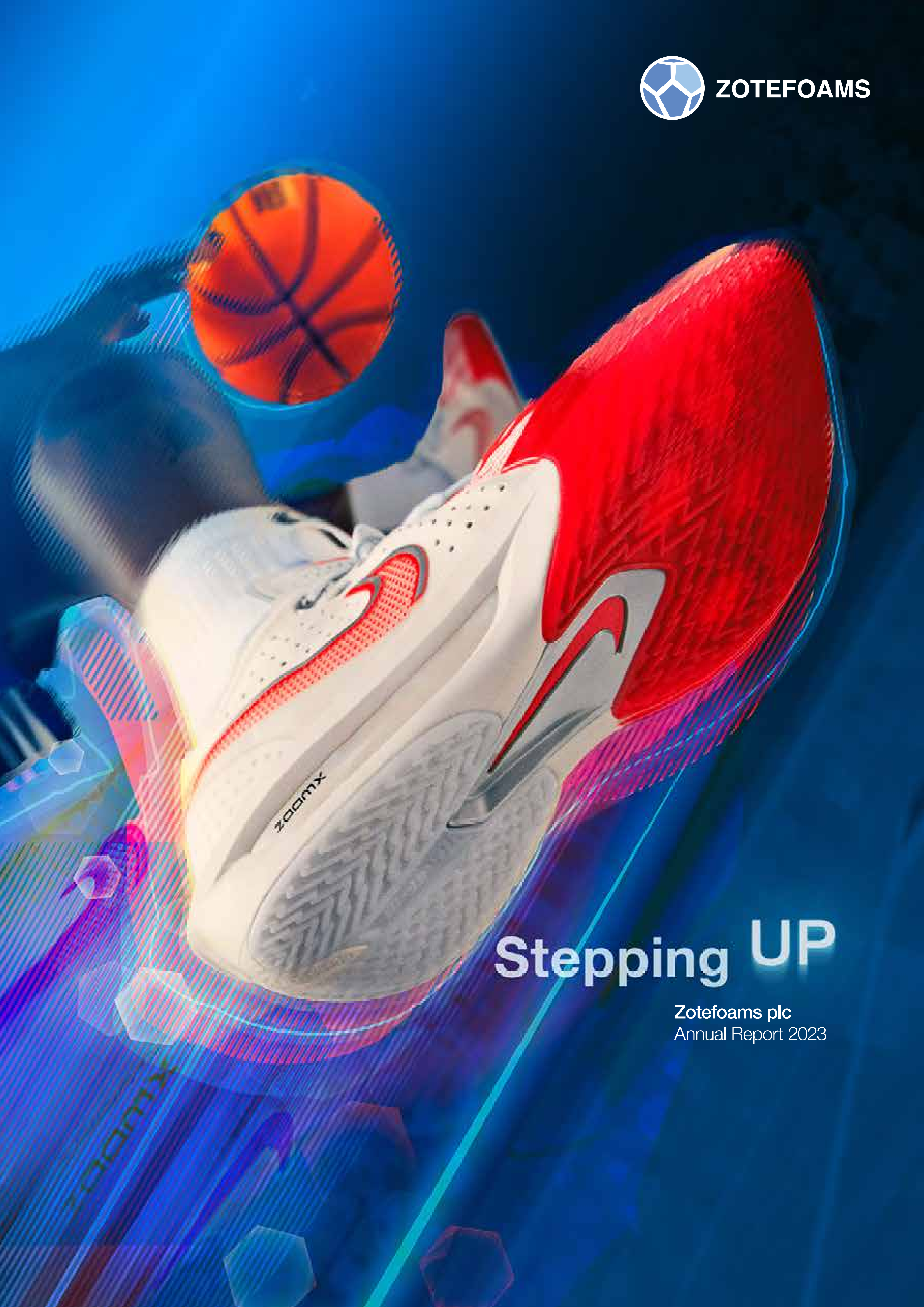
ZOTEFOAMS



Stepping UP

Zotefoams plc
Annual Report 2023

Financial KPIs

Group revenue
£127.0m
Change **0%**
2022 **£127.4m**

Gross margin
32.3%
Change **190 ppt**
2022 **30.4%**

Operating profit
£15.1m
Change **9%**
2022 **£13.9m**

Profit before tax
£12.8m
Change **5%**
2022 **£12.2m**

Basic earnings per share
19.00p
Change **-8%**
2022 **20.61p**

Total dividend for the year
7.18p
Change **5.6%**
2022 **6.80p**

Return on capital employed
10.3%
Change **20 ppt**
2022 **10.1%**

Net debt
£31.6m
Change **13%**
2022 **£27.8m**

Leverage
1.2x
Change **0%**
2022 **1.2x**

Contents

Driving towards

A more sustainable future

In 2023, Zotefoams delivered its strongest performance yet – record-breaking profit before tax, underpinned by strategic consolidation of revenue towards higher-value product propositions.

As we drive towards further sustainable growth, we're stepping up efforts across our business by continuing to champion a culture where people come first, and by setting the stage for continued innovation and collaboration as we enhance our product range and bolster our global footprint.

David Stirling
Group CEO

ReZorce®

mono-material barrier packaging with MuCell® polymer reduction technology

See page 4

A new basketball superpower

Nike brings ZoomX foam to a basketball shoe for the first time

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Our brands in action

Innovating to help our customers meet new challenges

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Supported by a robust framework of patents and recognised by leading packaging bodies and technological institutes for its potential to effect meaningful change, the goal for ReZorce® mono-material barrier packaging is to become the world's most sustainable beverage carton.

In the context of a fast-changing regulatory infrastructure for packaging, strict targets are now in place to drive post-consumer waste collection, recycling and reuse of materials back into primary packages. When we initially assessed the potential applications for ReZorce, the area we considered to have the largest opportunity for impact was in liquid paperboard (LPB) cartons. Every year, 300 billion packages are consumed globally, the vast majority of which are sent to landfill or for incineration. In most regions, there is very limited kerbside collection and virtually none when it comes to commercial collection.

Typically, 70% of an LPB carton is virgin fibre and never used again in a carton – which contrasts with a ReZorce carton, which can contain up to 100% recycled material. As a mono-material structure, ReZorce is easy and cost-effective to fully recycle.

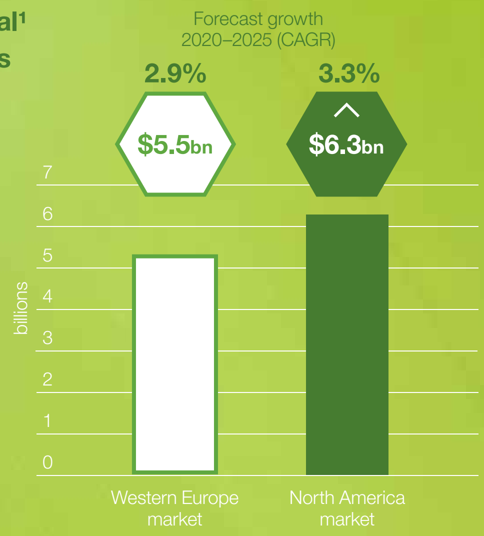
When it comes to rapidly scaling any innovation, we understand that simplicity is key and have designed the ReZorce solution to be compatible with existing infrastructure, allowing rapid deployment for brand owners and beverage packers. This will accelerate the rate of market adoption and reduce switching costs.

