the US, relating to a small number of products containing asbestos manufactured prior to the acquisition of those subsidiaries by the Group. These suits usually also name many other product manufacturers. To date, the Group is not aware of there being any liability verdicts against any of these subsidiaries.

*The Group's worldwide operations and businesses may be adversely affected by various political, legal, regulatory and other developments in countries in which it operates.*

Vesuvius is subject to various legal and regulatory regimes, including those covering taxation and environmental matters; and political risks including the imposition of trade barriers, changes of regulatory requirements, lack of protection for intellectual property rights and the volatility of input costs, selling prices, taxes and currencies. In particular, operating within the rapidly evolving developing nations can expose the Group's businesses to significant local risks and challenges. Future global political, legal or regulatory developments concerning Group businesses may affect their ability to operate and to operate profitably in the affected jurisdictions. Should Group businesses fail to comply with applicable legal and regulatory requirements, this may result in a financial loss or restriction on their ability to operate.

The Group's businesses are subject to a variety of operational risks, including natural catastrophe, terrorist action, theft, fraud and, particularly in developing nations, insufficient supply of high-quality local management and technical personnel. If any of the operational risks materialise to a significant extent, this could result in a substantial interruption to a facility, loss of future insurance cover, a potential loss of customers and revenue and financial loss.

## Mitigation

The Board believes that, taking into account legal advice received, the Group's insurance arrangements, indemnification provided by former owners of certain of the subsidiaries impacted and financial provisions, none of the currently pending or potential claims will, either individually or in the aggregate, have a material adverse impact on the Group's financial position and results of operations.

As part of its planning process before entering a new market or territory, or expanding in an existing market or territory, the Group undertakes a rigorous assessment of the risks involved. In addition, the spread of the Group's major businesses, both geographically and by end-market served, provides some protection to the Group should any of its businesses be adversely impacted by legal, regulatory or other changes in an individual market or territory.

The Group has in place an insurance programme covering all of its businesses which provides an acceptable level of coverage for the operational risks which they face.

*A withdrawal or reduction of precious metal consignment arrangements, or increased precious metal prices resulting in consignment lines being fully utilised, may cause a shortage of raw materials requiring the business to be restructured and downsized and may result in a short-term material increase in the Group's financial indebtedness.*

The Group's precious metal fabrication operations utilise significant quantities of precious metals, primarily gold by value. These metals are held predominantly on consignment under uncommitted contractual arrangements whereby the consignor has the right to demand physical return or purchase of its consigned metal. Should precious metals consignors decide to reduce or withdraw the facilities for whatever reason, or require a return of the consigned metal, or increased metal prices lead to the consignment arrangements becoming fully utilised, the Group's precious metal fabrication operations may suffer shortages of raw materials requiring the business to be restructured and downsized in order to be able to operate within its available consignment facilities. In the short - term this may require precious metals to be purchased, which could materially increase the Group's financial indebtedness pending completion of the downsizing.

The utilisation of consigned precious metals is established practice in the precious metals industry. The Group has successfully maintained precious metal consignment arrangements of this nature for over 20 years. Vesuvius has close commercial relationships with its group of consignor banks. Management seek to operate the business at all times with appropriate headroom within the consignment facilities, taking account of anticipated levels of business activity and precious metals prices.

The sale of the Group's Precious Metals Processing division will remove this risk.



# Board of Directors



**1 JOHN McDONOUGH CBE**  
Chairman

John McDonough was appointed as a Director and Chairman of Vesuvius plc on 31 October 2012. John was Group Chief Executive Officer of Carillion plc, the support services and construction firm, for 11 years until he retired in 2011. Prior to joining Carillion plc he spent nine years at Johnson Controls Inc. working for the automotive systems division, initially in the UK, before moving to become Vice President of the division's European operations and ultimately to Singapore to develop the business in Asia Pacific. He then returned to the UK as VP of the integrated facilities management division for EMEA. John served as Chairman of the Remuneration Committee of Tomkins plc from 2007 to 2010 and as a non-executive director of Exel plc from 2004 to 2005. He joined The Vitec Group plc in March 2012, and has served as Chairman since June 2012. John McDonough is a British citizen.

**2 FRANÇOIS WANECQ**  
Chief Executive

François Wanecq was appointed as a Director of Vesuvius plc on 31 October 2012. He previously joined the Cookson Group plc Board in February 2010. François has been the Chief Executive Officer of Cookson's Engineered Ceramics division since October 2005. Prior to joining Cookson he held a series of senior management roles at ArjoWiggins Group and served as an executive director of ArjoWiggins Appleton plc from 1999 until it was delisted. From 1985 to 1995 he was Managing Director of the technical ceramics division of the Saint-Gobain Group. François is currently the Chairman of the European Refractory Association (PRE). François Wanecq is a French citizen.

**3 CHRIS O'SHEA**  
Chief Financial Officer

Chris O'Shea was appointed as a Director of Vesuvius plc on 31 October 2012, having joined Cookson Group plc on 11 October 2012. Prior to joining Cookson, Chris held a number of senior finance roles at BG Group, latterly serving as CFO for the group's businesses in Africa, the Middle East and Asia. From 1998 to 2005 Chris worked in the UK, the US and Nigeria for Royal Dutch Shell in a variety of roles, including CFO for Shell's offshore exploration and production business in Nigeria. Chris is a Chartered Accountant with an MBA from Duke University and has also worked for Ernst & Young. Chris O'Shea is a British citizen.

**4 JOHN SUSSENS**  
Senior Independent Director &  
Remuneration Committee Chair

John Sussens was appointed as a Director and Senior Independent Director and Chairman of the Remuneration Committee of Vesuvius plc on 31 October 2012. He previously joined the Cookson Group plc Board in May 2004. John will retire as a Director immediately following Vesuvius' 2013 Annual General Meeting. John was Managing Director of Misys plc until 2004. He is currently senior Independent non-executive Director and Chairman of the Remuneration Committee of Admiral Group plc. He served until March 2011 as a non-executive director of Anglo & Overseas plc. John Sussens is a British citizen.

**7 JEFF HEWITT**  
Non-executive Director & Audit  
Committee Chair

Jeff Hewitt was appointed as a Director and Chairman of the Audit Committee of Vesuvius plc on 31 October 2012 having previously joined the Cookson Group plc Board in June 2005. Jeff was previously Deputy Chairman and Group Finance Director of Electrocomponents plc. He is a non-executive Director and Chairman of the Audit committees of Cenkos Securities plc and Foreign & Colonial Investment Trust plc. He is also the Chairman of Electrocomponents Pension Trustees Limited.

Jeff will take over from John Sussens as Senior Independent Director when John retires from the Board immediately following the 2013 Annual General Meeting. Jeff Hewitt is a Chartered Accountant and a British citizen.

**5 NELDA CONNORS**  
Non-executive Director

Nelda was appointed a Director of Vesuvius plc on 1 March 2013. From 2008 to 2011 Nelda was President and CEO of Tyco International, Electrical & Metal Products division (renamed Atkore International in 2010). Prior to that she spent six years at Eaton Corporation, in a number of international management roles which included nearly four years based in Shanghai. Nelda spent much of her early career in the automotive industry working for Ford, Chrysler and Mogami Denki, a Toyota supplier. During this period she undertook roles in plant management, engineering, quality, customer service and strategic planning and worked in the US, Europe and Asia Pacific. Nelda is currently a non-executive director of Blount International, Inc., and Boston Scientific Corporation. She also sits on the Board of the Federal Reserve Bank of Chicago and is Chairwoman and Founder of Pine Grove Holdings, LLC, a consultancy that provides advisory services to private equity and investment firms and limited investments to small and mid-sized businesses. Nelda Connors is a US citizen.

**8 JANE HINKLEY**  
Non-executive Director &  
Remuneration Committee Chair  
Designate

Jane Hinkley was appointed as a Director of Vesuvius plc on 3 December 2012. She will take over from John Sussens as Chairman of the Remuneration Committee when John retires from the Board immediately following the 2013 Annual General Meeting. Jane is currently a non-executive Director and Chairman of the Remuneration Committee of Premier Oil plc. She also serves as a non-executive Director of Teekay GP L.L.C.

Jane spent a large part of her career working at Gotaas-Larsen Shipping Corporation, the LNG shipping specialist which was listed on both the London Stock Exchange and NASDAQ. She served as CFO from 1988–1992, and as Managing Director until 1997. In 1998 Jane was appointed Managing Director of Navion Shipping AS, a position she held until 2001. Jane is a Chartered Accountant and a British citizen.

**6 CHRISTER GARDELL**  
Non-executive Director

Christer Gardell was appointed as a Director of Vesuvius plc on 31 October 2012 having previously joined the Cookson Group plc Board in June 2012. Christer is Managing Partner of Cevian Capital which held just over 20% of Vesuvius' issued share capital on the date of his appointment. Christer co-founded Cevian Capital in 2002. From 1996 to 2001, he was the Chief Executive Officer of AB Custos, the Swedish investment company. Prior to joining AB Custos he had been a partner of Nordic Capital and McKinsey & Company. Christer is a non-executive Director of the global Finnish technology and services company Metso Corporation. He served as a non-executive director of A B Lindex until December 2007 and of Tieto Corporation until March 2012. Christer Gardell is a Swedish citizen.

**9 JAN OOSTERVELD**  
Non-executive Director

Jan Oosterveld was appointed as a Director of Vesuvius plc on 31 October 2012. He previously joined the Cookson Board in June 2004. Jan will retire as a Director immediately following Vesuvius' 2013 Annual General Meeting. Jan spent 32 years with Royal Philips Electronics, where he was a member of the Group Management Committee with responsibility for corporate strategy, the Chief Executive of Philips Asia Pacific and the Chairman of LG Philips LCD. He is a non-executive Director and Chairman of the Remuneration Committee of Candover Investments plc and a non-executive Corporate Director of Barco N.V., He is also a Director of Alent plc. He served as Chairman of the supervisory board of Crucell N.V, until December 2011. Jan is also a professor at IESE Business School in Barcelona. Jan Oosterveld is a Dutch citizen.

# Corporate governance report

“Following the demerger in December 2012, the Board of Vesuvius plc has established a sound corporate governance structure for the new stand-alone business. ”

JOHN MCDONOUGH CBE, CHAIRMAN

## INTRODUCTION FROM THE CHAIRMAN

### DEAR SHAREHOLDER

Maintaining good governance is a key priority for Vesuvius and much of the framework we have adopted builds on the solid structure that Cookson Group plc had set out in this regard prior to the demerger. The Corporate Governance Report provides a detailed review of the Company's approach and the systems we have put in place.

### BOARD

As reported in my Chairman's statement we have built a strong Board for the new Company. We are delighted to have welcomed two women onto the Board, Nelda Connors and Jane Hinkley. We continue to look at diversity in its broadest sense; this is reflected in the range of backgrounds and experience of our Board members. We believe that it is important to get the right balance of independence, skills and knowledge, both on the Board and across our businesses. All our Board appointments have been, and will continue to be, made on merit to ensure that at all times we have the most effective team to lead the Company in delivering long-term shareholder value.

As Chairman, I recognise my role in ensuring that the Company is led by an effective Board. Key to this is not only the calibre of the Directors appointed, but also ensuring they attain an appropriate understanding of the business, continue to refresh their skills and knowledge and are able to devote sufficient time to their roles. It is also important that there be clear definition and structure of the Board's ongoing responsibilities and priorities. It is critical that open and transparent debate is encouraged, and that the Non-executive Directors work effectively with the management team to achieve long-term success.

## RISK MANAGEMENT AND CONTROLS

The Board recognises the importance of maintaining a keen focus on risk. Its annual review for 2012 of the effectiveness of the Group's system of risk management and internal control covered the whole of the year, including a review of the results of the work of the Internal Audit function and the senior management's self-certification exercise. This process required senior financial and operational management throughout the Group to certify the effectiveness of internal controls within the businesses for which they are responsible, together with their compliance throughout the whole year with the Group's (and Cookson's, as appropriate) policies and procedures.

## REMUNERATION

In setting the remuneration policy and structure for the new Group, we were mindful of the current environment around executive remuneration and the need to clearly link pay to the delivery of performance. We set out more details on our approach in our Remuneration Report on pages 76 to 92.

Yours sincerely

**JOHN McDONOUGH CBE**

Chairman

28 March 2013

# Contents

66	<b>LEADERSHIP</b> The Board The Chairman and the Chief Executive The Non-Executive Directors The Senior Independent Director The Company Secretary Board Meetings Board Committees	70	<b>ACCOUNTABILITY</b> The Audit Committee Financial and Business Reporting Risk Management and Internal Control Reviewing the Effectiveness of Internal Controls Executive Compensation and Risk
68	<b>EFFECTIVENESS</b> Board Composition Appointments to the Board Time Commitment of the Chairman and Non-executive Directors Induction and Training Information and Support Performance Evaluation Election of Directors Directors' Indemnities Directors' Conflicts of Interest	71	<b>RELATIONS WITH SHAREHOLDERS</b>
		72	<b>AUDIT COMMITTEE REPORT</b>
		75	<b>NOMINATIONS COMMITTEE REPORT</b>
		76	<b>DIRECTORS' REMUNERATION REPORT</b>
		93	<b>DIRECTORS' REPORT</b>



# Corporate governance report continued

The Board of Vesuvius plc ("the Company"), is responsible for the Group's system of corporate governance and is committed to maintaining high standards. In preparation for the Company's listing following the demerger of Cookson Group, a full review of corporate governance arrangements was undertaken. These arrangements were summarised in the prospectus relating to the Company's listing published on 1 November 2012. This report describes the Company's corporate governance structure and explains how Vesuvius plc has applied the main principles of the UK Corporate Governance Code issued by the Financial Reporting Council in June 2010 ("the Code") since the date of its incorporation (17 September 2012) to 31 December 2012. The report also explains how the Company plans to apply the main principles of the Code going forward.

For the period from incorporation to listing on 17 December 2012, the Company did not comply with the provisions of the Code. The Board believes that, for the period from 17 December to 31 December 2012, with the exception of completing the Directors' induction and undertaking a Board evaluation, which were not possible given the time available, Vesuvius plc has complied with the relevant provisions of the Code.

## LEADERSHIP

### THE BOARD

Ultimate responsibility for the management of the Group rests with the Board of Directors. The Board focuses primarily upon strategic and policy issues and is responsible for the Group's long-term success. It approves the Group's strategy, oversees the allocation of resources and monitors the performance of the Group in pursuit of this, all within the context of ensuring that the Group operates within a framework of prudent and effective controls which enable risk to be assessed and managed.

### THE CHAIRMAN AND THE CHIEF EXECUTIVE

The division of responsibilities between the Chairman and the Chief Executive has been agreed by the Board and is set out in writing.

The Chairman leads the Board, ensuring its effectiveness and promoting high standards of corporate governance. He ensures that there is a clear structure for the operation of the Board and its Committees and encourages open communication between all Directors. In conjunction with the Company Secretary and Chief Executive, he sets the Board agenda and ensures that the Board receives accurate, relevant and timely information about the Company's affairs. The Chairman meets routinely with the Chief Executive and Company Secretary to discuss relevant matters. The Chairman also serves as Chairman of The Vitex Group plc. The Board considers that the Chairman is able to, and does, devote sufficient time to his duties at Vesuvius.

The Chief Executive manages the Group. He is responsible for developing the Group's strategic direction for consideration and approval by the Board. He has day to day responsibility for managing the Group's operations, for the application of the Group's policies and for the implementation of the agreed strategy. He is accountable to, and reports to, the Board on the performance of the business.

### THE NON-EXECUTIVE DIRECTORS

The Non-executive Directors bring a wide range of skills and experience to the Board. They represent a strong, independent element on the Board and are well-placed to constructively challenge and support management. They help to shape the Company's strategy, scrutinising the performance of management in meeting the Company's objectives and monitor the reporting of performance. Their role is also to satisfy themselves with regard to the integrity of the Group's financial information and to ensure that the Group's financial controls and risk management systems are robust and defensible. As members of the Remuneration Committee, the independent Non-executive Directors determine the appropriate level of remuneration for the Executive Directors, and as members of the Nominations Committee the Non-executive Directors play a pivotal role in Board succession planning and the appointment of new Executive Directors.

### THE SENIOR INDEPENDENT DIRECTOR

The Board nominates one of the Non-executive Directors to act as Senior Independent Director and provide an alternative contact at Board level, other than the Chairman, to whom shareholder matters can be addressed. The Senior Independent Director also acts as a sounding board for the Chairman and, should it be required, can act as an intermediary for the concerns of other Non-executive Directors. He is responsible for undertaking the annual evaluation of the Chairman's performance and for leading the recruitment process for a new Chairman, when required.

### THE COMPANY SECRETARY

The Company Secretary supports the Chairman on Board corporate governance matters, in particular in planning the agenda for the annual cycles of Board and committee meetings, and ensuring information is available for the Board in a timely manner. He ensures that there is an appropriate level of communication between the Board and its committees and between senior management and the Non-executive Directors. He also keeps the Board apprised of developments in relevant legislative, regulatory and governance matters, facilitates Directors' induction and assists with professional development as required.

### BOARD MEETINGS

The Board has a formal schedule of matters reserved to it and delegates certain matters to committees as outlined below. It is anticipated that the Board will convene on seven formal scheduled occasions during 2013 as well as holding a number of ad hoc committee meetings to consider non-routine business. In addition, it is envisaged that the Chairman and the other Non-executive Directors will meet routinely on their own without the Executive Directors present. At least once each year the Non-executive Directors will meet without the Chairman present to discuss matters such as the Chairman's performance.

Specific matters reserved for the Board include: reviewing Group and divisional performance; approving significant transactions including acquisitions, divestments, capital expenditure and changes to the Group's capital structure; setting and approving the Group's strategy and annual budget; approving the Group's financing and



treasury policies; declaration of dividends; succession planning; and approving Board appointments and the remuneration of the Non-executive Directors. Furthermore, the Board considers health, safety and environmental matters and maintains overall responsibility for the Group's system of internal control and risk management processes.

#### BOARD COMMITTEES

The principal governance committees of the Board are the Audit, Remuneration and Nominations Committees. In addition, the Board delegates certain responsibilities on an ad hoc basis to the Finance and Share Schemes committees.

	Role	Chair of Committee	Membership	Minimum number of meetings per year
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.	Jeff Hewitt	All independent Non-executive Directors.	Three.
Remuneration Committee	To determine the appropriate remuneration packages for the Group's Chairman, Executive Directors, and Company Secretary, and to recommend and monitor the level and structure of remuneration for other Senior Management.	John Sussens	All independent Non-executive Directors.	As necessary, (it is anticipated that at least three meetings will be held each year).
Nominations Committee	To advise the Board on appointments, retirements and resignations from the Board and its committees and review succession planning for the Board.	John McDonough, the Chairman (except where considering his own succession or replacement in which case the Committee is chaired by John Sussens, the Senior Independent Director).	The Chairman and any three Non-executive Directors.	As necessary.
Finance Committee	To approve specific funding and treasury related matters as set out in the Group's delegated authorities or as delegated from time-to-time by the Board.	The Chairman	The Chairman, Chief Executive, Chief Financial Officer and Group Treasurer.	As necessary.
Share Schemes Committee	To facilitate the administration of the Company's share schemes.	Any member.	Any two Directors.	As necessary.

Each committee has written terms of reference agreed by the Board. These are available to view on the Company's website — [www.vesuvius.com](http://www.vesuvius.com).

In addition to these formal Board Committees, the Group also operates an Executive Committee. This Committee, which is chaired by the Chief Executive, assists the Chief Executive in discharging his responsibilities. It is responsible for the executive management of the Group's businesses and comprises the Chief Executive and Chief Financial Officer, the Company Secretary, the five Business Unit Presidents, and the three Vice Presidents of Human Resources, Research and Development, and Manufacturing, Engineering, QHSE and Purchasing. The Executive Committee is scheduled to meet six times during 2013.

# Corporate governance report continued

The attendance of Directors who served between 31 October 2012 (when the formal Board of Vesuvius plc was appointed) and 31 December 2012, at the Board and principal committee meetings held during this period, is shown in the table below. The maximum number of meetings in the period when the individual was a Board member is shown in brackets.

	Board	Audit Committee	Remuneration Committee	Nominations Committee
<b>Chairman</b>				
John McDonough CBE	1(2)	n/a	n/a	1(1)
<b>Executive Directors</b>				
Chris O'Shea	2(2)	n/a	n/a	n/a
François Wanecq	2(2)	n/a	n/a	n/a
<b>Non-executive Directors</b>				
Christer Gardell	2(2)	n/a	n/a	1(1)
Jeff Hewitt	2(2)	1(1)	1(1)	1(1)
Jane Hinkley	1(1)	1(1)	1(1)	1(1)
Jan Oosterveld	2(2)	1(1)	1(1)	1(1)
John Sussens	2(2)	1(1)	1(1)	1(1)

The Directors also held a number of informal meetings prior to their appointment to the Board to discuss matters pertaining to the demerger of Cookson Group and the set up and constitution of the new plc.

Messrs Bryan Elliston and Richard Malthouse served as the initial Directors of the Company from the date of incorporation until the formal Board was appointed on 31 October 2012. They attended two Board meetings of the Company during this period.

## EFFECTIVENESS

### BOARD COMPOSITION

The Board currently has nine Directors, comprising the Non-executive Chairman, John McDonough CBE; the Chief Executive, François Wanecq; the Chief Financial Officer, Chris O'Shea; and six Non-executive Directors. Richard Malthouse serves as Company Secretary.

The Board seeks to ensure that both it, and its committees, have the appropriate range of skills, experience, independence and knowledge of the Company to enable them to discharge their respective duties and responsibilities effectively. The Board considers its size to be appropriate for the requirements of the business. The Non-executive Directors are drawn from different nationalities and have significant experience of managing complex global manufacturing businesses.

No-one other than committee chairmen and members of the Committees are entitled to be present at meetings of the Audit, Nominations and Remuneration Committees, but others may attend by invitation.

The Board considers the majority of the Non-executive Directors, namely Nelda Connors, Jeff Hewitt, Jane Hinkley, Jan Oosterveld and John Sussens, to be independent of management and free from any business or other relationship which could affect the exercise of their independent judgement. Christer Gardell is Managing Partner of Cevian Capital which holds 20% of Vesuvius' issued ordinary share capital and is therefore not considered to be independent. The Chairman satisfied

the independence criteria on his appointment to the Board. Mr Sussens currently serves as Senior Independent Director.

Messrs Oosterveld and Sussens intend to retire as Directors of Vesuvius plc immediately following the 2013 Annual General Meeting. Ms Hinkley will then become Chairman of the Remuneration Committee and Mr Hewitt will assume the role of Senior Independent Director. The biographical details of the Directors are set out on pages 62 and 63.

## APPOINTMENTS TO THE BOARD

Recommendations for appointments to the Board are made by the Nominations Committee. The Nominations Committee follows a formal, rigorous and transparent procedure for the appointment of new Directors to the Board. Board appointments are made on merit against objective criteria, selecting the best candidate for the post. Non-executive appointees are also required to demonstrate that they have sufficient time to devote to the role. The Nominations Committee is responsible for reviewing the Board succession plans to ensure that plans are in place for the appropriate refreshing and orderly succession of Board directorships. Further information is set out in the Nominations Committee Report on page 75.

## TIME COMMITMENT OF THE CHAIRMAN AND THE NON-EXECUTIVE DIRECTORS

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 was provided in their recruitment role specification, and their letters of appointment provide details of the meetings that they are expected to attend, along with indicating the need to accommodate travelling time (particularly for overseas trips) and to set aside sufficient time to prepare for meetings, and to regularly refresh and update their skills and knowledge. All Directors agree to commit sufficient time for the proper performance of their responsibilities and understand that this will vary from year to year depending on the Group's activities. Directors are expected to attend

all Board meetings and any additional meetings (including committee meetings) as required. Directors' other significant commitments are disclosed to the Board at the time of their appointment and they are required to notify the Board of any subsequent changes. The Company has reviewed the availability of the Non-executive Directors and considers that each of them is able to, and in practice does, devote the necessary amount of time to the Company's business.

#### INDUCTION AND TRAINING

A comprehensive induction programme has been created for new Directors. This includes visits to manufacturing facilities, meetings with key Group executives and introductions to the Company's principal external advisers, as appropriate. Reference materials are provided, including information about the Board, its committees, Directors' duties, procedures for dealing in the Company's shares and other regulatory and governance matters, and Directors are advised of their legal and other duties and obligations as Directors of a listed company.

It is envisaged that the Chairman will meet with Directors on an ongoing basis to review any training and development needs. In addition, the Directors are provided with details of seminars and training courses relevant to their role. They are encouraged to attend these as they consider appropriate and are supported by the Company in so doing. Where a general training need is identified, in-house training will be provided to the entire Board.

#### INFORMATION AND SUPPORT

The Board has in place processes to ensure that it is supplied in a timely manner with information of an appropriate quality to enable it to adequately 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 in advance of the meeting. The Company Secretary's role in facilitating the appropriate flow of information is described in further detail under the role description above. The Chief Executive provides, as a matter of routine, a written update on important business issues between meetings and invites the views of the Directors.

All Directors have access to the advice and services of the Company Secretary. There is also an agreed procedure in place for Directors, in the furtherance of their duties, to take independent legal advice if necessary, at the Company's expense.

#### PERFORMANCE EVALUATION

In accordance with the provisions of the Code, the Board of Vesuvius plc intends to undertake a formal and rigorous evaluation of its own performance and effectiveness and to assess the performance of its committees and individual Board members on an annual basis. The Board will consider the balance of skills, experience, independence and knowledge of the Company on the Board, its diversity, including gender, how the Board works together as a unit and other factors relevant to its effectiveness.

The Chairman will be responsible for, and will lead, the evaluation process and will be assisted by the Company Secretary. The Senior Independent Director will be responsible for the performance evaluation of the Chairman.

#### ELECTION OF DIRECTORS

The Code recommends that all Directors of FTSE 350 companies be subject to annual election by shareholders. All the Directors will therefore be offering themselves for election at this year's Annual General Meeting ("AGM"), with the exception of Messrs Oosterveld and Sussens who will be retiring as Directors at the AGM. The biographical details of each of the Directors, including details of their other directorships and relevant skills and experience, are set out in the 2013 Notice of AGM. The Board believes that each of the Directors standing for election is effective and demonstrates commitment to their respective roles. Accordingly, the Board recommends that shareholders approve the resolutions to be proposed at the 2013 AGM relating to the election of the Directors.

#### DIRECTORS' INDEMNITIES

To the extent permitted by section 236 of the Companies Act 2006, the Directors have been granted Qualifying Third Party Indemnity Provisions by the Company and the directors of the Group's UK Pension Plan Trustee Board (none of whom are Directors of Vesuvius plc) have been granted Qualifying Pension Scheme Indemnity Provisions by Cookson Pension Plans Trustees Ltd. The indemnities for Directors of Vesuvius plc have been in force since the date of their appointment. The Pension Trustee indemnities were in force throughout the last financial year and remain in force.

#### DIRECTORS' CONFLICTS OF INTEREST

Provisions in the Company's Articles of Association permit the Board to consider and, if thought fit, to authorise situations where a Director has an interest that conflicts, or may possibly conflict, with the interests of the Company ("Situational Conflicts"). The Board has established a formal system for Directors to declare Situational Conflicts so that they can be considered for authorisation by the remaining members of the Board. In deciding whether to authorise a Situational Conflict, the non-conflicted Directors are required to act in the way they consider would be most likely to promote the success of the Company, and they 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 records any authorisations granted. The Board believes that the systems it has in place for reporting Situational Conflicts continue to operate effectively.

# Corporate governance report continued

## ACCOUNTABILITY

### THE AUDIT COMMITTEE

The membership of the Audit Committee is set out on page 72. The Audit Committee report which summarises the terms of reference of the Audit Committee and describes its work in discharging its responsibilities is set out on pages 72 to 74.

### FINANCIAL AND BUSINESS REPORTING

The Business Review referenced on page 93 sets out explanations for the basis on which the Group generates or preserves value over the longer term and the strategy for delivering the objectives of the Group.

A statement of the Directors' responsibility for preparing the Annual Report and Accounts is set out on page 100 and a statement by the Auditor, KPMG LLP about its reporting responsibilities is set out on page 101. As detailed on page 93, the Directors consider that the Group and Company have adequate resources to continue in operational existence for the foreseeable future and accordingly, they have adopted a going concern basis in preparing the financial statements of the Group and the Company.

### RISK MANAGEMENT AND INTERNAL CONTROL

The Board has overall responsibility for the establishment and maintenance of the Group's system of risk management and internal control, and for reviewing its effectiveness. This system is designed to manage, rather than eliminate, the risks facing the Group and safeguard assets. No system of internal control can provide absolute assurance against material misstatement or loss. The Group's system is designed to provide the Directors with reasonable assurance that problems are identified on a timely basis and are dealt with appropriately. In accordance with the provisions of the Code, the Directors confirm that they have reviewed the effectiveness of the Group's system of internal control and that the necessary actions have been taken to remedy and control any control weaknesses identified during the year. Since the date of this review there have been no significant changes in internal controls or other matters which could significantly affect them.

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. The key features of the Group's system of internal control include:

#### Strategy and financial reporting

The Group operates a comprehensive strategic planning and forecasting process, with an annual budget approved by the Board. Monthly operating financial information is reported against this budget and key trends and variances analysed. Action is then taken as appropriate.

Group accounting policies and procedures are formulated and disseminated to all Group operations, covering the application of accounting standards and the maintenance of accounting records and key financial control procedures.

#### Operational controls

Each operating company, including the Corporate offices, maintains internal controls and procedures appropriate to its structure and business environment, whilst complying with Group policies on items such as the authorisation of capital expenditure, treasury transactions and the management of intellectual property.

In addition, the Group's financial reporting process, including the preparation of the Company's consolidated financial statements, incorporates the dissemination and use of common accounting policies and procedures and financial reporting software.

The Board considers significant financing and investment decisions concerning the Group, including the giving of guarantees and indemnities, and monitors policy and control mechanisms for managing treasury risk.

#### Risk assessment and management

There is a continuous process for identifying, evaluating and managing any significant risks faced by Vesuvius and, previously, Cookson. Group management operates a risk management process designed to identify the key risks facing each business and reports to the Board on how those risks are being managed. As a basis for this report, each of the Group's major business units produces a "risk map" which identifies their key risks and assesses the likelihood of those risks occurring, their impact if they do occur and the actions being taken to manage those risks to a desired level.

The Board reviews the role of insurance and other measures used in managing risks across the Group, receives reports on any major issues that arise and makes an annual assessment of how the risks have changed.

#### REVIEWING THE EFFECTIVENESS OF INTERNAL CONTROLS

The internal control system is monitored and supported by the Group's internal audit function. This function assists management and the Board in the effective discharge of its responsibility for internal control by conducting reviews of Vesuvius' businesses and reporting objectively both on the adequacy and effectiveness of the system of internal control in place and as to whether those businesses are in compliance with applicable Group policies and procedures. The Audit Committee receives reports from the Group Head of Internal Audit and reports to the Board on the results of its review.

As part of the Board's process for reviewing the effectiveness of the system of internal control, it delegates the following matters to the Audit Committee to be carried out during the year:

- review of external and internal audit work plans;
- consideration of reports from management, internal audit and external audit on the system of internal control and any significant control weaknesses; and
- discussions with management on the actions taken on problem areas identified by Board members, in internal audit reports or in external audit management letters.

At the year-end, following the review by the Audit Committee of internal financial controls and of the processes covering other controls, the Board evaluated the results of the internal control and risk management procedures conducted by senior management. This included a self-certification exercise by which senior financial and operational management throughout the Group certified the effectiveness of the system of internal control within the businesses for which they were responsible, together with their compliance throughout the year with the Group's policies and procedures.

#### EXECUTIVE COMPENSATION AND RISK

All the independent Non-executive Directors serve on both the Audit and Remuneration Committees. They are therefore able to bring their experience and knowledge of the activities of each committee to bear when considering the critical judgements of the other. This means that the Directors are in a position to consider carefully the impact of incentive arrangements on the Group's risk profile and to ensure the Group's remuneration policy and programme is structured so as to accord with the long-term objectives and risk appetite of the Company.

#### RELATIONS WITH SHAREHOLDERS

The Board seeks to ensure effective engagement with shareholders through the Company's regular communications, the AGM and other investor relations activities.

Prior to the demerger of Cookson Group, the Company held a Capital Markets Day to provide the Group's stakeholders with more detailed insight into the Group's future strategy and investment proposition. The Chief Executive and Chief Financial Officer then led a series of meetings with investors to promote the new Company. In addition, the Senior Independent Director, as Chairman of the Remuneration Committee, met with key institutional shareholders and their representative bodies to discuss the proposals for the Company's new remuneration policy.

The Company's investor relations programme is managed by the Chief Executive and Chief Financial Officer. The majority of meetings with investors are led by them, but the Chairman, Senior Independent Director and other Directors are also available to meet with significant shareholders as appropriate.

The Company will report its financial results to shareholders twice a year, with the publication of its Annual and Half-Yearly Financial Reports, and will issue two further trading updates each year with the publication of its Interim Management Statements. In conjunction with these announcements, presentations or teleconference calls will be held with institutional investors and analysts. Recordings of these will be made available on the Group's website along with hard copies of any presentation materials issued — [www.vesuvius.com](http://www.vesuvius.com).

Regular updates on shareholder issues and discussions will be provided to the Board. Board members will continue to receive copies of significant analysts' notes issued on the Company. All Directors are expected to attend the Company's AGM, providing shareholders with the opportunity to question them about issues relating to the Group, either during the meeting or informally afterwards.



# Audit committee report

“The Audit Committee plays a key role in monitoring the integrity of the Group’s financial statements, and the effectiveness of the Group’s internal and external audit functions. The Committee also assists the Board in assessing the effectiveness of the Group’s system of internal controls.”

JEFF HEWITT, AUDIT COMMITTEE CHAIRMAN

## MEMBERS

Jeff Hewitt (Committee Chairman)  
Nelda Connors  
Jane Hinkley  
Jan Oosterveld  
John Sussens

The Audit Committee members are the independent Non-executive Directors. The Audit Committee is chaired by Mr Hewitt, a qualified accountant. The Code requires the Board to be satisfied that at least one member of the Committee has recent and relevant financial experience. The Board considers that Mr Hewitt possesses the requisite financial experience to meet this requirement.

The Audit Committee has only held two meetings since the incorporation of the Company but detailed plans are in place for the structure of meetings for the forthcoming year, and the operation of the Committee.

At the invitation of the Audit Committee Chairman, the Chairman, non-independent Non-executive Director - Christer Gardell, Chief Executive, Chief Financial Officer, Group Financial Controller, Group Head of Internal Audit and the Company’s Auditor, KPMG LLP, attend meetings. Other executives are invited to attend as and when appropriate. It is envisaged that the Audit Committee will meet regularly with the Company’s Auditor and the Group Head of Internal Audit without any executives being present.

The Company Secretary is Secretary to the Audit Committee.

The Audit Committee operates under formal terms of reference that will be reviewed on a regular basis. These terms of reference authorise the Committee to obtain outside legal or other independent professional advice at the cost of the Company and to secure the attendance at Audit Committee meetings of other parties with relevant experience and expertise should it be considered necessary.

The Chairman of the Audit Committee reports the outcome of the Audit Committee meetings to the Board and all members of the Board receive the agenda, papers and minutes of Audit Committee meetings.

## ROLE AND RESPONSIBILITIES

The primary role and responsibilities of the Audit Committee are:

- › monitoring the integrity of the Company’s half-year and annual financial statements, the Interim Management Statements and any other formal announcements relating to the Company’s financial performance;
- › reviewing the process whereby the Board assesses the effectiveness of the Group’s internal controls and risk management systems;
- › establishing and reviewing procedures for detecting fraud, and systems and controls for the prevention of bribery, along with overseeing the Company’s arrangements for employees to raise concerns about possible wrongdoing in financial reporting or other matters;
- › monitoring and reviewing the effectiveness of the Company’s internal audit function;
- › monitoring and reviewing the Auditor’s independence, objectivity and effectiveness, taking into account professional and regulatory requirements;
- › making recommendations to the Board on the appointment and dismissal of the Auditor and approving the remuneration and terms of engagement of the Auditor; and
- › helping to strengthen the independent position of the Auditor by providing a direct channel of communication between it and the Non-executive Directors.

## ACTIVITIES

During the period since incorporation, the Audit Committee has met on two occasions. In respect of all matters considered by the Audit Committee, it believes that it received sufficient, reliable and timely information from management and the Auditor, to enable it to fulfil its responsibilities.

During the past year Messrs Hewitt, Oosterveld and Sussens served as members of the Cookson Group plc Audit Committee before the Vesuvius Audit Committee was established. The Cookson Group plc Audit Committee discharged its responsibilities as follows:

- › at its meeting in July 2012 the Cookson Audit Committee reviewed the Company’s Half-Yearly Report. In doing so, the Committee received reports from management on significant aspects of the Group’s financial statements, including matters requiring significant

management judgement, asset impairment valuation, amounts reported at fair value, off-balance sheet items and contingent liabilities, and received reports from the Auditor identifying any accounting or judgemental issues thereon requiring its attention;

- at each of its meetings, the Cookson Audit Committee received reports from the Group Head of Internal Audit covering, amongst other things, the work undertaken by the internal audit function and management responses to proposals made in the audit reports issued by the function during the year. In addition, at the July 2012 meeting, the Cookson Audit Committee reviewed the results of the assessments that were undertaken of the performance of the internal audit function and at the October 2012 meeting, the Committee reviewed and approved the 2013 internal audit plans, submitted by the Group Head of Internal Audit;
- the Cookson Audit Committee also reviewed the Auditor's control findings;
- at the July 2012 meeting, the Cookson Audit Committee reviewed the results of the assessment which had been undertaken of the performance of the Auditor, based upon feedback received from the Group's finance management. No significant problems were identified with the relationship and quality of audit by KPMG;
- also at the July meeting, the Cookson Audit Committee reviewed and agreed the audit plan presented by the Auditor, which detailed the approach and scope of the work to be undertaken and the level of fee to be charged; and
- at its meeting in October 2012 the Cookson Audit Committee reviewed the risk management process operated by management designed to identify the key risks facing each business and how those risks have been managed;
- in addition, the Cookson Audit Committee reviewed the financial disclosures in relation to the demerger, including considering relevant matters in relation to the accounting treatment of the demerger and the production of the financial statements for the two new plc's. The Cookson Audit Committee also considered the Audit and Internal Audit requirements for the two new companies and approved the establishment of appropriate systems and procedures for them.