We have also partnered with Biffa, one of the most dynamic commercial waste management service organisations in Europe. Extensive tests carried out in partnership with them have demonstrated that ReZorce cartons can be deposited in the standard plastics waste stream and will be correctly sorted for recycling. From a consumer perspective, the widespread availability of kerbside collection for plastics will make it extremely convenient to recycle ReZorce cartons.

ReZorce®

Mono-material barrier packaging with MuCell® polymer reduction technology

Market potential[1]
Aseptic cartons
ReZorce



[1] © Copyright Smithers Information Ltd

A year of collaboration and progress
By taking a collaborative approach to how we work with brands and retailers and leveraging our extended team capabilities following the integration of Refour ApS into our MuCell Extrusion LLC business, we have rapidly accelerated the development of ReZorce in 2023.

A significant step forward
Building on our significant progress, Zotefoams plc has entered into an exclusive development agreement with a world-leading packer of beverages and a retailer to conduct full-scale production and in-market trials.

External recognition & awards
ReZorce has been recognised extensively across the packaging industry as a game changer, winning “Best Recycled Plastic Product of the Year” at the 2023 UK Packaging Awards, The Prince Philip Award for “Polymers in the Service of Mankind” and being recently described as “one of the most exciting new packaging innovations for 2024” by the International Fruit and Vegetable Juice Association.

In good company
In February 2024, Zotefoams proudly joined RECOUP, the UK’s esteemed authority on plastics resource efficiency and recycling, signifying our unwavering commitment to advancing sustainability in the packaging industry. Together with partners such as RECOUP, we are determined to drive meaningful change, not only in how plastics are utilised but also in how they are managed throughout their life cycle. Partnerships such as this crystallise our efforts to create a more sustainable future, one where innovative solutions like ReZorce pave the way for a circular economy and reduced environmental impact.

Evidence of lower environmental impact
An independent Life Cycle Assessment (LCA) of ReZorce cartons was completed in 2023 and peer-reviewed by Imperial College London to benchmark against the current market standard. The findings were compelling across 26 impact categories – including a 55% reduction in carbon footprint, a 53% reduction in energy consumption and a 51% reduction in water usage. In their words, “our overall conclusion is that the LCA provides evidence that the ReZorce beverage carton has a lower environmental impact than the conventional liquid paperboard carton”.

Once in a generation change
ReZorce represents a “once in a generation” structural change to the packaging industry, with minimal complexity or cost, and we actively encourage organisations across the supply chain to step forward and collaborate with us to bring about a rapid transition to a better beverage carton format.

Beyond beverage cartons
ReZorce is not confined to one packaging application or sector; its versatility extends across rigid and flexible packaging, with the potential for various sizes, shapes, formats and product categories.

A New Basketball Superpower

Nike brings ZoomX foam to a basketball shoe for the first time

The Nike G.T. Cut 3 is designed to help basketball athletes create separation from their opponent as quickly as possible. Its new superpower: a Nike ZoomX foam midsole – the first time the innovative foam has appeared in a Nike basketball shoe.

G.T. Cut 3
With the rocket power of ZoomX foam, the G.T. Cut 3 provides next-level responsiveness for explosive moves and quick cuts to the rim.

Alphafly 3

In an incredible performance at the 2023 Chicago Marathon, Nike athlete Kelvin Kiptum earned his place in history. Wearing the new Nike Alphafly 3 with ZoomX foam, Kiptum set a stunning new men's marathon world record with a time of 2:00:35. As we pay tribute to Kiptum and his coach Gervais Hakizimana, we celebrate their unwavering dedication to greatness and incredible achievements together.

Pushing the boundaries of ZoomX foam

This year, we've continued our collaboration with Nike scientists, developers and designers to support a range of significant projects, most notably Nike's adoption of ZoomX foam in the entirely new category of basketball footwear. Our partnership remains deeply rooted in our shared vision to help all athletes break barriers no matter their game or pace, by pushing the boundaries of ZoomX foam to offer ever higher levels of energy return and cushioning.

How we're stepping up across Zotefoams

Stepping up to...

Push the boundaries of our **unique** technology

At the core of Zotefoams' business ethos lies a belief in the superiority of our products, offering unrivalled material properties that distinguish us in the market and, crucially, unlock the success of our customers.

An ongoing commitment to innovation enables us to push the boundaries of technology to create new products and refine existing ones – this ensures that we remain at the forefront of technological advancement and gives customers ongoing access to innovative products and solutions that propel their success.

Karl Hewson,
Director of Technology & Development
Leadership experience: 27 years

Deliver a **world-class** customer experience

We strive to deliver nothing short of a world-class customer experience. With a clear focus on maintaining stronger than ever customer partnerships, we strive to enhance every facet of the Zotefoams customer journey, from quality to service and reliability.

Building on this strong foundation, we leverage Zotefoams' position as a global business to invest in scaling our operations to support the continued expansion of our customers. We do this by providing access to additional capacity, further reducing lead times, and offering extended services such as specialist fabrication processes, which are critical to our customers but which they cannot reliably source elsewhere.

Dan Lumpkin,
President, Zotefoams Inc
Leadership experience: 28 years

Activate strategic capacity growth

By ensuring that we are strategically positioned to seize the growth opportunities of tomorrow, we strive to lay a robust foundation that will secure enduring value for our business well into the future, ensuring that we are agile and responsive to emerging market demands.

With a focus on proactive identification and appraisal of key strategic opportunities at the earliest opportunity, we take a long-term view and develop strategic capacity growth programmes across all our key processes.

We also recognise that our sustained success hinges not only on the capacity and capabilities of our unique technology and processes but also on that of our people. We prioritise investing in our team's skills and expertise, ensuring that they possess the necessary capabilities to support our growth ambitions.

Hugh Morgan,
Director of Strategic Projects
Leadership experience: 25 years

Achieve **unrivalled** operational excellence

We are committed to achieving operational excellence across all aspects of the Zotefoams business. By meticulously refining our processes, optimising resource utilisation and fostering a culture of continuous improvement, we strive to enhance efficiency and drive superior performance throughout our organisation.

Zotefoams' relentless pursuit of operational excellence extends beyond mere compliance with industry standards; it encompasses a holistic approach to deliver exceptional value to our customers, stakeholders and those who benefit from our products. Through disciplined execution and a focus on operational best practices, we aim to maximise productivity, minimise waste and consistently deliver high-quality products and services.