Since its establishment, the Vesuvius Audit Committee has discharged its responsibilities as follows:

- at its meeting in December 2012, the Audit Committee considered the major reporting and accounting matters likely to arise in connection with the production of the year-end financial statements of Vesuvius plc; progress with the Auditor's year-end internal controls review and received an update on internal audit; and
- at its meeting in March 2013, the Audit Committee reviewed the Company's Annual Results Announcement and Annual Report and Accounts. It also reviewed a report from management which addressed the appropriateness of the production of the Group and Company financial statements on a going concern basis; reviewed the Group's procedures for the identification, management and control of specific areas of risk which impact the Company and the

Group; was presented with information on significant litigation involving the Group; received an update from Internal Audit and reviewed the independence of the Company's Auditor and considered its re-appointment.

It is envisaged that the Vesuvius Audit Committee will continue to adopt a similar approach to the structuring of meetings as that operated by Cookson, although this will obviously evolve in line with changing best practice. In particular during 2013, in compliance with the revised code, the Committee will review its scope and accountabilities to ensure that, if requested by the Board, it can monitor the effectiveness of the Group's reporting processes and thence provide advice on whether the Annual Report and accounts, taken as a whole, is fair, balanced and understandable.

#### APPOINTMENT OF AUDITOR

The Audit Committee is responsible for making recommendations to the Board in relation to the appointment, reappointment and removal of the Auditor. In undertaking this duty, in relation to the reappointment of the Auditor for 2013, the Committee was cognisant of the need to consider a number of factors concerning the Auditor and the Group's current activity, including:

- the quality of reports provided by the Auditor to the Audit Committee and the Board and of advice given;
- the level of understanding demonstrated of the Group's businesses;
- the independence of the Auditor, in light of the provision of non-audit services;
- the objectivity of the Auditor's views on the controls throughout the Group;
- its ability to coordinate a global audit, working to tight deadlines;
- the cost-competitiveness of the Auditor in relation to the audit costs of comparable UK companies;
- the tenure of the Auditor with the Company's predecessor Cookson Group plc; and
- the ongoing rotation of the lead audit partner assigned to the Group's audit.

In addition, the Audit Committee considered external reviews of the performance and quality of the Auditor, including:

- the annual report issued by the Audit Inspection Unit of the Financial Reporting Council on the work of the Auditor; and
- the Auditor's own annual Transparency Report.

KPMG or its predecessor firms have a long-standing tenure as the Auditor of Cookson Group plc. The services of KPMG were retained by the Company during the demerger of Cookson Group as it represented the most efficient and cost-effective provider to undertake the audit work necessary. The lead audit partner was changed during 2012 in accordance with external partner rotation requirements. KPMG's audit of the Company and Group's 2012 year-end built on the work undertaken in respect of the demerger. KPMG has been the Company's Auditor since

# Audit committee report continued

the date of incorporation, 17 September 2012. The Audit Committee is cognisant of the Auditor's previous long-standing relationship with Cookson, and is conscious of the transitional arrangements specified in the FRC's guidance on audit tendering. The Audit Committee intends to review the need for a tendering process in due course. In the meantime, given the recency of the lead partner rotation and taking into account the performance of the Auditor during the past year, the Audit Committee is recommending the Auditor for reappointment in 2013.

The terms on which the Auditor is engaged do not include any contractual obligations which would prevent the Directors appointing a different audit firm should this be considered appropriate.

## INDEPENDENCE AND OBJECTIVITY OF AUDITOR

The Audit Committee is cognisant of the need to ensure that the independence and objectivity of the Auditor is continually maintained. It has put in place safeguards to ensure that the independence of the external audit is not compromised. These safeguards include:

- seeking ongoing confirmation that the Auditor is independent of the Company in its own professional judgement; and
- considering all the relationships between the Auditor and the Group, including those relating to the provision of non-audit services and whether these impair, or appear to impair, the Auditor's judgement or independence.

The Audit Committee monitors the other services being provided to the Group by the Auditor. The Company has a policy governing the Group-wide conduct of non-audit work by the Auditor to ensure that this does not impair its independence or objectivity. The Auditor is prohibited from performing services where it:

- may be required to audit its own work;
- would participate in activities that would normally be undertaken by management;
- is remunerated through a "success fee" structure; or
- acts in an advocacy role for the Group.

The policy sets out the categories of work that the Auditor is prohibited from undertaking. Other than these, the Company does not impose an automatic prohibition on the Auditor undertaking non-audit work. The Auditor is eligible for selection to provide non-audit services that are not, or are not perceived to be, in conflict with auditor independence, provided it has the skill, competence and integrity to carry out the work in the best interests of the Group.

An annual budget for non-audit related fees which the Group is proposing to pay to the Auditor, is presented for pre-approval to the Audit Committee. Any individual assignment where the fee is likely to be in excess of £50,000 must be pre-approved by the Audit Committee. Where appropriate, services are tendered prior to awarding work to the Auditor.

Details of the amounts paid to the Auditor during the year for audit and other services are set out in note 6 to the consolidated financial

statements. The fees analysed in note 6 were all incurred pre-demerger and therefore include amounts related to Alent plc. Of the total non-audit related fees paid to the Auditor in 2012 of £2.9m, £2.3m related to audit and accountancy work associated with the demerger of Cookson Group, for which it was concluded that KPMG was best-placed to support the Company. In addition to the work undertaken by the Auditor in connection with the demerger, considerable work was also undertaken by other accounting firms.

## INTERNAL AUDIT

The Group's internal audit function operates on a global basis. The Group Head of Internal Audit is responsible for developing the function, within the framework of common Group policies and standards, and for carrying out assignments in accordance with an annual audit plan approved by the Audit Committee. In 2013, it is proposed that 63 audit assignments be undertaken covering 55 businesses. The Group Head of Internal Audit reports directly to the Audit Committee Chairman. The Audit Committee receives reports from the Group Head of Internal Audit and reports to the Board on the results of its review.

## EMPLOYEE HELPLINE

The Audit Committee has established procedures for the receipt, retention and treatment of complaints received by the Company including accounting, internal controls, auditing matters, harassment and confidential communications from employees. This is an independent and confidential service through which employees worldwide may register any concerns about any incorrect or irregular practices they perceive in Vesuvius' workplaces. The helpline is operated 24 hours a day, seven days a week, by an organisation that specialises in the provision of such services. It can be contacted by phone, email or via a designated website. Translation facilities are available for those for whom English is not their first or preferred language.

## APPROACH TO ANTI-BRIBERY AND CORRUPTION TRAINING

The Group's Code of Conduct and its policies on anti-bribery and corruption require that employees and others working on behalf of the Group do not engage in any form of bribery or corruption. An anti-bribery and corruption compliance programme has been established throughout the Group, and is being implemented through a targeted face-to-face training programme. An e-learning module is being rolled out globally. New employees, as relevant, will go through the training as part of their induction process. The compliance programme includes undertaking risk assessments and engaging with others working on behalf of the Group to ensure that their standards comply with the Group's policies. The Company is a member of the corporate supporters forum of Transparency International UK.

On behalf of the Audit Committee

**JEFF HEWITT**

Chairman, Audit Committee

28 March 2013

# Nominations committee report

“The Nominations Committee advises the Board on appointments, retirements and resignations from the Board and its Committees and reviews the Board’s succession plans. Its primary focus is on ensuring the ongoing strength of the Board, by ensuring that it is appropriately structured and resourced by individuals with the skills and experience necessary to discharge its duties and responsibilities.”

JOHN McDONOUGH CBE, NOMINATIONS COMMITTEE CHAIRMAN

## MEMBERS

The members of the Committee are John McDonough (Committee Chairman) and any three of the Non-executive Directors (Nelda Connors, Christer Gardell, Jeff Hewitt, Jane Hinkley, Jan Oosterveld and John Sussens). The Company Secretary is Secretary to the Committee.

## ROLE AND RESPONSIBILITIES

The Nominations Committee advises the Board on appointments to, and retirements and resignations from, the Board and its committees, and reviews the Company’s succession plans. The Committee meets as and when required and is chaired by the Chairman or a Non-executive Director. The Chairman would not act as chairman of the Nominations Committee where it was dealing with the appointment of his successor. Formal meetings are held to consider standing items of business; there is also a significant level of ad hoc discussion between members of the Nominations Committee, particularly when a recruitment exercise is taking place.

When considering the appointment of new Directors, the Nominations Committee draws up a specification, taking into consideration the diversity of the Board including the balance of skills, knowledge and experience, the independence of Board members and the ongoing requirements of the Group. The Nominations Committee’s foremost priority is to ensure that the Company has the best possible leadership. Its prime focus is on the strength of the Board, for which appointments are made on merit against objective criteria, selecting the best candidate for the post.

At present, two of the nine Vesuvius Directors are women, and four are non-British citizens. All Directors have served at a very senior level in global organisations, have international experience across a variety of industries, and most have spent a considerable amount of time resident outside the UK. The Nominations Committee believes that this diversity supports the operation of an effective Board.

The Board has not set any specific aspirations in respect of gender diversity but believes that refreshment of the Board should take into account the need to consider diversity in all its forms.

The Nominations Committee utilises the services of executive search firms to identify appropriate candidates and will only use those firms that have adopted the Voluntary Code of Conduct addressing

gender diversity and best practice in search assignments. Wherever possible, the Nominations Committee arranges for all Directors to meet with the preferred candidate. The Nominations Committee makes recommendations for each appointment to the full Board. Care is taken to ensure that all proposed appointees have sufficient time available to devote to the role and do not have any conflicts of interest.

The search process for the new Non-executive Directors to replace Messrs Oosterveld and Sussens, who will be stepping down at the forthcoming Annual General Meeting, gave priority to candidates with global CEO/ CFO experience, an understanding of executive compensation and knowledge of, and experience in, Asia - Pacific markets. JCA Group and Russell Reynolds Associates, specialist executive recruitment firms, were engaged to identify appropriate candidates. A longlist of potential appointees was considered, and candidates were shortlisted for interview based upon their fulfilment of objective criteria. The Committee then recommended the two preferred candidates, Ms Connors and Ms Hinkley, to the Board for appointment.

It is the responsibility of the Nominations Committee to review the Company’s succession plans for members of the Board. The Board as a whole will also consider the subject. It is envisaged that each of Vesuvius’ divisions will submit detailed succession plans in respect of senior divisional executives to the Board for review each year. The Board will also actively seek to meet with key executives throughout the Group so as to gain a greater understanding of the breadth and depth of management talent. This will enable members of the Committee to adopt a more informed approach to succession planning.

The Chairman of the Nominations Committee reports the outcome of the Nominations Committee meetings to the Board.

On behalf of the Nominations Committee

JOHN McDONOUGH CBE  
Chairman, Nominations Committee  
28 March 2013

# Directors' remuneration report

"The Company is committed to open and transparent dialogue with its shareholders on remuneration as well as other governance matters. As a matter of course the Remuneration Committee will consult with key institutional shareholders and various representative bodies about the incentive arrangements of the Company's Executive Directors."

JOHN SUSSENS, REMUNERATION COMMITTEE CHAIRMAN

## INTRODUCTORY STATEMENT FROM THE REMUNERATION COMMITTEE CHAIR

### DEAR SHAREHOLDER

As outlined earlier in this Annual Report, 2012 was a year of fundamental change for Cookson Group plc ("Cookson"). In December, Cookson demerged into two new businesses, Vesuvius plc and Alent plc. Vesuvius plc became the new holding company of the Engineered Ceramics and Precious Metals Processing divisions, and Alent plc became the new holding company of the Performance Materials division. This report focuses on the philosophy and remuneration arrangements that the Remuneration Committee has put in place for Vesuvius following the demerger. We are required by statute to provide details of Directors' remuneration from the date of incorporation of the Company to 31 December 2012, despite the fact that Vesuvius plc was only separately listed for 13 days of 2012, from 19 December to 31 December. Although not required by statute, we have also provided information on Directors' remuneration for the full year ended 31 December 2012 as we believe this is more helpful to shareholders. This report therefore contains the following sections:

- › Remuneration Committee Structure and Remit;
- › Impact of the demerger on Executive Directors' 2012 Executive Remuneration Arrangements and Outstanding Share Incentives;
- › Remuneration Policy for Executive Directors for 2013;
- › Directors' Contracts;
- › Directors' Remuneration for the Statutory Period from Incorporation to 31 December 2012; and
- › Directors' Remuneration for 2012.

The report includes a number of the disclosures that have been recommended by the Department for Business, Innovation and Skills in its draft new reporting regulations.

In terms of the Company's overall remuneration policy, the remuneration structure for Executive Directors and other senior managers, like that of Cookson, aims to:

- › attract and retain high calibre executives;
- › strongly support the Company's strategy;
- › align management's interests with those of shareholders; and
- › foster a high performance culture, with a substantial portion of remuneration being performance linked.

The Company aims to provide median total remuneration levels for target performance and up to upper quartile total remuneration levels for superior performance. This is assessed against FTSE 250 companies and relevant international sector-specific companies to reach a rounded judgement.

As disclosed in the demerger prospectus and approved by shareholders at the time of the demerger, the remuneration of the Executive Directors comprises base salary, annual incentive, the long-term incentive plan ("LTIP") and retirement benefits. This is similar to the pre-demerger remuneration structure at Cookson except that it is simpler as it excludes both bonus deferral of the annual incentive and the matching shares which formed part of the Cookson Group plc long-term incentive plan.

When formulating this remuneration policy and structure at the time of the demerger, the overall intention was that it would result, in broad terms and as far as possible, in a "no gain-no loss" position for Executive Directors as compared with the pre-demerger Cookson remuneration arrangements, aside from some individuals who were either new hires or promotions. This remuneration policy, structure and positioning may change at some point post-demerger, but it is not anticipated that any material changes will be made within the Company's first year.

The Company is committed to open and transparent dialogue with its shareholders on remuneration as well as other governance matters. As a matter of course the Remuneration Committee will consult with key institutional shareholders and various representative bodies about the incentive arrangements of the Company's Executive Directors. Indeed, during the demerger process, the views of Cookson's largest shareholders were sought on a number of matters, including in relation to the proposed remuneration policy, structure and positioning of Vesuvius. These views were very supportive and were reflected in 97.73% of votes at the demerger General Meeting being cast in favour of the approval of the new Alent and Vesuvius Share Plans. We look forward to continuing this dialogue.

On behalf of the Remuneration Committee

JOHN SUSSENS  
Chairman, Remuneration Committee  
28 March 2013



## REMUNERATION COMMITTEE STRUCTURE AND REMIT

### Members

John Sussens (Committee Chairman)

Nelda Connors

Jeff Hewitt

Jane Hinkley

Jan Oosterveld

### Roles and responsibilities of the Remuneration Committee

The Remuneration Committee (the "Committee") is responsible for:

- setting the appropriate remuneration for the Chairman, the Executive Directors and the Company Secretary;
- recommending and monitoring the level and structure of remuneration for senior management, being the first layer of management below Board level; and
- overseeing the operation of any Executive share incentive plans.

A copy of the Remuneration Committee's Terms of Reference is available on the Company's website, [www.vesuvius.com](http://www.vesuvius.com).

### Composition of the Remuneration Committee

The current members of the Remuneration Committee are all the independent Non-executive Directors. Mr Sussens, who chairs the Remuneration Committee, will be retiring as a Director at the forthcoming AGM, and Ms Hinkley will take over this role. Messrs Hewitt, Oosterveld and Sussens were appointed as Directors of the Company on 31 October 2012. Ms Hinkley was appointed on 3 December 2012 and Ms Connors on 1 March 2013. The Company Secretary acts as Committee Secretary. The Chairman, Chief Executive, Chief Financial Officer and the non-independent Non-executive Director, Mr Gardell, are invited to attend Committee meetings as appropriate, but do not participate in discussions of their own remuneration.

### Advice provided to the Remuneration Committee

The Remuneration Committee appointed the external advisers Towers Watson ("Towers") to assist it in formulating policies and deciding individual remuneration levels. The Committee is also advised by the Chief Executive, the Vice President Human Resources, the Company Secretary, and by the law firm Clifford Chance LLP ("CC"). Towers was appointed directly by the Remuneration Committee to provide advice on executive remuneration matters, including remuneration structure and policy, updates on market practices and trends, and guidance on the implementation and operation of long-term incentive plans. Towers has also provided the Remuneration Committee with remuneration benchmarking data for certain executives. CC provides advice on the operation of executive share plans. Towers is a signatory to the Remuneration Consultants Group Code of Conduct in relation to Executive Remuneration Consulting in the UK.

Towers provides other remuneration and benchmarking advice to the Company, and CC provides legal advice to the Company. The Remuneration Committee does not believe that the provision of any of these services to the Company compromises the independence or integrity of the advice that it receives from Towers and CC.

### Activities of the Remuneration Committee

The Company's Remuneration Committee only met formally once during the year under review, but as members of the Cookson Remuneration Committee, Messrs Hewitt, Oosterveld and Sussens were involved in discussions regarding the implementation of Vesuvius' new remuneration programme for senior executives in advance of the demerger.

# Directors' remuneration report continued

The Remuneration Committee expects to meet at least four times in 2013 to consider key matters, including:

- › the salary review proposals for the Executive Directors and senior management;
- › reviewing achievement against the performance targets, and approving payouts, in respect of the 2012 annual incentive arrangements;
- › setting performance targets and approving the structure of the 2013 annual incentive arrangements;
- › considering the Company's performance against the performance conditions applicable to the 2010 Cookson Long-Term Incentive Plan, and authorising the vesting of these awards where relevant;
- › setting the performance conditions and authorising the grant of awards under the Vesuvius Share Plan;
- › receiving feedback on the Remuneration Committee Chairman's meetings with key institutional shareholders regarding the Company's remuneration policy and practice, and in the light of this, and advice received from the external advisers regarding trends in remuneration practice and governance, discussing the Company's approach to executive remuneration and reviewing whether any changes should be made;
- › reviewing the Remuneration Committee's Terms of Reference, and recommending any amendments to the Board for approval; and
- › reviewing and approving the 2012 Directors' Remuneration Report.

## IMPACT OF THE DEMERGER ON EXECUTIVE DIRECTORS' 2012 COOKSON REMUNERATION ARRANGEMENTS AND OUTSTANDING SHARE INCENTIVES:

### Cookson 2012 Annual Incentive

For the financial year 2012, Mr Wanecq's Annual Incentive was based on financial targets for Cookson as a whole and separately, for the Engineered Ceramics Division. The Cookson element was based on Cookson Group Headline Earnings performance, with an adjustment based on Cookson's working capital performance to focus greater attention on cash flow performance. The effect of this was to reduce the level of payout that could be achieved by up to 10% if specified working capital targets were not attained. The adjuster could increase the level of payout by up to 10%, but not above the usual plan maximum. Half of Mr Wanecq's Annual Incentive was assessed against this criterion and the remainder based upon the Cookson Engineered Ceramics division's trading profit adjusted for performance against working capital targets. His maximum incentive potential was 100% of salary. For 2012 the Cookson Group Headline Earnings performance and the Engineered Ceramics Division's trading profit were both below threshold; there is therefore no payout due to Mr Wanecq in relation to the 2012 Annual Incentive.

As part of the arrangements agreed upon his recruitment to the Company, Mr O'Shea is entitled to receive the maximum Annual Incentive payout of 100% for 2012 based on his pro rated salary for his period in employment. No performance conditions were applicable to this award.

For 2012, the following Annual Incentive payments are payable:

Name	Measure	Weighting	Target Performance	Achieved (% of salary)	Incentive Paid (% of salary)
François Wanecq	Group Headline Earnings	50%	£207m	nil	nil
	Engineered Ceramics Trading profit	50%	£208m	nil	nil
Chris O'Shea	None	n/a	n/a	100%	100%

Mr O'Shea's Annual Incentive payment is reported in the Directors' remuneration table on page 89.

### Cookson Long Term Incentive Plan ("Cookson LTIP")

The Demerger did not result in the early vesting of awards held under the Cookson LTIP.

#### 2010 Cookson LTIP Award

In the case of the grants made in 2010 under the Cookson LTIP where the performance period was due to end on 31 December 2012, the period was shortened very slightly, to end at the Demerger Effective Time (18 December 2012), so that performance was measured purely in relation to Cookson's performance — being relative TSR performance and its growth in Headline Earnings Per Share ("EPS") (50% each). These awards are due to vest on, or shortly after, 7 April 2013 and were rolled over to become awards over a combination of Vesuvius and Alent shares in the same combination that applied to Cookson shareholders under the terms of the demerger. This reflects the fact that these awards relate to Cookson performance and not the future performance of Vesuvius or Alent.

The proportion of shares vesting under the 2010 Cookson LTIP is based on the performance of Cookson Group plc against specified performance conditions. Vesting of 50% of shares awarded is based upon the three-year TSR performance of the Cookson Group relative to that of the constituent companies of the FTSE 250 excluding Investment Trusts, and 50% on Headline EPS growth over a three-year period. The two measures operate independently.

Vesting of 50% of Performance Shares and Matching Share Awards under the 2010 Cookson LTIP awards is based on TSR performance in accordance with the following schedule:

TSR ranking relative to FTSE 250 excluding Investment Trusts	Performance Shares Vesting Percentage	Matching Shares Vesting Ratio (Matching Shares: Investment Shares)
Below Median	0%	0
Median	12.5%	0.25 : 1
Upper Quintile (top 20%)	50%	1.125 : 1
Between Median and Upper Quintile	Pro rata between 12.5% and 50%	Pro rata between 0.25 : 1 and 1.125 : 1

Vesting of 50% of Performance Shares and Matching Share Awards under the 2010 Cookson LTIP awards is based on Headline EPS growth, as compared with the compound annual growth in the Retail Prices Index ("RPI"), in accordance with the following schedule:

Annual Compound Headline EPS Growth above RPI	Performance Shares Vesting Percentage	Matching Shares Vesting Ratio (Matching Shares: Investment Shares)
Below 3%	0%	0
3%	12.5%	0.25 : 1
At or above 10%	50%	1.125 : 1
Between 3% and 10%	Pro rata between 12.5% and 50%	Pro rata between 0.25 : 1 and 1.125 : 1

Matching Share Awards only vest if the Investment Shares originally purchased have been retained.

The performance period applicable to the awards made in 2010 ended on 18 December 2012. Cookson's TSR performance during this almost three-year performance period was assessed against the comparator group (FTSE 250 excluding investment trusts) and it was determined that Cookson's performance was between the median and the upper quintile, a level which results in the vesting of 17.7% out of a maximum of 50% of Performance Share awards and Matching Share awards vesting at a ratio of 0.372 : 1, compared to a maximum vesting ratio of 1.125 : 1. In addition, Cookson's annual compound Headline EPS growth was assessed for the performance period as being over 10% above RPI, a level which results in the maximum 50% of Performance share awards vesting and Matching shares awards vesting at a ratio of 1.125 : 1. Prior to the vesting of any award, as an additional hurdle, vesting must be justified by the underlying financial performance of Cookson over the performance period. It has been concluded that the vesting of the 2010 LTIP awards is justified by the underlying financial performance of Cookson. Accordingly, 67.7% of Mr Wanecq's 2010 LTIP Performance Share award will vest and his Matching Share award will vest at a ratio of 1.497 : 1 on, or shortly after, 7 April 2013.

#### 2011 and 2012 LTIP Awards

In the case of the grants made in 2011 and 2012 under the Cookson LTIP, it was agreed prior to the demerger that awards for participants who went on to be employed by Alent plc, would be rolled over to become awards over Alent shares of equivalent value. For those participants who went on to be employed by Vesuvius plc, their awards would be rolled over to become awards over Vesuvius shares of equivalent value. For those participants who had already left the Cookson Group under circumstances in which they retained their LTIP entitlement, or who, at the request of Cookson, left or are leaving the Cookson Group as a result of the demerger and who have not joined either Alent or Vesuvius on a permanent basis, their awards have been rolled over to become awards over a combination of Alent and Vesuvius shares in the same combination as applied to Cookson shareholders. Mr Wanecq's outstanding 2011 and 2012 awards have therefore been rolled over to become awards over Vesuvius shares. Details of these awards are given on page 91.

Performance will still be measured over a three-year period, but by reference to Cookson performance up to the Demerger Effective Time (18 December 2012) and by reference to Vesuvius performance (for Vesuvius shares) or Alent performance (for Alent shares) thereafter to the end of the period. The awards continue to be subject to the terms and conditions of the Cookson LTIP, save that the relevant company (and relevant Remuneration Committee) is Vesuvius for Vesuvius employees and leavers, and Alent for Alent employees, instead of Cookson.

# Directors' remuneration report continued

The method of measuring performance for the 2011 and 2012 LTIP awards is as follows:

- As regards the EPS targets, the mechanics of the proposed adjustments were disclosed in the Demerger Circular. The previously disclosed Cookson Headline EPS threshold and maximum vesting targets for the final year of the relevant three-year performance period have been split between Vesuvius and Alent by reference to their respective trading profit contributions to Cookson's total 2012 trading profit such that the new Vesuvius and Alent targets aggregate to the previously disclosed Cookson targets. The new 2013 EPS targets for Vesuvius plc, are therefore 48.6 pence at Threshold and 58.4 pence at Maximum, and for 2014, 50.4 pence at Threshold and 62.3 pence at Maximum. When added to the revised Alent plc targets, these targets aggregate to the former Cookson Group plc targets. The respective Vesuvius Headline EPS values as reported for the final year of the three-year performance period will be compared with these new threshold and maximum targets to determine the vesting outcome. Prior to the vesting of any award, as an additional hurdle, vesting must be justified by the underlying financial performance of Vesuvius over the performance period.

Vesting of 50% of Performance Shares and Matching Share Awards under the 2011 Cookson LTIP awards will be based on Headline EPS growth in accordance with the following schedule:

Headline EPS for 2013 financial year	Performance Shares Vesting Percentage	Matching Shares Vesting Ratio (Matching Shares: Investment Shares)
Less than 48.6 pence	0%	0
48.6 pence	12.5%	0.25 : 1
58.4 pence or more	50%	1.125 : 1
Between 48.6 pence and 58.4 pence	Pro rata between 12.5% and 50%	Pro rata between 0.25 : 1 and 1.125 : 1

Vesting of 50% of Performance Shares and Matching Share Awards for the 2012 Cookson LTIP awards will be based on Headline EPS growth in accordance with the following schedule:

Headline EPS for 2014 financial year	Performance Shares Vesting Percentage	Matching Shares Vesting Ratio (Matching Shares: Investment Shares)
Less than 50.4 pence	0%	0
50.4 pence	12.5%	0.25 : 1
62.3 pence or more	50%	1.125 : 1
Between 50.4 pence and 62.3 pence	Pro rata between 12.5% and 50%	Pro rata between 0.25 : 1 and 1.125 : 1

- As regards the TSR targets, Cookson's TSR growth from the start of the relevant three-year performance period up to the time of the demerger has been determined. For the purpose of the 2011 LTIP awards, Cookson's TSR grew by 9% in the period from 1 January 2011 to 18 December 2012, and for the purpose of the 2012 LTIP awards, Cookson's TSR grew by 28.1% in the period from 1 January 2012 to 18 December 2012. These growth figures will be added to the TSR growth of Vesuvius from the demerger date to the end of the three-year performance period. This aggregate TSR growth will then be ranked against the TSR of the relevant comparator group and the resulting vesting outcome will be calculated against the TSR performance schedule in the LTIP.

Vesting of 50% of Performance Shares and Matching Share Awards under the 2011 and 2012 LTIP awards will be based on TSR performance in accordance with the following schedule:

TSR ranking relative to FTSE 250 excluding Investment Trusts	Performance Shares Vesting Percentage	Matching Shares Vesting Ratio (Matching Shares: Investment Shares)
Below Median	0%	0
Median	12.5%	0.25 : 1
Upper Quintile (top 20%)	50%	1.125 : 1
Between Median and Upper Quintile	Pro rata between 12.5% and 50%	Pro rata between 0.25 : 1 and 1.125 : 1

### Cookson Deferred Share Bonus Plan ("Cookson DSBP")

The Cookson DSBP was implemented in 2007 to provide an alternative long-term incentive arrangement for certain executives. The senior managers who participated in this plan received an allocation of deferred shares to the value of a percentage of their annual bonus. In the case of the grants made in 2010 under the Cookson DSBP, these awards over Cookson shares were rolled over to become awards over a combination of Vesuvius and Alent Shares in the same combination that applied to Cookson shareholders under the terms of the demerger.

In the case of the grants made in 2011 and 2012 under the Cookson DSBP it was agreed prior to the demerger, that awards for participants who went on to be employed by Alent plc would be rolled over to become awards over Alent shares of equivalent value. For those participants who went on to be employed by Vesuvius plc, their awards would be rolled over to become awards over Vesuvius shares of equivalent value. For those participants who had already left the Cookson Group, or who, at the request of Cookson, left or are leaving the Cookson Group as a result of the demerger and who have not joined either Alent or Vesuvius on a permanent basis, their awards have been rolled over to become awards over a combination of Alent and Vesuvius shares in the same combination as applied to Cookson shareholders.

The awards continue to be subject to the terms and conditions of the existing Cookson DSBP, save that the relevant company (and relevant remuneration committee) is Vesuvius in respect of outstanding awards for Vesuvius employees and leavers, and Alent in respect of Alent employees, instead of Cookson.

### Cookson Restricted Share Award

As part of his one-off appointment arrangements, and to partly offset the loss of value of long-term share incentive awards forgone as a result of him joining Cookson, Mr O'Shea was granted (on 5 November 2012) a restricted share award with a face value of 100% of his annual base salary (£340,000). Half of the award is due to vest on the first anniversary of his date of joining (11 October 2013) and the remainder on the second anniversary (11 October 2014), subject to him remaining employed with the Company and not under notice of termination. Mr O'Shea is also entitled to receive shares or cash to the value of any dividends that would have accrued on the shares he has been awarded during the period between his date of joining and the date of vesting of his awards. This restricted share award was granted over Cookson shares (which rolled over into Vesuvius Shares on demerger) and was granted by individual award agreement (not under the terms of the Cookson LTIP or the Vesuvius Share Plan).

### DIVIDEND ACCRUAL

The Committee has the discretion to award participants in the Cookson LTIP and Cookson DSBP the dividends that would have been paid on the number of shares that vest in respect of dividend record dates occurring during the period between the award date and the date of vesting. These dividends can be paid in either cash or shares. The Committee believes that this can be an important step in aligning the interests of senior executives with those of shareholders.

Details of all awards outstanding under the Cookson share plans as at 31 December 2012 are given in note 32 to the consolidated financial statements and note 10 to the Company financial statements.

### REMUNERATION POLICY FOR EXECUTIVE DIRECTORS FOR 2013

The remuneration policy of the Company aims to establish a remuneration structure for Executive Directors and other senior managers which:

- attracts and retains high calibre executives;
- strongly supports the Company's strategy;
- aligns management's interests with those of shareholders; and
- fosters a high performance culture, with a substantial portion of remuneration being performance linked.

When formulating this remuneration policy and structure at the time of the demerger, the overall intention was that it will result, in broad terms and as far as possible, in a "no gain-no loss" position for Executive Directors as compared with the pre-Demerger Cookson remuneration arrangements, aside from some individuals who were either new hires or promotions. The Remuneration Committee will undertake a regular review of the Company's remuneration policy, structure and positioning. These may change at some point post-Demerger but it is not anticipated that any material changes will be implemented within the first 12 months.



# Directors' remuneration report continued

In formulating remuneration policy going forward, the Remuneration Committee will have regard to the international scale and nature of the Company's operations and take into consideration the requirements of the UK Corporate Governance Code and guidelines issued by its leading shareholders and bodies such as the Association of British Insurers and the National Association of Pension Funds. 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. The Remuneration Committee will also obtain information on the remuneration paid for comparable roles at other companies to provide a point of reference for determining remuneration policy.

The Remuneration Committee is cognisant of the need to ensure that the remuneration policy is firmly linked to the Company's strategy, including its risk management philosophy. As all Remuneration Committee members also serve on the Audit Committee, each Committee benefits from the Directors' experience on the other. This will be particularly relevant going forward, when the Remuneration Committee is considering matters such as the Company's achievement of performance conditions and the implications for the Company's risk profile of the award of incentives under the Company's remuneration programmes. The Remuneration Committee considers the Company's current executive remuneration policy and incentive structure to be compatible with the Company's risk management and internal control systems.

The Board has set a strategy (as described on page 11) designed to deliver superior returns to Vesuvius' shareholders by focusing on five key objectives:

- › maintaining Vesuvius' existing technology leadership position;
- › enlarging Vesuvius' addressable market through the penetration of product and service solutions;
- › leveraging Vesuvius' strong positions in developing markets to capture growth;
- › improving cost leadership and margins; and
- › building a comprehensive offering in metal casting engineering;

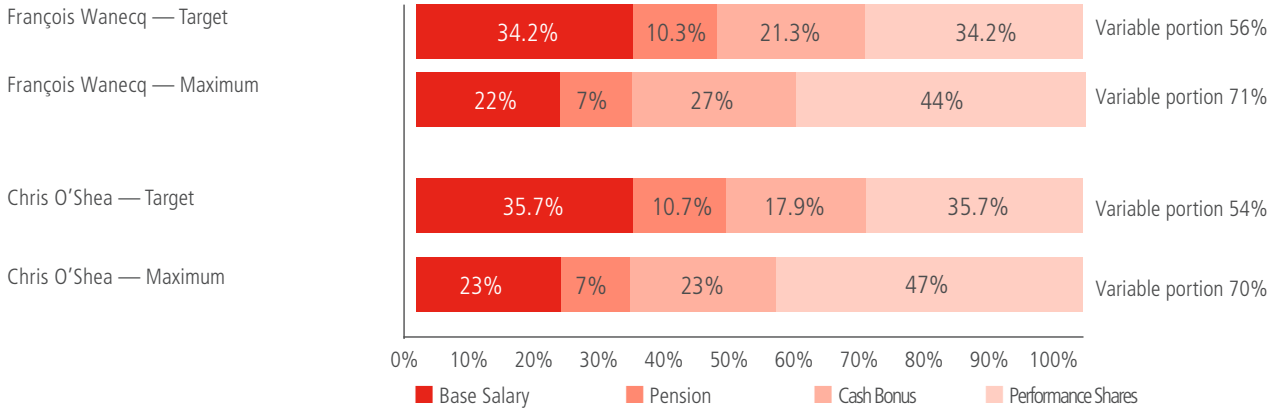
whilst maintaining a rigorous focus on cash flow generation.

The remuneration policy incentivises and rewards executives to deliver their contribution to the achievement of the Company's strategy, with a significant proportion of the executive Directors' total remuneration based on the variable, performance-related elements of the Annual Incentive and Performance Share awards under the Vesuvius Share Plan. The performance conditions under these arrangements support the Company's focus on growth in profit, cash flow generation and shareholder returns by targeting key business imperatives such as relative total shareholder return ("TSR"), defined as the increase in the value of a share, including reinvested dividends, Headline EPS and working capital. These targets are objective, auditable and transparent and as such are considered to be appropriate performance measures for management. To ensure that their interests are aligned with those of shareholders, Executive Directors are required to build a significant stake in the Company in accordance with the Company's share retention guidelines.

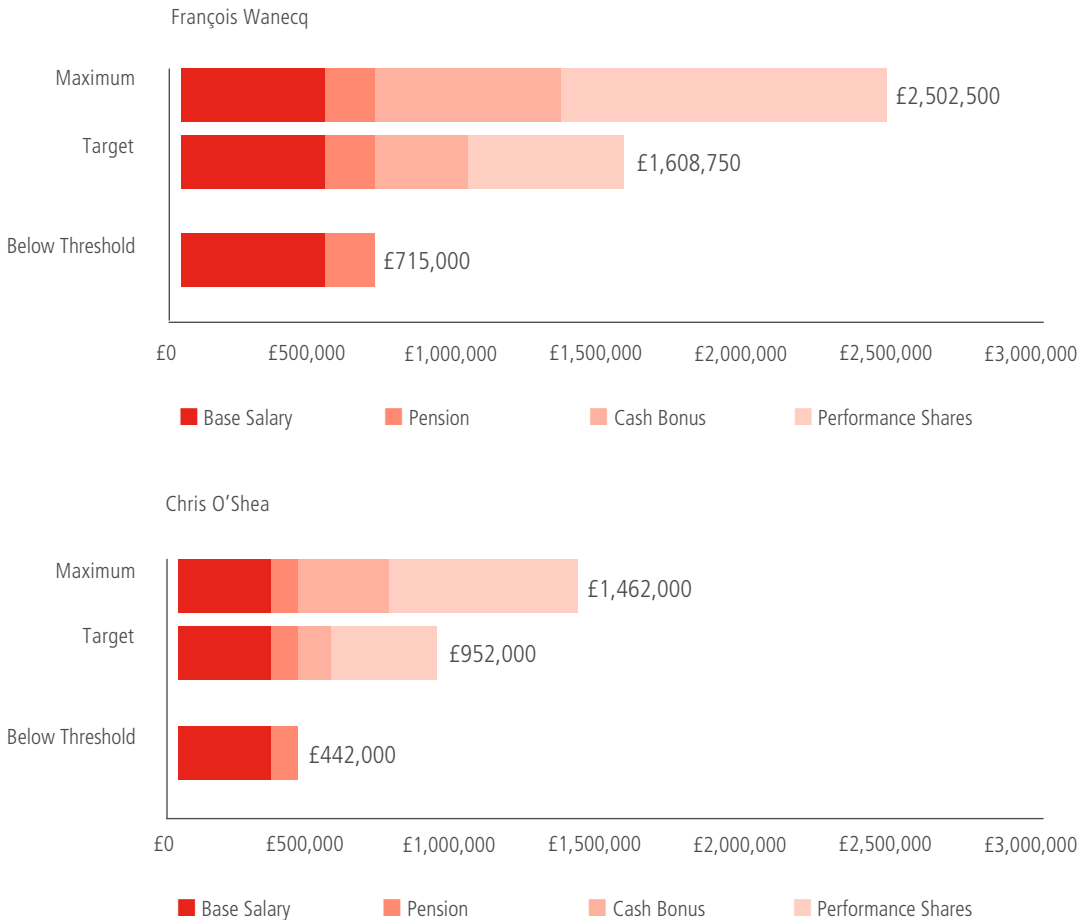
The Remuneration Committee will evaluate the efficacy of the Company's Executive remuneration policy each year and commission formal reviews as it considers appropriate.

**FIXED & VARIABLE REMUNERATION FOR 2013**

The following illustrates the balance between fixed and variable remuneration for the Executive Directors based on the remuneration policy for 2013:



The following illustrates the value of the Executive Directors' fixed and variable remuneration below threshold, on-target and at maximum performance:



Note: All these charts assume Target payouts consist of base salary, pension allowance and incentive awards payable at 50% of Maximum.