By upholding the highest standards of operational excellence, we ensure that we remain agile, responsive and well-positioned to meet the evolving needs of our customers and seize new opportunities for growth and innovation.

Benito Sala,
Managing Director Europe
Leadership experience: 25 years

Drive a **sustainability revolution** in packaging

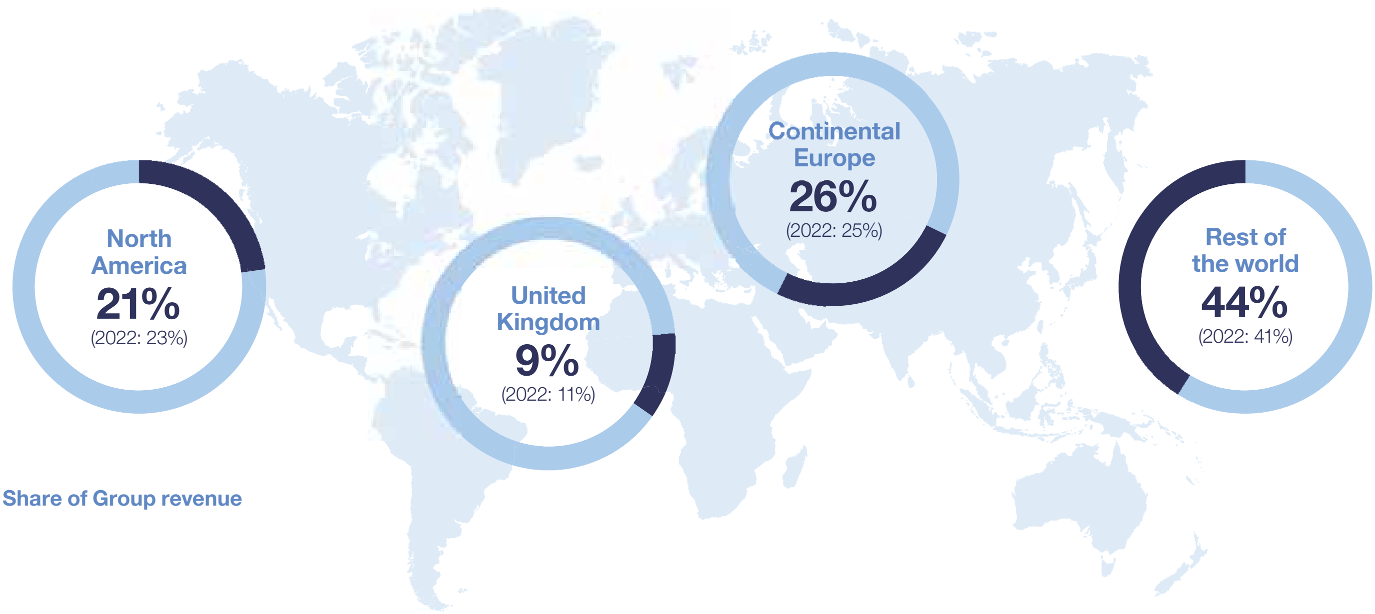
We are proud to lead the way towards a more environmentally friendly future by bringing the world's most sustainable beverage carton to market. In creating the first ever mono-material alternative to conventional liquid paperboard, which will enable widespread recycling of beverage cartons like never before, the 2024 on-shelf commercial launch of ReZorce® mono-material barrier packaging will mark one of the most significant milestones in the beverage packaging industry's sustainability journey.

Through an extensive programme of research, innovative design and rigorous testing, we have developed a breakthrough solution that sets a new standard of excellence in beverage packaging while championing environmental stewardship. The introduction of ReZorce will represent a major paradigm shift, offering consumers, beverage manufacturers and brands alike a viable, sustainable alternative that minimises waste, maximises recyclability and enables greater circularity.

Neil Court-Johnston,
President, MuCell Extrusion LLC
Leadership experience: 24 years

Group at a glance
Four strong, distinctive brands

Zotefoams produces a wide range of innovative products that are critical components in everyday applications.



Share of Group revenue

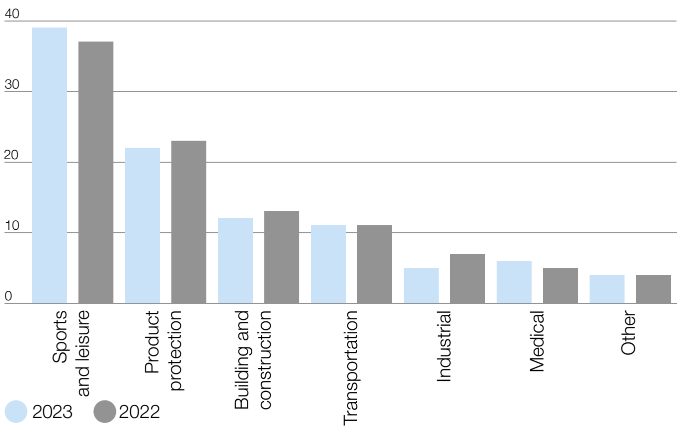
North America
Local manufacturing presence in Kentucky for the Polyolefin Foams business, cutting operation in Oklahoma to service the construction market and headquarters of MuCell Extrusion LLC (MEL), based in Massachusetts, licensing technology globally and developing ReZorce® mono-material barrier packaging. Local representation for our High-Performance Products (HPP) business, including T-FIT® technical insulation.

United Kingdom
Group headquarters and main factory, manufacturing polyolefin foams and high-performance products for sale globally.

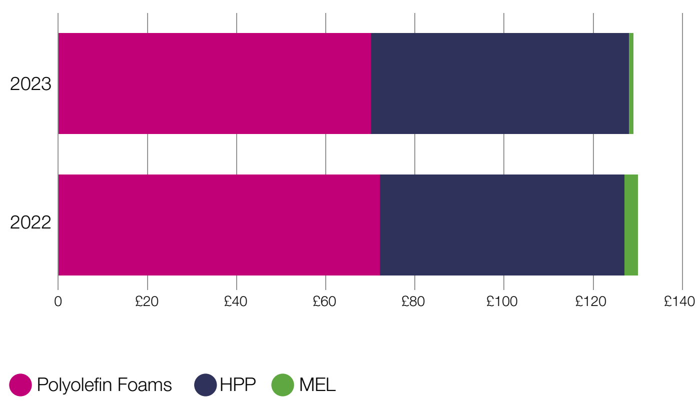
Continental Europe
Significant market for polyolefin foams. Local manufacturing presence in Brzeg, south-west Poland, initially servicing the Polyolefin Foams business. Manufacturing of some T-FIT products began in 2022. Sufficient land has been purchased to allow larger-scale operations in the future. European development facility for ReZorce and MEL products in Zotefoams Denmark since November 2022.

Rest of the world
T-FIT manufacturing in China for sales of insulation products globally. Local representation for our HPP business. Joint venture with INOAC Corporation for AZOTE® polyolefin foams sales in Asia. Commercial operation in India for T-FIT insulation.