# Directors' remuneration report continued

## SUMMARY OF KEY FEATURES OF THE EXECUTIVE DIRECTORS' REMUNERATION FOR 2013

Element of Remuneration	Purpose and link to remuneration policy	Levels of Award	Key features
Base salary	<ul style="list-style-type: none"> <li>➤ Helps to recruit and retain key employees.</li> <li>➤ Reflects the individual's experience, role and contribution within the Company.</li> </ul>	<ul style="list-style-type: none"> <li>➤ n/a</li> </ul>	<ul style="list-style-type: none"> <li>➤ Paid in cash.</li> <li>➤ Normally reviewed by the Remuneration Committee annually.</li> </ul>
Annual Incentive	<ul style="list-style-type: none"> <li>➤ Incentivises executives to achieve specific, pre-defined annual targets.</li> <li>➤ For 2013, Annual Incentives are based on Group Headline Earnings performance with a working capital adjustment target.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Below Threshold: 0%</li> <li>➤ On-Target: 62.5% of base salary for the Chief Executive, 50% of base salary for the Chief Financial Officer</li> <li>➤ Maximum: 125% of base salary for the Chief Executive, 100% of base salary for the Chief Financial Officer</li> </ul>	<ul style="list-style-type: none"> <li>➤ Entire bonus amount payable in cash.</li> <li>➤ No deferral.</li> <li>➤ Subject to clawback.</li> </ul>
Vesuvius Share Plan	<ul style="list-style-type: none"> <li>➤ Flexible "umbrella" plan.</li> <li>➤ Aligns executives' interests with those of shareholders through the delivery of shares.</li> <li>➤ Rewards growth in shareholder value and earnings.</li> <li>➤ Aids retention of key executives over a three-year performance period.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Executive Directors eligible to receive, on an annual basis, a performance share award with a face value of up to 200% of base salary.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Participants are eligible to receive annual allocations of Performance Share Awards.</li> <li>➤ These awards are eligible to vest three years after their award date subject to the achievement of specified performance conditions.</li> <li>➤ Vesting of half of awards is subject to the Company's TSR performance versus the FTSE 250 (excluding Investment Trusts).</li> <li>➤ Vesting of the remaining half of awards is subject to the growth in the Company's EPS.</li> <li>➤ Prior to any vesting the Remuneration Committee has also stipulated that, as an additional hurdle, it needs to be satisfied that vesting has been justified by the underlying financial performance of the Company over the performance period.</li> <li>➤ The Remuneration Committee has the discretion to award participants the dividends accrued on any shares that vest.</li> <li>➤ Subject to clawback.</li> </ul>
Retirement Benefits	<ul style="list-style-type: none"> <li>➤ Helps to recruit and retain key employees.</li> <li>➤ Ensures income in retirement.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Executive Directors are eligible to receive a pension allowance of 30% of their base salaries.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Benefits are provided by way of an allowance which can be delivered in cash and/or as a payment to a defined contribution arrangement.</li> </ul>
Other Benefits	<ul style="list-style-type: none"> <li>➤ Provides core benefits to Executive Directors.</li> <li>➤ Relocation assistance provided to the Chief Executive to support his move from Brussels to London.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Core benefits on same terms as those provided to other Group Executives.</li> <li>➤ Relocation benefits in accordance with the Vesuvius Relocation policy.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Core benefits include car allowance, life assurance, disability and health insurance.</li> <li>➤ Relocation benefits include short-term rent allowance, and assistance locating a property for purchase and paying associated expenses.</li> </ul>

## FURTHER DETAILS OF THE EXECUTIVE DIRECTORS' REMUNERATION ARRANGEMENTS FOR 2013

### BASE SALARY

Base salary levels reflect the individual's contribution and experience, the Company's financial performance, the pay environment for employees within the Company and the salaries paid in comparator companies.

At the time of the demerger, Mr Wanecq's promotion was reflected in a base salary increase of 10% due to changing role and increased responsibilities. Mr Wanecq's salary is currently £550,000 p.a. and Mr O'Shea's salary £340,000 p.a. It is envisaged that base salaries will be reviewed annually, with the next review scheduled for 1 January 2014.

### ANNUAL INCENTIVE

The Executive Directors are eligible to receive an Annual Incentive calculated as a percentage of base salary and based on achievement against specified targets. There is no deferral of annual bonuses for Executive Directors. The Remuneration Committee has the discretion to determine that actual incentive payments should be lower than levels calculated by reference to achievement against the specified targets if it considers this to be appropriate. Each year the Remuneration Committee will establish the financial performance criteria for the forthcoming year. These criteria will be set by reference to the Company's financial budget and prior year actual financial results. The target range will be set to ensure that maximum bonuses are only paid for significantly exceeding market 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 and a maximum performance level at which a maximum award is earned. Mr Wanecq's maximum Annual Incentive potential is 125% of base salary and his target annual incentive potential is 62.5% of base salary. Mr O'Shea's maximum Annual Incentive potential is 100% of base salary and his target annual incentive proposal is 50% of base salary.

The Remuneration Committee has determined that for 2013 Messrs Wanecq's and O'Shea's Annual Incentives will be based on Group Headline Earnings, with an adjustment based on the Group's working capital performance, to focus greater attention on cash flow performance. The effect of this will be to reduce the level of payout that the Directors can achieve by up to 10% if specified working capital targets are not attained. The adjuster can increase the level of payout by up to 10%, but not above the usual plan maximum.

### VESUVIUS SHARE PLAN

#### *Summary*

The Vesuvius Share Plan was approved by shareholders at the time of the demerger. The Vesuvius Share Plan does not replicate the Cookson LTIP. It has been simplified to remove matching shares and is structured as an "umbrella" plan, which gives greater flexibility in terms of the awards which can be made, in line with current market practice. This means that the Company only needs to have one set of share plan rules to cover all its current and prospective share plan needs. The Vesuvius Share Plan permits awards to be granted as:

- performance share awards;
- deferred share bonus awards;
- restricted share awards; and
- market-price options.

#### **Performance Share Awards**

It is the Remuneration Committee's intention to grant awards to Executive Directors under the first element, performance share awards, in 2013. Awards under this element reward executives for delivering superior TSR, defined as the increase in the value of a share, including reinvested dividends, and EPS growth over a set period of time, and as such is intended to align executive remuneration with shareholders' interests.

#### *Eligibility and individual grant levels*

Executive Directors are eligible to receive, on an annual basis, a performance share award with a face value of up to 200% of base salary.

#### *Performance conditions for performance share awards*

The vesting of performance share awards granted by the Company will be based on the Company's performance against specified performance conditions measured over a three-year period. For 2013, the performance metrics are similar to the Cookson Long-Term Incentive Plan (Headline EPS and TSR based). The performance scale for the 2013 Vesuvius Share Plan awards has been set to be stretching. The nominal figures for Headline EPS part of the award have been selected in the light of a relatively low base period result. The performance scale for future awards is intended to be of similar difficulty, but the nominal growth rates selected for 2014 and after are expected to be set at a lower rate than those for 2013. The Remuneration Committee will take into account the Group's prospects and the broader global economic environment when setting future targets.

# Directors' remuneration report continued

For awards made in 2013, the proportion of shares vesting will be based on the Company's performance against specified performance conditions. Vesting of 50% of shares awarded will be 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 growth, as compared with the compound annual growth in global GDP over a three-year period. The two measures will operate independently.

Vesting of 50% of performance share awards will be based on TSR performance in accordance with the following schedule:

TSR ranking relative to FTSE 250 excluding Investment Trusts	Performance Shares Vesting Percentage
Below Median	0%
Median	12.5%
Upper Quintile (top 20%)	50%
Between Median and Upper Quintile	Pro rata between 12.5% and 50%

Vesting of 50% of performance shares awards will be based on EPS growth in accordance with the following schedule:

Annual Compound Headline EPS Growth above global GDP	Performance Shares Vesting Percentage
Below 7%	0%
7%	12.5%
At or above 15%	50%
Between 7% and 15%	Pro rata between 12.5% and 50%

The Remuneration Committee will obtain independent external advice to assess whether the Company has met the performance conditions at the end of the relevant performance period. Measurement of the Company's TSR takes place over a performance period commencing on the first day of the Company's financial year in which the award is granted. TSR is measured as the percentage increase in a return index for the Company and each comparator company between the beginning and end of the performance period. The return index at the beginning of the performance period is the average of the return index on each weekday in the three-month period prior to the start of the performance period. The same three-month averaging method is used to ascertain the return index at the end of the performance period. The companies are then ranked, in descending order, according to their TSR. If the Company is ranked at or above the median of the comparator group then a proportion of the awards is eligible to vest.

Headline EPS will be calculated on a consistent basis and the Remuneration Committee has the discretion to adjust for exceptional items as it deems appropriate. Growth in Headline EPS is the annualised percentage growth over the performance period. Headline EPS for the base year (i.e. the calendar year prior to the award date) is compared with the final year (i.e. the calendar year three years after the base year).

Performance shares awards vest after three years. Performance share awards can be granted as allocations with a fixed vesting date, or in the form of nil-cost options. Nil-cost options awarded in 2013 would become exercisable, subject to the achievement of the applicable performance conditions, three years after their award, and then remain exercisable until the fifth anniversary of their award. This allows each participant the flexibility to decide when to exercise their awards rather than the shares being subject to a one-off vesting date on the third anniversary of their award.

## Deferred Share Bonus Awards

The Remuneration Committee also intends to grant deferred share bonus awards to certain executives in 2013. The senior managers who participate in this plan will receive an allocation of deferred shares to the value of a percentage of their annual bonus. Neither of the Executive Directors will participate. The deferred shares awarded will vest after three years, although an executive's allocation may lapse if he or she ceases employment in certain circumstances before the end of the three-year period.

## Dividend Accrual

The Committee has the discretion to award participants in the Vesuvius Share Plan the dividends that would have been paid on the number of shares that vest in respect of dividend record dates occurring during the period between the award date and the date of vesting. These dividends can be paid in either cash or shares. The Committee believes that this can be an important step in aligning the interests of senior executives with those of shareholders.

### CLAWBACK ARRANGEMENTS

The Executive Directors are subject to clawback arrangements. In the event that a misstatement is identified in the Company's consolidated financial statements which requires the restatement of a prior year's accounts in order to ensure compliance with the requirements of International Financial Reporting Standards or any applicable law, then such portion as the Remuneration Committee deems appropriate of any variable executive remuneration (including from both the Annual Incentive and the Vesuvius Share Plan) resulting from a measure of financial performance affected by the misstatement will be subject to clawback provisions.

### SHARE USAGE

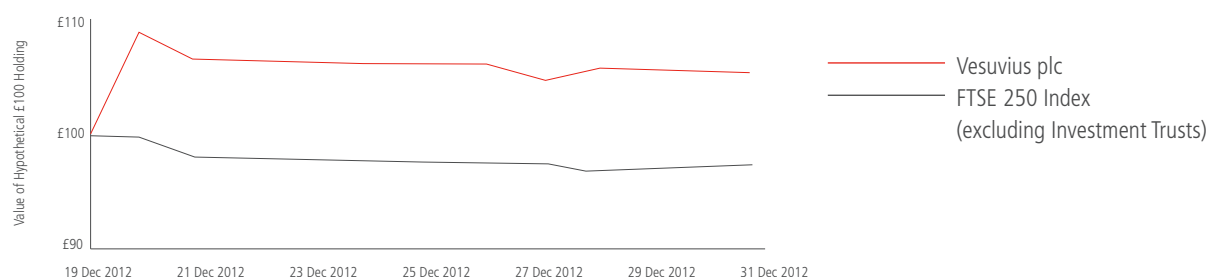
Under the rules of the Vesuvius Share Plan the Company has the discretion to satisfy awards either by the transfer of existing shares or by the allotment of newly issued shares. The decision on how to satisfy awards is taken by the Board, which considers the most prudent and appropriate sourcing arrangement for the Company. As at 31 December 2012, 903,983 Vesuvius shares and 903,983 Alent shares were held in the Company's employee share ownership trust ("ESOP"). The trustee of the ESOP purchases shares in the open market or can subscribe for newly issued shares as required, to meet obligations for the provision of shares to satisfy options and awards that vest. The Vesuvius Share Plan rules comply with the current ABI guidelines on headroom which provide that overall dilution under all plans should not exceed 10% over a ten-year period in relation to the Company's issued share capital, with a further limitation of 5% in any ten-year period on discretionary schemes. If all the awards over Vesuvius shares outstanding under the Cookson share plans were satisfied by the allotment of new Vesuvius shares, then this would require Vesuvius to allot less than 1% of its current issued share capital.

### TOTAL SHAREHOLDER RETURN (TSR) GRAPH

Given that the demerger did not become effective until 19 December 2012, it is not possible to produce a graph which compares the Company's TSR over the last five years with the return on an appropriate index (in compliance with the Large & Medium-sized Companies and Groups (Accounts & Reports) Regulations 2008). The graphs below therefore:

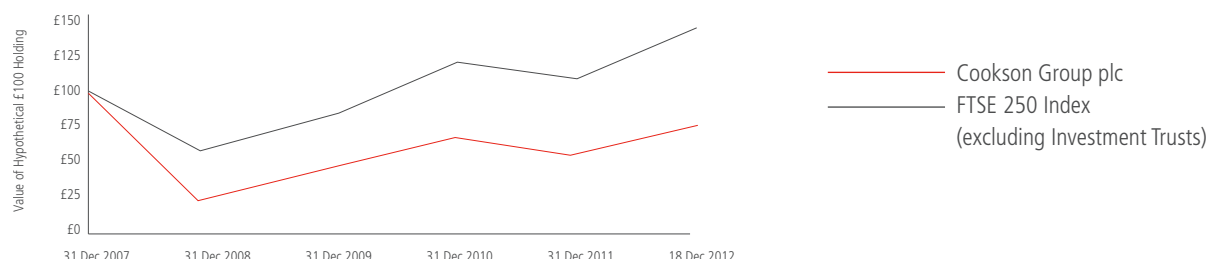
- i. compare the Company's TSR over the short period from the Demerger to 31 December 2012 with the return on the FTSE 250 Index (excluding Investment Trusts). This index has been chosen as the comparator index to reflect the size, international scope and diversity of the Company; and
- ii. compare Cookson's TSR over the almost five year period to 18 December 2012 with the return on the FTSE 250 Index (excluding Investment Trusts)

#### HISTORICAL TSR PERFORMANCE — GROWTH IN THE VALUE OF A HYPOTHETICAL £100 HOLDING OVER 12 DAYS



Source: DataStream

#### HISTORICAL TSR PERFORMANCE — GROWTH IN THE VALUE OF A HYPOTHETICAL £100 HOLDING OVER FIVE YEARS



Source: DataStream



# Directors' remuneration report continued

## DIRECTORS' CONTRACTS

The following paragraphs summarise the main terms and conditions of the contracts of the Directors:

### François Wanecq

François Wanecq is employed as Chief Executive of Vesuvius pursuant to the terms of a service agreement made with Cookson Group plc dated 17 October 2012, which was assigned to the Company upon completion of the demerger. Mr Wanecq's appointment is terminable by the Company on not less than 12 months' written notice, and by Mr Wanecq on not less than six months' written notice. The Company has the option to make a payment in lieu of part or all of the required notice period. Any such payment in lieu will consist of the base salary, pension contributions and value of benefits to which Mr Wanecq would have been entitled for the duration of the remaining notice period, net of statutory deductions in each case.

### Chris O'Shea

Chris O'Shea is employed as Chief Financial Officer pursuant to the terms of a service agreement with Cookson Group plc dated 10 September 2012, which was assigned to the Company upon completion of the demerger. Mr O'Shea's appointment is terminable by the Company on not less than 12 months' written notice, and by Mr O'Shea on not less than six months' written notice. The service agreement provides that, in the event of termination notice by either party, Vesuvius may make a payment in lieu of any remaining notice to Mr O'Shea. Any such payment in lieu will consist of the base salary, pension contributions and value of benefits to which Mr O'Shea 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 to be made to Messrs O'Shea and Wanecq 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; if they found a role paying equivalent or better base salary or fees, no further instalments would be payable, and the value of any lesser new base salary or fees would be deducted from any further instalments.

Messrs O'Shea and Wanecq are also 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. The agreements are governed by English law. Neither of the Executive Directors' contracts contains any change of control provisions and they both 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. No Directors had any material interest in a contract of significance (other than service agreements) with the Company or any subsidiary company during the year.

## NON-EXECUTIVE DIRECTORS

The terms of service of the Chairman and other 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. With the exception of the Chairman, none of the Non-executive Directors are entitled to receive compensation for loss of office at any time. During the first year of his appointment the Chairman he is entitled to 12 months' notice from the Company; thereafter he is entitled to 6 months' notice from the Company. All 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 nine years, with review at the end of three and six years, subject to mutual agreement and annual performance evaluation.

The Board sets the remuneration of the Non-executive Directors after considering the role and responsibilities of each Director and the practice of other companies. The Non-executive Directors do not participate in Board discussions on their own remuneration.

## EXTERNAL APPOINTMENTS

Neither of the Executive Directors serves as a Non-executive Director of any other quoted companies outside the Group.

## PENSION ARRANGEMENTS

In accordance with their contracts, Messrs Wanecq and O'Shea are entitled to a pension allowance of 30% of base salary, which they can use to participate in Vesuvius' pension arrangements, invest in their own pension arrangements or take as a cash supplement (or any combination of the aforementioned options).

Mr Wanecq's pension allowance in 2012 amounted to £159,015. Mr O'Shea's pension allowance in 2012 amounted to £22,885.

#### DIRECTORS' REMUNERATION FOR THE STATUTORY PERIOD FROM THE DATE OF INCORPORATION (17 SEPTEMBER 2012) TO 31 DECEMBER 2012

The following table details the remuneration payable to each Director for their services to Vesuvius plc for the statutory period from the Company's date of incorporation to 31 December 2012. With the exception of Mr McDonough and Ms Hinkley, who received remuneration as Directors of the Company on appointment to the Board, no Director was paid for their services to Vesuvius plc prior to the listing of Vesuvius plc on 17 December 2012. Messrs O'Shea and Wanecq, received remuneration as Directors of the Company following the assignment of their contracts to the Company on the demerger becoming effective.

	Base salary and Non-executive Directors' fees £	Benefits in kind <sup>1</sup> £	Annual Incentive bonuses <sup>2</sup> £	Total 17 September 2012 to 31 December 2012 £
<b>Chairman (Non-executive)</b>				
John McDonough CBE <sup>4</sup>	31,545	—	—	<b>31,545</b>
<b>Executive Directors</b>				
Chris O'Shea <sup>5</sup>	12,143	536	12,143	<b>24,822</b>
François Wanecq <sup>6</sup>	19,643	4,336	—	<b>23,979</b>
<b>Non-executive Directors<sup>3</sup></b>				
Christer Gardell <sup>7</sup>	1,964	—	—	<b>1,964</b>
Jeff Hewitt <sup>7</sup>	2,619	—	—	<b>2,619</b>
Jane Hinkley <sup>8</sup>	3,750	—	—	<b>3,750</b>
Jan Oosterveld <sup>7</sup>	1,964	—	—	<b>1,964</b>
John Sussens <sup>7</sup>	2,837	—	—	<b>2,837</b>
Total Directors' remuneration	76,465	4,872	12,143	<b>93,480</b>

#### Notes

- Benefits in kind comprise mainly the assessed benefits arising from the contractual payments of relocation benefits, medical insurance and company car allowances.
- The Annual Incentive bonus awarded to Mr O'Shea resulted from a contractual entitlement to receive a full prorated bonus for 2012. The award had no performance conditions.
- Details of the annual fees payable to Non-executive Directors can be found on page 94.
- Appointed and remunerated as a Director of Vesuvius plc from 31 October 2012.
- Recruited as an employee of Cookson Group plc on 11 October 2012, and appointed as a Director of Vesuvius plc on 31 October 2012. Remunerated as a Director of Vesuvius plc from the date the demerger became effective (19 December 2012) when his contract of employment was assigned to Vesuvius plc.
- Appointed as a Director of Vesuvius plc on 31 October 2012. Remunerated as a Director of Vesuvius plc from the date the demerger became effective (19 December 2012) when his contract of employment was assigned to Vesuvius plc.
- Appointed as a Director of Vesuvius plc on 31 October 2012, and remunerated as a Director of Vesuvius plc from the date of listing, 17 December 2012.
- Appointed and remunerated as a Director of Vesuvius plc from 3 December 2012.
- Messrs Elliston and Malthouse served as the original Directors of Vesuvius plc from the date of incorporation to 31 October 2012. They received no remuneration in respect of their appointments.
- The information in the above table is audited by the Company's Auditor.

#### DIRECTORS' REMUNERATION FOR THE NON-STATUTORY PERIOD 1 JANUARY 2012 TO 31 DECEMBER 2012

The following table details the remuneration payable to each Director for their services to Cookson Group plc (as appropriate) and Vesuvius plc in respect of the year ended 31 December 2012, together with comparative totals (where applicable) in respect of the year ended 31 December 2011.

	Base salary and Non-executive Directors' fees £	Benefits in kind <sup>1</sup> £	Annual Incentive bonuses <sup>2</sup> £	2012 Total remuneration £	2011 Total remuneration £
<b>Chairman (Non-executive)</b>					
John McDonough CBE <sup>5</sup>	31,545	—	—	<b>31,545</b>	—
<b>Executive Directors</b>					
Chris O'Shea <sup>6</sup>	76,282	3,365	76,282	<b>155,929</b>	—
François Wanecq <sup>7</sup>	530,050	73,115	—	<b>603,165</b>	673,287
<b>Non-executive Directors<sup>4</sup></b>					
Christer Gardell <sup>8</sup>	23,552	—	—	<b>23,552</b>	—
Jeff Hewitt <sup>9</sup>	55,218	—	—	<b>55,218</b>	55,000
Jane Hinkley <sup>10</sup>	3,750	—	—	<b>3,750</b>	—
Jan Oosterveld <sup>9</sup>	40,218	—	—	<b>40,218</b>	40,000
John Sussens <sup>9</sup>	55,436	—	—	<b>55,436</b>	55,000
Total Directors' remuneration	816,051	76,480	76,282	<b>968,813</b>	823,287

# Directors' remuneration report continued

## Notes

- Benefits in kind comprise mainly the assessed benefits arising from the contractual payments of relocation benefits, medical insurance, life assurance and company car allowances.
- The Annual Incentive bonus awarded to Mr O'Shea resulted from a contractual entitlement to receive a full prorated bonus for 2012. The award had no performance conditions.
- Mr Wanecq's remuneration details are translated into sterling at the average euro:sterling exchange rate for the year.
- Details of the annual fees payable to Non-executive Directors can be found on page 94.
- Appointed and remunerated as a Director of Vesuvius plc from 31 October 2012.
- Recruited as an employee of Cookson Group plc on 11 October 2012, and appointed as a Director of Vesuvius plc on 31 October 2012. Remunerated as a Director of Vesuvius plc from the date the demerger became effective (19 December 2012) when his contract of employment was assigned to Vesuvius plc.
- Served as a Director of Cookson Group plc. Appointed as a Director of Vesuvius plc on 31 October 2012. Remunerated as a Director of Vesuvius plc from the date the demerger became effective (19 December 2012) when his contract of employment was assigned to Vesuvius plc.
- Appointed as a Director of Cookson Group plc on 1 June 2012. Appointed as a Director of Vesuvius plc on 31 October 2012, and remunerated as a Director of Vesuvius plc from the date of listing, 17 December 2012.
- Served as a Director of Cookson Group plc. Appointed as a Director of Vesuvius plc on 31 October 2012, and remunerated as a Director of Vesuvius plc from the date of listing, 17 December 2012.
- Appointed and remunerated as a Director of Vesuvius plc from 3 December 2012.
- Messrs Elliston and Malthouse served as the original Directors of Vesuvius plc from the date of incorporation to 31 October 2012. They received no remuneration in respect of their appointments.

## COOKSON LTIP ALLOCATIONS

Details of Mr Wanecq's allocation of shares under the Cookson LTIP are shown in the tables below:

### 2009 Cookson LTIP Award (Awards vested on 26 March 2012 over Cookson shares)

Grant date and type of award		Cookson Share allocations outstanding as at 31 Dec 2011 <sup>1</sup>	Additional shares allocated for Dividend Accrual <sup>3</sup>	Shares vested during the year <sup>3</sup>	Share allocations outstanding as at 31 Dec 2012	Market price of shares on day before award <sup>1</sup>	Performance Period <sup>2,5</sup>	Vesting date of shares
<b>LTIP</b>								
25/03/09 <sup>3</sup>	Performance Shares	303,486	8,187	(311,673)	—	180.00	01/01/09–31/12/11	26/03/12
	Matching Shares	980,170	26,444	(1,006,614)	—	180.00	01/01/09–31/12/11	26/03/12
<b>Totals</b>		<b>1,283,656</b>	<b>34,631</b>	<b>(1,318,287)</b>	<b>—</b>			

### 2010 Cookson LTIP Award (as adjusted for the demerger from awards over Cookson shares into awards over shares in Alent plc and Vesuvius plc)

Grant date and type of award		Cookson Share allocations outstanding as at 31 Dec 2011	Demerger Adjustments		Total share allocations outstanding as at 31 Dec 2012		Market price of shares on day before award (as adjusted for the demerger) <sup>4</sup>	Performance Period <sup>2,5</sup>	Earliest vesting date
			Revised allocations over Alent shares <sup>4</sup>	Revised allocations over Vesuvius shares <sup>4</sup>	Alent shares	Vesuvius shares			
07/04/10 <sup>3</sup>	Performance Shares	93,327	93,327	93,327	<b>93,327</b>	<b>93,327</b>	311.15	01/01/10–18/12/12	07/04/13
	Matching Shares	61,761	61,761	61,761	<b>61,761</b>	<b>61,761</b>	311.15	01/01/10–18/12/12	07/04/13
<b>Totals</b>		<b>155,088</b>	<b>155,088</b>	<b>155,088</b>	<b>155,088</b>	<b>155,088</b>			

## 2011 and 2012 LTIP Awards (as adjusted for the Demerger from awards over Cookson shares into awards over shares in Vesuvius plc)

Grant date and type of award	Cookson Share allocations outstanding as at 31 Dec 2011	Cookson shares allocated during the year	Revised allocation over Vesuvius shares <sup>4</sup>	Total share allocations outstanding as at 31 Dec 2012	Market price of shares on day before award (as adjusted for the demerger) <sup>4</sup>	Performance Period <sup>2</sup>	Earliest vesting date
<b>Vesuvius shares</b>							
01/04/11	Performance Shares	78,656	—	148,260	365.80	01/01/11–31/12/13	01/04/14
	Matching Shares	176,367	—	332,437	365.80	01/01/11–31/12/13	01/04/14
05/04/12 <sup>5</sup>	Performance Shares	—	79,619	150,075	365.80	01/01/12–31/12/14	05/04/15
	Matching Shares	—	32,475	61,212	365.80	01/01/12–31/12/14	05/04/15
<b>Totals</b>		<b>255,023</b>	<b>112,094</b>	<b>691,984</b>			

## Notes

- The 2009 interests and market prices shown have been adjusted for the consolidation of Cookson's ordinary shares which took effect on 15 May 2009, when every ten ordinary 10p shares held by shareholders at the close of business on 14 May 2009 were exchanged for one new £1 ordinary share.
- The performance criteria which apply to the vesting of share allocations under the LTIP are summarised on pages 79 to 80.
- The performance period for the LTIP awards made in 2009 ended on 31 December 2011. The Company's TSR performance during the three-year performance period was assessed against the comparator group and it was determined that the Company's performance was above the upper quintile. The Company's annual compound Headline EPS growth over RPI was assessed as being greater than 10% during this period. The Remuneration Committee confirmed that it was satisfied that the vesting of awards under the 2009 LTIP was justified by the underlying financial performance of the Group over the performance period. Accordingly, 100% of the 2009 LTIP awards vested on the first dealing day after the third anniversary of their award. The Remuneration Committee also exercised its discretion to award participants in the LTIP the dividends that would have accrued during the vesting period on the shares that vested. Mr Wanecq's award vested on 26 March 2012. The mid-market closing price of Cookson's shares was 704.5p; the value of shares transferred to Mr Wanecq was £9,287,332. Mr Wanecq sold 642,989 Cookson shares.
- The 2010, 2011 and 2012 interests and market prices shown have been adjusted for the demerger which took effect in December 2012.
- The performance period for the LTIP awards made in 2010 ended on 18 December 2012. The Company's TSR performance during the three-year performance period was assessed against the comparator group and it was determined that the Company's performance was between the median and upper quintile. The Company's annual compound Headline EPS growth over RPI was assessed as being above 10% during this period. The Remuneration Committee has confirmed that it is satisfied that the vesting of awards under the 2010 LTIP is justified by the underlying financial performance of Cookson over the performance period. Accordingly, 67.7% of the 2010 Performance Share awards will vest on the third anniversary of their award, and the Matching Share awards will vest at a ratio of 1.497 : 1.
- In 2012 Mr Wanecq received a potential maximum allocation of Performance Shares worth one times his base salary. Under the Matching Share award element of the LTIP he used his 2011 Annual Incentive payment to purchase 7,856 Cookson shares, and received a maximum allocation of Matching Share Award based on this amount which had a maximum potential value on the date of award equivalent to circa 40% of his base salary. The allocations were made to Mr Wanecq on 5 April 2012 and were calculated based upon the closing mid-market price of Cookson's shares on the day before the awards were made. Cookson's mid-market closing price on 4 April 2012 was 689.5p.
- The mid-market closing price of Cookson's shares ranged between 509p and 747.5p from 1 January 2012 to 14 December 2012 when Cookson ceased to be listed. The mid-market closing price of shares in Vesuvius plc was 641p and 645p on 17 and 18 December respectively, when the Cookson Group traded under the name Vesuvius plc and from 19 December to 31 December 2012, when the demerger was effective ranged between 324p and 352p.
- The information in the above table is audited by the Company's Auditor.

## RESTRICTED SHARE AWARD

Details of the restricted share award that Mr O'Shea received on joining Cookson Group plc are given in the table below:

Date of award	Cookson shares allocated during the year	Revised allocation over Vesuvius shares <sup>2</sup>	Total share allocation outstanding as at 31 Dec 2012	Market price of shares on day before award (as adjusted for the demerger) <sup>2</sup>	Vesting date <sup>1</sup>
<b>Vesuvius shares</b>					
05/11/12	57,724	108,805	<b>108,805</b>	312.48	50% on 11/10/13 50% on 11/10/14

## Notes

- On his appointment, Mr O'Shea was granted a restricted share award with a face value of 100% of base salary. Half of the award is due to vest on the first anniversary of his date of joining and the remainder on the second anniversary, subject to him remaining employed by the Company and not under notice of termination. No other performance conditions apply to this award.
- Mr O'Shea's interest and the market price shown have been adjusted for the demerger which took effect in December 2012.
- The mid-market closing price of Cookson's shares ranged between 509p and 747.5p from 1 January 2012 to 14 December 2012 when Cookson ceased to be listed. The mid-market closing price of shares in Vesuvius plc was 641p and 645p on 17 and 18 December respectively, when the Cookson Group traded under the name Vesuvius plc and from 19 December to 31 December 2012, when the demerger was effective, ranged between 324p and 352p.

# Directors' remuneration report continued

## DIRECTORS' INTERESTS

On 17 December, as part of the Scheme of Arrangement, Vesuvius plc was inserted as the new parent of Cookson Group plc. The beneficial interests of the current Directors of Vesuvius plc and their connected persons in the ordinary shares of the Cookson Group plc and the Company during 2012 were as shown below.

	Cookson shares held as at 31 Dec 2011 or date of appointment	Cookson shares held as at 14 Dec 2012	Vesuvius shares held as at 17 Dec 2012	<b>Vesuvius shares held as at 31 Dec 2012</b>
<b>Chairman (Non-executive)</b>				
John McDonough CBE	—	—	—	—
<b>Executive Directors</b>				
Chris O'Shea	—	—	—	—
François Wanecq	462,162	1,145,316	1,145,316	<b>1,145,316</b>
<b>Non-executive Directors</b>				
Christer Gardell <sup>3</sup>	—	—	—	—
Jeff Hewitt	14,737	15,284	15,284	<b>15,284</b>
Jane Hinkley	—	—	—	—
Jan Oosterveld	15,684	16,254	16,254	<b>16,254</b>
John Sussens	26,000	26,000	26,000	<b>26,000</b>

### Notes

1. With the exception that Mr McDonough acquired 50,000 ordinary shares in the Company, there were no changes to the interests of the Directors in the ordinary shares of the Company in the period from 1 January 2013 to 28 March 2013. Ms Connors has not had an interest in Vesuvius's shares since the date of her appointment.
2. Full details of Directors' shareholdings and share allocations are given in the Company's Register of Directors' Interests, which is open to inspection at the Company's registered office during business hours.
3. Mr Gardell is Managing Partner of, and has a financial interest in, Cevian Capital which held just over 20% of Cookson's issued share capital on the date of his appointment to the Cookson Board and continued to hold an interest of just over 20% in Vesuvius's issued share capital following the demerger, and as at the date of this report. None of the other Directors, nor their spouses nor minor children, held non-beneficial interests in the ordinary shares of the Company during the year.
4. Mr Malthouse, one of the initial Directors of the Company, holds one deferred share in the Company (which was formally the initial subscriber share of the Company) along with 50,000 redeemable preference shares which were issued in order to obtain a trading certificate for the Company. Neither the deferred share nor the redeemable preference shares carry any voting rights or have any right to participate in the profits of the Company (other than on a winding up of the Company). Both the deferred share and the redeemable preference shares will be cancelled in due course.
5. The information in the above table is audited by the Company's Auditor.

## SHAREHOLDING GUIDELINES

The Remuneration Committee encourages Executive Directors to build and hold a shareholding in the Company equivalent in value to at least one times salary. To this end, Executive Directors will normally be expected to retain at least 50% (measured as the value after tax) of any Performance Share Awards vesting under the LTIP, until this criterion has been met. New Executive Directors will be allowed four years in which to acquire this shareholding.

As at 31 December 2012, using the Company's share price at 31 December 2012 of 346 pence, the Executive Directors' shareholdings against this guideline were as follows:

Director	Actual share ownership as a percentage of salary at 31 December 2012	Guideline share ownership as a percentage of salary	Guideline met?
François Wanecq	721%	100%	Yes
Chris O'Shea	nil	100%	Not yet reached

On behalf of the Board

## JOHN SUSSENS

Chairman, Remuneration Committee  
28 March 2013

# Directors' report

The Companies Act 2006 requires the Company to provide a Directors' Report for Vesuvius plc, for the period since incorporation, 17 September 2012, to 31 December 2012. In order to assist shareholders, the Company has included information on the activities of the Company for the full year 2012. The Directors therefore submit their Annual Report together with the audited accounts of the Group and of the Company, Vesuvius plc, registered in England and Wales No. 8217766, for the year ended 31 December 2012 and for the period from 17 September to 31 December 2012, respectively. Vesuvius plc was originally registered with the name Vesuvius Technologies plc on 17 September 2012 and changed its name to Vesuvius plc on 18 October 2012.

The message from our Chairman, the message from our Chief Executive, the Operating Review, the Financial Review, the Corporate Governance Report (including the Directors' Remuneration Report), the Principal Risks and Uncertainties, the section on Vesuvius's business model, the Key Performance Indicators and Board of Directors sections of the Annual Report, together with the information on financial risk management objectives and policies contained in notes 22 and 30 to the consolidated financial statements, are each incorporated by reference into, and form part of, this Directors' Report. This Directors' Report also represents the management report for the purpose of compliance with DTR 4.1.8R of the UK Listing Authority disclosure rules.

This Annual Report contains certain forward-looking statements with respect to the operations, performance and financial condition of the Group. By their nature, these statements involve uncertainty since future events and circumstances can cause results and developments to differ materially from those anticipated. The forward-looking statements reflect knowledge and information available at the date of preparation of this Annual Report and the Company undertakes no obligation to update these forward-looking statements. Nothing in this Annual Report should be construed as a profit forecast.

## PRINCIPAL ACTIVITIES

Vesuvius is a global leader in metal flow engineering, developing, manufacturing and marketing mission-critical advanced ceramic consumable products and systems to demanding applications, primarily in the global steel and foundry industries and in industries that require refractory materials for high temperature, abrasion-resistant and corrosion-resistant applications such as the aluminium, cement and glass industries.

## BUSINESS REVIEW

The Company is required by the Companies Act 2006 to provide a fair review of the development and performance of the Company since incorporation, its financial position at the end of the year and likely future developments in the Group's business, together with information on environmental matters and employees and a description of the principal risks and uncertainties facing the Group. The information which satisfies these requirements is to be found in the message from

our Chief Executive on pages 09 to 11; the Operating Review on pages 17 to 27; the Financial Review on pages 51 to 56; the section on Vesuvius' business model on pages 13 to 15; the Key Performance Indicators on page 57; this Directors' Report on pages 93 to 99; the Corporate Governance Report on pages 64 to 92; and the Principal Risks and Uncertainties section on pages 58 to 61.

## 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 message from our Chief Executive and the Operating Review. The principal risks and uncertainties that the Group faces throughout its global operations are shown on pages 58 to 61. The financial position of the Group, its cash flows, liquidity position and debt facilities are described in the Financial Review. In addition, notes 22 and 30 to the consolidated financial statements set 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 15, 16 and 30 to the consolidated financial statements.

The Directors have prepared cash flow forecasts for the Group for a period in excess of 12 months from the date of approval of the 2012 financial statements. These forecasts reflect an assessment of current and future end-market conditions and their impact on the Group's future trading performance. The forecasts show that the Group will be able to operate within the current committed debt facilities and show continued compliance with the Company's financial covenants. On the basis of the exercise described above and the Group's available committed debt facilities, the Directors consider that the Group and Company have adequate resources to continue in operational existence for the foreseeable future. Accordingly, they continue to adopt a going concern basis in preparing the financial statements of the Group and the Company.

## DIVIDENDS

Prior to the demerger of Cookson Group plc, the Boards of Alent plc and Vesuvius plc stated that it was their intention, subject to completion of the demerger, general market conditions and trading performance, to recommend final dividends for 2012 that aggregated to 15 pence per Cookson share. Vesuvius plc stated its intention to pay a final 2012 dividend of 9.5 pence per Vesuvius share, and Alent plc its intention to pay a final dividend of 5.5 pence per Alent share. In line with this stated intention, the Board is recommending a final dividend in respect of 2012 of 9.5 pence per ordinary share which, if approved, will be paid on 27 June 2013 to shareholders on the register at 17 May 2013.

An interim dividend of 7.50 pence (2011: 7.25 pence) per Cookson ordinary share was paid on 15 October 2012 to Cookson shareholders.



# Directors' report continued

## ACCOUNTABILITY AND AUDIT

A responsibility statement of the Directors and a statement by the Auditor about its reporting responsibilities can be found on pages 100 and 101 respectively. The Directors fulfil the responsibilities set out in their statement within the context of an overall control environment of central strategic direction and decentralised operating responsibility.

## DISCLOSURE OF INFORMATION TO THE AUDITOR

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 Auditor is 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.