Revenue by industry
%



Revenue by business unit
£m



AUTOCLAVE TECHNOLOGY

POLYOLEFIN FOAMS

AZOTE®

Read more page 12

Premium durable foams
Uniformly dense foam sheets with a consistent cell structure. These foam sheets and blocks are manufactured from common polymers using our unique nitrogen-expansion process.

Key markets served
- Automotive
- Aviation
- Building and construction
- Industrial
- Marine
- Medical
- Military
- Product protection
- Sports and leisure

Key market drivers
- Light-weighting
- Durability
- Fire safety
- Reduced toxicity
- Energy saving

HPP

ZOTEK®

Read more page 12

Lightweight technical foams
Foams which offer superior technical properties, such as energy management, durability and heat and/or fire resistance. ZOTEK foams are manufactured from engineering polymers using our unique nitrogen-expansion process.

Key markets served
- Athletic footwear
- Automotive
- Aviation
- Construction
- Product protection

Key market drivers
- Light-weighting
- Personal safety
- High-technology insulation
- Durability
- Fire safety
- Sports and leisure

HPP

T-FIT®

Read more page 13

Technical insulation
A range of insulation products manufactured from Zotefoams' own ZOTEK block foam materials. T-FIT insulation products are purpose-designed to perform in demanding environments.

Key markets served
- Food and personal care manufacturing
- High-temperature processing environments
- Pharmaceutical, biotech and semiconductor cleanrooms

Key market drivers
- Ageing population
- Demographic changes
- Reduced toxicity
- Energy saving

EXTRUSION TECHNOLOGY

MEL

MUCELL EXTRUSION

Innovative and accessible technology for greener, lower-cost plastic products
This pioneering technology injects gas into plastics during the manufacturing process to create micro-bubbles and is licensed to customers manufacturing plastic parts. The end-product uses 15–20% less material. Recently developed ReZorce® mono-material barrier packaging solutions use this technology.

Key markets served
- Automotive
- Consumer packaging

Key market drivers
- Environmental benefit
- Lower cost

Our brands
Innovating to help our customers meet new challenges

POLYOLEFIN FOAMS

AZOTE®

AZOTE polyolefin foams are manufactured using our unique, high-pressure process. This process differentiates Zotefoams from competitors who manufacture similar foams using low-density polyethylene (LDPE), which is our main raw material.

Zotefoams produces foams that are more consistent and lighter and possess higher purity compared with foams manufactured using chemical technology. These superior attributes are valued globally in many uses, with examples as diverse as aerospace, sports equipment and medical packaging. Underlying growth of many of these segments is driven by global trends in regulation, environment and demographics, including resource efficiency.

The main geographical markets for our AZOTE foams are the UK, other European countries and North America as, beyond this, distribution costs limit the market opportunity. We do sell outside these areas, mainly in Japan and China, into more niche, technical applications and further development of these geographies remains a longer-term goal.

POLYOLEFIN FOAMS

ecoZOTE

Throughout its history, Zotefoams has been at the forefront of developments in lightweight materials that save energy by insulating or save fuel costs by reducing weight. Our business is predominantly based on long-term applications, underpinned by the notable durability of our materials, which derives from a unique autoclave manufacturing process.

With sustainability and carbon reduction a priority, Zotefoams has introduced the Ecozote® Sustainability+ foams range, which responds to the need for plastic products that improve circularity or reduce reliance on fossil fuel-derived raw materials.

Ecozote builds on the underlying sustainability credentials of all our block foams – lightweight, durable and foamed using nitrogen borrowed from the atmosphere – to give customers and end-users additional choices to address market- or application-specific requirements.

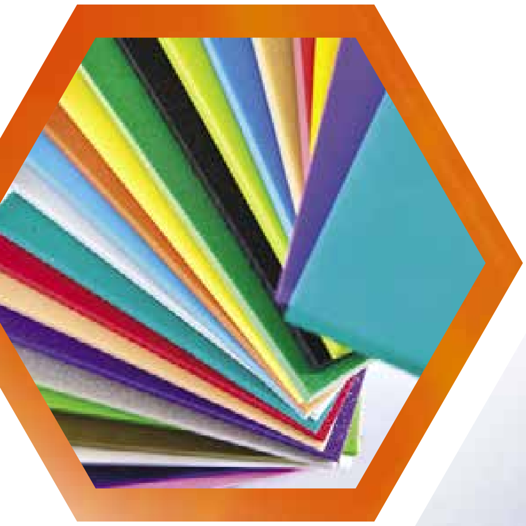
Initial products in the range are LDPE foams with 30% recycled content.

HPP

ZOTEK®

ZOTEK products use Zotefoams' unique autoclave technology applied to high-end polymers such as polyvinylidene fluoride (PVDF) fluoropolymer, nylon or thermoplastic elastomers (TPE). Combining the original polymer properties with our foaming process creates truly unique materials.

ZOTEK F fluoropolymer foams are inherently fire- and chemical-resistant and are mainly used in aerospace applications. ZOTEK N nylon foams are designed to operate at very high temperatures and are finding uses in a wide variety of mainly industrial applications. There is a considerable level of interest currently in ZOTEK N as a lightweight thermoplastic composite material for transportation, designed to reduce weight and meet environmental targets for fuel economy. ZOTEK TPE foams have excellent kinetic energy management properties and, while they can be used in a variety of applications, are currently being used in footwear applications to Nike as part of our exclusive agreement. Historically, sales of ZOTEK foams have grown due to more stringent regulation in the aviation markets, while recent growth is being led by developments in the footwear market.



HPP

T-FIT®

The T-FIT insulation story began with end-users looking for a solution to insulate pipes in pharmaceutical and biotechnology cleanrooms. T-FIT Clean was developed as a unique thermal insulation system designed for these demanding, highly controlled production environments.

Based on the unique technology owned by Zotefoams and following the success of T-FIT Clean insulation, Zotefoams has expanded the T-FIT range to address the requirements of the food, dairy, personal care and general process industries. These are products that are inherently pure and free of chemical residues and meet leading fire certification standards. Demonstrably resistant to growth of mould and bacteria, the full range of T-FIT insulation products manufactured by Zotefoams is durable, moisture-resistant and easy to install and clean.

T-FIT Hygiene is designed for large-scale, aseptic food processing. Production areas are built to exacting standards, where the specification is for a pure, pollutant- and fibre-free thermal insulation with the capability to withstand the steam-purging process typical in this sector. T-FIT Hygiene can ensure that air conditioning, air filtration and other process equipment continue to operate at optimum levels of performance.

Unique in both its material and its foam insulation class, T-FIT Process is the high-temperature addition to the T-FIT range and operates at temperatures of up to 160°C, with spikes, for cleaning in situ, up to 205°C. Aimed at the utility and general processing industries around the world, T-FIT Process assists project and process engineers in their quest for ever more durable and heat-resistant insulation solutions.

MEL

MuCell Extrusion

MEL licenses microcellular foam technology and sells related machinery. MEL's business model is to develop and license intellectual property (IP) and share in the savings or benefits of the licensee through a royalty and/or licence fee.

MEL technology offers the potential to reduce the plastic content of an article by around 15–20% by injecting inert gas to displace plastic with microcellular bubbles. MEL technology can be used with most common plastics and reduces material consumption with no negative impact on recycling. The primary target market for MEL is consumer packaging, where production volumes are high and developments are scalable across geographic and product markets.

A variation of this technology has been used to create ReZorce® mono-material barrier packaging, a recyclable solution, and this forms the current focus of MEL. As we approach market trials for beverage cartons, our team becomes more specialist and our knowledge deepens. The ReZorce product design is protected by a robust framework of patents.

MEL

reZorce®

ReZorce® mono-material barrier packaging offers brand owners and packaging suppliers a much-needed alternative to composite packaging, which is made of different materials laminated together and is therefore incompatible with increasingly stringent mandates on recycled content and the recyclability of packaging materials.

ReZorce offers performance and aesthetics on a par with existing composite materials but is considered a single raw material which can be recycled back into the same type of packaging, rather than downcycled.

For more information on ReZorce features, see **pages 4 and 5.**

Our brands in action

ZOTEK® F OSU for aviation

Weight of business jet components reduced by 50%

With business jet travel under constant scrutiny, improving the sustainability of private aviation is an urgent priority for aircraft manufacturers.

Making smarter material choices which reduce the weight of an aircraft is essential to meeting this objective, and ZOTEK F high-performance foam is unlocking significant weight reductions, making a considerable impact on total fuel burn.

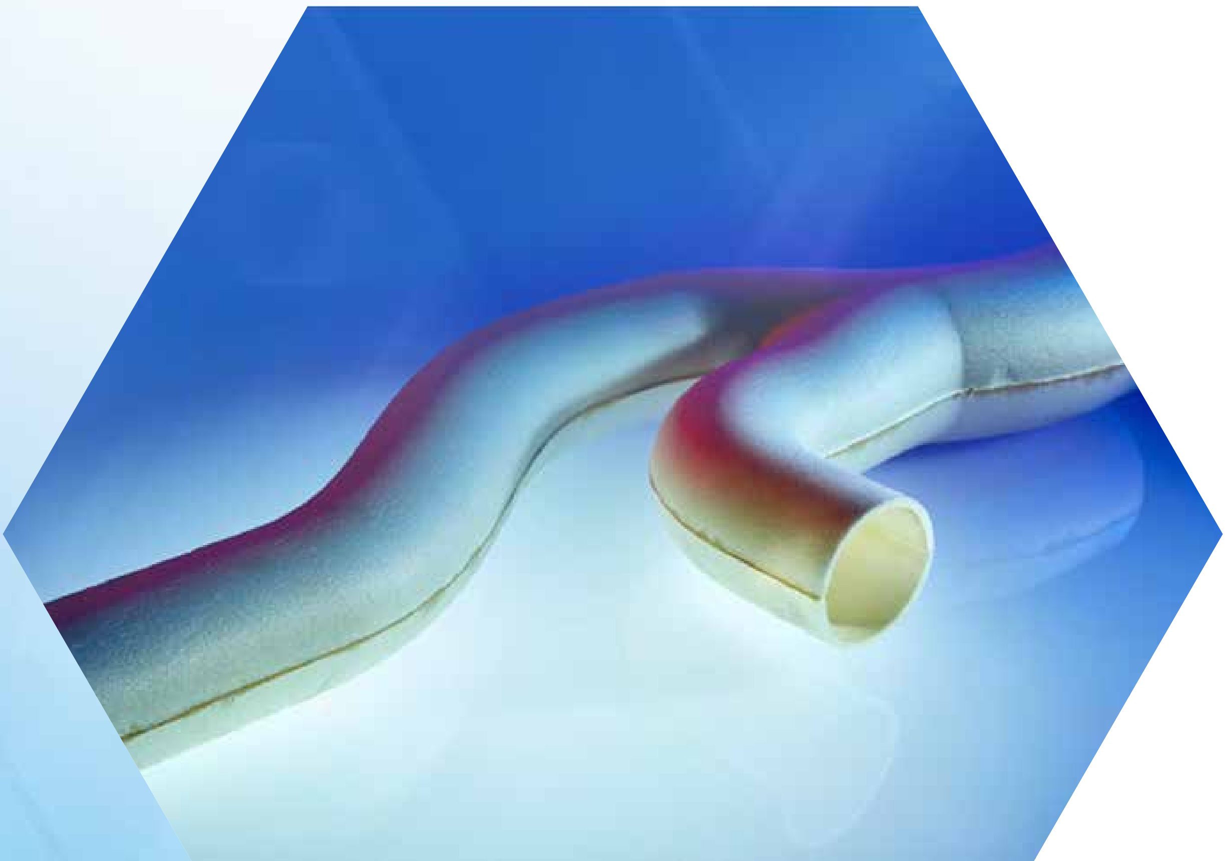
Thermoforming expert Plastika Balumag (Hochdorf, Switzerland) produces parts for a wide range of aviation applications, including window blinds, back coverings for seats, instrument panel coverings and other critical components. The most innovative example is a formed, self-insulating air duct assembly, which optimises air circulation through the on-board ventilation system.

Conventionally, ventilation circulation systems are comprised of both rigid ducts, derived from heavier polycarbonate materials, and separate insulation products, which add further weight.

Manufactured solely from lightweight ZOTEK F OSU XR, an extra-rigid grade, the Plastika Balumag system does not require separate insulation and offers weight savings of 50% compared with alternatives. As well as reducing installation hours, the twin-sheet, self-insulating air duct's unique design also includes integrated breakpoints that make installation even easier in business jets which do not have uniform layouts.

Manufactured using naturally inert PVDF polymer, ZOTEK F also boasts exceptional safety credentials. With outstanding fire, smoke and toxicity properties, ZOTEK F was selected as the preferred material for Plastika Balumag's air ducts.

Also resistant to UV light, which is far more intense at high altitude, ZOTEK F is a material of choice across several other critical applications throughout the aircraft such as in interior finishes and wall panels.



T-FIT®
advanced
insulation

Transforming energy efficiency in brewing

Reducing energy consumption is a critical focus for businesses striving for sustainability and cost-effectiveness, particularly within energy-intensive industrial organisations.

Upgrading pipe insulation presents a simple yet impactful solution to improve energy efficiency and reduce thermal loss.

Throughout the brewing industry, the inefficiencies of existing fibre insulation systems pose significant challenges. Not only are they ineffective as a thermal insulator, but they also raise safety concerns and contributed to rapid spot corrosion of pipes due to moisture absorption properties.

Enter T-FIT pipe insulation – a pioneering solution in energy efficiency. Unlike traditional insulation methods, T-FIT insulation is non-fibrous and dust-free, boasting a closed-cell structure that renders it hydrophobic and resistant to moisture absorption. This unique feature prevents corrosion and bacterial growth on pipe surfaces, ensuring longevity and reliability.