## AUDITOR

Resolutions for the reappointment of KPMG LLP as Auditor of the Company and to authorise the Directors to determine its remuneration are to be proposed at the AGM.

## DIRECTORS

The current Directors of the Company are Ms Hinkley, who was appointed on 3 December 2012, Ms Connors who was appointed on 1 March 2013, and Messrs Gardell, Hewitt, McDonough, Oosterveld, O'Shea, Sussens and Wanecq, all of whom were appointed on 31 October 2012. Messrs Elliston and Malthouse served as the initial Directors of the Company from the date of incorporation to 31 October 2012. Biographical information for all the current Directors of the Company is given on pages 62 and 63. Messrs Oosterveld and Sussens intend to retire as Directors of Vesuvius plc immediately following the 2013 Annual General Meeting. All other Directors will retire at the AGM and offer themselves for election. Further information on the contractual arrangements of the Executive Directors is given on page 88. The Non-executive Directors do not have service agreements.

## REMUNERATION OF THE CHAIRMAN AND NON-EXECUTIVE DIRECTORS

The Board considers the remuneration policy for the Non-executive Directors. Non-executive Directors' fees are £45,000 per annum. Supplementary fees of £15,000 per annum are payable to the Chairmen of the Audit and Remuneration Committees. A supplementary fee of £5,000 per annum is also payable to the Senior Independent Director.

The Chairman is paid a fee of £185,000 per annum. The Chairman's remuneration is a matter for the Remuneration Committee and it will be subject to periodic review. Neither the Chairman, who is not an Executive Director, nor the other Non-executive Directors are members of the Group's pension plans, nor do they participate in the Group's incentive schemes.

## ANNUAL GENERAL MEETING

The Annual General Meeting of the Company will be held at The Lincoln Centre, 18 Lincoln's Inn Fields, London WC2A 3ED on Tuesday 4 June 2013 at 10.00 am. The notice of meeting is contained within the AGM circular.

## CORPORATE SOCIAL RESPONSIBILITY

Vesuvius recognises that its operations impact a wide community of stakeholders, including investors, employees, customers, business associates and local communities, and that appropriate attention to the fulfilment of its corporate responsibilities can enhance overall performance. In structuring its approach to the various aspects of corporate social responsibility, the Company takes account of guidelines and statements issued by stakeholder representatives and other regulatory bodies from around the world. Social, environmental and ethical matters are reviewed by the Board, including the impact such matters may have on the Group's management of risk.

Particular emphasis is focused on the following areas:

- ▶ Code of Conduct: requiring all Vesuvius' businesses and employees to comply with the highest standards of legal and ethical behaviour.
- ▶ Health, Safety and Environment: protecting the health and safety of our employees, contractors, customers and the general public and reducing energy consumption and waste in our operations.
- ▶ Products and Services: developing innovative products and services which promote sustainability in our customers' production processes and products.

## HEALTH, SAFETY AND ENVIRONMENT ("HS&E")

Vesuvius regards HS&E matters as mainstream management responsibilities. The Board has overall responsibility for the Vesuvius HS&E policy and for monitoring its implementation. Executives and line managers at all levels are directly responsible through the normal management structure for HS&E matters in the operations under their control. Particular emphasis is focused on the following areas:

- ▶ Safety Performance: work-related injuries and illnesses.
- ▶ Regulatory Compliance: compliance with permitted air, water, waste and noise emissions criteria.
- ▶ Energy Usage: reducing electricity and gas consumed in our operations and hence carbon dioxide ("CO<sub>2</sub>") emissions.

## REGULATORY COMPLIANCE

Regulatory actions against Vesuvius companies have been at a low level for several years. This is indicative of the emphasis on continuous HS&E performance improvement across Vesuvius in relation to statutory obligations. A small number of enforcement notices were issued to Group companies in 2012, including several that assessed minor penalties.

Like many manufacturers, some Group companies have potential environmental liabilities because of past operations at their current or former sites. Where remediation is required, we work with external specialists and with government authorities to ensure that remediation is conducted effectively and efficiently.

A number of Vesuvius work activities are undertaken in higher risk locations such as steel mills or other customer-controlled facilities. Such environments prove particularly dangerous for all personnel engaged in such facilities. Vesuvius and its customer Corus Steel, were recently prosecuted as a consequence of one of Vesuvius' employees being fatally injured in 2008 at a Corus facility. Employee safety remains Vesuvius' greatest priority. The initiative "Safety Breakthrough" was launched after the sad loss of Kristian Norris, to facilitate the elimination of severe work-related accidents. Vesuvius remains committed to achieving world-class safety performance across its business activities.

#### CODE OF CONDUCT

Vesuvius has a Code of Conduct ("the Code"), which has been distributed throughout the Group in over 25 languages and by which all our businesses are required to operate. The Code emphasises the Group's commitment to compliance with the highest standards of legal and ethical behaviour. The Code is reproduced in full on the Company's website — [www.vesuvius.com](http://www.vesuvius.com). The Code sets out clear and simple principles covering: Customers, Products and Services; Employees; Investors; Society and Local Communities; Health, Safety and the Environment; Conflicts of Interest; and Competitors.

Long-term customer satisfaction is recognised as being essential to the attainment of Group goals, as is maintaining a reputation for integrity in all business and other dealings both with customers and suppliers. The Code defines how we must compete vigorously and honestly.

The Group is committed to the highest standards of corporate governance and transparent investor communication. The Group seeks to be a good corporate citizen wherever it conducts business, to observe all national and local laws and take into account regional and local concerns, customs and traditions.

The Code requires all employees, officers and Directors to have a duty of loyalty to the Group and personal interests that do, may or might appear to conflict with Group interests must be avoided at all times.

#### EMPLOYMENT POLICIES

A fundamental concept embodied in the Company's Code of Conduct is that Vesuvius' goals can only be met through the efforts of its employees. Vesuvius recognises that job satisfaction requires working environments that motivate employees to be productive and innovative and provide opportunities for employee training and development to maximise personal potential and develop careers within the Group. Vesuvius is managed on a decentralised basis and it is the responsibility of the Vice President of Human Resources, together with the relevant

operational managers, to adopt employment policies and practices that best suit the size, style and geographical location of their operations. This management structure allows the Group's operations to respond competitively to changes in the marketplace and to develop and retain a strong sense of identity, whilst benefiting from being a part of a major international group.

Vesuvius values the involvement of its employees and keeps them informed on matters affecting them as employees and factors relevant to Group performance. It is established policy throughout Vesuvius that decisions on recruitment, career development, training, 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, sex, sexual orientation, age, disability or any other reason not related to job performance or prohibited by applicable law. Vesuvius gives full and fair consideration to applications for employment from disabled persons. Should an employee become disabled during their employment with Vesuvius, every effort is made to enable them to continue their service with the Group.

#### 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 Company's shares. Outside the UK, the US, Germany and Belgium, the majority of pension plans in the Group are of a defined contribution nature.

The Group's UK defined benefits plan (the "UK Plan") and the main US defined benefits plan 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.

Cookson Group plc was the principal employer of the UK Plan. Following the demerger, the UK Plan remained with Vesuvius and all pension liabilities of the Alent employers who participated in the UK Plan immediately prior to the demerger were discharged in full. Cookson had agreed, with the Trustee of the UK Plan, a mitigation package in light of the loss of support from the Alent participating employers. That mitigation package comprised a £38m payment to the UK Plan. See note 31 to the consolidated financial statements for further information.

For the Group's closed UK Plan a Trustee Board exists comprising employees, former employees and an independent trustee. The Board currently comprises seven trustee directors, of whom three are member nominated. The administration of the plan is outsourced. The Company is mindful of its obligations under the Pensions Act 2004 and of the

# Directors' report continued

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 Company and Trustee 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. The Company currently has in place a schedule of contributions, agreed with the Trustee Board, which aims to reduce to zero the deficit existing on the UK Plan as at 31 December 2009 by February 2016. The adequacy of this schedule of contributions will be monitored over time, so as to assess the need for it to be modified in the light of changes in the deficit position.

The Group's worldwide net pension deficit at 31 December 2012 was £69m (31 December 2011: £59m). The increase arose largely as a result of a reduction in the applicable interest rates used to value liabilities.

The offer of enhanced transfer values to deferred members of the UK Plan, launched in 2011, was successfully completed in the first half of 2012. In total 550 members took advantage of the scheme and, as a result, longevity and investment risk have been eliminated in respect of £50m (c. 10%) of Vesuvius' total UK pension liabilities. On 19 July 2012, the Trustee of the UK Plan and Pension Insurance Corporation announced that they had signed a pension insurance buy-in agreement covering all of the pensioner members of the UK Plan. This eliminates inflation, interest rate, investment and longevity risk in respect of around 60% of Vesuvius' total UK pension liabilities. Both the enhanced transfer offer and pensioner insurance buy-in are further steps in the ongoing strategy of de-risking the Group's defined benefit pension arrangements.

Current active employees in the UK are offered membership of a defined contribution plan, which is operated on a contract basis, with oversight by a governance committee.

All US retirement plan assets are held in trust for the exclusive benefit of plan participants and their beneficiaries. An independent financial institution acts as the Trustee. The trust assets are protected by law and by Federal Government Regulation and are subject to annual audit by an independent accountant, the Internal Revenue Service and the Department of Labor. Further details of pension arrangements are given in note 31. In 2012, 67% of the deferred pensioners in the US defined benefit pension plan accepted an offer of a lump sum payment in full and final settlement of the Group's pension liability to them, thus eliminating all future risks relating to these liabilities.

## DONATIONS

No donations were made by the Company in the UK for charitable purposes in 2012. In accordance with Company policy, no political donations were made in 2012.

## CREDITOR PAYMENT POLICY

Each operating company in the Group is responsible for agreeing the terms and conditions under which business transactions with their suppliers are conducted. It is Group policy that payments to suppliers are made in accordance with these terms, provided that the supplier is also complying with all relevant terms and conditions.

In the accounts of the Company as at 31 December 2012, the number of days' purchases outstanding was 21.

## ESSENTIAL CONTRACTS OR ARRANGEMENTS WITH CUSTOMERS, CONTRACTORS AND SUPPLIERS

The Company is required to disclose any contractual or other arrangements with customers, contractors and suppliers which it considers are essential to its business. The Company has a number of contractual arrangements in support of its business activities. Whilst the loss of some of these arrangements may cause temporary disruption, none is considered to be essential in the context of Vesuvius' business as a whole.

## 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 other arrangements to which the Company and its subsidiaries are party, such as other debt arrangements and share incentive plans, may 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.

## POST BALANCE SHEET EVENTS

On 27 March 2013, the Group announced that it had entered into an agreement with Heimerle + Meule GmbH, a subsidiary of L. Possehl & Co, mbH ("Possehl") to sell the European Precious Metals Processing business for a consideration of euro56.8m. The cash consideration will be subject to closing balance sheet adjustments. Completion, which is expected by the end of the first half of 2013, will be subject to conditions including approval by the European Commission and by the Supervisory Board of Possehl.

## DEMERGER AND SHARE CAPITAL

During the fourth quarter of 2012 Cookson Group plc demerged into two new businesses, Vesuvius plc and Alent plc. Vesuvius plc, which became the new holding company of Cookson Group (the Engineered Ceramics and Precious Metals Processing divisions), and Alent plc, which became the new holding company of the Performance Materials division. This resulted in Cookson shareholders holding shares in these two new listed companies, on the basis of one Vesuvius share and one Alent share for each Cookson Share that they held.

The demerger was effected through the following steps:

- a. Prior to the demerger, Cookson Group underwent a reorganisation which involved, amongst other things, the transfer of the various Cookson Group subsidiaries which held the Performance Materials division business to a single holding company, Alent Investments Limited. Alent Investments Limited was subsequently transferred to Alent plc as part of the Vesuvius capital reduction, as further described below.
- b. A Scheme of Arrangement was then effected. This resulted in a new holding company, Vesuvius plc, being inserted as the holding company of Cookson Group. Cookson shareholders received one Vesuvius share in respect of each Cookson share held by them at the Scheme Record Time. Vesuvius shares were admitted to the premium listing segment of the Official List and to trading on the London Stock Exchange's main market for listed securities at 8.00am on 17 December 2012.
- c. Following the Scheme becoming effective, Vesuvius plc effected a reduction and repayment of capital in order to implement the demerger itself. The repayment of capital was satisfied by the transfer of Alent Investments Limited, the holding company of the Performance Materials division, to Alent plc. In consideration for such transfer, Alent plc allotted and issued to Vesuvius shareholders one Alent share for each Vesuvius share held at the Demerger Record Time. Alent shares were admitted to the premium listing segment of the Official List and to trading on the London Stock Exchange's main market for listed securities at 8.00am on 19 December 2012.

Prior to the demerger, the share capital of Vesuvius plc consisted of one ordinary share with a par value of £1 (the subscriber share) and 50,000 Redeemable Preference Shares of £1 each. As part of the demerger, Vesuvius plc issued 278,448,752 Vesuvius shares, credited as fully paid, to Cookson shareholders on the basis of one Vesuvius Share for every Cookson Share held at the scheme record date. The one Vesuvius Subscriber Share of £1 was then converted into a Vesuvius Deferred Share of £1.

As at the date of this report, the Company had an issued share capital of 278,485,071 ordinary shares of 10p each, being the total number of Vesuvius plc shares with voting rights. The Company also has one Deferred Share of £1 and 50,000 Redeemable Preference Shares in issue.

Further information relating to the Company's issued share capital can be found in note 7 to the Company financial statements.

Resolutions giving the Directors the authority to allot further shares and make allotments of shares to persons other than existing shareholders in certain circumstances will be proposed at the AGM.

#### APPORTIONMENT OF TAX BASE COST OF COOKSON GROUP PLC SHARES BETWEEN ALENT PLC SHARES AND VESUVIUS PLC SHARES

Based on the share prices of Alent plc and Vesuvius plc on 19 December 2012, a shareholder's base cost in Cookson Group plc shares for UK capital gains tax purposes, and also for US federal income tax purposes, will be allocated 48.87% to Alent plc and 51.13% to Vesuvius plc. US shareholders are referred to IRS Form 8937 for more information.

#### SHARE PLANS

Vesuvius operates a number of share-based incentive plans which have been carried over from Cookson Group plc (further details about these are given in the Directors' Remuneration Report). For the majority of these plans the Group can satisfy entitlements either by the acquisition of existing shares or by the issue of new shares. Existing shares are held in an employee share ownership trust ("ESOP"). The trustee of the ESOP purchases shares in the open market as required, to enable the Group to meet liabilities for the provision of existing shares to satisfy awards that vest. The trustee does not register votes in respect of these shares and has waived the right to receive any dividends.

In 2012 the trustee purchased 2.7 million £1 ordinary shares in Cookson Group plc with a nominal value of £2.7m at a cash cost of £17.9m, and was allotted a further million 1.9 ordinary shares at a nominal value cost of £1.9m to satisfy the actual and potential vesting of awards under the Group's share-based payment plans (see note 10 to the Company financial statements).

Adjustments were made to outstanding share-based incentives as appropriate following the demerger of Cookson Group, including to the number of shares granted under options and awards and any relevant performance conditions. Such adjustments were made in accordance with the rules of the relevant plans. Participants in the Cookson Group Executive Share Option Scheme were notified in February 2013 that, under the rules of this scheme, they had one month in which to exercise their outstanding options following the demerger. The Cookson shares that they acquired were compulsorily exchanged for Vesuvius shares pursuant to a new article which was incorporated into the articles of association of Cookson Group plc as part of the demerger. The number of Vesuvius shares which they acquired was increased to reflect the fact that they were not able to acquire any Alent shares. 36,319 ordinary shares in Vesuvius plc have been issued since the year-end in relation to the exercise of options granted under the Cookson Group plc share option schemes.

#### ADDITIONAL INFORMATION FOR SHAREHOLDERS

Set out below is a summary of certain provisions of the Company's current Articles of Association ("Articles") and applicable English law concerning companies (the Companies Act 2006 (the "Companies Act")). This is a summary only and the relevant provisions of the Articles or the Companies Act should be consulted if further information is required.

# Directors' report continued

## 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 General Meeting of the Company held on 31 October 2012 the initial Vesuvius shareholder gave authority to the Company to make market purchases of up to 27,835,743 Vesuvius ordinary shares, representing 10% of the Company's expected issued ordinary share capital immediately after the Demerger. As at the date of this report, the Company has made no such purchases under this authority. The Directors believe it advisable to seek renewal of this authority at the forthcoming AGM. The Company's Articles specify that, subject to the authorisation of an appropriate resolution passed by 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 that Act. In addition, the Articles state that the Directors can seek the authority of shareholders in 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 in connection with a rights issue and in other circumstances up to an aggregate nominal amount as specified in Section 561 of the Companies Act.

## TRANSFER OF SHARES

All transfers of shares which are in certificated form may be effected by transfer in writing in any usual or common form or in any other form acceptable to the Directors and may be under hand only. The instrument of transfer must be signed by or on behalf of the transferor and (except in the case of fully paid shares) by or on behalf of the transferee. The transferor will remain the holder of the shares concerned until the name of the transferee is entered in the register of members.

Uncertificated shares may be transferred in accordance with the Uncertificated Securities Regulations 1995, transfers being effected by means of a Relevant System (as defined in such Regulations).

The Directors may decline to recognise any instrument of transfer, relating to shares in certificated form, which is:

- i. not in respect of only one class of shares; or
- ii. not lodged (duly stamped if required) at the place where Vesuvius plc's register is located accompanied by the relevant share certificate(s), and such other evidence as the Directors may reasonably require to show the right of the transferor to make the transfer (and, if the instrument of transfer is executed by some other person on his behalf, the authority of that person so to do). In the case of a transfer by a recognised clearing house, or by a nominee of a recognised clearing house or of a recognised investment exchange, the lodgement of share certificates will only be necessary if and to the extent that certificates have been issued in respect of the shares in question.

The Directors may also, in the case of shares in certificated form, in their absolute discretion refuse to register any transfer of shares (not being fully paid shares or, broadly, shares which are being transferred from a person resident in the US holding the shares in any manner

described in Rule 12g3-2(a)(1) of the US Securities Exchange Act of 1934 (a "US Holder") to a person who is a US Holder) provided that such discretion may not be exercised in such a way as to prevent dealings in the shares of that class from taking place on an open and proper basis.

The Directors may also decline to recognise any allotment or transfer of shares (whether fully paid or not) which is in favour of more than four joint holders. If the Directors refuse to register an allotment or transfer, they must within two months after the date on which (a) the letter of allotment or transfer was lodged with the Company; or (b) the operator instruction was received by the Company (in the case of shares held in uncertificated form), send to the allottee or transferee notice of the refusal.

The Articles contain certain restrictions on the number of US persons who hold shares in the Company so as to prevent the Company from having obligations under the US Securities Exchange Act of 1934.

## VOTING RIGHTS

Subject to the Company's Articles generally and to any special rights or restrictions attached to any class of shares, at a general meeting, every shareholder who is present in person and every duly appointed proxy has one vote on a show of hands, and on a poll every shareholder who is present in person or by proxy has one vote for every ordinary share of which he is the holder. A shareholder entitled to attend and vote at a general meeting is entitled to appoint a proxy or proxies to exercise all or any of his rights to attend and speak and vote in his place. A shareholder may appoint more than one proxy in relation to a general meeting provided that each proxy is appointed to exercise the rights attached to a different share or shares held by the shareholder. Proxies need not be shareholders of the Company. For the purposes of determining which persons are entitled to attend or vote at a meeting and how many votes such person may cast, the Company may specify in the notice of the meeting a time, not more than 48 hours before the time fixed for the meeting, by which a person must be entered on the register of members in order to be entitled to attend or vote at the meeting.

No shareholder will, unless the Directors otherwise determine, be entitled in respect of any share held by him, to vote either personally or by proxy at a general meeting, or to exercise any other right conferred by membership in relation to general meetings, if any call, or other sum presently payable by him to the Company in respect of that share, remains unpaid; or he, or any person who appears to be interested in the shares held by him, has been served with a notice pursuant to section 793 of the Companies Act, and is in default for the prescribed period. In the case of joint holders of shares, only the vote of the senior holder who votes (and any proxies duly authorised by him) may be counted. For this purpose, the senior holder of a share shall be determined by the order in which the names of the joint holders stand in the register of members.

## RESTRICTIONS ON SHARES

The Board may withhold payment of all or any part of dividends or other moneys payable in respect of the Company's shares from a person with 0.25% interest or more if such person has been served with a notice after failure to provide the Company with information concerning interest in those shares required to be provided under the Companies Act.

## VARIATION OF RIGHTS

Whenever the share capital of Vesuvius plc is divided into different classes of shares, the special rights attached to any class may be varied or abrogated, subject to the provisions of the Companies Act, either (a) with the consent in writing of the holders of three-quarters in nominal value of the issued shares of that class, or (b) with the sanction of a special resolution passed at a separate meeting of the holders of the shares of that class. At every separate meeting, the necessary quorum is two persons holding, or representing by proxy, not less than one-third in nominal value of the issued shares of the class (but at any adjourned meeting any holder of shares of the class present, in person or by proxy, will be a quorum). Any holder of shares of the class present in person or by proxy may demand a poll and every such holder will, on a poll, have one vote for every share of the class held by him. Subject to statute, the Articles specify that rights attached to any class of shares may be varied with the written consent of the holders of not less than three-quarters in nominal value of the issued shares of that class, or with the sanction of a special resolution passed at a separate general meeting of the holders of those shares. At every such separate general meeting the quorum shall be two persons holding or representing by proxy at least one-third in nominal value of the issued shares of the class. The rights conferred upon the holders of any shares shall not, unless otherwise expressly provided in the rights attaching to those shares, be deemed to be varied by the creation or issue of further shares ranking *pari passu* with them.

## RESTRICTIONS ON VOTING

No shareholder shall, unless the Directors otherwise determine, be entitled in respect of any share held by him or her to vote either personally or by proxy at a shareholders' meeting or to exercise any other right conferred by membership in relation to shareholders' meetings if any call or other sum presently payable by him or her to the Company in respect of that share remains unpaid. In addition, if any shareholder, or any other person appearing to be interested in shares held by such shareholder, has been duly served with a notice to provide the Company with information under Section 793 of the Companies Act and has failed to do so within 14 days, then (unless the Directors otherwise determine) the shareholder shall not (for so long as the default continues) be entitled to attend or vote either personally or by proxy at a shareholders' meeting or to exercise any other right conferred by membership in relation to shareholders' meetings.

## APPOINTMENT AND REPLACEMENT OF DIRECTORS

The Board shall not be fewer than 5 nor more than 15 in number 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. A Director appointed by the Board must retire from office at the first AGM after his appointment. A Director who retires in this way is then eligible for reappointment. 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, any Director who held office at the time of the two preceding AGMs and who did not retire at either of them, and any Director who has been in office, other than holding an executive position, for a continuous period of nine years or more at the date of the meeting shall retire from office. Any Director who retires at an AGM may offer himself for reappointment.

## AMENDMENT OF ARTICLES OF ASSOCIATION

The Company may make amendments to the Articles of the Company by way of special resolution in accordance with the Companies Act.

## 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 in its issued ordinary shares:

	31 Dec 2012 %	Current %
Cevian Capital II G.P. Ltd	20.01	20.01
Artisan Partners	6.10	7.20
Morgan Stanley	6.01	<3
Axa S.A.	5.34	5.34
Pelham Capital Management CFD	5.91	5.91
Standard Life Investments Ltd	4.87	4.87
Lloyds Banking Group plc	4.78	4.78
BlackRock, Inc	4.46	4.46
Fidelity Investments Ltd	4.20	4.20
Governance for Owners LLP	4.05	<3

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 UK Listing Authority are as set out on page 92 and details of the Directors' long-term incentive awards and, where appropriate their deferred share bonus awards, are set out on pages 90 and 91.

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

## RICHARD MALTHOUSE

Company Secretary  
28 March 2013



# Statement of Directors' Responsibilities

IN RESPECT OF THE ANNUAL REPORT AND FINANCIAL STATEMENTS

The Directors of Vesuvius plc are responsible for preparing the Annual Report and the Group and parent company ("the Company") financial statements in accordance with applicable law and regulations.

Company law requires the Directors to prepare Group and Company financial statements for each financial year. Under that law they are required to prepare the Group financial statements in accordance with IFRSs as adopted by the European Union and applicable law and have elected to prepare the Company financial statements in accordance with UK Accounting Standards and applicable law ("UK Generally Accepted Accounting Practice").

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

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

The Directors are responsible for keeping adequate accounting records that are sufficient to show and explain the Company's transactions and disclose with reasonable accuracy at any time the financial position of the Company and enable them to ensure that its financial statements comply with the Companies Act 2006. They have general responsibility for taking such steps as are reasonably open to them to safeguard the assets of the Group and to prevent and detect fraud and other irregularities.

Under applicable law and regulations, the Directors are also responsible for preparing a Directors' Report, Directors' Remuneration Report and Corporate Governance Report that comply with that law and those regulations.

The Directors are responsible for the maintenance and integrity of the corporate and financial information included on the Company's website. Legislation in the UK governing the preparation and dissemination of financial statements may differ from legislation in other jurisdictions.

## Responsibility Statement of the Directors in respect of the Annual Financial Report

Each of the Directors whose names and functions are indicated below confirms that to the best of their knowledge:

- ▶ the financial statements, prepared in accordance with the applicable set of accounting standards, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Company and the undertakings included in the consolidation taken as a whole; and
- ▶ the Directors' Report includes a fair review of the development and performance of the business and the position of the Company and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face.

The names and functions of the Directors of Vesuvius plc are as follows:

John McDonough	Chairman
François Wanecq	Chief Executive
Chris O'Shea	Chief Financial Officer
Nelda Connors	Non-executive Director
Christer Gardell	Non-executive Director
Jeff Hewitt	Non-executive Director and Chairman of the Audit Committee
Jane Hinkley	Non-executive Director
Jan Oosterveld	Non-executive Director
John Sussens	Non-executive Director, Senior Independent Director and Chairman of the Remuneration Committee

On behalf of the Board

CHRIS O'SHEA  
28 March 2013

# Independent Auditor's report to the members of Vesuvius plc

We have audited the financial statements of Vesuvius plc for the year ended 31 December 2012 which comprise the Group income statement, the Group statement of comprehensive income, the Group statement of cash flows, the Group and Company balance sheets, the group statement of changes in equity, and the related notes. The financial reporting framework that has been applied in the preparation of the Group financial statements is applicable law and International Financial Reporting Standards (IFRSs) as adopted by the EU. The financial reporting framework that has been applied in the preparation of the parent company financial statements is applicable law and UK Accounting Standards ("UK Generally Accepted Accounting Practice").

This report is made solely to the Company's members, as a body, in accordance with Chapter 3 of Part 16 of the Companies Act 2006. Our audit work has been undertaken so that we might state to the Company's members those matters we are required to state to them in an auditor's report and for no other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility to anyone other than the Company and the Company's members, as a body, for our audit work, for this report, or for the opinions we have formed.

## RESPECTIVE RESPONSIBILITIES OF DIRECTORS AND AUDITOR

As explained more fully in the Directors' Responsibilities Statement set out on page 100, the Directors are responsible for the preparation of the financial statements and for being satisfied that they give a true and fair view. Our responsibility is to audit, and express an opinion on, the financial statements in accordance with applicable law and International Standards on Auditing (UK and Ireland). Those standards require us to comply with the Auditing Practices Board's Ethical Standards for Auditors.

## SCOPE OF THE AUDIT OF THE FINANCIAL STATEMENTS

A description of the scope of an audit of financial statements is provided on the Financial Reporting Council's website at [www.frc.org.uk/auditscopeukprivate](http://www.frc.org.uk/auditscopeukprivate).

## OPINION ON FINANCIAL STATEMENTS

In our opinion:

- ▶ the financial statements give a true and fair view of the state of the Group's and of the parent Company's affairs as at 31 December 2012 and of the Group's profit for the year then ended;
- ▶ the Group financial statements have been properly prepared in accordance with IFRSs as adopted by the EU;
- ▶ the parent Company financial statements have been properly prepared in accordance with UK Generally Accepted Accounting Practice;
- ▶ the financial statements have been prepared in accordance with the requirements of the Companies Act 2006; and, as regards the Group financial statements, Article 4 of the IAS Regulation.

## OPINION ON OTHER MATTERS PRESCRIBED BY THE COMPANIES ACT 2006

In our opinion:

- ▶ the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006; and
- ▶ the information given in the Directors' Report for the financial year for which the financial statements are prepared is consistent with the financial statements.

## MATTERS ON WHICH WE ARE REQUIRED TO REPORT BY EXCEPTION

We have nothing to report in respect of the following:

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

- ▶ adequate accounting records have not been kept by the parent Company, or returns adequate for our audit have not been received from branches not visited by us; or
- ▶ the parent Company financial statements and the part of the Directors' Remuneration Report to be audited are not in agreement with the accounting records and returns; or
- ▶ certain disclosures of Directors' remuneration specified by law are not made; or
- ▶ we have not received all the information and explanations we require for our audit.

Under the Listing Rules we are required to review:

- ▶ the Directors' Statement, set out on page 93, in relation to going concern;
- ▶ the part of the Corporate Governance Statement on page 66 relating to the Company's compliance with the nine provisions of the UK Corporate Governance Code specified for our review; and
- ▶ certain elements of the report to shareholders by the Board on Directors' remuneration.

## PAUL KOROLKIEWICZ (Senior Statutory Auditor)

for and on behalf of KPMG LLP, Statutory Auditor

Chartered Accountants

15 Canada Square, London, E14 5GL

28 March 2013

# Group income statement

FOR THE YEAR ENDED 31 DECEMBER 2012

	Notes	2012			2011		
		Headline performance £m	Separately reported items £m	Total £m	Headline performance £m	Separately reported items £m	Total £m
<b>Continuing operations</b>							
<b>Revenue</b>	5	<b>1,547.5</b>	—	<b>1,547.5</b>	1,685.8	—	1,685.8
Manufacturing costs		<b>(1,149.3)</b>	—	<b>(1,149.3)</b>	(1,249.8)	—	(1,249.8)
Administration, selling and distribution costs		<b>(265.2)</b>	—	<b>(265.2)</b>	(252.5)	—	(252.5)
<b>Trading profit</b>	5	<b>133.0</b>	—	<b>133.0</b>	183.5	—	183.5
Amortisation of intangible assets	18	—	<b>(17.5)</b>	<b>(17.5)</b>	—	(17.8)	(17.8)
Restructuring charges	7	—	<b>(57.0)</b>	<b>(57.0)</b>	—	(7.0)	(7.0)
Demerger costs	8	—	<b>(15.7)</b>	<b>(15.7)</b>	—	—	—
Gains relating to employee benefits plans	31	—	—	—	—	13.2	13.2
<b>Profit/(loss) from operations</b>		<b>133.0</b>	<b>(90.2)</b>	<b>42.8</b>	183.5	(11.6)	171.9
Finance costs	11	<b>(50.9)</b>	—	<b>(50.9)</b>	(60.7)	(1.9)	(62.6)
Finance income	11	<b>28.7</b>	—	<b>28.7</b>	34.9	—	34.9
Share of post-tax profit/(loss) of joint ventures		<b>0.1</b>	—	<b>0.1</b>	(1.2)	—	(1.2)
Loss on disposal of continuing operations	10	—	<b>(2.3)</b>	<b>(2.3)</b>	—	(1.6)	(1.6)
<b>Profit/(loss) before tax</b>		<b>110.9</b>	<b>(92.5)</b>	<b>18.4</b>	156.5	(15.1)	141.4
Income tax costs — ordinary activities	12	<b>(29.6)</b>	<b>(2.0)</b>	<b>(31.6)</b>	(41.9)	5.7	(36.2)
<b>Profit/(loss) for the year from continuing operations</b>		<b>81.3</b>	<b>(94.5)</b>	<b>(13.2)</b>	114.6	(9.4)	105.2
<b>Discontinued operations</b>	25	—	<b>612.5</b>	<b>612.5</b>	—	47.5	47.5
<b>Profit for the year</b>		<b>81.3</b>	<b>518.0</b>	<b>599.3</b>	114.6	38.1	152.7
<b>Profit attributable to:</b>							
Owners of the parent		<b>76.2</b>	<b>518.0</b>	<b>594.2</b>	108.7	38.1	146.8
Non-controlling interests		<b>5.1</b>	—	<b>5.1</b>	5.9	—	5.9
<b>Profit for the year</b>		<b>81.3</b>	<b>518.0</b>	<b>599.3</b>	114.6	38.1	152.7
<b>Earnings per share — pence</b>							
Continuing operations — basic	13			<b>(6.6)</b>			36.0
— diluted				<b>(6.5)</b>			35.4
Total operations — basic				<b>214.2</b>			53.2
— diluted				<b>212.3</b>			52.3

# Group statement of comprehensive income

FOR THE YEAR ENDED 31 DECEMBER 2012

	Notes	2012 £m	2011 £m
<b>Profit for the year</b>		<b>599.3</b>	152.7
<b>Other comprehensive income/(loss) for the year</b>			
Exchange differences on translation of the net assets of foreign operations		<b>(80.8)</b>	(47.5)
Reclassification of exchange differences on disposal of foreign operations		<b>31.5</b>	—
Exchange translation differences arising on net investment hedges	27	<b>14.0</b>	(3.3)
Change in fair value of cash flow hedges	27	<b>2.3</b>	(0.2)
Change in fair value of cash flow hedges transferred to profit for the year	27	<b>(0.3)</b>	—
Actuarial gains on employee benefits plans	31	<b>1.4</b>	39.6
Actuarial losses on employee benefits plans	31	<b>(109.0)</b>	(18.4)
Change in fair value of available-for-sale investments	27	<b>(0.3)</b>	0.1
Income tax relating to components of other comprehensive income	12	<b>14.8</b>	(11.9)
<b>Other comprehensive loss for the year, net of income tax</b>		<b>(126.4)</b>	(41.6)
<b>Total comprehensive income for the year</b>		<b>472.9</b>	111.1
<b>Total comprehensive income for the year attributable to:</b>			
Owners of the parent		<b>469.5</b>	108.7
Non-controlling interests		<b>3.4</b>	2.4
<b>Total comprehensive income for the year</b>		<b>472.9</b>	111.1

# Group statement of cash flows

FOR THE YEAR ENDED 31 DECEMBER 2012

	Notes	2012 £m	2011 £m
<b>Cash flows from operating activities</b>			
Cash generated from operations	14	<b>165.3</b>	233.3
Interest paid		<b>(24.1)</b>	(27.6)
Interest received		<b>5.4</b>	10.0
Income taxes paid		<b>(60.1)</b>	(55.9)
<b>Net cash inflow from operating activities</b>		<b>86.5</b>	159.8
<b>Cash flows from investing activities</b>			
Capital expenditure		<b>(80.0)</b>	(85.1)
Proceeds from the sale of property, plant and equipment		<b>3.3</b>	2.3
Acquisition of subsidiaries and joint ventures, net of cash acquired	36	<b>(26.1)</b>	(11.3)
Disposal of subsidiaries and joint ventures, net of cash disposed of	24	<b>(46.2)</b>	(4.4)
Settlement of closed-out interest rate swaps		<b>(1.0)</b>	(4.0)
Dividends received from joint ventures		<b>1.3</b>	1.2
Other investing outflows		<b>(2.4)</b>	(2.1)
<b>Net cash outflow from investing activities</b>		<b>(151.1)</b>	(103.4)
<b>Net cash (outflow)/inflow before financing activities</b>		<b>(64.6)</b>	56.4
<b>Cash flows from financing activities</b>			
Increase in borrowings	16	<b>119.1</b>	41.2
Settlement of forward foreign exchange contracts		<b>(23.7)</b>	(27.6)
Proceeds from the issue of share capital		<b>2.2</b>	—
Purchase of own shares		<b>(19.8)</b>	(7.8)
Borrowing facility arrangement costs		<b>(5.0)</b>	(4.3)
Dividends paid to equity shareholders	29	<b>(61.2)</b>	(51.8)
Dividends paid to non-controlling shareholders		<b>(1.2)</b>	(1.3)
<b>Net cash inflow/(outflow) from financing activities</b>		<b>10.4</b>	(51.6)
<b>Net (decrease)/increase in cash and cash equivalents</b>	16	<b>(54.2)</b>	4.8
Cash and cash equivalents at 1 January		<b>183.9</b>	181.4
Effect of exchange rate fluctuations on cash and cash equivalents		<b>(5.0)</b>	(2.3)
<b>Cash and cash equivalents at 31 December</b>	15	<b>124.7</b>	183.9

	Continuing operations £m	Discontinued operations £m	2012 Total £m	Continuing operations £m	Discontinued operations £m	2011 Total £m
<b>Free cash flow</b>						
Net cash inflow from operating activities	<b>64.0</b>	<b>22.5</b>	<b>86.5</b>	86.7	73.1	159.8
Additional funding contributions into Group pension plans	<b>45.2</b>	<b>2.1</b>	<b>47.3</b>	11.5	1.7	13.2
Capital expenditure	<b>(56.2)</b>	<b>(23.8)</b>	<b>(80.0)</b>	(66.5)	(18.6)	(85.1)
Proceeds from the sale of property, plant and equipment	<b>1.4</b>	<b>1.9</b>	<b>3.3</b>	1.7	0.6	2.3
Dividends received from joint ventures	<b>1.0</b>	<b>0.3</b>	<b>1.3</b>	—	1.2	1.2
Dividends paid to non-controlling shareholders	<b>(1.2)</b>	<b>—</b>	<b>(1.2)</b>	(1.3)	—	(1.3)
<b>Free cash flow</b>	<b>54.2</b>	<b>3.0</b>	<b>57.2</b>	32.1	58.0	90.1

# Group balance sheet

AS AT 31 DECEMBER 2012

	Notes	2012 £m	2011 £m
<b>Assets</b>			
Property, plant and equipment	17	277.8	399.4
Intangible assets	18	763.7	1,104.7
Employee benefits — net surpluses	31	23.3	65.6
Interests in joint ventures		14.4	31.2
Investments		4.6	5.7
Income tax recoverable		2.9	3.4
Deferred tax assets	12	17.9	20.8
Other receivables		14.1	21.7
<b>Total non-current assets</b>		<b>1,118.7</b>	1,652.5
Cash and short-term deposits	15	129.5	188.1
Inventories	21	194.1	300.2
Trade and other receivables	20	338.9	530.0
Income tax recoverable		2.8	1.9
Derivative financial instruments	22	—	3.7
Assets classified as held for sale	23	39.9	28.8
<b>Total current assets</b>		<b>705.2</b>	1,052.7
<b>Total assets</b>		<b>1,823.9</b>	2,705.2
<b>Equity</b>			
Issued share capital	26	27.8	1,765.1
Other reserves	27	(1,399.0)	(1,356.7)
Retained earnings	28	2,212.2	899.3
Equity attributable to the owners of the parent		841.0	1,307.7
Non-controlling interests		26.8	24.6
<b>Total equity</b>		<b>867.8</b>	1,332.3
<b>Liabilities</b>			
Interest-bearing borrowings	30	420.3	421.3
Employee benefits — net liabilities	31	92.1	124.3
Other payables	33	14.2	19.2
Provisions	35	31.8	55.7
Deferred tax liabilities	12	60.7	106.5
<b>Total non-current liabilities</b>		<b>619.1</b>	727.0
Interest-bearing borrowings	30	4.5	130.7
Trade and other payables	33	234.2	409.4
Income tax payable		45.0	53.6
Provisions	35	29.5	24.9
Derivative financial instruments	22	0.3	19.6
Liabilities directly associated with assets classified as held for sale	23	23.5	7.7
<b>Total current liabilities</b>		<b>337.0</b>	645.9
<b>Total liabilities</b>		<b>956.1</b>	1,372.9
<b>Total equity and liabilities</b>		<b>1,823.9</b>	2,705.2

The financial statements were approved and authorised for issue by the Directors on 28 March 2013 and signed on their behalf by:

FRANÇOIS WANECQ, Chief Executive

CHRIS O'SHEA, Chief Financial Officer



# Group statement of changes in equity

FOR THE YEAR ENDED 31 DECEMBER 2012

	Issued share capital £m	Other reserves £m	Retained earnings £m	Owners of the parent £m	Non- controlling interests £m	Total equity £m
As at 1 January 2011	1,765.1	(1,309.3)	797.8	1,253.6	23.5	1,277.1
<b>Profit for the year</b>	—	—	146.8	146.8	5.9	152.7
Exchange differences on translation of the net assets of foreign operations	—	(44.0)	—	(44.0)	(3.5)	(47.5)
Exchange translation differences arising on net investment hedges	—	(3.3)	—	(3.3)	—	(3.3)
Change in fair value of cash flow hedges	—	(0.2)	—	(0.2)	—	(0.2)
Actuarial gains on employee benefits plans	—	—	39.6	39.6	—	39.6
Actuarial losses on employee benefits plans	—	—	(18.4)	(18.4)	—	(18.4)
Change in fair value of available-for-sale investments	—	0.1	—	0.1	—	0.1
Income tax relating to components of other comprehensive income (note 12)	—	—	(11.9)	(11.9)	—	(11.9)
<b>Other comprehensive (loss)/income</b>	—	(47.4)	9.3	(38.1)	(3.5)	(41.6)
<b>Total comprehensive (loss)/income</b>	—	(47.4)	156.1	108.7	2.4	111.1
Purchase of own shares	—	—	(7.8)	(7.8)	—	(7.8)
Recognition of share-based payments	—	—	5.0	5.0	—	5.0
Dividends paid (note 29)	—	—	(51.8)	(51.8)	(1.3)	(53.1)
<b>Total transactions with owners</b>	—	—	(54.6)	(54.6)	(1.3)	(55.9)
<b>As at 1 January 2012</b>	<b>1,765.1</b>	<b>(1,356.7)</b>	<b>899.3</b>	<b>1,307.7</b>	<b>24.6</b>	<b>1,332.3</b>
<b>Profit for the year</b>	—	—	<b>594.2</b>	<b>594.2</b>	<b>5.1</b>	<b>599.3</b>
Exchange differences on translation of the net assets of foreign operations	—	(79.1)	—	(79.1)	(1.7)	(80.8)
Reclassification of exchange differences on disposal of foreign operations	—	31.5	—	31.5	—	31.5
Exchange translation differences arising on net investment hedges	—	14.0	—	14.0	—	14.0
Change in fair value of cash flow hedges	—	2.3	—	2.3	—	2.3
Change in fair value of cash flow hedge transferred to profit for the year	—	(0.3)	—	(0.3)	—	(0.3)
Actuarial gains on employee benefits plans	—	—	1.4	1.4	—	1.4
Actuarial losses on employee benefits plans	—	—	(109.0)	(109.0)	—	(109.0)
Change in fair value of available-for-sale investments	—	(0.3)	—	(0.3)	—	(0.3)
Income tax relating to components of other comprehensive income (note 12)	—	—	14.8	14.8	—	14.8
<b>Other comprehensive (loss)/income</b>	—	(31.9)	(92.8)	(124.7)	(1.7)	(126.4)
<b>Total comprehensive (loss)/income</b>	—	(31.9)	501.4	469.5	3.4	472.9
Purchase of own shares	—	—	(19.8)	(19.8)	—	(19.8)
Recognition of share-based payments	—	—	4.8	4.8	—	4.8
Dividends paid (note 29)	—	—	(61.2)	(61.2)	(1.2)	(62.4)
Issue of share capital	12.8	(10.4)	—	2.4	—	2.4
Capital reduction satisfied by transfer of Alent plc business (note 24)	(862.4)	—	—	(862.4)	—	(862.4)
Court approved capital reduction	(887.7)	—	887.7	—	—	—
<b>Total transactions with owners</b>	<b>(1,737.3)</b>	<b>(10.4)</b>	<b>811.5</b>	<b>(936.2)</b>	<b>(1.2)</b>	<b>(937.4)</b>
<b>As at 31 December 2012</b>	<b>27.8</b>	<b>(1,399.0)</b>	<b>2,212.2</b>	<b>841.0</b>	<b>26.8</b>	<b>867.8</b>

# Notes to the consolidated financial statements

## 1. General information

Vesuvius plc (“Vesuvius” or “the Company”) (formerly Vesuvius Technologies plc) is a public limited company registered in England and Wales and listed on the London Stock Exchange. The nature of the operations and principal activities of the Company and its subsidiary and joint venture companies (“the Group”) is set out in the Business Review referenced on page 93 and its registered address is shown on page 160.