Beyond its moisture-resistant properties, T-FIT insulation offers a plethora of benefits. Its integrated aluminium cladding provides unparalleled physical protection around hot pipe works, enhancing safety and durability.

Additionally, T-FIT insulation excels against mechanical impact, chemical exposure, and UV light degradation, ensuring optimal performance in diverse industrial environments.

The modular clamshell design of T-FIT insulation simplifies installation and ongoing maintenance, eliminating the need for specialised tools. This not only reduces installation time but also enhances the overall installation experience. By enabling easy inspection and maintenance, T-FIT insulation minimises labour time and optimises operational efficiency.

The success story of T-FIT pipe insulation in brewing underscores its transformative potential for businesses seeking to enhance energy efficiency and reduce costs. As industry leaders embrace sustainable solutions, T-FIT insulation stands at the forefront, offering a reliable and innovative solution to address energy consumption challenges effectively.

Our brands in action

Evazote®
resilient foam

A next-level skydiving experience

In collaboration with our partner Flextech, Sun Path, the world's premier manufacturer of harness container systems for sport and military parachuting has developed an innovative addition to the Javelin Odyssey parachute container/harness system which is garnering acclaim from elite skydivers worldwide, such as the Red Bull skydiving team and current world champions Arizona Airspeed.

Using Evazote foam, the Sun Path team has designed a system that redefines how a container/harness feels on a jumper's body – setting new standards for performance, comfort and security on every jump. The SPYN Pad System focuses on three essential elements: fit, form and function.

By incorporating custom-moulded foam materials, which adapt to the skydiver's unique contours, the system feels like a second skin by ensuring a snug, comfortable fit while minimising pressure points. Also designed to facilitate seamless motion, it provides unparalleled freedom without compromising on security, empowering skydivers to push boundaries with confidence.

Each component is precision-engineered to work in harmony, delivering stability, agility and unmatched performance with every jump, and is built to withstand the rigours of countless jumps. Skydivers the world over trust in Sun Path's unmatched reliability every time they take to the skies.

Ecozote®
Sustainability+ foam

Pioneering **sustainable packaging in transport of critical machine parts**

As part of our development of ReZorce® mono-material barrier packaging, specialist machine parts have also been developed to enable easy modification of existing equipment, to fill ReZorce beverage cartons.

During transportation of these critical, high-value parts it is essential that they are well protected to ensure their safe arrival. The design of specialist packaging was therefore required.

In collaboration with Polyfoam Kautschuk, we harnessed the innovative potential of our own Ecozote® foam technology to create bespoke packaging materials. Fabricated using Ecozote LDR foam, the custom-designed machine parts protection packaging incorporates 30% post-industrial recycled content and aligns with ISO 14021 standards.

Designed to mirror the exceptional properties of Zotefoams' renowned AZOTE® polyethylene foams, Ecozote boasts unparalleled levels of consistency, durability and purity compared with other sustainable packaging options – making it the ideal solution for leading fabricators such as Polyfoam Kautschuk.

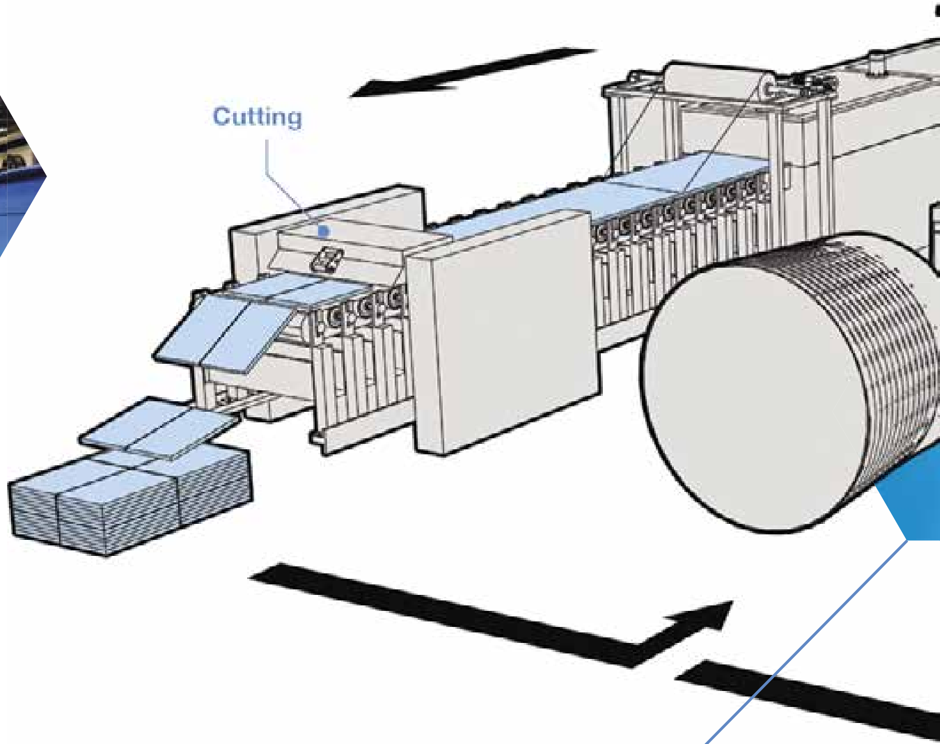
Through our unique three-stage process and access to high-quality recycled materials, Ecozote foam delivers superior performance-to-weight benefits, ensuring optimal protection while significantly reducing environmental impact. The transition to lighter packaging materials also directly translates to reduced CO_2 emissions during transportation, further underscoring our commitment to sustainability.

A unique manufacturing process
The Zotefoams difference

Zotefoams manufactures a wide range of closed-cell crosslinked, lightweight block foams using variations of our unique nitrogen-expansion manufacturing process. This affords an exclusive combination of beneficial characteristics – uniformity, purity, low toxicity and durability – that differentiates Zotefoams' materials from all other foams. Our core autoclave process is capital intensive, with a long investment cycle, and represents a considerable barrier to entry for potential competitors.

Scan the QR code to see our process in action
zote.info/3NAZPrP

Stage 1
Extrusion and crosslinking

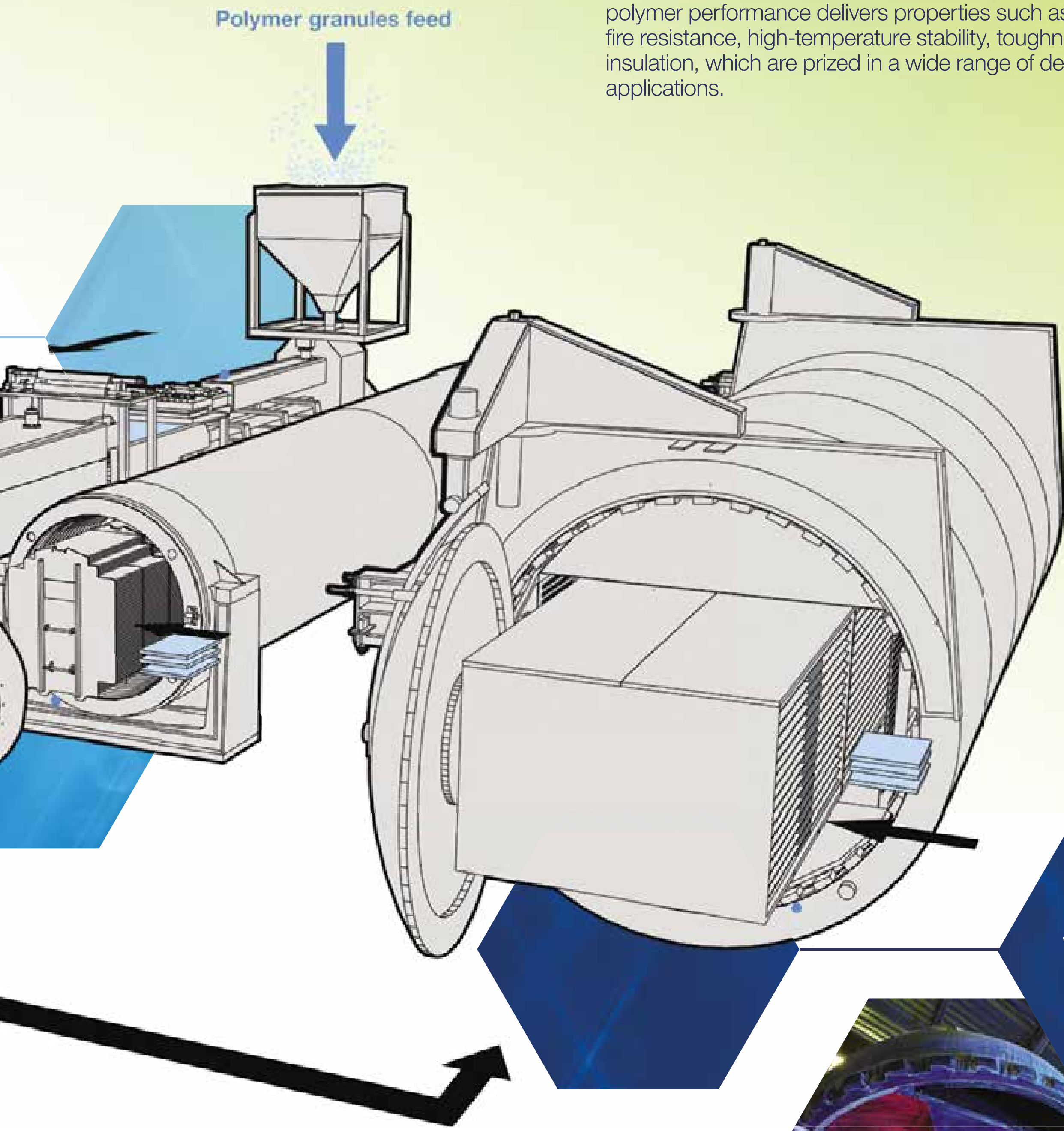


Polymer and any additives (colours, fire retardants, conductive agents) are extruded into a continuous solid plate. The plate passes through an oven which activates the crosslinking process. It then cools and is cut into slabs.

Stage 2
Nitrogen saturation

Slabs are loaded into a high-pressure autoclave. The material is heated above its melting point and pressurised with pure nitrogen gas. Over a long period of time, the nitrogen gas diffuses into the slabs. A rapid depressurisation destabilises the absorbed nitrogen nucleating cells in the slab. The slabs are then cooled under pressure in the autoclave, locking the nitrogen in the unexpanded slabs, prior to them being unloaded.

Operating at temperatures up to 250ºC, this nitrogen-based process is extremely flexible, allowing us to foam a wide range of polymers. The combination of foaming process and polymer performance delivers properties such as excellent fire resistance, high-temperature stability, toughness and insulation, which are prized in a wide range of demanding applications.



Stage 3
Expansion

The nitrogen-charged slabs are loaded into a large lower-pressure autoclave and, under moderate pressure, are heated to above their melting point. When the pressure is reduced, the nitrogen expands, turning the slabs into larger foam sheets. This expansion process is unconstrained, so is uniform in each dimension.

Our business model
Leveraging unique technology with an innovation-led portfolio of advanced products

Starting with a core process

At our block foam manufacturing sites in the UK, the USA and Poland, we operate proprietary technology to produce foams from a variety of different polymers. Our manufacturing process almost always involves three sequential steps:

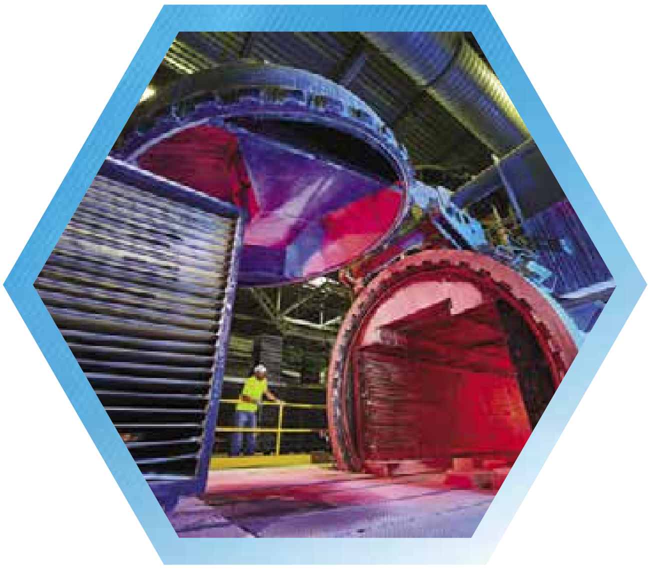
1. Extrusion
2. Nitrogen saturation
3. Expansion

For more information on our process, see **pages 18 and 19**

Zotefoams' differential advantage is the use of autoclaves, developed from a century of experience, using a nitrogen-based process. All of our assets are flexible – we can use each of them to make many product grades.

The high levels of know-how and capital required to use autoclaves is a difficult barrier for new entrants to overcome. Patents on our basic process expired some years ago, although we are able to obtain patents for products manufactured by that process, in particular in our High-Performance Products (HPP) business. This, and the fact that our process allows us to produce materials that cannot be made by any other method, delivers a meaningful and sustainable competitive advantage.

Foam has high distribution costs relative to price, particularly for our polyolefin foam product range. It is more economic and sustainable to expand the foam closer to customers and we have recently invested in additional manufacturing capacity in Poland to be closer to our main European markets.