## 2. Basis of preparation

### 2.1 Basis of accounting

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards as adopted by the European Union (“IFRS”) and, with the exception of defined benefits pension plans and derivative financial instruments, under the historical cost convention in accordance with the Companies Act 2006.

### 2.2 Group reorganisation and demerger

On 14 December 2012, Cookson Group plc (“Cookson”) effected a group reorganisation and Vesuvius plc became the new holding company for Cookson via a Scheme of Arrangement. Vesuvius, which had been incorporated as Vesuvius Technologies plc on 17 September 2012, replaced Cookson (renamed Cookson Group Limited) as the parent company of the Cookson group from this date. On 14 December 2012 shareholders were given one ordinary share of Vesuvius for every share of Cookson held on that date. Application was made to the UK Listing Authority and to the London Stock Exchange for the issued share capital of Vesuvius to be admitted to the premium listing segment of the Official List and to trading on the London Stock Exchange’s market for listed securities as from 17 December 2012. Also on 17 December 2012, Vesuvius effected a court approved capital reduction to create distributable reserves.

The Scheme of Arrangement was accounted for using the principles of reverse acquisition accounting contained within IFRS 3, *Business Combinations*. In these consolidated financial statements, the transaction to interpose the new holding company, Vesuvius, has been presented as though Cookson acquired Vesuvius.

On 19 December 2012, the businesses of Cookson’s former Performance Materials division were demerged from Vesuvius and thereafter became the Alent group. This was achieved by the reduction of capital and repayment of capital to the shareholders of Vesuvius, the latter being satisfied by the transfer of the former Performance Materials division to Alent plc, in consideration for which Alent plc issued the entirety of its shares to Vesuvius shareholders.

In these financial statements, the effect of adopting the principles of reverse acquisition accounting for the Scheme of Arrangement results in a continuation of the consolidated financial statements of Cookson, now renamed Vesuvius. As a consequence of this, the financial statements of Vesuvius include the full results of the Alent group of companies up to the date of the demerger becoming effective. In preparing the segmental disclosure of the total results of Vesuvius for 2012, the following approach has been applied:

- (i) The costs incurred by Vesuvius within its central headquarters in London have been allocated in full between the underlying trading results of Cookson’s three divisions and therefore between continuing and discontinued operations in arriving at the results for Vesuvius as a whole.
- (ii) As Cookson Group Limited remained with Vesuvius after the demerger, all of the borrowings entered into by Cookson in the period up to the date of demerger have been treated as belonging to Vesuvius in these consolidated financial statements, with the consequence that all of the finance costs relating to those Cookson borrowings have been reported as finance costs of Vesuvius. Borrowings and borrowing costs relating to local debt arrangements established by individual Cookson Group companies other than Cookson Group plc have been reported according to whether they are now part of the Alent or Vesuvius group structure. This approach has also been applied to financial assets (net cash) and the related finance income.
- (iii) Vesuvius has established similar policies to those of Cookson for managing the financial risks to which its Group activities are exposed, including the market risk resulting from fluctuations in exchange rates and interest rates; and liquidity risk, being the risk that Vesuvius has insufficient debt facilities to finance its operational cash flow requirements and any maturing financial liabilities. In managing these risks, Vesuvius uses derivative financial instruments, including forward foreign exchange contracts and interest rate swaps. As the borrowings entered into by Cookson in the period up to the date of demerger have been treated as belonging to Vesuvius in these consolidated financial statements, any hedging activity relating to those borrowings is similarly reported within these financial statements.

# Notes to the consolidated financial statements continued

## 2. Basis of preparation (continued)

### 2.2 Group reorganisation and demerger (continued)

- (iv) Tax charges in the consolidated financial statements have been determined based on the tax charges recorded by Vesuvius companies in local statutory accounts, together with certain adjustments relating to those entities made for Group consolidation purposes. The tax charges recorded in the Group income statement have been affected by the tax arrangements within the former Cookson Group and are not necessarily representative of the tax charges that would have been reported had Vesuvius been an independent group throughout the period covered by these financial statements, nor of tax charges that may arise in the future.

### 2.3 Basis of consolidation

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

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

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

### 2.4 Going concern

The Directors have prepared cash flow forecasts for the Group for a period in excess of 12 months from the date of approval of the 2012 financial statements. These forecasts reflect an assessment of current and future end-market conditions and their impact on the Group's future trading performance. The forecasts show that the Group will be able to operate within the current committed debt facilities and show continued compliance with the Company's financial covenants. On the basis of the exercise described above and the Group's available committed debt facilities, the Directors consider that the Group and Company have adequate resources to continue in operational existence for the foreseeable future. Accordingly, they continue to adopt a going concern basis in preparing the financial statements of the Group and the Company.

### 2.5 Functional and presentation currency

The financial statements are presented in millions of pounds sterling, which is the functional currency of the Company, and rounded to one decimal place. Foreign operations are included in accordance with the policies set out in note 30.1.

### 2.6 Disclosure of exceptional items as "Separately reported items"

IAS 1, *Presentation of Financial Statements*, provides no definitive guidance as to the format of the income statement, but states key lines which should be disclosed. It also encourages the disclosure of additional line items and the reordering of items presented on the face of the income statement when appropriate for a proper understanding of the entity's financial performance. In accordance with IAS 1, the Company has adopted a policy of disclosing separately on the face of its Group income statement, within the column entitled "Separately reported items", the effect of any components of financial performance for which the Directors consider separate disclosure would assist both in a better understanding of the financial performance achieved and in making projections of future results.

Both materiality and the nature and function of the components of income and expense are considered in deciding upon such presentation. Such items may include, *inter alia*, amortisation charges relating to intangible assets, the financial effect of major restructuring activity, profits or losses relating to non-current assets, gains or losses relating to employee benefits plans, finance costs, profits or losses arising on business disposals, and other items, including the taxation impact of the aforementioned items, which have a significant impact on the Group's results either due to their size or nature.

## 2. Basis of preparation (continued)

### 2.7 New and revised IFRS

During the year a number of amendments to IFRS became effective and were adopted by the Group, none of which had a material impact on the Group's net cash flows, financial position, total comprehensive income or earnings per share. A number of other new and amended IFRS were issued during the year which do not become effective until after 1 January 2013, none of which are likely to have a material impact on the Group's net cash flows, financial position, total comprehensive income or earnings per share.

### 3. Critical judgements in applying accounting policies and key sources of estimation uncertainty

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

#### 3.1 Goodwill and other intangible assets

The Directors use their judgement to determine the extent to which goodwill and other capitalised intangible assets have a value that will benefit the performance of the Group over future periods. To assist in making this judgement, the Directors undertake an assessment, at least annually, of the carrying value of the Group's capitalised goodwill and other intangible assets. In the assessment undertaken as at 31 December 2012, further details of which are given in note 19, value in use was derived from discounted five-year cash flow projections, using a growth rate of 2.5% in the years beyond the projection period and pre-tax discount rates. The projection period is, in the opinion of the Directors, an appropriate period over which to view the future results of the Group's businesses for this purpose. Changes to the assumptions used in making these forecasts could significantly alter the Directors' assessment of the carrying value of goodwill and other intangible assets.

#### 3.2 Employee benefits

The Group's financial statements include the costs and obligations associated with the provision of pension and other post-retirement benefits to current and former employees. It is the Directors' responsibility to set the assumptions used in determining the key elements of the costs of meeting such future obligations. These assumptions are set after consultation with the Group's actuaries and include those used to determine regular service costs and the financing elements related to the plans' assets and liabilities. Whilst the Directors believe that the assumptions used are appropriate, a change in the assumptions used could affect the Group's profit and financial position.

#### 3.3 Liability reserves

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

# Notes to the consolidated financial statements continued

## 3. Critical judgements in applying accounting policies and key sources of estimation uncertainty (continued)

### 3.4 Taxation

#### (a) Current tax

Tax benefits are not recognised unless it is probable that they will result in future economic benefits to the Group. In assessing the amount of the benefit to be recognised in the financial statements, the Directors exercise their judgement in considering the effect of negotiations, litigation and any other matters that they consider may impact upon the potential settlement. Any interest and penalties on tax liabilities are provided for in the tax charge. The Group operates internationally and is subject to tax in many different jurisdictions. As a consequence, the Group is routinely subject to tax audits and local enquiries which, by their very nature, can take a considerable period of time to conclude. Provisions are made for known issues based upon the Directors' interpretation of country-specific tax law and their assessment of the likely outcome.

#### (b) Deferred tax

The Group has recognised deferred tax assets in respect of unutilised losses and other timing differences arising in a number of the Group's businesses. Account has been taken of future forecasts of taxable profit in arriving at the values at which these assets are recognised. If these forecast profits do not materialise or change, or there are changes in tax rates or to the period over which the losses or timing differences might be recognised, then the value of deferred tax assets will need to be revised in a future period.

The Group also has losses and other timing differences for which no deferred tax assets have been recognised in these financial statements, relating either to loss-making subsidiaries where the future economic benefit of the timing difference is not probable or to where the timing difference is of such a nature that its value is dependent on certain types of profit being earned, such as capital profits. If trading or other appropriate profits are earned in future in these companies, these losses and other timing differences may yield benefit to the Group in the form of a reduced tax charge.

## 4. Non-GAAP financial measures

The Company uses a number of non-Generally Accepted Accounting Practice ("non-GAAP") financial measures in addition to those reported in accordance with IFRS. The Directors believe that these non-GAAP measures, listed below, are important when assessing the underlying financial and operating performance of the Group and its divisions.

### 4.1 Headline

Headline performance is from continuing operations (excluding Alent and the Precious Metals Processing division) and before items reported separately on the face of the income statement.

### 4.2 Underlying

Underlying performance is adjusted to exclude the effects of changes in exchange rates and business acquisitions, disposals and closures.

### 4.3 Return on sales

Return on sales is calculated as trading profit divided by revenue.

### 4.4 Trading profit

Trading profit is defined as profit from operations before exceptional items. The Directors believe that trading profit is an important measure of the underlying trading performance of the Group.

### 4.5 Headline profit before tax

Headline profit before tax is calculated as the net total of trading profit, plus the Group's share of post-tax profit of joint ventures and total net finance costs associated with ordinary activities.

### 4.6 Headline earnings per share

Headline earnings per share is calculated as headline profit before tax and after income tax costs associated with ordinary activities and profit attributable to non-controlling interests, divided by the weighted average number of ordinary shares in issue during the year.

#### 4. Non-GAAP financial measures (continued)

##### 4.7 Free cash flow

Free cash flow is defined as net cash flow from operating activities after net outlays for the purchase and sale of property, plant and equipment, dividends from joint ventures and dividends paid to non-controlling shareholders, but before additional funding contributions to Group pension plans.

##### 4.8 Average working capital to sales ratio

The average working capital to sales ratio is calculated as the percentage of average working capital balances to the annualised revenue for the year. Average working capital (comprising inventories, trade and other receivables, and trade and other payables) is calculated as the average of the six previous month-end balances, and annualised revenue is derived from the revenue for the previous six months.

##### 4.9 EBITDA

EBITDA is calculated as the total of trading profit before depreciation charges.

##### 4.10 Net interest

Net interest is calculated as interest payable on borrowings less interest receivable, excluding any item therein considered by the Directors to be exceptional.

##### 4.11 Interest cover

Interest cover is the ratio of EBITDA to net interest.

##### 4.12 Net debt

Net debt comprises the net total of current and non-current interest-bearing borrowings and cash and short-term deposits.

##### 4.13 Net debt to EBITDA

Net debt to EBITDA is the ratio of net debt at the year-end to EBITDA for that year.

##### 4.14 Return on net assets

Return on net assets ("RONA") is calculated as trading profit plus share of post-tax profit of joint ventures, divided by average net operating assets (being the average over the previous 12 months of property, plant and equipment, trade working capital and other operating receivables and payables).



# Notes to the consolidated financial statements

continued

## 5. Segment information

The segment information contained in this note makes reference to several non-GAAP financial measures, definitions for which can be found in note 4.

### 5.1 Accounting policy

#### (a) Revenue recognition

Revenue comprises the fair value of the consideration received or receivable for goods supplied and services rendered to customers after deducting rebates, discounts and value-added taxes, and after eliminating sales within the Group. Revenue from the sale of goods is recognised when persuasive evidence exists, usually in the form of an executed sales agreement, that the significant risks and rewards of ownership have been transferred to the customer, recovery of the consideration is probable, there is no continuing management involvement with the goods, and the amount of revenue can be measured reliably. A provision for anticipated returns is made based primarily on historical return rates. Where a contractual arrangement consists of two or more separate elements that can be provided to customers either on a stand-alone basis or as an extra, such as the provision of supplementary materials with equipment, revenue is recognised for each element as if it were an individual contractual arrangement.

#### (b) Research and development costs

Expenditure on research activities is recognised in the income statement as an expense in the year in which it is incurred. Expenditure on development activities is capitalised if the product or process is technically and commercially feasible and the Group has sufficient resources to complete development. All other development expenditure is recognised in the income statement as an expense in the year in which it is incurred. Capitalised development expenditure is stated at cost less accumulated amortisation and impairment losses.

### 5.2 Business segments

#### Operating segments for continuing operations

For reporting purposes, the Group is organised into two main business segments: Steel and Foundry and the senior executive management of each of these business segments reports to the Chief Executive of the Group. It is the Vesuvius Board which makes the key operating decisions in respect of these segments. The information used by the Vesuvius Board to review performance and determine resource allocation between the business segments is presented with the Group's activities segmented between the two business segments, Steel and Foundry. Taking into account the basis on which the Group's activities are reported to the Vesuvius Board, the Directors believe that these two business segments are the appropriate way to analyse the Group's results. The principal activities of each of these segments are described in the Operating Review on pages 17 to 27.

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

#### Discontinued operations

Discontinued operations in 2012 include the results of the Alent group of companies for the period up to 19 December 2012, when they were demerged from Vesuvius, together with the results of the US Precious Metals Processing business for the period up to 1 May 2012 when it was sold and the European Precious Metals Processing business, which was held for sale as at 31 December 2012, for the whole of the year. Prior year comparatives have been restated accordingly.

### 5.3 Income statement

The operating segment results from continuing operations for the two years ended 31 December 2012 are presented below.

	2012		
	Steel £m	Foundry £m	Continuing operations £m
<b>Segment revenue</b>	<b>1,017.3</b>	<b>530.2</b>	<b>1,547.5</b>
Segment EBITDA	108.9	67.2	176.1
Segment depreciation	(25.1)	(18.0)	(43.1)
<b>Segment trading profit</b>	<b>83.8</b>	<b>49.2</b>	<b>133.0</b>
Amortisation of intangible assets			(17.5)
Restructuring charges			(57.0)
Demerger costs			(15.7)
<b>Profit from operations</b>			<b>42.8</b>
Finance costs — ordinary activities			(50.9)
Finance income			28.7
Share of post-tax profit of joint ventures			0.1
Loss on disposal of continuing operations			(2.3)
<b>Profit before tax</b>			<b>18.4</b>
Return on sales margin (%)	8.2	9.3	8.6
Capital expenditure additions (£m)	38.5	18.7	57.2

	2011		
	Steel £m	Foundry £m	Continuing operations £m
<b>Segment revenue</b>	<b>1,078.0</b>	<b>607.8</b>	<b>1,685.8</b>
Segment EBITDA	131.8	95.8	227.6
Segment depreciation	(24.6)	(19.5)	(44.1)
<b>Segment trading profit</b>	<b>107.2</b>	<b>76.3</b>	<b>183.5</b>
Amortisation of intangible assets			(17.8)
Restructuring charges			(7.0)
Gains relating to employee benefits plans			13.2
<b>Profit from operations</b>			<b>171.9</b>
Finance costs — ordinary activities			(60.7)
— exceptional items			(1.9)
Finance income			34.9
Share of post-tax loss of joint ventures			(1.2)
Loss on disposal of continuing operations			(1.6)
<b>Profit before tax</b>			<b>141.4</b>
Return on sales margin (%)	9.9	12.6	10.9
Capital expenditure additions (£m)	33.5	25.5	59.0

# Notes to the consolidated financial statements continued

5. Segment information (continued)  
5.6 Geographic analysis

	External revenue		Non-current assets	
	2012 £m	2011 £m	2012 £m	2011 £m
United States of America	290.4	268.0	209.6	335.4
Germany	212.5	212.0	106.9	126.9
China	102.9	130.5	69.6	122.0
United Kingdom	78.3	76.4	167.6	198.2
Brazil	93.4	118.3	62.3	70.5
India	91.3	97.6	41.4	47.9
France	61.1	64.4	14.7	18.8
Spain	43.1	46.8	44.7	50.1
Rest of the world	574.5	671.8	347.9	582.6
<b>Continuing operations</b>	<b>1,547.5</b>	<b>1,685.8</b>	<b>1,064.7</b>	<b>1,552.4</b>

External revenue disclosed in the table above is based upon the geographical location of the operation. The Group's customers are widely dispersed around the world and no single country included within Rest of the World in the table above, for either of the years presented, amounts to more than 10% of the total external revenue of continuing operations. Non-current assets exclude employee benefits net surpluses and deferred tax assets.

5.7 Products and customers

Information relating to the Group's products and services is given in the Operating Review on pages 17 to 27. The Group is not dependent upon any single customer for its revenue and no single customer, for either of the years presented in the tables above, accounts for more than 10% of the Group's total external revenue.

6. Amounts payable to KPMG LLP and its associates

	2012 £m	2011 £m
Fees payable to the Company's Auditor and its associates for the audit of the Company's annual accounts	0.6	0.5
Fees payable to the Company's Auditor and its associates for other services:		
Audit of the Company's subsidiaries	2.4	2.0
Tax compliance	0.2	0.2
Tax advisory	0.4	0.1
Other assurance services	—	0.1
Corporate finance services relating to the demerger	2.3	—
<b>Total Auditor's remuneration</b>	<b>5.9</b>	<b>2.9</b>

Of the total Auditor's remuneration of £5.9m (2011: £2.9m), £2.9m (2011: £nil) relates to discontinued activities, including £1.6m of non-audit fees, with £3.0m relating to continuing operations, including £1.3m of non-audit fees.

## 7. Restructuring charges

The restructuring charge for the year from continuing operations was £57.0m (2011: £7.0m) and arose in connection with initiatives that included redundancy programmes, the downsizing or closure of facilities, the streamlining of manufacturing processes and the rationalisation of product lines. Of the total charge, £46.3m arose in connection with the actions taken during 2012 to downsize the Solar Crucibles operations of the Foundry division. Of the total charges of £57.0m, £40.8m represented non-cash asset write-offs, with the remaining £16.2m of total charges comprising cash-related costs in respect of redundancy and other cost-reduction initiatives. The net tax credit attributable to these restructuring charges was £4.6m (2011: £1.4m).

Cash costs of £11.4m (2011: £9.3m) were incurred in the year in respect of the restructuring initiatives commenced both in 2012 and in prior years, leaving provisions made but unspent of £17.1m (note 35) as at 31 December 2012 (2011: £12.0m), of which £5.6m relates to future costs in respect of leases expiring between one and ten years.

## 8. Demerger costs

The cash costs associated with the preparation and execution of the demerger of the Alent group of businesses from Cookson Group plc, to the extent that they were allocated to Vesuvius, have been separately reported in the income statement. Costs totalling £15.7m have been charged in the year, primarily relating to professional adviser fees for financial, audit, accounting, legal and pensions advice. Fees in connection with the negotiated changes to the former Cookson debt arrangements in order to provide Vesuvius with ongoing borrowing facilities were £2.0m and have, as required by IFRS, been capitalised against the associated borrowings and are being amortised over the expected life of those debt arrangements.

Tax-related costs of £11.4m were incurred in connection with the transactions necessary to reorganise the legal entity structure of the former Cookson group of companies so as to facilitate the demerger.

In addition to the costs charged to the income statement noted above, a cash injection of £38.0m was agreed with the UK pension plan Trustee to be paid into the UK defined benefit plan in mitigation for the loss of strength in the employer covenant which resulted from the demerger as a consequence of the two UK Alent participating employers leaving the plan. The mitigation payment did not represent a charge to the income statement under IFRS, but is reported as an additional employer funding contribution to the UK pension plan. Of the total £38.0m, £34.0m was paid in December 2012, with the remaining £4.0m paid in January 2013. See note 31 for further information.

## 9. Employees

### 9.1 Employee benefits expense

	2012 £m	2011 £m
Wages and salaries	<b>439.0</b>	493.5
Social security costs	<b>55.7</b>	58.8
Share-based payments (note 32)	<b>4.3</b>	5.2
Pension costs — defined contribution pension plans (note 31)	<b>17.0</b>	17.7
— defined benefit pension plans (note 31)	<b>(1.5)</b>	(9.1)
Other post-retirement benefits (note 31)	<b>0.9</b>	0.9
<b>Total employee benefits expense</b>	<b>515.4</b>	567.0

Of the total employee benefits expense of £515.4m (2011: £567.0m), £367.4m (2011: £416.9m) was charged in arriving at trading profit, £nil (2011: £13.2m) was credited within gains relating to employee benefits plans, £27.5m (2011: £30.7m) was charged within ordinary finance costs, £26.9m (2011: £29.0m) was credited within finance income, and £147.4m (2011: £161.6m) was charged to profit on disposal of discontinued operations.

# Notes to the consolidated financial statements continued

## 9. Employees (continued)

### 9.2 Average number of employees

	<b>2012</b>	2011
	<b>No.</b>	No.
Steel	<b>7,805</b>	7,989
Foundry	<b>3,798</b>	4,070
Continuing operations	<b>11,603</b>	12,059
Discontinued	<b>3,164</b>	4,069
<b>Total average number of employees</b>	<b>14,767</b>	16,128

### 9.3 Remuneration of key management personnel

The remuneration of the Directors, who are the key management personnel of the Group, is set out below in aggregate for each of the categories specified in IAS 24, *Related Party Disclosures*. Further information about the remuneration of individual Directors is provided in the audited part of the Directors' Remuneration Report on pages 89 to 91.

	<b>2012</b>	2011
	<b>£m</b>	£m
Short-term employee benefits	<b>2.1</b>	2.2
Post-employment benefits	<b>0.4</b>	0.4
Share-based payments	<b>1.9</b>	3.1
<b>Total remuneration of key management personnel</b>	<b>4.4</b>	5.7

## 10. Loss on disposal of continuing operations

The net loss on disposal of continuing operations comprises £4.0m profit on sale of the Andreco-Hurlll refractory lining installation business in Australia, together with the write-down of £2.7m related to assets of a non-core business held for sale as at 31 December 2012, plus £3.6m of trailing costs of prior year disposals. The tax charge attributable to these transactions was £1.9m (2011: £0.4m credit).

## 11. Finance costs and finance income

### 11.1 Accounting policy

The ineffective portion of the change in fair value of interest rate swaps designated as cash flow hedges is included within interest payable on loans and overdrafts. Borrowing costs that are directly attributable to the acquisition, construction or production of an asset that necessarily takes a substantial period of time to get ready for its intended use or sale are capitalised as part of the cost of that asset. All other borrowing costs are recognised as an expense in the income statement using the effective interest rate method.

## 11. Finance costs and finance income

### 11.2 Total net finance costs

	2012 £m	2011 £m
<b>Interest payable on borrowings</b>		
Loans, overdrafts and factoring arrangements	20.6	27.2
Obligations under finance leases	0.2	0.2
Amortisation of capitalised borrowing costs	1.2	1.2
<b>Total interest payable on borrowings</b>	<b>22.0</b>	28.6
<b>Other interest payable</b>		
Interest on retirement benefits obligations	27.5	30.7
Unwinding of discounted provisions	1.4	1.4
<b>Total ordinary finance costs</b>	<b>50.9</b>	60.7
<b>Exceptional finance costs</b>	<b>—</b>	1.9
<b>Total finance costs</b>	<b>50.9</b>	62.6
Interest receivable	(1.4)	(5.5)
Expected return on retirement benefits assets	(26.9)	(29.0)
Unwinding of discounted receivables	(0.4)	(0.4)
<b>Total finance income</b>	<b>(28.7)</b>	(34.9)
<b>Total net finance costs</b>	<b>22.2</b>	27.7

### 11.3 Exceptional finance costs

The exceptional finance costs incurred in 2011 resulted from the early write-off of unamortised borrowing costs as a consequence of the Group entering into a new revolving credit facility in 2011. The costs written off related to the old facility that had been due to expire in 2012.

## 12. Income tax

### 12.1 Accounting policy

Tax expense represents the sum of current tax and deferred tax. Current and deferred tax are recognised in profit or loss except to the extent that they relate to items charged or credited in other comprehensive income or directly to equity, in which case the associated tax is also dealt with in other comprehensive income or directly in equity.

**Current tax** is based on taxable profit for the year. Taxable profit differs from profit before tax as reported in the income statement because it excludes items of income or expense that are taxable or deductible in other years and it further excludes items that are never taxable or deductible. The Group's liability for current tax is calculated using tax rates and laws that have been enacted, or substantively enacted, by the balance sheet date.

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



# Notes to the consolidated financial statements continued

## 12. Income tax (continued)

### 12.1 Accounting policy (continued)

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

### 12.2 Income tax costs

	2012 £m	2011 £m
<b>Current tax</b>		
Overseas taxation	40.4	41.8
Adjustments in respect of prior years	0.3	(0.8)
<b>Total current tax, continuing operations</b>	<b>40.7</b>	41.0
<b>Deferred tax</b>		
Origination and reversal of temporary taxable differences	(10.3)	(4.2)
Adjustments in respect of prior years	1.2	(0.6)
<b>Total deferred tax, continuing operations</b>	<b>(9.1)</b>	(4.8)
<b>Discontinued operations</b>	<b>31.1</b>	22.7
<b>Total income tax costs</b>	<b>62.7</b>	58.9
<b>Total income tax costs attributable to:</b>		
<b>Continuing operations — Ordinary activities</b>	<b>29.6</b>	41.9
<b>— Exceptional items</b>	<b>2.0</b>	(5.7)
<b>Discontinued operations</b>	<b>31.1</b>	22.7
<b>Total income tax costs</b>	<b>62.7</b>	58.9

The Group's total income tax costs relating to exceptional items are analysed in the following table:

	2012 £m	2011 £m
<b>Exceptional items</b>		
Restructuring charges	4.6	1.4
Demerger costs	(11.4)	—
Amortisation of intangibles	6.7	7.2
Gains relating to employee benefits plans	—	(3.3)
Disposal of continuing operations	(1.9)	0.4
<b>Total tax (charge)/credit on exceptional items</b>	<b>(2.0)</b>	5.7

12. Income tax (continued)

12.2 Income tax costs (continued)

Tax credited in the Group statement of comprehensive income in the year amounted to £14.8m (2011: £11.9m charge), all of which related to net actuarial gains and losses on employee benefits plans.

The Group operates in a number of countries that have differing tax rates, laws and practices. Changes in any of these areas could, adversely or positively, impact the Group's tax charge in the future. Continuing losses, or insufficiency of taxable profit to absorb all expenses, in any subsidiary could have the effect of increasing tax charges in the future, relative to 2012, as effective tax relief may not be available for those losses or expenses. Other significant factors affecting the tax charge are described in notes 3.4 and 12.1.

12.3 Reconciliation of income tax costs to profit before tax

	2012 £m	2011 £m
<b>Profit before tax</b>	<b>18.4</b>	141.4
<b>Tax at the UK corporation tax rate of 24.5% (2011: 26.5%)</b>	<b>4.5</b>	37.5
Overseas tax rate differences	<b>8.8</b>	7.3
Withholding taxes	<b>5.8</b>	2.5
Amortisation of intangibles	<b>(2.4)</b>	(2.6)
Expenses not deductible for tax purposes	<b>14.1</b>	3.4
Deferred tax assets not recognised	<b>11.0</b>	(4.8)
Recognition of previously unrecognised tax losses	<b>(11.7)</b>	(5.7)
Adjustments in respect of prior years	<b>1.5</b>	(1.4)
<b>Total income tax costs</b>	<b>31.6</b>	36.2

12.4 Deferred tax

	Accelerated capital allowances £m	Other operating losses £m	Pension costs £m	Intangible assets £m	Timing differences £m	Total £m
As at 1 January 2011	(3.8)	4.6	5.3	(88.7)	6.8	(75.8)
Exchange adjustments	0.3	(0.3)	—	0.8	(0.6)	0.2
Charge to Group statement of comprehensive income	—	—	(11.9)	—	—	(11.9)
Credit/(charge) to Group income statement	0.2	0.8	(3.8)	4.3	0.3	1.8
As at 1 January 2012	<b>(3.3)</b>	<b>5.1</b>	<b>(10.4)</b>	<b>(83.6)</b>	<b>6.5</b>	<b>(85.7)</b>
Exchange adjustments	<b>1.6</b>	<b>(0.6)</b>	<b>(1.0)</b>	<b>2.9</b>	<b>(0.5)</b>	<b>2.4</b>
Credit to Group statement of comprehensive income	—	—	<b>14.8</b>	—	—	<b>14.8</b>
Credit/(charge) to Group income statement	<b>(0.3)</b>	<b>(1.0)</b>	<b>1.1</b>	<b>2.1</b>	<b>(0.2)</b>	<b>1.7</b>
Transferred to held for sale	—	—	<b>(0.8)</b>	<b>0.1</b>	<b>(1.0)</b>	<b>(1.7)</b>
Business disposals	<b>0.5</b>	<b>(3.5)</b>	<b>(0.6)</b>	<b>28.9</b>	<b>0.4</b>	<b>25.7</b>
<b>As at 31 December 2012</b>	<b>(1.5)</b>	<b>—</b>	<b>3.1</b>	<b>(49.6)</b>	<b>5.2</b>	<b>(42.8)</b>

	2012 £m	2011 £m
<b>Recognised in the Group balance sheet as:</b>		
Non-current deferred tax assets	<b>17.9</b>	20.8
Non-current deferred tax liabilities	<b>(60.7)</b>	(106.5)
<b>Net total deferred tax liabilities</b>	<b>(42.8)</b>	(85.7)

# Notes to the consolidated financial statements continued

## 12. Income tax (continued)

### 12.4 Deferred tax (continued)

Tax loss carry-forwards and other temporary differences of £7.0m (2011: £1.6m) were recognised by subsidiaries reporting a loss in 2011 or 2012. On the basis of approved business plans of these subsidiaries, the Directors consider it probable that the tax loss carry-forwards and temporary differences can be offset against future taxable profits.

The total deferred tax asset not recognised as at 31 December 2012 was £336.6m (2011: £483.7m), as analysed below. In accordance with the accounting policy in note 12.1, these items have not been recognised as deferred tax assets on the basis that their future economic benefit is not probable. In total, there was a decrease of £147.1m (2011: increase £0.7m) in net unrecognised deferred tax assets during the year.

	2012 £m	2011 £m
Capital losses available to offset future UK capital gains (may be carried forward indefinitely)	38.0	41.9
Operating losses	144.3	230.9
Unrelieved US interest (may be carried forward indefinitely)	91.8	92.3
UK ACT credits (may be carried forward indefinitely)	13.1	13.1
Other timing differences	49.4	105.5
<b>Total deferred tax not recognised</b>	<b>336.6</b>	<b>483.7</b>

As at 31 December 2012, the Group had total operating losses carried forward with a tax value of £144.3m (2011: £236.0m).

	2012 £m	2011 £m
<b>Losses available to set against future US taxable income:</b>		
Due to expire in 2020	—	7.6
Due to expire 2022 to 2031	34.9	95.4
<b>US operating losses</b>	<b>34.9</b>	<b>103.0</b>
<b>Losses available to set against future UK taxable income (may be carried forward indefinitely)</b>	<b>87.5</b>	<b>101.5</b>
<b>Losses available to set against future taxable income in ROW:</b>		
Due to expire within 5 years	7.9	11.8
Due to expire between 5 and 20 years	2.0	4.2
Carried forward indefinitely	12.0	15.5
<b>ROW operating losses</b>	<b>21.9</b>	<b>31.5</b>
<b>Total net operating losses</b>	<b>144.3</b>	<b>236.0</b>

The above losses available relating to the rest of the world arise in a number of countries and are not individually significant, reflecting the spread of the Group's operations.

## 12. Income tax (continued)

### 12.4 Deferred tax (continued)

As at 31 December 2012, the Group had US tax credits carried forward with a tax value of £3.5m (2011: £10.2m) as follows:

	2012 £m	2011 £m
US research and experimentation credits (due to expire 2018 to 2031)	1.0	2.8
US foreign tax credits (due to expire 2014 to 2018)	2.5	7.4
<b>US tax credits</b>	<b>3.5</b>	<b>10.2</b>

Due to changes in UK tax law enacted in 2009 exempting dividends received from UK tax, there are no temporary differences associated with investments in subsidiaries and interests in joint ventures for which deferred tax liabilities have not been recognised.

From 1 April 2012, the UK corporation tax rate reduced to 24% from 25%. A further UK corporation tax rate reduction to 23% was substantially enacted on 3 July 2012 and will have effect from 1 April 2013. It is the UK Government's intention to enact legislation which will reduce the main rate of UK corporation tax to 22% by 2014, although this has not yet been substantively enacted under IFRS. Accordingly, the Group's closing UK deferred tax liability has been provided using a tax rate of 23%. The impact of using this lower tax rate was to increase the exceptional tax credit relating to the amortisation of intangible assets from £4.7m to £6.7m.

## 13. Earnings per share ("EPS")

### 13.1 Per share amounts

	Continuing operations pence	Discontinued operations pence	2012 Total pence	Continuing operations pence	Discontinued operations pence	2011 Total pence
<b>Earnings/(loss) per share — basic</b>	<b>(6.6)</b>	<b>220.8</b>	<b>214.2</b>	36.0	17.2	53.2
— diluted	(6.5)	218.8	212.3	35.4	16.9	52.3
— headline	27.5		60.5	39.4		70.4
— diluted headline	27.2		60.0	38.7		69.1

### 13.2 Earnings for EPS

Basic and diluted EPS from continuing operations are based upon the loss attributable to owners of the parent, as reported in the Group income statement, of £18.3m (2011: £99.3m profit), being the loss for the year of £13.2m (2011: £105.2m profit) less non-controlling interests of £5.1m (2011: £5.9m); basic and diluted EPS from total operations are based on the profit attributable to owners of the parent of £594.2m (2011: £146.8m); headline and diluted headline EPS are based upon headline profit from continuing operations attributable to owners of the parent of £76.2m (2011: £108.7m). The table below reconciles these different profit measures.

	Continuing operations £m	Discontinued operations £m	2012 Total £m	Continuing operations £m	Discontinued operations £m	2011 Total £m
<b>Profit/(loss) attributable to owners of the parent</b>	<b>(18.3)</b>	<b>612.5</b>	<b>594.2</b>	99.3	47.5	146.8
Adjustments for exceptional items:						
Amortisation of intangible assets	17.5	—	17.5	17.8	—	17.8
Restructuring charges	57.0	3.8	60.8	7.0	1.9	8.9
Demerger costs	15.7	10.0	25.7	—	—	—
Gains relating to employee benefits plans	—	—	—	(13.2)	(2.0)	(15.2)
Exceptional finance costs	—	—	—	1.9	—	1.9
Loss on disposal of continuing operations	2.3	—	2.3	1.6	—	1.6
(Profit)/loss on disposal of discontinued operations	—	(541.3)	(541.3)	—	34.9	34.9
Tax relating to exceptional items	2.0	6.7	8.7	(5.7)	3.2	(2.5)
<b>Headline profit attributable to owners of the parent</b>	<b>76.2</b>	<b>91.7</b>	<b>167.9</b>	108.7	85.5	194.2

# Notes to the consolidated financial statements continued

## 13. Earnings per share ("EPS") (continued)

### 13.3 Weighted average number of shares

	2012 m	2011 m
<b>For calculating basic and headline EPS</b>	<b>277.4</b>	275.7
Adjustment for dilutive potential ordinary shares	<b>2.5</b>	5.2
<b>For calculating diluted and diluted headline EPS</b>	<b>279.9</b>	280.9

As a result of the reorganisation of the Cookson legal structure, Vesuvius plc became the new parent of Cookson Group plc. Therefore the weighted average number of ordinary shares outstanding has been calculated using the number of ordinary shares issued by Vesuvius plc at the date of reorganisation, 17 December 2012, and adjusted for movements in the number of ordinary shares of Cookson Group plc from the beginning of each period prior to the reorganisation and movements in the number of ordinary shares outstanding from the reorganisation date to 31 December 2012 using the actual number of ordinary shares in Vesuvius plc outstanding during that period.

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

In addition to the ordinary shares shown as being dilutive in the table above, the Company had no (2011: 0.2m) outstanding options and share awards in relation to its share-based payment plans that could dilute EPS in the future, but which are not included in the calculation of diluted and diluted headline EPS above because they were anti-dilutive in the years presented.

## 14. Cash generated from operations

	Continuing operations £m	Discontinued operations £m	2012 Total £m	Continuing operations £m	Discontinued operations £m	2011 Total £m
<b>Profit from operations</b>	<b>42.8</b>	<b>103.2</b>	<b>146.0</b>	171.9	106.8	278.7
Adjustments for:						
Amortisation of intangible assets	17.5	—	17.5	17.8	—	17.8
Restructuring charges	57.0	3.8	60.8	7.0	1.9	8.9
Demerger costs	15.7	10.0	25.7	—	—	—
Gains relating to employee benefits plans	—	—	—	(13.2)	(2.0)	(15.2)
Depreciation	43.1	9.8	52.9	44.1	12.2	56.3
<b>EBITDA</b>	<b>176.1</b>	<b>126.8</b>	<b>302.9</b>	227.6	118.9	346.5
Decrease/(increase) in inventories	39.5	(7.2)	32.3	(32.6)	(5.1)	(37.7)
Decrease/(increase) in trade receivables	13.6	(10.9)	2.7	(24.0)	2.2	(21.8)
(Decrease)/increase in trade payables	(31.6)	(8.7)	(40.3)	5.2	(6.3)	(1.1)
Increase in other working capital balances	(10.3)	(24.8)	(35.1)	(13.9)	(12.3)	(26.2)
Net decrease/(increase) in trade and other working capital	11.2	(51.6)	(40.4)	(65.3)	(21.5)	(86.8)
Net operating outflow related to assets and liabilities classified as held for sale	0.7	0.4	1.1	—	—	—
Outflow related to restructuring charges	(11.4)	(20.5)	(31.9)	(9.3)	(3.9)	(13.2)
Outflow related to demerger costs	(12.5)	(6.6)	(19.1)	—	—	—
Additional pension funding contributions	(45.2)	(2.1)	(47.3)	(11.5)	(1.7)	(13.2)
<b>Cash generated from operations</b>	<b>118.9</b>	<b>46.4</b>	<b>165.3</b>	141.5	91.8	233.3

15. Cash and cash equivalents

	2012 £m	2011 £m
Short-term deposits	8.2	42.1
Cash at bank and in hand	121.3	146.0
<b>Cash and short-term deposits</b>	<b>129.5</b>	188.1
Bank overdrafts	(4.8)	(4.2)
<b>Cash and cash equivalents in the Group statement of cash flows</b>	<b>124.7</b>	183.9

Short-term deposits include demand deposits and short-term highly liquid investments with maturities of three months or less that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value. Bank overdrafts that are repayable on demand and form an integral part of the Group's cash management are included as a component of cash and cash equivalents for the purpose of the Group statement of cash flows.

16. Reconciliation of movement in net debt

	Balance as at 1 January 2012 £m	Foreign exchange adjustments £m	Non-cash movements £m	Debt disposed £m	Cash flow £m	Balance as at 31 December 2012 £m
<b>Cash and cash equivalents</b>						
Short-term deposits	42.1	(0.5)	—	—	(33.4)	8.2
Cash at bank and in hand	146.0	(4.5)	—	—	(20.2)	121.3
Bank overdrafts	(4.2)	—	—	—	(0.6)	(4.8)
					(54.2)	
<b>Borrowings, excluding bank overdrafts</b>						
Current	(127.7)	2.5	—	1.8	121.6	(1.8)
Non-current	(424.4)	13.9	—	227.8	(240.7)	(423.4)
Capitalised borrowing costs	4.3	—	3.8	(2.9)	—	5.2
					(119.1)	
<b>Net debt</b>	<b>(363.9)</b>	<b>11.4</b>	<b>3.8</b>	<b>226.7</b>	<b>(173.3)</b>	<b>(295.3)</b>

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



# Notes to the consolidated financial statements

continued

## 17. Property, plant and equipment

### 17.1 Accounting policy

Freehold land is carried at cost less accumulated impairment losses. Other items of property, plant and equipment are carried at cost less accumulated depreciation and accumulated impairment losses. Costs are capitalised only when it is probable that they will result in future economic benefits flowing to the Group and when they can be measured reliably. All other repairs and maintenance expenditure is charged to the Group income statement in the period in which it is incurred.

Freehold land is not depreciated as it has an infinite life. Depreciation on other items of property, plant and equipment begins when the asset is available for use and is charged to the Group income statement on a straight-line basis so as to write off the cost less residual value of the asset over its estimated useful life as follows:

Asset category	Estimated useful life
Freehold property	between 10 and 50 years
Leasehold property	the term of the lease
Plant and equipment — motor vehicles	between 1 and 5 years
— information technology equipment	between 1 and 5 years
— other	between 5 and 15 years

The depreciation method used, residual values and estimated useful lives are reviewed and changed, if appropriate, at least at each financial year-end. Assets held under finance leases are depreciated over their expected useful lives on the same basis as owned assets or, where shorter, over the term of the relevant lease. As described in note 19.1, an asset's carrying amount is immediately written down to its recoverable amount if its carrying amount is greater than its estimated recoverable amount. Gains and losses arising on disposals are determined by comparing sales proceeds with carrying amount and are recognised in the Group income statement.

17. Property, plant and equipment (continued)

17.2 Movement in net book value

	Freehold property £m	Leasehold property £m	Plant and equipment £m	Construction in progress £m	Total £m
<b>Cost</b>					
As at 1 January 2011	215.8	23.5	660.6	44.4	944.3
Exchange adjustments	(5.2)	(2.3)	(17.9)	(0.9)	(26.3)
Capital expenditure additions	5.4	1.5	39.3	31.3	77.5
Business combinations	—	—	0.3	—	0.3
Disposals	(5.6)	(1.1)	(25.0)	—	(31.7)
Business disposals	—	(0.7)	—	—	(0.7)
Reclassifications	(3.3)	0.1	29.4	(26.2)	—
Transferred to assets classified as held for sale	(7.1)	—	(43.0)	(0.8)	(50.9)
As at 1 January 2012	<b>200.0</b>	<b>21.0</b>	<b>643.7</b>	<b>47.8</b>	<b>912.5</b>
Exchange adjustments	<b>(8.8)</b>	<b>(0.5)</b>	<b>(26.0)</b>	<b>(1.6)</b>	<b>(36.9)</b>
Capital expenditure additions	<b>10.2</b>	<b>0.8</b>	<b>41.8</b>	<b>28.1</b>	<b>80.9</b>
Business combinations	<b>5.5</b>	<b>—</b>	<b>4.2</b>	<b>—</b>	<b>9.7</b>
Disposals	<b>(9.7)</b>	<b>(0.1)</b>	<b>(74.6)</b>	<b>—</b>	<b>(84.4)</b>
Business disposals (note 24)	<b>(2.8)</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>(2.8)</b>
Reclassifications	<b>(2.0)</b>	<b>2.5</b>	<b>23.9</b>	<b>(24.4)</b>	<b>—</b>
Transferred to assets classified as held for sale	<b>(6.6)</b>	<b>(3.3)</b>	<b>(19.1)</b>	<b>—</b>	<b>(29.0)</b>
Demerger of Alent plc (note 24)	<b>(52.4)</b>	<b>(16.8)</b>	<b>(133.2)</b>	<b>(18.2)</b>	<b>(220.6)</b>
<b>As at 31 December 2012</b>	<b>133.4</b>	<b>3.6</b>	<b>460.7</b>	<b>31.7</b>	<b>629.4</b>
<b>Accumulated depreciation and impairment losses</b>					
As at 1 January 2011	87.6	10.1	435.3	—	533.0
Exchange adjustments	(1.8)	(0.9)	(11.0)	—	(13.7)
Depreciation charge	6.1	1.4	48.8	—	56.3
Impairment charge	0.1	—	0.1	—	0.2
Disposals	(2.3)	(0.5)	(20.3)	—	(23.1)
Business disposals	—	(0.4)	—	—	(0.4)
Reclassifications	(3.2)	0.4	2.8	—	—
Transferred to assets classified as held for sale	(3.5)	—	(35.7)	—	(39.2)
As at 1 January 2012	<b>83.0</b>	<b>10.1</b>	<b>420.0</b>	<b>—</b>	<b>513.1</b>
Exchange adjustments	<b>(3.7)</b>	<b>(0.3)</b>	<b>(16.1)</b>	<b>—</b>	<b>(20.1)</b>
Depreciation charge	<b>5.0</b>	<b>2.0</b>	<b>45.9</b>	<b>—</b>	<b>52.9</b>
Disposals	<b>(3.9)</b>	<b>—</b>	<b>(35.4)</b>	<b>—</b>	<b>(39.3)</b>
Business disposals (note 24)	<b>(0.7)</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>(0.7)</b>
Reclassifications	<b>(1.4)</b>	<b>1.4</b>	<b>—</b>	<b>—</b>	<b>—</b>
Transferred to assets classified as held for sale	<b>(0.9)</b>	<b>(1.7)</b>	<b>(13.0)</b>	<b>—</b>	<b>(15.6)</b>
Demerger of Alent plc (note 24)	<b>(29.9)</b>	<b>(9.4)</b>	<b>(99.4)</b>	<b>—</b>	<b>(138.7)</b>
<b>As at 31 December 2012</b>	<b>47.5</b>	<b>2.1</b>	<b>302.0</b>	<b>—</b>	<b>351.6</b>
<b>Net book value as at 31 December 2012</b>	<b>85.9</b>	<b>1.5</b>	<b>158.7</b>	<b>31.7</b>	<b>277.8</b>
Net book value as at 31 December 2011	117.0	10.9	223.7	47.8	399.4
Net book value as at 1 January 2011	128.2	13.4	225.3	44.4	411.3

The net book value of assets held under finance leases as at 31 December 2012, 31 December 2011 and 1 January 2011 was not material.

# Notes to the consolidated financial statements continued

## 18. Intangible assets

Intangible assets comprise goodwill and other intangible assets that have been acquired through business combinations.

### 18.1 Accounting policy

#### (a) Goodwill

Goodwill arising in a business combination is initially recognised as an asset at cost, measured as the excess of the aggregate of the acquisition-date fair value of the consideration transferred and the amount of any non-controlling interest acquired over the net of the acquisition-date fair value amounts of the identifiable assets acquired and liabilities assumed. When the excess is negative, a bargain purchase gain is recognised immediately in profit or loss. Goodwill is subsequently measured at cost less accumulated impairment losses, with impairment testing carried out annually, or more frequently when there is an indication that the cash-generating unit to which the goodwill has been allocated may be impaired. On disposal of a business, the attributable amount of goodwill is included in the calculation of the profit or loss on disposal.

#### (b) Other intangible assets

Intangible assets other than goodwill are recognised on business combinations if they are separable, or if they arise from contractual or other legal rights, and their value can be measured reliably. They are initially measured at cost, which is equal to the acquisition date fair value, and subsequently measured at cost less accumulated amortisation charges and accumulated impairment losses. Other intangible assets are subject to impairment testing when there is an indication that an impairment loss may have been incurred and are amortised over their estimated useful lives.

### 18.2 Movement in net book value

	2012			2011		
	Goodwill £m	Other intangible assets £m	Total £m	Goodwill £m	Other intangible assets £m	Total £m
<b>Cost</b>						
As at 1 January	904.0	273.1	1,177.1	945.1	277.4	1,222.5
Exchange adjustments	(37.4)	(6.7)	(44.1)	(17.9)	(4.3)	(22.2)
Business combinations (note 36)	14.0	—	14.0	8.3	—	8.3
Transferred to assets classified as held for sale (note 23)	(6.0)	—	(6.0)	(31.5)	—	(31.5)
Demerger of Alent plc (note 24)	(295.0)	—	(295.0)	—	—	—
<b>As at 31 December</b>	<b>579.6</b>	<b>266.4</b>	<b>846.0</b>	904.0	273.1	1,177.1
<b>Accumulated amortisation and impairment losses</b>						
As at 1 January	6.1	66.3	72.4	36.2	49.2	85.4
Exchange adjustments	(0.1)	(1.5)	(1.6)	—	(0.7)	(0.7)
Amortisation charge for the year	—	17.5	17.5	—	17.8	17.8
Transferred to assets classified as held for sale (note 23)	(6.0)	—	(6.0)	(30.1)	—	(30.1)
<b>As at 31 December</b>	<b>—</b>	<b>82.3</b>	<b>82.3</b>	6.1	66.3	72.4
<b>Net book value as at 31 December</b>	<b>579.6</b>	<b>184.1</b>	<b>763.7</b>	897.9	206.8	1,104.7

## 18. Intangible assets (continued)

### 18.3 Analysis of goodwill by cash-generating unit ("CGU")

Goodwill acquired in a business combination is allocated to each of the Group's CGUs expected to benefit from the synergies of the combination. For the purposes of impairment testing, the Directors consider that the Group has three CGUs: the Steel division, the Foundry division and the Precious Metals Processing division. These CGUs represent the lowest level within the Group at which goodwill is monitored. The goodwill attributable to the Precious Metals Processing CGU has been fully impaired and consequently the amount recognised in the Group balance sheet is £nil (2011: £nil).

	2012 £m	2011 £m
Steel	374.5	383.1
Foundry	205.1	216.0
Discontinued operations	—	298.8
<b>Total goodwill</b>	<b>579.6</b>	<b>897.9</b>

### 18.4 Analysis of other intangible assets

Other intangible assets arose in 2008 on the acquisition of Foseco plc and are being amortised on a straight-line basis over their estimated useful lives. The assets acquired and their remaining useful lives are shown below.

	Remaining useful life years	Net book value as at 31 December 2012 £m
Foseco — customer relationships (useful life: 20 years)	15.3	86.7
— trade name (useful life: 20 years)	15.3	55.3
— intellectual property rights (useful life: 10 years)	5.3	42.1
<b>Total</b>		<b>184.1</b>

## 19. Impairment of tangible and intangible assets

### 19.1 Accounting policy

At each balance sheet date, the Directors review the carrying value of the Group's tangible and other intangible assets to determine whether there is any indication that those assets have suffered an impairment loss. If such indication exists, the recoverable amount of the asset is estimated in order to determine the extent, if any, of the impairment loss. Where it is not feasible to estimate the recoverable amount of an individual asset, the Directors estimate the recoverable amount of the CGU to which the asset belongs.

Goodwill acquired in a business combination is allocated to each of the Group's CGUs expected to benefit from the synergies of the combination and the Directors carry out annual impairment testing of the carrying value of each CGU, to assess the need for any impairment of the carrying value of the associated goodwill and other intangible and tangible assets.

For the purpose of impairment testing, the recoverable amount of an asset or CGU is the higher of (i) its fair value less costs to sell and (ii) its value in use. If the recoverable amount of a CGU is less than its carrying amount, the resulting impairment loss is allocated first to reduce the carrying amount of any goodwill allocated to the CGU and then to the other assets of the CGU pro rata on the basis of the carrying amount of each asset in the CGU. An impairment loss recognised for goodwill is not reversed in a subsequent period. An impairment loss recognised in a prior year for an asset other than goodwill may be reversed where there has been a change in the estimates used to measure the asset's recoverable amount since the impairment loss was recognised. The value in use calculations of the Group's CGUs are based on detailed business plans covering a three year period from the balance sheet date, higher level assumptions covering a further two year period and perpetuity calculations beyond this five year projection period. The cash flows in the calculations are discounted to their current value using pre-tax discount rates.

# Notes to the consolidated financial statements continued

## 19. Impairment of tangible and intangible assets (continued)

### 19.2 Key assumptions

The key assumptions used in determining value in use are return on sales, growth rates and discount rates. Return on sales assumptions are based on historical financial information, adjusted to factor in the anticipated impact of restructuring and rationalisation plans already announced at the balance sheet date.

Growth rates are determined with reference to: current market conditions; external forecasts and historical trends for the Group's key end-markets of steel production and foundry castings; and expected growth in output within the industries in which each major Group business unit operates. A perpetuity growth rate of 2.5% (2011: 2.5%) has been applied based on the long-term growth rates experienced in the Group's end-markets and external forecasts. The Group's projections are based on historical trends and external forecasts.

Discount rates are calculated for each CGU, reflecting market assessments of the time value of money and the risks specific to each CGU. The pre-tax discount rate used for the Steel CGU was 12.2% and for the Foundry CGU was 15.4%. In the prior year, the Steel and Foundry CGUs were reported as a combined Engineered Ceramics CGU, for which the pre-tax discount rate was 14.9%.

### 19.3 Goodwill impairment

In assessing goodwill for potential impairment as at 31 December 2012, the Directors made use of detailed calculations of the recoverable amount of the Group's CGUs as at 31 December 2012. Those calculations resulted in recoverable amounts significantly higher than the carrying values of each of the Group's CGUs and consequently no impairment charges were recognised.

## 20. Trade and other receivables

### 20.1 Accounting policy

Trade and other receivables are initially recognised at fair value and subsequently measured at amortised cost, using the effective interest method, less impairment losses.

### 20.2 Analysis of trade and other receivables

	2012			2011		
	Gross £m	Impairment £m	Net £m	Gross £m	Impairment £m	Net £m
Trade receivables — current	<b>195.7</b>	<b>(3.2)</b>	<b>192.5</b>	325.4	(3.2)	322.2
— 1 to 30 days past due	<b>45.8</b>	<b>(0.8)</b>	<b>45.0</b>	68.4	(0.9)	67.5
— 31 to 60 days past due	<b>17.2</b>	<b>(0.2)</b>	<b>17.0</b>	22.5	(1.0)	21.5
— 61 to 90 days past due	<b>8.4</b>	<b>(1.4)</b>	<b>7.0</b>	11.6	(0.6)	11.0
— over 90 days past due	<b>42.4</b>	<b>(22.4)</b>	<b>20.0</b>	44.3	(22.0)	22.3
Trade receivables	<b>309.5</b>	<b>(28.0)</b>	<b>281.5</b>	472.2	(27.7)	444.5
Other receivables			<b>27.0</b>			40.8
Prepayments and accrued income			<b>30.4</b>			44.7
<b>Total trade and other receivables</b>			<b>338.9</b>			530.0

All of the Group's operating companies have policies and procedures in place to assess the creditworthiness of the customers with whom they do business. Where objective evidence exists that a trade receivable balance may be impaired, provision is made for the difference between its carrying amount and the present value of the estimated cash that will be recovered. Evidence of impairment may include such factors as the customer being in breach of contract, or entering bankruptcy or financial reorganisation proceedings. Impairment provisions are assessed on an individual customer basis for all significant outstanding balances and collectively for all remaining balances, based upon historical loss experience. Historical experience has shown that the Group's trade receivable provisions are maintained at levels that are sufficient to absorb actual bad debt write-offs, without being excessive.

20. Trade and other receivables (continued)

20.3 Movements on impairment provisions

	2012 £m	2011 £m
As at 1 January	27.7	31.3
Exchange adjustments	(1.0)	(0.9)
Charge for the year	11.9	8.4
Receivables written off during the year as uncollectable	(4.4)	(4.4)
Unused amounts reversed	(0.8)	(1.1)
Transferred to assets classified as held for sale	(1.3)	(5.6)
Demerger of Alent plc business (note 24)	(4.1)	—
<b>As at 31 December</b>	<b>28.0</b>	<b>27.7</b>

Write-offs and the reversal of unused amounts shown in the table above are charged or credited as appropriate within administration, selling and distribution costs in the Group income statement. Of the total provision for impairment of trade receivables at 31 December 2012 of £28.0m (2011: £27.7m) shown in the table above, £24.2m (2011: £22.8m) related to balances that were impaired on an individual basis. The ageing analysis of these individually impaired balances is shown in the table below.

	2012 £m	2011 £m
<b>Ageing analysis of individually impaired trade receivable balances</b>		
Current	1.3	1.1
1 to 30 days past due	0.7	0.5
31 to 60 days past due	0.2	0.7
61 to 90 days past due	1.4	0.5
Over 90 days past due	20.6	20.0
<b>Total individually impaired trade receivable balances</b>	<b>24.2</b>	<b>22.8</b>

Due to the large number of customers with which the Group transacts its business with, none of which represent a significant proportion of the total outstanding trade receivables balance, the Group is not exposed to any significant concentration of credit risk. There is no significant difference between the fair value of the Group's trade and other receivable balances and the amount at which they are reported in the Group balance sheet.



# Notes to the consolidated financial statements continued

## 21. Inventories

### 21.1 Accounting policy

Inventories are stated at the lower of cost (using the first in, first out method) and net realisable value. Cost comprises expenditure incurred in purchasing or manufacturing inventories together with all other costs directly incurred in bringing the inventory to its present location and condition and, where appropriate, attributable production overheads based on normal activity levels. Net realisable value represents the estimated selling price less all estimated costs of completion and costs to be incurred in marketing, selling and distribution. The amount of any write-down of inventories to net realisable value is recognised as an expense in the year in which the write-down occurs.

### 21.2 Analysis of inventories

	<b>2012</b>	2011
	<b>£m</b>	£m
Raw materials	<b>67.2</b>	110.4
Work-in-progress	<b>16.2</b>	33.4
Finished goods	<b>110.7</b>	156.4
<b>Total inventories</b>	<b>194.1</b>	300.2

The cost of inventories recognised as an expense and included in cost of sales in the income statement during the year was £1,206.9m (2011: £1,459.2m). £517.9m (2011: £721.6m) of this expense related to discontinued operations.

As at 31 December 2012, in addition to the inventory recorded in the balance sheet, the Group held £183.3m (2011: £362.8m) of precious metals on consignment terms and £57.1m (2011: £271.4m) of precious metals on behalf of customers for processing.

## 22. Derivative financial instruments

### 22.1 Accounting policy

The Group uses derivative financial instruments ("derivatives") in the form of forward foreign currency contracts, forward commodity contracts and interest rate swaps to manage the effects of its exposure to foreign exchange risk, commodity price risk and interest rate risk. The way in which derivatives are used to manage the Group's financial risk is detailed in note 30.

Derivatives are measured at fair value. The fair value of forward foreign currency contracts and forward commodity contracts is calculated using market prices at the balance sheet date. The fair value of an interest rate swap is the estimated amount that the Group would receive or pay to terminate the swap at the balance sheet date, taking into account current interest rates and the creditworthiness of the swap counterparty.

The method of recognising the gain or loss on remeasurement to fair value depends on whether the derivative is designated as a hedging instrument for hedge accounting purposes and, if so, the nature of the item being hedged. Strict conditions have to be satisfied in order to qualify for hedge accounting, including a determination both at inception of the hedge and on an ongoing basis that the hedge is expected to be highly effective in achieving offsetting changes in fair values or cash flows attributable to the hedged risk. The change in fair value of a derivative that is not designated as a hedging instrument for hedge accounting purposes is recognised within trading profit in the Group income statement. Wherever possible, the Group avoids the administrative burden of hedge accounting, and does not designate a derivative as a hedge when, in the absence of hedge accounting, the change in fair value of the hedged item is itself recognised within trading profit in the Group income statement in the same period as the change in fair value of the derivative. No derivatives are held for speculative purposes.

## 22. Derivative financial instruments (continued)

### 22.1 Accounting policy (continued)

#### Cash flow hedges

The effective part of any gain or loss on a derivative that is designated as a cash flow hedge is recognised in other comprehensive income and presented in the hedging reserve in equity. The ineffective part of any gain or loss is recognised immediately within trading profit, or within finance costs in the case of interest rate swaps designated as cash flow hedges. When the transaction that was being hedged is realised and affects profit or loss, the cumulative gain or loss on the derivative is removed from the hedging reserve and recognised in the income statement in the same period.

#### Fair value hedges

The change in fair value of a derivative that is designated as a fair value hedge is recognised within trading profit in the Group income statement. The carrying amount of the hedged item is adjusted by the change in its fair value that is attributable to the hedged risk and this adjustment is recognised within trading profit in the Group income statement.

#### Net investment hedges

The effective part of any gain or loss on a derivative that is designated as a hedge of a net investment in a foreign operation is recognised in other comprehensive income and presented in the translation reserve in equity, and is subsequently recognised in the Group income statement as part of the profit or loss on disposal of the net investment. The ineffective portion of the gain or loss is recognised immediately within trading profit in the Group income statement.

### 22.2 Analysis of derivative financial instruments

	2012		2011	
	Assets £m	Liabilities £m	Assets £m	Liabilities £m
Cash flow hedges	—	0.1	0.4	2.5
Fair value hedges	—	—	2.5	0.1
Net investment hedges	—	—	—	15.6
Other derivatives — not designated for hedge accounting purposes	—	0.2	0.8	1.4
<b>Total derivative financial instruments</b>	—	<b>0.3</b>	3.7	19.6

All of the fair values shown in the table above have been calculated using quoted prices from active markets. Cash flows in respect of the cash flow hedges shown in the table above will all occur in 2013. All of the £0.3m (2011: £19.6m) of derivative liabilities reported in the table above will mature within a year of the balance sheet date.

#### (a) Cash flow hedges

Cash flow hedges in the table above include: floating to fixed interest rate swaps that are used to manage the interest rate profile of the Group's borrowings (note 30.2); forward foreign currency contracts used to hedge the currency risk in forecast sales; and forward purchase contracts used to hedge the cash flow risk relating to future sales arising from fluctuation in commodity metals prices.

#### (b) Fair value hedges

Fair value hedges in the table above comprise forward sales contracts used to hedge the fair value risk relating to the balance sheet value of inventory arising from fluctuation in commodity metals prices.

# Notes to the consolidated financial statements continued

## 22. Derivative financial instruments (continued)

### 22.2 Analysis of derivative financial instruments (continued)

#### (c) Net investment hedges

Net investment hedges in the table above, which matured during the year, comprised forward foreign exchange contracts used to provide a hedge against the foreign exchange risk associated with the Group's investments in its foreign operations. Of the change in the fair value of these contracts in the year, £16.7m (2011: £10.7m) (which was associated with the change in spot prices) was determined to be an effective hedge and was recognised in other comprehensive income and presented within translation reserves (note 27) and £3.7m (2011: £4.0m) (which was associated with the change in forward prices) was credited to the Group income statement within finance income.

#### (d) Derivatives not designated for hedge accounting purposes

Other derivatives in the table above that are not designated for hedge accounting purposes comprise forward foreign exchange contracts used to hedge the change in fair value of the Group's US Private Placement Loan Notes arising from fluctuation in exchange rates and forward purchase contracts used to hedge against the cash flow risk relating to future commodity metals purchases.

## 23. Assets and liabilities held for sale

	2012 £m	2011 £m
Property, plant and equipment	<b>12.2</b>	3.7
Intangible assets	—	1.4
Inventories	<b>9.2</b>	8.8
Trade and other receivables	<b>16.8</b>	14.9
Deferred tax	<b>1.7</b>	—
Total assets held for sale	<b>39.9</b>	28.8
Trade and other payables	<b>(22.9)</b>	(4.6)
Provisions	<b>(0.6)</b>	(3.1)
<b>Net assets held for sale</b>	<b>16.4</b>	21.1

As at 31 December 2012, all European operations of the Group's Precious Metals Processing division and a non-core business of the Group's Steel division, were both in the process of being disposed and were classified as held for sale. The assets in the table above are stated after a write-down of £2.7m to bring their carrying value down to their fair value less cost to sell.

As at 31 December 2011, the US operations of the Group's Precious Metals Processing division ("US Precious Metals") and a non-core business of the Group's Steel division, were both in the process of being disposed and were classified as held for sale. An agreement was signed on 22 February 2012 with Richline Group, Inc. ("Richline") for Richline to acquire the whole of the Group's interest in its US Precious Metals business and the transaction was completed on 1 May 2012. The prior year assets in the table above are stated after a write-down of £17.4m to bring their carrying value down to their estimated fair value less costs to sell. This write-down, together with a further £11.6m of redundancy and other costs incurred in preparing the business for sale, comprise the £29.0m loss on disposal referred to in note 24.

## 24. Business disposals

	Continuing operations £m	Discontinued operations £m	Total £m
<b>Net consideration:</b>			
Net proceeds received	7.3	17.4	<b>24.7</b>
Proceeds receivable	1.6	0.3	<b>1.9</b>
Fair value of Alent plc	—	862.4	<b>862.4</b>
Disposal costs payable	(1.1)	—	<b>(1.1)</b>
<b>Total net consideration</b>	<b>7.8</b>	<b>880.1</b>	<b>887.9</b>
<b>Assets and liabilities disposed of:</b>			
Property, plant and equipment	2.1	81.9	<b>84.0</b>
Attributable goodwill	—	295.0	<b>295.0</b>
Investment in joint ventures and other investments	—	13.6	<b>13.6</b>
Trade working capital	1.2	131.1	<b>132.3</b>
Cash and debt	—	(157.3)	<b>(157.3)</b>
Provisions	—	(18.6)	<b>(18.6)</b>
Employee benefits	—	(24.4)	<b>(24.4)</b>
Tax	—	(39.3)	<b>(39.3)</b>
Assets previously classified as held for sale	3.3	22.1	<b>25.4</b>
Liabilities previously classified as held for sale	—	(3.8)	<b>(3.8)</b>
Recycled foreign exchange	—	31.5	<b>31.5</b>
<b>Net assets disposed of</b>	<b>6.6</b>	<b>331.8</b>	<b>338.4</b>
Disposal provisions charged to the income statement	3.5	7.0	<b>10.5</b>
<b>(Loss)/profit on disposal of operations</b>	<b>(2.3)</b>	<b>541.3</b>	<b>539.0</b>
<b>Net cash received from disposals:</b>			
Net proceeds received	7.3	17.4	<b>24.7</b>
Cash and cash equivalents disposed of	—	(69.4)	<b>(69.4)</b>
Disposal costs paid in relation to prior year's disposals	(0.1)	(4.9)	<b>(5.0)</b>
Disposal costs paid in relation to closure cost provisions	(0.6)	(0.3)	<b>(0.9)</b>
<b>Net cash inflow/(outflow) from disposal of subsidiaries</b>	<b>6.6</b>	<b>(57.2)</b>	<b>(50.6)</b>
<b>Recognition in the Group Statement of Cash Flows:</b>			
Disposal of subsidiaries net of cash disposed of	6.1	(52.3)	<b>(46.2)</b>
Within other investing outflows, including additional costs for prior year's disposals	0.5	(4.9)	<b>(4.4)</b>
<b>Net cash inflow/(outflow) from disposal of subsidiaries</b>	<b>6.6</b>	<b>(57.2)</b>	<b>(50.6)</b>

Further details of the loss on disposal of continuing operations is given in note 10.

The total net profit arising in respect of discontinued operations of £541.3m (2011: £34.9m loss) comprised a profit on the demerger of Alent of £555.4m, net of a loss arising on the sale of the US operations of the Precious Metals Processing division of £8.4m (2011: £29.0m), and other losses arising on the closure of non-core businesses and trailing costs related to prior year disposals of £5.7m (2011: £5.9m).

# Notes to the consolidated financial statements continued

## 24. Business disposals (continued)

On 22 February 2012, an agreement was signed to sell the US Precious Metals business, part of Vesuvius' Precious Metals Processing division, to Richline Group, Inc. ("Richline"), a subsidiary of Berkshire Hathaway, Inc.. Completion of the sale, subject to finalisation of the closing balance sheet valuation, took place on 1 May 2012. On 19 September 2012, an agreement was entered into with Richline which settled the valuation of the completion balance sheet, whereby Richline conceded their right to challenge the value of any assets or liabilities in the completion balance sheet. The proceeds for the sale of the business were \$28.5m (£18.0m). As at 31 December 2011, the net assets of the US Precious Metals business were classified as held for sale in the balance sheet and a loss on disposal of operations of £29.0 million was reported in the income statement for 2011. The final loss on sale of the business amounted to £37.4m, resulting in an adjustment being booked in 2012 of £8.4m, of which £4.6m related to the recycled historical foreign exchange differences relating to the businesses sold. In view of the remainder of the Precious Metals Processing division being reported as held for sale as at 31 December 2012, the whole of the division has been classified as a discontinued operation, including the previously reported loss on disposal of the US business.

On 19 December 2012, the Company demerged the Alent business (formerly the Performance Materials division of Cookson Group plc), whereby the share capital of the Company was reduced, with £862.4m - representing the fair market value of Alent plc on 19 December 2012 - being repaid, the repayment being satisfied by the transfer by the Company to Alent plc of the entire share capital of Alent Investments Limited, in consideration of the allotment and issue by Alent plc of one Alent plc share for each Vesuvius plc share held by the Vesuvius plc shareholders at the date of the demerger. The net assets of the Alent group of businesses as at the date of the demerger, 19 December 2012, was £307.0m, resulting in a profit on disposal of £555.4m.

## 25. Discontinued operations

Discontinued operations in 2012 comprise the results of the Alent group of companies for the period up to 19 December 2012, when they were demerged from Vesuvius, together with the results of the US Precious Metals Processing business for the period up to 1 May 2012 when it was sold and the European Precious Metals Processing business, which was held for sale as at 31 December 2012, for the whole of the year. Prior year comparatives in the Group income statement have been restated accordingly.

Further details, along with the effects of the disposals on the financial position of the Group, can be found in note 24.

### 25.1 Results of discontinued operations

	Notes	2012 £m	2011 £m
Revenue		<b>888.0</b>	1,140.6
Expenses		<b>(785.7)</b>	(1,035.5)
<b>Profit before tax</b>		<b>102.3</b>	105.1
Income tax costs		<b>(31.1)</b>	(22.7)
Profit/(loss) on disposal of discontinued operations	24	<b>541.3</b>	(34.9)
<b>Profit for the year attributable to owners of the parent</b>		<b>612.5</b>	47.5
<b>Earnings per share — pence</b>			
Basic		<b>220.8</b>	17.2
Diluted		<b>218.8</b>	16.9

### 25.2 Cash flows from discontinued operations

	2012 £m	2011 £m
Net cash inflow/(outflow) from:		
— operating activities	<b>22.5</b>	73.1
— investing activities	<b>(80.7)</b>	(23.4)
— financing activities	<b>0.4</b>	—
<b>Net cash (outflow)/inflow for the year</b>	<b>(57.8)</b>	49.7

## 26. Issued share capital

### 26.1 Accounting policy

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

### 26.2 Analysis of issued share capital

The issued ordinary share capital of the Company as at 31 December 2012 was 278.4m shares of £0.10 each. Further information relating to the Company's share capital is given in note 7 attached to the Company's financial statements.

## 27. Other reserves

	Other reserves £m	Hedging reserve £m	Investment revaluation reserve £m	Translation reserve £m	Total £m
As at 1 January 2011	(1,488.6)	(2.0)	(0.2)	181.5	(1,309.3)
Exchange differences on translation of the net assets of foreign operations	—	—	—	(44.0)	(44.0)
Exchange translation differences arising on net investment hedges	—	—	—	(3.3)	(3.3)
Change in fair value of cash flow hedges	—	(0.2)	—	—	(0.2)
Change in fair value of available-for-sale investments	—	—	0.1	—	0.1
As at 1 January 2012	<b>(1,488.6)</b>	<b>(2.2)</b>	<b>(0.1)</b>	<b>134.2</b>	<b>(1,356.7)</b>
Exchange differences on translation of the net assets of foreign operations	—	—	—	<b>(79.1)</b>	<b>(79.1)</b>
Reclassification of exchange differences on disposal of foreign operations	—	—	—	<b>31.5</b>	<b>31.5</b>
Exchange translation differences arising on net investment hedges	—	—	—	<b>14.0</b>	<b>14.0</b>
Change in fair value of cash flow hedges	—	<b>2.3</b>	—	—	<b>2.3</b>
Change in fair value of cash flow hedge transferred to profit for the year	—	<b>(0.3)</b>	—	—	<b>(0.3)</b>
Change in fair value of available-for-sale investments	—	—	<b>(0.3)</b>	—	<b>(0.3)</b>
Issue of share capital	<b>(10.4)</b>	—	—	—	<b>(10.4)</b>
<b>As at 31 December 2012</b>	<b>(1,499.0)</b>	<b>(0.2)</b>	<b>(0.4)</b>	<b>100.6</b>	<b>(1,399.0)</b>

On 14 December 2012, Vesuvius plc issued 278,448,752 ordinary shares of 638.5 pence each (£1,777.9m) to the public shareholders of Cookson Group plc in exchange for the entire share capital of Cookson Group plc. The other reserves as at 31 December 2012, represents the excess of the Vesuvius plc share capital of £1,777.9m over the total share capital and share premium of Cookson Group plc as at 14 December 2012 of £278.9m.

The translation reserve in the table above comprises all foreign exchange differences attributable to the owners of the parent. These exchange differences arise from the translation of the financial statements of foreign operations and from the translation of financial instruments that hedge the Group's net investment in foreign operations. In addition to foreign exchange differences attributable to the owners of the parent, the Group statement of comprehensive income includes foreign exchange differences attributable to non-controlling interests.



# Notes to the consolidated financial statements continued

## 28. Retained earnings

	Reserve for own shares £m	Share option reserve £m	Other retained earnings £m	Total retained earnings £m
As at 1 January 2011	(2.5)	9.6	790.7	797.8
Profit for the year	—	—	146.8	146.8
Net actuarial gains on employee benefits plans	—	—	21.2	21.2
Purchase of own shares	(7.8)	—	—	(7.8)
Disposal of own shares	2.5	—	(2.5)	—
Recognition of share-based payments	—	5.0	—	5.0
Release of share option reserve on exercised and lapsed options	—	(4.6)	4.6	—
Income tax on items recognised in other comprehensive income	—	—	(11.9)	(11.9)
Dividends paid (note 29)	—	—	(51.8)	(51.8)
<b>As at 1 January 2012</b>	<b>(7.8)</b>	<b>10.0</b>	<b>897.1</b>	<b>899.3</b>
Profit for the year	—	—	594.2	594.2
Net actuarial losses on employee benefits plans	—	—	(107.6)	(107.6)
Purchase of own shares	(19.8)	—	—	(19.8)
Disposal of own shares	22.4	—	(22.4)	—
Recognition of share-based payments	—	4.8	—	4.8
Release of share option reserve on exercised and lapsed options	—	(9.3)	9.3	—
Income tax on items recognised in other comprehensive income	—	—	14.8	14.8
Dividends paid (note 29)	—	—	(61.2)	(61.2)
Court approved capital reduction	—	—	887.7	887.7
<b>As at 31 December 2012</b>	<b>(5.2)</b>	<b>5.5</b>	<b>2,211.9</b>	<b>2,212.2</b>

The reserve for own shares shown in the table above are ordinary shares of £0.10 each of the Company and are held by Cookson Investments (Jersey) Limited as Trustee of the Cookson Group ESOP.

On 19 December 2012, Vesuvius plc undertook a court approved capital reduction, creating £887.7m of distributable reserves. Further information is given in note 7 of the Company's financial statements.

## 29. Dividends

A final dividend for the year ended 31 December 2011 of £40.3m (2011: £31.8), equivalent to 14.5 pence (2011: 11.5 pence) per ordinary share, was paid in June 2012 and an interim dividend for the year ended 31 December 2012 of £20.9m (2011: £20.0m), equivalent to 7.5 pence (2011: 7.25 pence) per ordinary share, was paid in October 2012.

A proposed final dividend for the year ended 31 December 2012 of £26.5m, equivalent to 9.5 pence per ordinary share, is subject to approval by shareholders at the Company's Annual General Meeting and has not been included as a liability in these financial statements. If approved by shareholders, the dividend will be paid on 27 June 2013 to ordinary shareholders on the register at 17 May 2013. This is in line with the announcement at the time of the demerger process that, subject to general market conditions and trading performance, and consistent with the Cookson dividend policy immediately prior to the demerger, a final dividend for 2012 that aggregates to 15 pence per Cookson share would be proposed. The Vesuvius proposal to pay 9.5 pence per Vesuvius share complements the proposal by Alent plc to pay a final dividend for 2012 of 5.5 pence per Alent share.

## 30. Financial risk management

### 30.1 Accounting policy

#### (a) Non-derivative financial instruments

Loans and borrowings are initially recognised at fair value plus directly attributable transaction costs. After initial recognition they are measured at amortised cost, using the effective interest method.

#### (b) Foreign currencies

The individual financial statements of each Group entity are prepared in their functional currency, which is the currency of the primary economic environment in which that entity operates. For the purpose of the consolidated financial statements, the results and financial position of each entity are translated into pounds sterling, which is the presentational currency of the Group.

#### Reporting foreign currency transactions in functional currency

Transactions in currencies other than the entity's functional currency (foreign currencies) are initially recorded at the rates of exchange prevailing on the dates of the transactions. At each subsequent balance sheet date:

- (i) Foreign currency monetary items are retranslated at the rates prevailing at the balance sheet date. Exchange differences arising on the settlement or retranslation of monetary items are recognised in the Group income statement; and
- (ii) Non-monetary items measured at historical cost in a foreign currency are not retranslated.

#### Translation from functional currency to presentational currency

When the functional currency of a Group entity is different from the Group's presentational currency (pounds sterling), its results and financial position are translated into the presentational currency as follows:

- (i) Assets and liabilities are translated using exchange rates prevailing at the balance sheet date;
- (ii) Income and expense items are translated at average exchange rates for the year, except where the use of such average rates does not approximate the exchange rate at the date of a specific transaction, in which case the transaction rate is used; and
- (iii) All resulting exchange differences are recognised in other comprehensive income and presented in the translation reserve in equity and are reclassified to profit or loss in the period in which the foreign operation is disposed.

#### Net investment in foreign operations

Exchange differences arising on a monetary item that forms part of a reporting entity's net investment in a foreign operation are initially recognised in other comprehensive income and presented in the translation reserve in equity and reclassified to profit or loss on disposal of the net investment.

### 30.2 Financial risk factors

The Group's treasury department, acting in accordance with policies approved by the Board, is principally responsible for managing the financial risks faced by the Group. The Group's activities expose it to a variety of financial risks, the most significant of which are market risk and liquidity risk.

#### (a) Market risk

Market risk is the risk that either the fair values or the cash flows of the Group's financial instruments may fluctuate because of changes in market prices. The Group is principally exposed to market risk through fluctuations in exchange rates ("currency risk") and interest rates ("interest rate risk").

#### Currency risk

The Group is exposed to currency risk on its borrowings and financial assets (being cash and short-term deposits) that are denominated in currencies other than pounds sterling. The Group's general policy is proportionally to match the currency profile of its core borrowings with the currency profile of its earnings and net assets achieved, where necessary, by the use of forward foreign exchange contracts ("FX swaps"). The currency profile of the Group's borrowings and financial assets, reflecting the effect of the FX swaps, is shown in the table below.

# Notes to the consolidated financial statements continued

## 30. Financial risk management (continued)

### 30.2 Financial risk factors (continued)

	2012					2011				
	Borrowings before		Borrowings after	Financial assets	Net debt	Borrowings before		Borrowings after	Financial assets	Net debt
	FX swaps	FX swaps				FX swaps	FX swaps			
	£m	£m	£m	£m	£m	£m	£m	£m	£m	£m
Sterling	176.4	51.1	227.5	(14.9)	212.6	151.3	100.6	251.9	(44.4)	207.5
United States dollar	156.8	(51.1)	105.7	(4.8)	100.9	287.0	(176.0)	111.0	(13.3)	97.7
Euro	91.8	—	91.8	(36.7)	55.1	111.8	—	111.8	(13.8)	98.0
Chinese renminbi	—	—	—	(20.8)	(20.8)	—	—	—	(43.5)	(43.5)
Japanese yen	0.8	—	0.8	(2.2)	(1.4)	0.8	75.4	76.2	(2.4)	73.8
Other	4.2	—	4.2	(50.1)	(45.9)	5.4	—	5.4	(70.7)	(65.3)
Capitalised borrowing costs	(5.2)	—	(5.2)	—	(5.2)	(4.3)	—	(4.3)	—	(4.3)
<b>As at 31 December</b>	<b>424.8</b>	<b>—</b>	<b>424.8</b>	<b>(129.5)</b>	<b>295.3</b>	<b>552.0</b>	<b>—</b>	<b>552.0</b>	<b>(188.1)</b>	<b>363.9</b>

Based upon the currency profile shown in the table above, while not impacting reported profit, the change in net debt arising from a 10% strengthening of sterling would increase reported equity by £8.0m (2011: £14.6m) and a corresponding 10% weakening of sterling would reduce equity by £9.8m (2011: £17.8m).

The tables below show the net unhedged monetary assets and liabilities of Group companies that are not denominated in their functional currency and which could give rise to exchange gains and losses in the Group income statement.

	Net unhedged monetary assets/(liabilities)					
	Sterling £m	US dollar £m	Euro £m	Renminbi £m	Other £m	Total £m
<b>Functional currency</b>						
Sterling	—	5.0	(16.9)	—	1.4	(10.5)
United States dollar	—	—	1.0	—	(0.1)	0.9
Euro	(0.6)	1.3	—	—	0.3	1.0
Chinese renminbi	—	3.7	(0.6)	—	—	3.1
Other	(1.4)	(2.8)	13.3	2.7	7.4	19.2
<b>As at 31 December 2012</b>	<b>(2.0)</b>	<b>7.2</b>	<b>(3.2)</b>	<b>2.7</b>	<b>9.0</b>	<b>13.7</b>

	Net unhedged monetary assets/(liabilities)					
	Sterling £m	US dollar £m	Euro £m	Renminbi £m	Other £m	Total £m
<b>Functional currency</b>						
Sterling	—	1.0	1.5	—	0.4	2.9
United States dollar	0.3	—	0.5	—	7.1	7.9
Euro	(0.4)	1.1	—	—	0.4	1.1
Chinese renminbi	—	5.3	(0.9)	—	—	4.4
Other	(1.3)	26.2	10.2	10.0	4.6	49.7
<b>As at 31 December 2011</b>	<b>(1.4)</b>	<b>33.6</b>	<b>11.3</b>	<b>10.0</b>	<b>12.5</b>	<b>66.0</b>

30. Financial risk management (continued)

30.2 Financial risk factors (continued)

Interest rate risk

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

As at 31 December 2012, the Group had \$250.0m (£153.8m) of US Private Placement Loan Notes outstanding, which carry a fixed rate of interest, representing just over a third of the Group's total borrowings outstanding at that date. The interest rate profile of the Group's borrowings and net debt is detailed in the tables below.

Financial liabilities (gross borrowings)					
	Fixed rate £m	Floating rate £m	Total £m	Financial assets £m	Net debt £m
Sterling	—	176.4	176.4	(14.9)	161.5
United States dollar	153.8	3.0	156.8	(4.8)	152.0
Euro	—	91.8	91.8	(36.7)	55.1
Chinese renminbi	—	—	—	(20.8)	(20.8)
Japanese yen	—	0.8	0.8	(2.2)	(1.4)
Other	—	4.2	4.2	(50.1)	(45.9)
Capitalised borrowing costs	(1.2)	(4.0)	(5.2)	—	(5.2)
<b>As at 31 December 2012</b>	<b>152.6</b>	<b>272.2</b>	<b>424.8</b>	<b>(129.5)</b>	<b>295.3</b>

Financial liabilities (gross borrowings)							
	Fixed rate £m	Interest rate swaps £m	Notional fixed rate debt £m	Floating rate £m	Total £m	Financial assets £m	Net debt £m
Sterling	—	74.0	74.0	77.3	151.3	(44.4)	106.9
United States dollar	283.7	—	283.7	3.3	287.0	(13.3)	273.7
Euro	—	—	—	111.8	111.8	(13.8)	98.0
Chinese renminbi	—	—	—	—	—	(43.5)	(43.5)
Japanese yen	—	—	—	0.8	0.8	(2.4)	(1.6)
Other	—	—	—	5.4	5.4	(70.7)	(65.3)
Capitalised borrowing costs	(0.7)	—	(0.7)	(3.6)	(4.3)	—	(4.3)
<b>As at 31 December 2011</b>	<b>283.0</b>	<b>74.0</b>	<b>357.0</b>	<b>195.0</b>	<b>552.0</b>	<b>(188.1)</b>	<b>363.9</b>

The floating rate financial liabilities shown in the tables above bear interest at the inter-bank offered rate of the appropriate currency, plus a margin. The fixed rate financial liabilities of £152.6m (2011: £357.0m) have a weighted average interest rate of 4.7% (2011: 5.4%) and a weighted average period for which the rate is fixed of 6.6 years (2011: 3.7 years). The financial assets attract floating rate interest at the inter-bank offered rate of the appropriate currency, less a margin.

# Notes to the consolidated financial statements continued

## 30. Financial risk management (continued)

### 30.2 Financial risk factors (continued)

Based upon the interest rate profile of the Group's financial assets and liabilities shown in the tables above, a 1% increase in market interest rates would increase both the net finance costs charged in the Group income statement and the net interest paid in the Group statement of cash flows by £1.4m (2011: £0.1m) and a 1% reduction in market interest rates would decrease both the net finance costs charged in the Group income statement and the net interest paid in the Group statement of cash flows by £1.4m (2011: £0.1m). Similarly, a 1% increase in market interest rates would result in a decrease of £9.2m (2011: £10.9m) in the fair value of the Group's net debt and a 1% decrease in market interest rates would result in an increase of £9.8m (2011: £11.7m) in the fair value of the Group's net debt.

#### (b) Liquidity risk

Liquidity risk is the risk that the Group might have difficulties in meeting its financial obligations. The Group manages this risk by ensuring that it maintains sufficient levels of committed borrowing facilities and cash and cash equivalents to ensure that it can meet its operational cash flow requirements and any maturing financial liabilities, while at all times operating within its financial covenants. The level of operational headroom provided by the Group's committed borrowing facilities is reviewed at least annually as part of the Group's three year planning process. Where this process indicates a need for additional finance, this is normally addressed 12 to 18 months in advance by means of either additional committed bank facilities or raising finance in the capital markets.

As at 31 December 2012, the Group had committed borrowing facilities of £578.8m (2011: £883.7m), of which £157.7m (2011: £339.5m) were undrawn. These undrawn facilities are due to expire in April 2016. The Group's borrowing requirements are met by US Private Placement Loan Notes ("USPP") and a multi-currency committed syndicated bank facility of £425.0m (2011: £600.0m). The USPP facility was fully drawn as at 31 December 2012 and amounted to £153.8m (\$250.0m), of which \$110.0m is repayable in 2017 and \$140.0m in 2020. The syndicated bank facility was renegotiated at the time of the Cookson demerger and the Vesuvius facility was reduced to a £425.0m revolving credit facility from the £600.0m in place at December 2011. The facility is repayable in April 2016.

The maturity analysis of the Group's gross borrowings is shown in the tables below.

	Non-current		Current		Total	
	2012 £m	2011 £m	2012 £m	2011 £m	2012 £m	2011 £m
Loans and overdrafts	<b>421.3</b>	421.8	<b>4.9</b>	130.4	<b>426.2</b>	552.2
Obligations under finance leases	<b>2.3</b>	2.6	<b>1.5</b>	1.5	<b>3.8</b>	4.1
Capitalised borrowing costs	<b>(3.3)</b>	(3.1)	<b>(1.9)</b>	(1.2)	<b>(5.2)</b>	(4.3)
<b>Total interest-bearing borrowings</b>	<b>420.3</b>	421.3	<b>4.5</b>	130.7	<b>424.8</b>	552.0

	2012 £m	2011 £m
<b>Interest-bearing borrowings repayable</b>		
On demand or within one year	<b>6.4</b>	131.9
In the second year	<b>1.2</b>	1.4
In the third year	<b>0.8</b>	0.9
In the fourth year	<b>267.6</b>	0.4
In the fifth year	<b>67.7</b>	260.5
After five years	<b>86.3</b>	161.2
Capitalised borrowing costs	<b>(5.2)</b>	(4.3)
<b>Total interest-bearing borrowings</b>	<b>424.8</b>	552.0

Capitalised borrowing costs shown in the tables above, which have been recognised as a reduction in borrowings in the financial statements, amounted to £5.2m as at 31 December 2012 (31 December 2011: £4.3m), of which £1.2m (2011: £0.7m) related to the USPP and £4.0m (2011: £3.6m) related to the syndicated bank facility.

### 30. Financial risk management (continued)

#### 30.3 Capital management

The Group considers its capital to be equal to the sum of its total equity and net debt. It monitors its capital using a number of key performance indicators, including free cash flow, average working capital to sales ratios, net debt to EBITDA ratios and RONA (note 4). The Group's objectives when managing its capital are:

- › to ensure that the Group and all of its businesses are able to operate as going concerns and ensure that the Group operates within the financial covenants contained within its debt facilities;
- › to maximise shareholder value through maintaining an appropriate balance between the Group's equity and net debt;
- › to have available the necessary financial resources to allow the Group to invest in areas that may deliver acceptable future returns to investors; and
- › to maintain sufficient financial resources to mitigate against risks and unforeseen events.

The Group operated comfortably within the requirements of its debt covenants throughout the year and has substantial liquidity headroom within its committed debt facilities. Details of the Group's covenant compliance and committed debt facilities can be found in the Financial Review on page 55.

### 31. Employee benefits

#### 31.1 Accounting policy

The net surplus or net liability recognised in the Group balance sheet for the Group's defined benefit plans is the present value of the defined benefit obligation at the balance sheet date as adjusted for unrecognised past service costs, less the fair value of the plan assets. The defined benefit obligation is calculated by independent actuaries using the projected unit credit method and by discounting the estimated future cash flows using interest rates on high quality corporate bonds that have terms to maturity approximating the terms of the related pension liability. Any asset recognised in respect of a surplus arising from this calculation is limited to the sum of unrecognised past service costs plus the present value of available refunds and reductions in future contributions to the plan.

The expense for the Group's defined benefit plans is recognised in the Group income statement as shown in note 31.7. Actuarial gains and losses arising on the assets and liabilities of the plans are reported within the Group statement of comprehensive income; and gains and losses arising on settlements and curtailments are recognised in the Group income statement in the same line as the item that gave rise to the settlement or curtailment or, if material, separately reported as a component of profit from operations.

#### 31.2 Group post-retirement plans

The Group operates a number of pension plans around the world, both of the defined benefit and defined contribution type, and accounts for them in accordance with IAS19.

The Group's principal defined benefit pension plans are in the UK and the US, the benefits of which are based upon the final pensionable salaries of plan members. The assets of these plans are held separately from the Group in trustee-administered funds. The trustees are required to act in the best interests of the plans' beneficiaries. The Group also has defined benefits pension plans in other territories but, with the exception of those in Germany, these are not individually material in relation to the Group as a whole.

##### (a) Defined benefit pension plans — UK

The Group's main defined benefit pension plan in the UK ("the UK Plan") is closed to new members and to future benefit accrual. Following the demerger of Cookson Group plc, the UK Plan remains with Vesuvius and the Alent employees who participated in the UK Plan ceased to participate with effect from the demerger. In order to ensure there was a "clean break" for Alent companies, the pension liabilities held in respect of their employees in the UK Plan were discharged in full by apportioning the pension liabilities of the Alent participating employers to Vesuvius, combined with a mitigation payment into the UK Plan to compensate for the loss of support from the Alent participating employers, which reduced the financial covenant of the employers supporting the UK Plan. The mitigation payment agreed with the UK Plan Trustee was equal to approximately 25% of the UK Plan's Section 75 deficit calculated as at completion of the demerger and amounted to £38.0m, of which £34.0m was paid in December 2012 and £4.0m in January 2013.

# Notes to the consolidated financial statements continued

## 31. Employee benefits (continued)

### 31.2 Group post-retirement plans (continued)

A full actuarial valuation of the UK Plan is carried out every three years by an independent actuary for the UK Plan Trustee and the last full valuation was carried out as at 31 December 2009. At that date, the market value of plan assets was £401.9m and this represented a funding level of 88% of the accrued plan benefits at the time of £456.4m. Calculated on a "buy-out" basis (using an estimation of the cost of buying out the UK Plan benefits with an insurance company), the liabilities at that date were £589.0m, representing a funding level of 68%. Under the rules of the UK Plan, the Trustee has the power to set the funding contributions, having consulted with the Company. The Company and Trustee have agreed a schedule of contributions under which the Company is making "top-up" payments of £7.0m per annum until February 2016, targeted at eliminating the 2009 full actuarial valuation deficit in the UK Plan by that date. The level of "top-up" payments will be reviewed based on the UK Plan's next triennial valuation as at 31 December 2012, which should be available in mid-2013. The Directors expect that the valuation will show further improvement to the funding position of the UK Plan. As at 31 December 2012, the funding ratio calculated on an IAS19 basis was 105%, (i.e. a funding surplus).

During 2011, the deferred members of the UK Plan were offered the opportunity to transfer their benefits out of the UK Plan to another arrangement of their choice at an enhanced value. The offer of enhanced transfer values closed during the first half of 2012. In total some 550 members took up the offer and this has eliminated the inflation, interest rate, investment and longevity risk for Vesuvius in respect of the £50m of liabilities transferred out of the UK Plan (representing around 10% of total UK Plan liabilities). The impact on the IAS19 valuation of UK pension liabilities of the transfers agreed up to 31 December 2011, were reflected in the results for 2011 as an exceptional charge of £5.9m. The impact of transfers agreed after 1 January 2012 was a charge of £0.5m and, not being material, has been reported in 2012 in arriving at trading profit.

On 19 July 2012, the UK Plan Trustee announced that it had entered into a pension insurance buy-in agreement with Pension Insurance Corporation ("PIC") to insure approximately 60% of the UK Plan's total liabilities. Under this arrangement, the UK Plan Trustee paid an insurance premium of £318.8m to PIC, wholly from the assets of the UK Plan, which will secure a stream of income exactly matching future ongoing pension payments. The insured liabilities cover the UK Plan's pensioner members as at 30 June 2012, who comprise some 3,350 members out of a total UK Plan membership of 5,900. This arrangement eliminates the inflation, interest rate, investment and longevity risk for Vesuvius in respect of these liabilities.

For plan funding purposes, the UK Plan's pensioner liabilities are valued using more prudent assumptions than those required under IAS19 for accounting purposes. On a funding basis — sometimes called the 'economic' or 'ongoing' basis — the insurance premium paid to PIC represented some £10m less than the amount reserved in the UK Plan against these liabilities. This means that the funding level of the UK Plan — the measure which determines the level of additional contributions required to be made by Vesuvius — improved by some £10m as a result of the buy-in. On an accounting basis, the pensioner liabilities are valued using a higher discount rate (as required by IAS19), which produces a much lower valuation of those liabilities. As a consequence, the accounting valuation of the insurance contract compared with the actual premium paid to PIC results in a reduction in the asset portfolio valuation of some £50m. IAS19 requires this loss to be reported in the Group statement of comprehensive income, not the income statement. Post buy-in, the UK Plan now carries an asset in the form of the insurance contract, which is valued (in both the funding and IAS19 valuations) at an amount which matches exactly that of the liabilities which it covers — thereby removing any funding or balance sheet volatility relating to this part of the UK Plan's liabilities. Therefore, the only risks remaining in the UK Plan relate to deferred members. The Group continues to fund the UK Plan on the basis of the funding valuation.

In December 2012, an extension to the PIC buy-in agreement was signed, under which the UK Plan Trustee agrees to transfer to PIC all new pensioner liabilities arising from July 2012 to December 2015 for a premium payment by the UK Plan which is calculated to be consistent with the pricing terms of the original buy-in agreement, but reflecting changes in market conditions and differences in the duration of the liabilities transferred. The agreement covers up to £30m of liabilities, with the future premium payments to be met from the existing assets of the UK Plan.



### 31. Employee benefits (continued)

#### 31.2 Group post-retirement plans (continued)

##### (b) Defined benefit pension plans — US

The Group has a number of defined benefit pension plans in the US, providing retirement benefits based on final salary or a fixed benefit. The Group's principal US defined benefit pension plans are closed to new members and also to future benefit accrual for existing members. Actuarial valuations of the US defined benefit pension plans are carried out every year and the last full valuation was carried out as at 31 December 2011. At that date the market value of the plan assets was £81.3m, representing a funding level of 71% of funded accrued plan benefits at that date (using the projected unit method of valuation) of £114.5m. Funding levels for the Group's US defined benefit pension plans are normally based upon annual valuations carried out by independent qualified actuaries and are governed by US government regulations.

Following an offer to Vesuvius' US deferred members which closed in August 2012, 1,070 members (67%) accepted a lump sum payment in full and final settlement of the Group's pension liability to them. This has therefore eliminated the inflation, interest rate, investment and longevity risk for Vesuvius in respect of the \$36m (£22m) of liabilities involved, for a payment out of the pension plan assets of \$28m (£17m).

##### (c) Defined benefit pension plans — Germany

The Group has a number of defined benefit pension arrangements in Germany which are unfunded, as is common practice in that country.

##### (d) Defined contribution pension plans

The total expense for the Group's defined contribution plans in the Group income statement amounted to £17.0m (2011: £17.7m) and represents the contributions payable for the year by the Group to the plans.

#### 31.3 Post-retirement liability valuation

The assumptions used in calculating the costs and obligations of the Group's defined benefit pension plans, as detailed below, are set by the Directors after consultation with independent professionally qualified actuaries.

##### (a) Mortality assumptions

The mortality assumptions used in the actuarial valuations of the Group's UK, US and German defined benefit pension liabilities are summarised in the table below and have been selected to reflect the characteristics and experience of the membership of those plans.

For the UK Plan, the assumptions used have been derived from the Self-Administered Pension Schemes ("SAPS") All table, with future longevity improvements in line with the "core" mortality improvement tables published in 2011 by the Continuous Mortality Investigation ("CMI"), with a long-term rate of improvement of 1.25% per annum. The latter CMI tables are expected to replace the use of the "Cohort" improvement factors widely used since 2002. For the Group's US plans, the assumptions used have been based on the standard RP2000CH mortality tables, projected 64 years for non-pensioners and 33 years for pensioners using projection scale AA. The Group's major plans in Germany have been valued using the Heubeck-Richttafein 2005G mortality tables.

		2012			2011		
		UK years	US years	Germany years	UK years	US years	Germany years
<b>Life expectancy of pension plan members</b>							
Age to which current pensioners are expected to live	— Men	<b>87.5</b>	<b>84.6</b>	<b>84.6</b>	87.3	84.6	84.4
	— Women	<b>89.7</b>	<b>86.9</b>	<b>88.7</b>	89.6	86.9	88.5
Age to which future pensioners are expected to live	— Men	<b>89.2</b>	<b>86.6</b>	<b>87.3</b>	89.1	86.6	87.1
	— Women	<b>91.6</b>	<b>89.1</b>	<b>91.2</b>	91.5	89.1	91.1

# Notes to the consolidated financial statements continued

## 31. Employee benefits (continued)

### 31.3 Post-retirement liability valuation (continued)

#### (b) Other principal actuarial valuation assumptions

	2012			2011		
	UK % p.a.	US % p.a.	Germany % p.a.	UK % p.a.	US % p.a.	Germany % p.a.
Discount rate	<b>4.35</b>	<b>3.75</b>	<b>3.30</b>	4.80	4.25	4.50
Price inflation						
— using RPI for UK	<b>3.20</b>	<b>2.50</b>	<b>2.00</b>	3.30	2.50	2.00
— using CPI for UK	<b>2.50</b>	<b>n/a</b>	<b>n/a</b>	2.40	n/a	n/a
Rate of increase in pensionable salaries	<b>n/a</b>	<b>n/a</b>	<b>2.75</b>	n/a	n/a	2.75
Rate of increase to pensions in payment	<b>3.00</b>	<b>n/a</b>	<b>1.90</b>	3.10	n/a	1.90
Expected asset return						
— equities	<b>7.75</b>	<b>7.50</b>	<b>n/a</b>	7.75	7.80	n/a
— bonds/swaps	<b>3.00</b>	<b>3.75</b>	<b>n/a</b>	3.40	4.00	n/a
— insured annuities	<b>4.05</b>	<b>n/a</b>	<b>n/a</b>	n/a	n/a	n/a

The discount rate used to determine the liabilities of the UK Plan for IAS19 accounting purposes is required to be determined by reference to market yields on high quality corporate bonds. The UK discount rate in the above table is based on the Aon Hewitt AA-rated corporate bond yield in conjunction with the most recent projected cash flow data relating to the UK Plan liabilities; the US discount rate is based on the Citigroup pension discount curve; and the German discount rate is based on the yield on the iBoxx over 10 year euro corporates AA index.

The assumptions for price inflation are set by reference to the difference between yields on longer-term conventional government bonds and index-linked bonds, except for CPI, for which no appropriate bonds exist, which is assumed to be 0.7pts lower than RPI-based inflation.

The expected asset return is the Company's expectation at the valuation date of long-term asset returns: based on the "risk-free" yield available by following a buy-and-hold investment strategy in government bonds; with returns for other bonds and equities estimated based on observed historic long-term strategic risk premia. These assumptions do not take account of the relative valuation of markets or of market momentum.

#### (c) Sensitivity analysis of the impact of changes in key IAS19 actuarial assumptions

The following table analyses, for the Group's main UK, US and German pension plans, the theoretical estimated impact on plan liabilities resulting from changes to key actuarial assumptions used for IAS19 valuation purposes, whilst holding all other assumptions constant.

As stated above, during 2012 the UK Plan entered into a pension insurance buy-in agreement which eliminates the inflation, interest rate, investment and longevity risk in respect of the pensioner liabilities covered by the agreement. Therefore, for the liabilities covered by this buy-in agreement, which represent some 60% of the total liabilities of the UK Plan, any changes in the valuation assumptions which impact the value of those liabilities, also impacts on the associated annuity assets in an equal and opposite way, thereby fully mitigating the valuation risk. This is also reflected in the following table.

Assumption	Change in assumption	Impact on plan liabilities		
		UK	US	Germany
Discount rate	Increase/decrease by 0.1%			
	— impact on plan liabilities	Decrease/increase by 1.5%	Decrease/increase by 1.3%	Decrease/increase by 1.7%
	— impact on plan assets	Decrease/increase by 1.1%	n/a	n/a
Price inflation	Increase/decrease by 0.1%			
	— impact on plan liabilities	Increase/decrease by 1.2%	n/a	Increase/decrease by 0.7%
	— impact on plan assets	Increase/decrease by 0.9%	n/a	n/a
Mortality	Increase by one year			
	— impact on plan liabilities	Increase/decrease by 4.0%	Increase by 3.8%	Increase by 3.1%
	— impact on plan assets	Increase/decrease by 4.9%	n/a	n/a

31. Employee benefits (continued)

31.4 Defined benefit obligation

The liabilities of the Group's defined benefit pension and other post-retirement plans for IAS19 accounting purposes are measured by discounting the best estimate of the future cash flows to be paid out by the plans using the projected unit method, in which the calculation of plan liabilities makes allowance, where appropriate, for projected increases in benefit-related earnings.

The average duration of the obligations to which the liabilities of the Group's principal pension plans relate is 17 years for the UK and Germany and 13 years for the US.

	Defined benefit pension plans				Total £m	Other post- retirement benefit plans £m	Total £m
	UK £m	US £m	Germany £m	ROW £m			
Present value as at 1 January 2012	422.7	188.9	35.3	42.6	689.5	8.9	698.4
Exchange differences	—	(8.1)	(1.0)	(1.7)	(10.8)	(0.3)	(11.1)
Current service cost	0.3	0.4	0.8	2.2	3.7	0.6	4.3
Interest cost	19.7	7.4	1.5	1.5	30.1	0.3	30.4
Transferred to payables	(2.4)	—	—	—	(2.4)	—	(2.4)
Transferred to held for sale	—	—	(4.5)	—	(4.5)	—	(4.5)
Business disposals	—	(55.9)	(4.3)	(3.7)	(63.9)	(1.6)	(65.5)
Settlements	(15.7)	(31.4)	—	(3.9)	(51.0)	—	(51.0)
Actuarial losses	41.8	12.7	6.7	5.8	67.0	0.6	67.6
Contributions from members	—	—	—	0.1	0.1	—	0.1
Benefits paid	(20.1)	(9.4)	(1.5)	(2.6)	(33.6)	(1.2)	(34.8)
<b>Present value as at 31 December 2012</b>	<b>446.3</b>	<b>104.6</b>	<b>33.0</b>	<b>40.3</b>	<b>624.2</b>	<b>7.3</b>	<b>631.5</b>

	Defined benefit pension plans				Total £m	Other post- retirement benefit plans £m	Total £m
	UK £m	US £m	Germany £m	ROW £m			
Present value as at 1 January 2011	439.7	167.3	35.0	52.5	694.5	9.7	704.2
Exchange differences	—	1.6	(1.0)	(0.8)	(0.2)	(0.9)	(1.1)
Current service cost	—	0.3	0.8	3.0	4.1	0.6	4.7
Interest cost	22.1	8.2	1.6	2.1	34.0	0.3	34.3
Settlements	(56.4)	—	—	(14.5)	(70.9)	—	(70.9)
Actuarial losses	34.3	19.6	0.5	2.2	56.6	0.3	56.9
Contributions from members	—	—	—	0.1	0.1	—	0.1
Benefits paid	(17.0)	(8.1)	(1.6)	(2.0)	(28.7)	(1.1)	(29.8)
Present value as at 31 December 2011	422.7	188.9	35.3	42.6	689.5	8.9	698.4

# Notes to the consolidated financial statements continued

## 31. Employee benefits (continued)

### 31.5 Fair value of plan assets

	2012				2011			
	UK £m	US £m	ROW £m	Total £m	UK £m	US £m	ROW £m	Total £m
As at 1 January	487.5	124.1	28.1	639.7	443.2	109.4	37.8	590.4
Exchange differences	—	(5.4)	(1.4)	(6.8)	—	1.0	0.2	1.2
Expected return	21.6	6.5	1.0	29.1	23.7	6.7	1.6	32.0
Business disposals	—	(39.1)	(2.0)	(41.1)	—	—	—	—
Settlements	(16.2)	(24.2)	(4.3)	(44.7)	(43.2)	—	(12.5)	(55.7)
Actuarial (losses)/gains	(45.5)	4.6	0.9	(40.0)	73.6	5.0	(0.5)	78.1
Contributions from:								
— employer	41.0	11.3	4.2	56.5	7.0	9.2	3.3	19.5
— members	—	—	0.1	0.1	—	—	0.1	0.1
Benefits paid	(20.0)	(8.4)	(1.7)	(30.1)	(16.8)	(7.2)	(1.9)	(25.9)
<b>As at 31 December</b>	<b>468.4</b>	<b>69.4</b>	<b>24.9</b>	<b>562.7</b>	<b>487.5</b>	<b>124.1</b>	<b>28.1</b>	<b>639.7</b>

The Group's pension plans in Germany are unfunded, as is common practice in that country, and accordingly there are no assets associated with these plans. In addition to the assets reported above, £3.7m (2011: £4.1m) of assets were held as at 31 December 2012 to fund certain non-qualified US pension plan obligations. These assets are not included within pension plan assets as they are available to satisfy creditors in the event of the winding-up of the Group company in which they are held and are reported as investments in the Group balance sheet. The actual return on all Group pension plan assets was a loss of £10.9m (2011: £110.1m).

### 31.6 Balance sheet recognition

The amount recognised in the Group balance sheet in respect of the Group's defined benefit pension plans and other post-retirement benefit plans is analysed in the following tables, which all relate to continuing operations.

	Defined benefit pension plans				Total £m	Other post- retirement benefit plans £m	2012 Total £m
	UK £m	US £m	Germany £m	ROW £m			
Equities	85.6	26.0	—	1.8	113.4	—	113.4
Bonds	—	42.0	—	1.5	43.5	—	43.5
Risk-mitigation derivatives	(13.0)	—	—	—	(13.0)	—	(13.0)
Insurance contracts	273.3	—	—	18.5	291.8	—	291.8
Other assets	122.5	1.4	—	3.1	127.0	—	127.0
Fair value of plan assets	468.4	69.4	—	24.9	562.7	—	562.7
Present value of funded obligations	(445.1)	(93.7)	—	(38.3)	(577.1)	—	(577.1)
	23.3	(24.3)	—	(13.4)	(14.4)	—	(14.4)
Present value of unfunded obligations	(1.2)	(10.9)	(33.0)	(2.0)	(47.1)	(7.3)	(54.4)
<b>Total net surpluses/(liabilities)</b>	<b>22.1</b>	<b>(35.2)</b>	<b>(33.0)</b>	<b>(15.4)</b>	<b>(61.5)</b>	<b>(7.3)</b>	<b>(68.8)</b>
<b>Recognised in the Group balance sheet as:</b>							
Net surpluses	23.3	—	—	—	23.3	—	23.3
Net liabilities	(1.2)	(35.2)	(33.0)	(15.4)	(84.8)	(7.3)	(92.1)
<b>Total net surpluses/(liabilities)</b>	<b>22.1</b>	<b>(35.2)</b>	<b>(33.0)</b>	<b>(15.4)</b>	<b>(61.5)</b>	<b>(7.3)</b>	<b>(68.8)</b>

### 31. Employee benefits (continued)

#### 31.6 Balance sheet recognition (continued)

	Defined benefit pension plans				Total £m	Other post- retirement benefit plans £m	2011 Total £m
	UK £m	US £m	Germany £m	ROW £m			
Equities	84.6	23.0	—	3.3	110.9	—	110.9
Bonds	237.1	80.6	—	9.6	327.3	—	327.3
Risk-mitigation derivatives	78.4	—	—	—	78.4	—	78.4
Other assets	87.4	20.5	—	15.2	123.1	—	123.1
Fair value of plan assets	487.5	124.1	—	28.1	639.7	—	639.7
Present value of funded obligations	(421.9)	(173.4)	—	(40.1)	(635.4)	—	(635.4)
	65.6	(49.3)	—	(12.0)	4.3	—	4.3
Present value of unfunded obligations	(0.8)	(15.5)	(35.3)	(2.5)	(54.1)	(8.9)	(63.0)
<b>Total net surpluses/(liabilities)</b>	<b>64.8</b>	<b>(64.8)</b>	<b>(35.3)</b>	<b>(14.5)</b>	<b>(49.8)</b>	<b>(8.9)</b>	<b>(58.7)</b>
Recognised in the Group balance sheet as:							
Net surpluses	65.6	—	—	—	65.6	—	65.6
Net liabilities	(0.8)	(64.8)	(35.3)	(14.5)	(115.4)	(8.9)	(124.3)
<b>Total net surpluses/(liabilities)</b>	<b>64.8</b>	<b>(64.8)</b>	<b>(35.3)</b>	<b>(14.5)</b>	<b>(49.8)</b>	<b>(8.9)</b>	<b>(58.7)</b>

#### (a) UK Plan asset allocation

As at 31 December 2012 of the UK Plan's total assets, excluding risk-mitigation derivatives, 57% were represented by the bulk annuity insurance contracts covering the Plan's pension liabilities; 18% were allocated to equities; 8% to infrastructure investments; 8% to cash; and 9% to other assets. In addition, the UK Plan holds a liability driven investment portfolio of financial derivative contracts which reduces the risk that the UK Plan's assets would fall materially relative to the value of its economic liabilities.

#### (b) Defined benefit contributions in 2013

In 2013, the Group is expected to make aggregate contributions into its defined benefit pension and other post-retirement benefits plans of around £18m.

### 31.7 Income statement recognition

The expense recognised in the Group income statement in respect of the Group's defined benefit retirement plans and other post-retirement benefit plans is shown below.

	2012			2011		
	Defined benefit pension plans £m	Other post- retirement benefit plans £m	Total £m	Defined benefit pension plans £m	Other post- retirement benefit plans £m	Total £m
Current service cost	<b>3.8</b>	<b>0.6</b>	<b>4.4</b>	4.1	0.6	4.7
Interest on obligation	<b>30.1</b>	<b>0.3</b>	<b>30.4</b>	34.0	0.3	34.3
Expected return on plan assets	<b>(29.1)</b>	—	<b>(29.1)</b>	(32.0)	—	(32.0)
Gains relating to employee benefits plans	<b>(6.3)</b>	—	<b>(6.3)</b>	(15.2)	—	(15.2)
<b>Total net (credit)/charge</b>	<b>(1.5)</b>	<b>0.9</b>	<b>(0.6)</b>	(9.1)	0.9	(8.2)

# Notes to the consolidated financial statements continued

## 31. Employee benefits (continued)

### 31.7 Income statement recognition (continued)

The total net credit of £0.6m (2011: £8.2m) recognised in the Group income statement in respect of the Group's defined benefit pension plans and other post-retirement benefits plans is recognised in the following lines:

	<b>2012</b>	2011
	<b>£m</b>	£m
In arriving at trading profit		
— within other manufacturing costs	<b>1.8</b>	1.8
— within administration, selling and distribution costs	<b>1.4</b>	2.3
In arriving at profit from operations		
— restructuring charges	<b>0.1</b>	—
— gains relating to employee benefits plans	—	(13.2)
In arriving at profit before tax		
— within ordinary finance costs	<b>27.5</b>	30.7
— within finance income	<b>(26.9)</b>	(29.0)
<b>Continuing operations — charge/(credit)</b>	<b>3.9</b>	(7.4)
<b>Discontinued operations</b>	<b>(4.5)</b>	(0.8)
<b>Total net credit</b>	<b>(0.6)</b>	(8.2)

The net gain relating to employee benefits plans of £13.2m in 2011 represents: (i) a £21.5m reduction in liabilities of the UK Plan arising from the use of the Consumer Price Index instead of the Retail Prices Index to value deferred pension benefits and (ii) the impact in 2011 on the UK Plan of £8.3m relating to the enhanced value exercise.

Administration costs charged within ordinary finance costs in 2012 were £1.6m. In accordance with IAS19 (Revised), which takes effect from 1 January 2013, these costs would have instead been charged within trading profit and the net finance charge relating to the Group's post-retirement benefit plans would have been increased by £1.2m, resulting in an overall reduction of the net finance charge by £0.4m. The implementation of the revised standard is expected to increase the net finance charge for pensions in 2013 by some £2m.

### 31.8 Historical information

The history of the fair value of the Group's plan assets, the present value of defined benefit obligations, the net deficit in the plans and the experience adjustments on plan assets and liabilities are shown below.

	<b>2012</b>	Defined benefit plans			
		2011	2010	2009	2008
	<b>£m</b>	£m	£m	£m	£m
Fair value of plan assets	<b>562.7</b>	639.7	590.4	531.9	526.4
Present value of defined benefit obligations	<b>(631.5)</b>	(698.4)	(704.2)	(669.6)	(621.7)
<b>Net plan deficit</b>	<b>(68.8)</b>	(58.7)	(113.8)	(137.7)	(95.3)
Experience (losses)/gains on plan liabilities	<b>(16.6)</b>	(7.4)	9.1	3.8	6.8
Experience (losses)/gains on plan assets	<b>(40.0)</b>	78.1	30.8	3.9	(15.6)

The cumulative amount of actuarial losses recognised in the Group statement of comprehensive income is £173.5m (2011: £64.7m).

### 32. Share-based payments

In accordance with IFRS 2, *Share-based Payment*, the disclosures in this note are only in respect of those options granted after 7 November 2002 that had not vested by 1 January 2005.

#### 32.1 Income statement recognition

The total expense recognised in the Group income statement is shown below.

	2012 £m	2011 £m
Long-Term Incentive Plan	<b>3.7</b>	4.9
Other plans	<b>0.6</b>	0.3
<b>Total expense</b>	<b>4.3</b>	5.2

The Group operates a number of different share-based payment plans, the most significant of which is the Long-Term Incentive Plan ("LTIP"), details of which can be found on pages 78 to 91 of the Directors' Remuneration Report. Details of the Group's other share-based payment plans, none of which are significant in the context of the Group's results or financial position, can be found on page 81 of the Directors' Remuneration Report.

#### 32.2 Details of outstanding options

	Outstanding awards						
	As at 1 January 2012 no.	Granted no.	Exercised no.	Forfeited/ lapsed no.	Demerger adjustment no.	Business disposals no.	As at 31 December 2012 no.
LTIP	<b>6,633,906</b>	<b>806,811</b>	<b>(4,680,111)</b>	<b>(263,060)</b>	<b>2,618,579</b>	<b>(2,540,763)</b>	<b>2,575,362</b>
Weighted average exercise price	<b>nil</b>	<b>nil</b>	<b>nil</b>	<b>nil</b>	<b>n/a</b>	<b>nil</b>	<b>nil</b>
Other plans	<b>464,190</b>	<b>125,118</b>	<b>(225,761)</b>	<b>(32,706)</b>	<b>330,340</b>	<b>(370,645)</b>	<b>290,536</b>
Weighted average exercise price	<b>175p</b>	<b>nil</b>	<b>241p</b>	<b>283p</b>	<b>n/a</b>	<b>nil</b>	<b>51p</b>

For options exercised during 2012, the share price at the date of exercise was 705.0p.

	Outstanding awards					
	As at 1 January 2011 no.	Granted no.	Exercised no.	Forfeited/ lapsed no.	As at 31 December 2011 no.	
LTIP	6,220,626	1,057,632	(296,443)	(347,909)	6,633,906	
Weighted average exercise price	nil	nil	nil	nil	nil	
Other plans	370,455	118,406	(20,601)	(4,070)	464,190	
Weighted average exercise price	227p	nil	144p	nil	175p	

For all the options exercised during 2011, the share price at the date of exercise was 689.5p.

	2012			2011		
	Awards exercisable as at 31 December 2012 no.	Weighted average outstanding contractual life of awards years	Range of exercise prices pence	Awards exercisable as at 31 December 2011 no.	Weighted average outstanding contractual life of awards years	Range of exercise prices pence
LTIP	—	<b>1.9</b>		—	0.8	
Weighted average exercise price	—		<b>n/a</b>	—		n/a
Other plans	<b>59,179</b>	<b>1.2</b>		186,386	1.3	
Weighted average exercise price	<b>288p</b>		<b>nil–288p</b>	436p		nil–542p



# Notes to the consolidated financial statements continued

## 32. Share-based payments (continued)

### 32.3 Options granted under the LTIP during the year

	2012		2011	
	EPS element	TSR element	EPS element	TSR element
Fair value of options granted (per share)	<b>648p</b>	<b>488p</b>	646p	494p
Share price on date of grant (per share)	<b>710p</b>	<b>710p</b>	705p	705p
Expected volatility	<b>n/a</b>	<b>47.0%</b>	n/a	59.2%
Risk-free interest rate	<b>n/a</b>	<b>0.6%</b>	n/a	1.4%
Exercise price (per share)	<b>nil</b>	<b>nil</b>	nil	nil
Expected term (years)	<b>4</b>	<b>4</b>	4	4
Expected dividend yield	<b>0%</b>	<b>0%</b>	0%	0%

Share price volatility for options granted in 2012 and 2011 is based upon weekly movements in the Company's (formerly Cookson's) share price over a period prior to the grant date that is equal in length to the expected term of the award.

## 33. Trade and other payables

### 33.1 Accounting policy

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

### 33.2 Analysis of trade and other payables

	2012 £m	2011 £m
<b>Non-current</b>		
Accruals and other payables	<b>14.1</b>	18.7
Deferred purchase consideration	<b>0.1</b>	0.5
<b>Total non-current other payables</b>	<b>14.2</b>	19.2
<b>Current</b>		
Trade payables	<b>126.6</b>	225.2
Other taxes and social security	<b>37.8</b>	45.3
Accruals and other payables	<b>69.8</b>	138.0
Deferred purchase consideration	—	0.9
<b>Total current trade and other payables</b>	<b>234.2</b>	409.4

There is no significant difference between the fair value of the Group's trade and other payables balances and the amount at which they are reported in the Group balance sheet.

## 34. Leases

### 34.1 Accounting policy

Leases are classified as finance leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases. Rentals payable under operating leases are charged to the income statement on a straight-line basis over the term of the lease. Benefits received and receivable as an incentive to enter into an operating lease are also spread on a straight-line basis over the lease term.

### 34.2 Operating lease commitments

	2012 £m	2011 £m
The future aggregate minimum lease payments under non-cancellable operating leases are payable as follows:		
Not later than one year	9.5	17.1
Later than one year and not later than five years	18.8	41.4
Later than five years	10.1	44.7
<b>Total operating lease commitments</b>	<b>38.4</b>	<b>103.2</b>

The Group's property, plant and equipment assets are either purchased outright or held under lease contracts. Where the terms of the lease transfer substantially all the risks and rewards of ownership of the asset to the Group, the asset is capitalised in the Group balance sheet and the corresponding liability to the lessor is recognised as a finance lease obligation. Where all the risks and rewards of ownership are not transferred to the Group, the lease is classified as an operating lease and neither the asset nor the corresponding liability to the lessor is recognised in the Group balance sheet. The net book value of the Group's property, plant and equipment assets held under finance lease contracts at 31 December 2012 and 31 December 2011 was not material.

The cost incurred by the Group in the year in respect of assets held under operating leases, all of which was charged within trading profit, amounted to £24.2m (2011: £25.6m).

## 35. Provisions

### 35.1 Accounting policy

Provisions are recognised when the Group has a present obligation as a result of a past event and it is probable that the Group will be required to settle that obligation. Provisions are measured at the Directors' best estimate of the expenditure required to settle the obligation at the balance sheet date. Where the effect of the time value of money is material, provisions are discounted using a pre-tax discount rate that reflects both the current market assessment of the time value of money and the specific risks associated with the obligation. Where discounting is used, the increase in the provision due to the passage of time is recognised as a finance cost.

### 35.2 Analysis of provisions

	Disposal and closure costs £m	Restructuring charges £m	Other £m	Total £m
As at 1 January 2012	38.1	31.5	11.0	80.6
Exchange adjustments	(2.1)	(1.7)	(0.1)	(3.9)
Charge to Group income statement	14.3	20.5	5.8	40.6
Unwind of discount	1.1	0.7	—	1.8
Cash spend	(6.2)	(31.9)	(1.2)	(39.3)
Transferred to liabilities classified as held for sale (note 23)	(0.1)	(0.5)	—	(0.6)
Transferred from other payables	0.7	—	—	0.7
Transfers	(0.3)	0.8	(0.5)	—
Demerger of Alent plc business (note 24)	(15.4)	(2.3)	(0.9)	(18.6)
<b>As at 31 December 2012</b>	<b>30.1</b>	<b>17.1</b>	<b>14.1</b>	<b>61.3</b>

# Notes to the consolidated financial statements continued

## 35. Provisions (continued)

### 35.2 Analysis of provisions (continued)

Of the total provision balance as at 31 December 2012 of £61.3m (2011: £80.6m), £31.8m (2011: £55.7m) is recognised in the Group balance sheet within non-current liabilities and £29.5m (2011: £24.9m) within current liabilities.

The provision for disposal and closure costs includes the Directors' current best estimate of the costs to be incurred both in the fulfilment of obligations incurred in connection with former Group businesses, resulting from either disposal or closure, together with those related to the demolition and clean-up of closed sites. The provision comprises amounts payable in respect of known or probable costs resulting both from legal or other regulatory requirements, or from third-party claims, including claims relating to product liability. As the settlement of many of the obligations for which provision is made is subject to legal or other regulatory process, the timing of the associated cash outflows is subject to some uncertainty, but the majority of the amounts provided are expected to be utilised over the next five years and the underlying estimates of costs are regularly updated to reflect changed circumstances with regard to individual matters.

The provision for restructuring charges includes the costs of all of the Group's initiatives to rationalise its operating activities. The balance of £17.1m as at 31 December 2012 comprises £5.6m in relation to onerous lease provisions in respect of leases terminating between one and ten years, and £11.5m in relation to future expenditure on restructuring initiatives which is expected to be paid out over the next two years.

Other provisions comprise amounts payable in respect of known or probable costs resulting both from legal or other regulatory requirements, or from third-party claims. As the settlement of many of the obligations for which provision is made is subject to legal or other regulatory process, the timing of the associated outflows is subject to some uncertainty, but the majority of amounts provided are expected to be utilised over the next five years and the underlying estimates of costs are regularly updated to reflect changed circumstances with regard to individual matters.

Where insurance cover exists for any of these known or probable costs, a related asset is recognised in the Group balance sheet only when its realisation is virtually certain. As at 31 December 2012, £10.2m (2011: £8.3m) was recorded in receivables in respect of associated insurance reimbursements, of which £7.9m (2011: £6.3m) is non-current. The amounts reported in the table above as charged to the Group income statement represent only that part of the total income statement charge reported as a movement on provisions. Other components of the charge, such as asset write-offs, are reported as a reduction in the carrying value of the relevant balance sheet item.

## 36. Acquisition of subsidiaries and joint ventures, net of cash acquired

During the year, the Group acquired interests in subsidiaries for a total consideration of £32.3m, of which £29.5m was paid in cash and £2.8m is contingent upon future performance, £0.8m of which was paid in the current period. The fair value of net assets acquired was £18.3m (of which £4.6m was cash). Goodwill arising on these acquisitions amounted to £14.0m (note 18). The £26.1m disclosed in the Group statement of cash flows in respect of the acquisition of subsidiaries, net of cash acquired, comprised: £29.5m paid for current year acquisitions, £0.4m of deferred consideration paid in respect of prior year acquisitions, £0.8m of deferred consideration paid in respect of current year acquisitions less £4.6m of cash acquired with current year acquisitions.

## 37. Off-balance sheet arrangements

In compliance with current reporting requirements, certain arrangements entered into by the Group in its normal course of business are not reported in the Group balance sheet. Of such arrangements, those considered material by the Directors include: inventory held either under precious metal consignment arrangements or on behalf of customers for processing (note 21); future lease payments in relation to assets used by the Group under non-cancellable operating leases (note 34); and trade receivable balances that have been subject to non-recourse factoring arrangements.

Under its non-recourse factoring arrangements, the Group sells trade receivables balances to a third-party factoring company in exchange for a cash payment from the factoring company, net of fees. All the risks and rewards of the trade receivables subject to these arrangements are transferred to the factoring company and, accordingly, the trade receivables are derecognised in the Group balance sheet. Such arrangements are used from time to time by the Group to manage the recovery of cash from its trade receivables. As at 31 December 2012, the Group balance sheet included £18.6m (2011: £41.7m) of cash that would otherwise have been reported as trade receivables if these arrangements were not in place. Factoring fees incurred during the year ended 31 December 2012, which are written off to the Group income statement within ordinary finance costs, amounted to £0.5m (2011: £1.8m).

### 38. Contingent liabilities

Guarantees given by the Group under property leases of operations disposed of amounted to £3.4m (2011: £4.1m). Details of guarantees given by the Company, on behalf of the Group, are given in note 11 to the Company financial statements.

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

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

Cookson Precious Metals Ltd, a subsidiary of Vesuvius, was engaged in transactions involving the purchase of scrap platinum between August 2007 and October 2009. Vesuvius has been informed by HMRC that, in HMRC's view, certain external third-parties within the supply chain for those transactions deliberately failed to account to HMRC for VAT. Such fraud is commonly known as Missing Trader Intra-Community Fraud. As a consequence of any fraudulent actions of those third-parties, HMRC may argue that the ability of Vesuvius to retain VAT recovered on the relevant transactions should be limited. HMRC's investigations are ongoing and the Vesuvius subsidiary has to date been notified of VAT loss in the supply chain relating to the trades in the relevant period of approximately £11m. The VAT relating to these trades has been repaid to Vesuvius pending completion of that investigation. Should the tax authorities seek to reclaim any part of this amount then, in the light of legal advice received by Vesuvius, the Directors intend to pursue the remedies available to Vesuvius to retain the VAT payment. If Vesuvius were to fail to retain the entirety of such VAT, this loss, along with any interest and penalties (which theoretically could be up to 100% but which, in practice, are expected to be significantly less), could have a material adverse effect on Vesuvius' financial position or profitability.

Certain subsidiary companies of Vesuvius plc and Alent plc are defendants in two actions, brought by MacDermid (incorporated in the United States), which are pending in the Connecticut Superior Court and arising out of corporate activity involving the parties in the autumn of 2006. The first action was commenced in 2009 and the second action was commenced in August 2012. MacDermid claims damages of approximately \$62m, plus punitive or exemplary damages, costs and interest which are currently unquantifiable. Both Vesuvius and Alent believe these claims have no merit and are vigorously defending these actions. Each of Vesuvius and Alent anticipate filing motions for summary judgement in both cases by mid-2013 and, if any claims remain pending decisions on those motions, a trial in the first action is anticipated in the second half of 2013 or early 2014. Any liability relating to the MacDermid claim arising following the demerger of Cookson Group will be split equally between Alent plc and Vesuvius plc.

### 39. Principal subsidiaries and joint ventures

Details of the principal subsidiaries and joint ventures of Vesuvius plc and the countries in which they are incorporated are given in note 5 to the Company financial statements.

### 40. Related parties

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

### 41. Events after the balance sheet date

On 27 March 2013, the Group announced that it had entered into an agreement with Heimerle + Meule GmbH, a subsidiary of L. Possehl & Co, mbH ("Possehl") to sell the European Precious Metals Processing business for a consideration of €56.8m. The cash consideration will be subject to closing balance sheet adjustments. Completion, which is expected by the end of the first half of 2013, will be subject to conditions including approval by the European Commission and by the Supervisory Board of Possehl. As at 31 December 2012, the net assets of the European Precious Metals Processing business of £19.4m were classified as held for sale in the Group balance sheet (note 23).

# Company balance sheet

AS AT 31 DECEMBER 2012

	Notes	2012 £m
<b>Fixed assets</b>		
Investment in subsidiaries	5	1,777.9
<b>Total fixed assets</b>		<b>1,777.9</b>
<b>Current assets</b>		
Debtors - amounts falling due within one year		0.1
Cash at bank and in hand		1.5
<b>Total current assets</b>		<b>1.6</b>
<b>Creditors: amounts falling due within one year</b>		
Other creditors	6	(863.5)
<b>Net current liabilities</b>		<b>(861.9)</b>
<b>Total assets less current liabilities</b>		<b>916.0</b>
<b>Creditors: amounts falling due after more than one year</b>		
Other creditors	6	(0.1)
<b>Net assets</b>		<b>915.9</b>
<b>Equity capital and reserves</b>		
Issued share capital	7	27.8
Retained earnings	8	888.1
<b>Shareholders' funds — equity</b>		<b>915.9</b>

The Company financial statements were approved and authorised for issue by the Directors on 28 March 2013 and signed on their behalf by:

FRANÇOIS WANECQ, Chief Executive

CHRIS O'SHEA, Chief Financial Officer

# Notes to the Company financial statements

## 1. Basis of preparation

### 1.1 Basis of accounting

Vesuvius plc ("the Company") (formerly Vesuvius Technologies plc) was incorporated on 17 September 2012 and is registered in England and Wales. These financial statements represent the period from the date of incorporation to 31 December 2012 and therefore no comparatives are presented.

The financial statements of Vesuvius plc are prepared in accordance with the Companies Act 2006 and under the historical cost convention and in accordance with UK GAAP. The Company has not presented a separate profit and loss account, as permitted by Section 408(3) of the Companies Act 2006.

### 1.2 Going concern

The Directors have a reasonable expectation that the Group and the Company have adequate resources to continue in operational existence for the foreseeable future. Accordingly, they continue to adopt a going concern basis in preparing the financial statements of the Group and the Company.

## 2. Employee benefits expense

Details of the Directors' remuneration are disclosed in the Directors' Remuneration Report on pages 76 to 92. The Directors' remuneration during the period was borne by other Group companies.

## 3. Audit and non-audit fees

Amounts payable to KPMG LLP in relation to audit and non-audit fees are disclosed within note 6 to the Consolidated Financial Statements.

## 4. Dividends

A proposed final dividend for the year ended 31 December 2012 of £26.5m, equivalent to 9.5p per ordinary share, is subject to approval by shareholders at the Company's Annual General Meeting and has not been included as a liability in these financial statements. If approved by shareholders, the dividend will be paid on 27 June 2013 to ordinary shareholders on the register at 17 May 2013. This is in line with the announcement at the time of the demerger process that, subject to general market conditions and trading performance, and consistent with the Cookson dividend policy immediately prior to the demerger, that a final dividend for 2012 that aggregates to 15p per Cookson share would be proposed. The Vesuvius proposal to pay 9.5p per Vesuvius share complements the proposal by Alent plc to pay a final dividend for 2012 of 5.5p per Alent share.

## 5. Investment in subsidiaries

### 5.1 Accounting policy

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

### 5.2 Analysis of investment in subsidiaries

	Shares in subsidiaries £m
At incorporation on 17 September 2012	—
Additions	<b>2,640.3</b>
Disposals	<b>(862.4)</b>
<b>As at 31 December 2012</b>	<b>1,777.9</b>

# Notes to the Company financial statements continued

## 5. Investment in subsidiaries (continued)

### 5.2 Analysis of investment in subsidiaries (continued)

The principal subsidiaries and joint ventures of Vesuvius plc and the countries in which they are incorporated are as follows:

Angang Vesuvius Refractory Company Ltd, China (50%)	Foseco Ltd, England and Wales
Cookson America, Inc., USA	Vesuvius Advanced Ceramics (Suzhou) Co. Ltd, China
Cookson Australia Pty Ltd, Australia	Vesuvius Corporation SA, Switzerland
Cookson Ceramics Ltd, England and Wales	Vesuvius Crucible Company, USA
Cookson Group Ltd, England and Wales*	Vesuvius GmbH, Germany
Cookson Investments Ltd, England and Wales	Vesuvius USA Corporation, USA
Cookson Overseas Ltd, England and Wales	Wilkes-Lucas Ltd, England and Wales
Foseco International Ltd, England and Wales	Wuhan Wugang-Vesuvius Advanced Ceramics Co. Ltd, China (50%)
Foseco (Jersey) Ltd, Jersey	Wuhan Wugang-Vesuvius Advanced CCR Co. Ltd, China (50%)

With the exception of the company marked with an asterisk (\*), the ordinary capital of the above companies was owned by a Vesuvius plc subsidiary as at 31 December 2012. All of the above companies are wholly owned, unless otherwise stated. A full list of Group companies will be included in the Company's Annual Return to the Registrar of Companies.

All of the above companies have the same year-end as Vesuvius plc and all subsidiaries are included in the Consolidated Financial Statements of the Company.

## 6. Other creditors

	2012 £m
Amounts owed to subsidiary undertakings	<b>862.4</b>
Accruals and other creditors	<b>1.1</b>
Redeemable preference shares	<b>0.1</b>
<b>Total other creditors</b>	<b>863.6</b>
Less: amounts falling due in more than one year — redeemable preference shares	<b>(0.1)</b>
<b>Total amounts falling due within one year</b>	<b>863.5</b>

## 7. Issued share capital

### 7.1 Accounting policy

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

### 7.2 Analysis of issued share capital

On incorporation, the Company's share capital consisted of one ordinary share with a par value of £1 ("the subscriber share").

On 18 September 2012, the Company issued 50,000 redeemable non-voting preference shares of £1 each. The preference shares were allotted for cash and remain unpaid by virtue of the holder giving an undertaking to pay up each share pursuant to section 583(2) and 583(3) of the Companies Act 2006.

On 14 December 2012, the Company issued 278,448,752 ordinary shares of 638.5 pence each (£1,777.9m) to the public shareholders of Cookson Group plc in exchange for the entire share capital of Cookson Group plc as part of the Scheme of Arrangement. On the same date, the subscriber share was converted into and redesignated as a deferred share of £1.



## 7. Issued share capital (continued)

### 7.2 Analysis of issued share capital (continued)

On 19 December 2012, the Company demerged the Alent business (formerly the Performance Materials division of Cookson Group plc), whereby the share capital of the Company which amounted to £1,777.9m, was reduced by: a) cancelling and extinguishing paid-up capital on each of the Vesuvius plc shares in issue immediately prior to the confirmation by the Court of the Vesuvius plc capital reduction, to the extent that the amount paid up on each such Vesuvius plc share shall be 10 pence; and b) reducing the nominal value of each of the Vesuvius plc shares to 10 pence each.

In respect of the paid-up capital cancelled pursuant to (a) above: £862.4m was repaid, with such repayment being satisfied by the transfer by the Company to Alent plc of the entire share capital of Alent Investments Limited, in consideration of the allotment and issue by Alent plc of one Alent plc share for each Vesuvius plc share held by the Vesuvius plc shareholders at the date of the demerger; and the balance of £887.7m was retained and transferred to the reserves of the Company to be available for future distributions, leaving issued share capital of £27.8m.

The total market value of the Alent plc shares issued was £862.4m, being the market value of the Alent business as at 19 December 2012.

The rights attached to the redeemable non-voting preference shares are as follows:

- (a) the shares carry no rights to receive notice of or attend and vote at any General Meeting of the Company unless a resolution is proposed to wind-up the Company or vary, modify, alter or abrogate any of the rights attaching to the redeemable non-voting preference shares;
- (b) the shares carry no rights to participate in profits or assets of the Company, except if there is a return of capital on winding-up or otherwise, the assets of the Company available for distribution among the members shall be applied first in repaying in full to the holder of the redeemable non-voting preference shares the amount paid up on such shares; and
- (c) subject to the provisions on the Companies Act, the Company may redeem the redeemable non-voting preference shares at their nominal amount at any time specified by either the Directors or the holders of the redeemable non-voting preference shares. On the redemption of any redeemable non-voting preference, such shares shall be cancelled.

The rights attached to the deferred share are as follows:

- (d) the deferred share shall carry no rights to receive any of the profits of the Company available for distribution by way of dividend or otherwise;
- (e) except as provided below, the deferred share shall carry no rights to participate in profits or assets of the Company;
- (f) if there is a return of capital on winding-up or otherwise, the assets of the Company available for distribution among the members shall be applied first in repaying in full to the holder of the deferred share the amount paid up on such share; and
- (g) the holder of the deferred share shall not be entitled to receive notice of or attend and vote at any General Meeting of the Company unless a resolution is to be proposed which varies, modifies, alters or abrogates any of the rights attaching to the deferred share.

## 8. Reserves

### 8.1 Accounting policy

#### (a) Taxation

Both current and deferred tax are calculated using tax rates and laws that have been enacted, or substantively enacted, by the balance sheet date.

Current tax payable is based on the taxable result for the year. Deferred taxation is recognised, without discounting, in respect of all timing differences that have originated, but not reversed, at the balance sheet date, with the exception that deferred taxation assets are only recognised if it is considered more likely than not that there will be suitable future profits from which the reversal of the underlying timing differences can be deducted. Provision is made for the tax that would arise on remittance of the retained earnings of overseas subsidiaries only to the extent that, at the balance sheet date, dividends have been accrued as receivable.

# Notes to the Company financial statements continued

## 8. Reserves (continued) 8.2 Analysis of reserves

	Retained earnings £m
At incorporation on 17 September 2012	—
Profit recognised in the period	<b>0.4</b>
Court approved capital reduction	<b>887.7</b>
<b>As at 31 December 2012</b>	<b>888.1</b>

As at 31 December 2012, options exercisable over the £0.10 ordinary shares and capable of being satisfied through new allotments of shares or through shares held by the Company's ESOP were as follows:

	Years of award/grant	Option prices (£)	Latest year of exercise/ vesting	Number of options/ allocations outstanding
Long-Term Incentive Plan	2010–2012	nil	2013–2017	2,575,362
Executive Share Option Schemes	2003	2.88	2013	46,858
Deferred Share Bonus Plan	2010–2012	nil	2013–2015	123,101
Stock Appreciation Rights	2003	2.88	2013	11,772
Restricted rights	2012	nil	2013–2014	108,805

## 9. Reconciliation of movements in shareholders' funds

	Share capital £m	Retained earnings £m	Total shareholders' equity £m
At incorporation on 17 September 2012	—	—	—
Profit recognised in the period	—	<b>0.4</b>	<b>0.4</b>
Ordinary shares of 638.5 pence allotted during the period	<b>1,777.9</b>	—	<b>1,777.9</b>
Demerger of the Alent plc business and court approved capital reduction	<b>(1,750.1)</b>	<b>887.7</b>	<b>(862.4)</b>
<b>As at 31 December 2012</b>	<b>27.8</b>	<b>888.1</b>	<b>915.9</b>

## 10. Share-based payments

### 10.1 Accounting policy

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

### 10.2 Profit and loss account recognition

The Company operates a number of different share-based payment schemes, the main features of which are detailed on pages 78 to 87 of the Directors' Remuneration Report.

## 10. Share-based payments (continued)

### 10.3 Details of outstanding options

The information in the tables below has been restated to take into account the demerger of the Alent business from the Cookson Group. The number of share options, and other related disclosures, were adjusted with reference to the Vesuvius share price at the date of demerger.

The demerger was effective on 19 December 2012, at which point certain employees previously employed by other Group companies were transferred to Vesuvius plc. The share options attached to these employees is shown in the table below, and represents the options outstanding at the date of transfer.

	Outstanding awards			Awards exercisable as at 31 December 2012	Weighted average contractual life of awards years	Range of exercise prices pence
	As at 17 September 2012	Transfers no.	As at 31 December 2012			
LTIP	—	847,076	847,076	—	1.3	
Weighted average exercise price	nil	nil	nil	—		n/a
Other plans	—	108,805	108,805	—	1.8	
Weighted average exercise price	nil	nil	nil	—		n/a

Details of options granted during the year prior to the date of transfer can be found in note 32 of the Consolidated Financial Statements.

## 11. Contingent liabilities

Where the Company enters into financial guarantee contracts to guarantee the indebtedness of other companies within its Group, the Company considers these to be insurance arrangements and accounts for them as such. In this respect, the Company treats the guarantee contract as a contingent liability until such time as it becomes probable that the Company will be required to make a payment under the guarantee. Guarantees provided by the Company as at 31 December 2012 in respect of the liabilities of its subsidiary companies amounted to £457.3m, which includes guarantees of \$250.0m in respect of US Private Placement Loan Notes and £267.3m in respect of drawings under the syndicated bank facility.

Vesuvius has extensive international operations and is subject to various legal and regulatory regimes, including those covering taxation and environmental matters. Several of the Company's subsidiaries are parties to legal proceedings, certain of which are insured claims arising in the ordinary course of the operations of the company involved, and are aware of a number of issues which are, or may be, the subject of dispute with tax authorities. While the outcome of litigation and other disputes can never be predicted with certainty, having regard to legal advice received and the insurance arrangements of the Company and its subsidiaries, the Directors believe that none of these matters will, either individually or in the aggregate, have a materially adverse effect on the Company's financial condition or results of operations.

## 12. Related parties

All transactions with related parties are conducted on an arm's length basis and in accordance with normal business terms. Transactions between related parties that are wholly owned Group subsidiaries are not disclosed in this note.

# Five year summary — divisional results from continuing operations

		2012	2011	2010	2009	2008
<b>Steel division</b>						
Revenue	£m	<b>1,018</b>	1,078	980	753	866
Trading profit <sup>(1)</sup>	£m	<b>83.8</b>	107.2	103.4	48.9	98.3
Return on sales <sup>(1)</sup>	%	<b>8.2</b>	9.9	10.6	6.5	11.4
Employees: year-end	No.	<b>7,601</b>	7,783	7,731	7,138	7,186
<b>Foundry division</b>						
Revenue	£m	<b>530</b>	608	515	378	526
Trading profit <sup>(1)</sup>	£m	<b>49.2</b>	76.3	67.4	11.7	78.5
Return on sales <sup>(1)</sup>	%	<b>9.3</b>	12.6	13.1	3.1	14.9
Employees: year-end	No.	<b>3,585</b>	3,889	3,936	3,423	4,246

<sup>(1)</sup> The unaudited trading profit numbers reported above for the years before 2011 are stated after deduction of management's estimate of the level of ongoing central costs for Vesuvius as a stand-alone company.

## Shareholder Information

### ENQUIRIES

The Company's share register is managed by Equiniti, who can be contacted regarding shareholding queries at the following address:

Equiniti Limited  
Aspect House, Spencer Road  
Lancing, West Sussex, BN99 6DA  
Tel (UK only) 0871 384 2335  
Tel (non-UK) +44 (0)121 415 7047

For the hard of hearing, Equiniti offers a special Textel service which can be accessed by dialling 0871 384 2255 (or +44 (0)121 415 7028 from outside the UK).

All other shareholder enquiries not related to the share register should be addressed to the Company Secretary at the Registered Office or emailed to: [shareholder.information@vesuvius.com](mailto:shareholder.information@vesuvius.com).

### REGISTERED OFFICE AND GROUP HEAD OFFICE

Vesuvius plc  
165 Fleet Street  
London EC4A 2AE  
Tel +44 (0)20 7822 0000  
Fax +44 (0)20 7822 0100  
(Registered in England & Wales No. 8217766)

### CORPORATE WEBSITE

Shareholder and other information about the Company can be accessed on the Company's website: [www.vesuvius.com](http://www.vesuvius.com).

### SHAREVIEW

A website, [www.shareview.co.uk](http://www.shareview.co.uk), is operated by Equiniti, the Company's Registrars, enabling shareholders to access details of their shareholdings online. The website provides information useful to the management of investments together with an extensive schedule of frequently asked questions. In order to gain access to information on shareholdings the shareholder reference number is required, which can be found at the top of the Company's share certificates.

Shareholders can register to receive shareholder communications electronically, including the Company's Report and Accounts, rather than in paper form, using Shareview. The registration process requires input of the shareholder reference number. To ensure that shareholder communications are received in electronic form, "email" should be selected as the mailing preference. Once registered, shareholders will be sent an email notifying them each time that a shareholder communication has been published on the Company's website.

### DEALING SERVICES

UK resident shareholders can now sell shares on the Internet or by phone using Equiniti's Shareview Dealing facility by either logging on to [www.shareview.co.uk/dealing](http://www.shareview.co.uk/dealing) or by calling 0845 603 7037 between 8.00am and 4.30pm on any business day (excluding Bank Holidays).

In order to gain access to this service the shareholder reference number is required, which can be found at the top of the Company's share certificates.

## DIVIDEND REINVESTMENT PLAN

The Company offers holders of ordinary shares the opportunity to participate in a dividend reinvestment plan, through which shareholders can use any cash dividend declared to buy additional shares in Vesuvius. Further details, including the terms and conditions of the Plan, are available on the Vesuvius website ([www.vesuvius.com](http://www.vesuvius.com)) or from Equiniti by calling the Share Dividend Helpline on 0871 384 2268 (or +44 (0)121 415 7047 from outside the UK).

## OVERSEAS PAYMENT SERVICE

Equiniti provides a dividend payment service in over 30 countries that automatically converts payments into the local currency by an arrangement with Citibank Europe PLC. Further details, including an application form and terms and conditions of the service, are available on [www.shareview.co.uk](http://www.shareview.co.uk) or from Equiniti by calling +44 (0)121 415 7047 or writing to Equiniti, Aspect House, Spencer Road, Lancing, West Sussex, BN99 6DA, United Kingdom (please quote Overseas Payment Service with details of the Company and your shareholder reference number).

## FINANCIAL CALENDAR

2013 Annual General Meeting	4 June 2013
Announcement of 2013 half year results	August 2013
Announcement of 2013 full year results	March 2014

## BOILER ROOM SCAMS

In recent years, many companies have become aware that their shareholders have received unsolicited phone calls or correspondence concerning investment matters. These are typically from overseas based "brokers" who target UK shareholders, offering to buy their shares or sell them what often turn out to be worthless or high risk shares in US or UK investments. These operations are commonly known as "boiler rooms".

Shareholders are advised to be very wary of any unsolicited advice, offers to buy shares at a discount or offers of free company reports. If you receive any unsolicited investment advice:

- Make sure you get the correct name of the person and organisation.
- Check that they are properly authorised by the FSA before getting involved by visiting [www.fsa.gov.uk/fsaregister/](http://www.fsa.gov.uk/fsaregister/)
- Report the matter to the FSA by calling 0845 606 1234 (or +44 20 7066 1000 from outside the UK).
- If the calls persist, hang up.

More detailed information on this can be found on the FSA website at: [www.fsa.gov.uk/pages/consumerinformation/](http://www.fsa.gov.uk/pages/consumerinformation/)

## ANALYSIS OF ORDINARY SHAREHOLDERS

As at 31 December 2012	Investor Type			Shareholdings			
	Private	Institutional and other	Total	1–1,000	1,001–50,000	50,001–500,000	500,001+
Number of holders	3,659	1,047	4,706	3,753	736	151	66
Percentage of holders	77.75%	22.25%	100%	79.75%	15.64%	3.21%	1.40%
Percentage of shares held	1.67%	98.33%	100%	0.23%	1.79%	9.54%	88.44%

Vesuvius would like to offer special thanks to all those who kindly agreed to have their photographs taken and published in this Annual Report.

Art Direction: Vesuvius Corporate Communication / Claire Morel Fatio

Lay out: Claire Morel Fatio – Camille de Montmorillon / Jones and Palmer



Photographs: © Claire Morel Fatio  
© Samuel Dhote  
© Getty Images