Making the best use of our assets

Our route to increased profitability includes running our unique machinery as near to full capacity as possible – and filling new capacity as quickly as possible – and then mix-enriching our product portfolio. We produce two distinct product portfolios, which combine to make our model work:

Polyolefin foams, typically branded as AZOTE®, are based on polymers that are also foamed by many of our competitors, compete primarily through the superior foam properties created by our technology, are produced in large volumes and are sold to a wide variety of customers who then incorporate the foam into many different products.

High-performance products, typically branded as ZOTEK®, are made of more costly and specialised polymers that very few competitors can foam, are currently produced in relatively lower volumes and are sold at a higher price to a smaller number of customers. These customers then use this technologically advanced foam for highly specific applications.

While the superior performance of our foams creates demand globally, most of our polyolefin foam customers are regional – for us that means the UK, mainland Europe and North America – reflected by the geographic locations of our manufacturing plants. This is in part driven by distribution costs and by the importance of good service levels. By contrast, distribution costs make up a far smaller proportion of the value of our HPP portfolio, so do not constrain global reach, and the complexity and higher value make it more effective to produce the HPP range from the more established UK site.

Over time, we expect to increase profitability through mix enrichment. Our core process allows us to produce a range of both polyolefin and HPP foams. With the higher margins achievable from HPP and more technical polyolefin foams, we prioritise these products in our production decision-making. However, the markets for polyolefin foams – with many segments ranging from those higher-margin, specified, technical foams to the highly competitive foams with low switching costs – afford us the flexibility to make full use of any significant availability of capacity while still generating good margins and providing highly valued solutions to our customers. Supporting a broad product portfolio, therefore, remains critical to our long-term success. Currently, the Polyolefin Foams business unit utilises the largest share of our capacity.

Working with our partners and enriching the product mix

We partner with a network of customers around the globe that fabricate our polyolefin foams and promote them in their geographic markets. Some specialise in specific sectors, while others specialise in foam fabrication capabilities for general markets. Our aim is always to be the material of choice for our partners. Our block foams are sold, and often specified, into a broad range of industries, such as automotive, aerospace, product protection, industrial parts, marine, building and construction, and sports and leisure.

The AZOTE portfolio is typically viewed as "best in class" for performance, often measured by weight, purity and durability, and can be efficiently fabricated into complex shapes. We provide our customers with products that offer improved performance per unit of weight over competing solutions. They are lighter and made with less raw material and their durability means they need replacing less often. This makes them a product of choice in thermal insulation and transportation or when protecting goods in transit, where light weight helps reduce fuel and energy consumption. Zotefoams products are predominantly found in permanent solutions. Our Plastazote® and Evazote® polyolefin foam brands are held in high regard in the industry and offer premium performance in the portfolio of a foam fabricator.

Installation of thermal efficient foam in passenger bus chassis
China

Our business model
Continued

Developing our HPP portfolio

A significant portion of technical, sales and marketing expenditure is allocated to the development of our HPP portfolio, sold under the ZOTEK and T-FIT® brand names. Close and direct collaboration with customers, and a focus on the ultimate end-users, is crucial to the success of this business unit. We have a long history of investing in research and development, which enables us to innovate and meet the needs of customers with technically demanding requirements seeking solutions that consume fewer resources, operating in sectors such as footwear and aviation. These businesses are more global in nature and we have strong management alignment with the product range and certain key markets.

Developing products to demanding technical specifications, and promoting these globally, can mean that a new HPP product makes losses at first. However, once a product's specifications have been finalised and orders are secured, the opportunities are longer term, and cash generation potential is high. Our HPP business unit margins reflect a portfolio of products and applications at different stages of the life cycle and we see considerable opportunity to grow and to enrich our product mix over the medium term.

Adding more value for customers, and to our business

Our HPP portfolio comprises innovative and versatile raw materials which, like our polyolefin foams, lend themselves to being fabricated into complex parts by our customers. The unique and advanced properties of these foams often allow designers and industry both to meet stringent regulations, for example around safety or the environment, and to offer better products, often by substituting non-foam products or replacing multiple products. For example, our foam is now used by the aviation industry for ducting, where it acts as both the structure and the insulation, visual window surrounds, where it also acts as the seal, as well as 'soft touch' materials within the cabin.

This area of the business is more readily defensible because of the unique performance advantages inherent in our advanced technology, the patents we hold and the highly specified markets we serve. These factors also enable us to sell at a higher price with a better margin. Ultimately, expanding our HPP portfolio has been, and continues to be, critical to our past, present and future growth.

In some cases, however, we are able to move even further up the value chain and ultimately provide finished parts directly to customers. The best example of this is our T-FIT technical insulation business. We take a direct-to-market approach to sell this clean insulation. While this is a departure from our typical model of contributing to, rather than producing, the finished product, we are able and ready to make similar moves in response to unmet demand when it complements our global network of fabrication partners.

Capacity to meet growing demand

In a "steady state", our business is strongly cash generative, but we have significant opportunity to grow and have therefore chosen to reinvest to take advantage of profitable opportunities. Since the beginning of 2018, we have increased capacity significantly in anticipation of projected demand. While our mix enrichment strategy favours our HPP portfolio, and investment in the UK has focused on increasing our capacity to deliver on these opportunities, the knock-on impact of HPP growth is a reduction in available UK capacity to service our highly valued and profitable Polyolefin Foams business. The larger part of this capacity expansion has consequently been outside the UK, to allow us to meet our growth expectations in polyolefin foams while increasing our service levels and reducing transport-related emissions through closer proximity to our customers. And as one would expect, our new facilities use state-of-the-art technology with improved energy efficiency. All this allows us to pursue more opportunities than before in terms of new products and solutions, many of which will then help to grow the business further.

Foam manufacturing facility, Brzeg, Poland

Our business model
Continued

Our place in a lower-carbon economy

There are four aspects of our business that will enable us to thrive within a lower-carbon economy. Over time, we plan to build on these advantages so that we can continue to grow, reduce our carbon footprint and help our customers become more sustainable.

For more information about our ESG approach, see pages 64 to 77.

1. Our nitrogen-based process

Our core high-pressure autoclave foaming process uses nitrogen as the foaming agent, borrowed from the atmosphere during the production process, so there is limited further environmental impact beyond the use of energy and raw plastic. At the same time, this process is becoming more efficient as we invest in newer, more efficient autoclaves.

2. Efficient use of raw material

We are proud that our unique technology delivers foam products with better performance per unit of weight, which allows us to offer high-quality solutions made with less material. Furthermore, not only do we use less material to produce our foams, but the integrity and durability of our products also mean they need replacing less often.

3. Our products' role in avoiding emissions

Our products are typically used in a way which, in the round, reduces emissions and conserves scarce resources. For example, our foams are used for thermal insulation, they protect products in transit that have a high carbon footprint and they often replace heavier and more wasteful alternative materials.

4. New product development

As the demand grows for products that actively help us move to a less wasteful, lower-carbon future, we are already responding, with more to come. For example, ReZorce® mono-material barrier packaging is a 100% recyclable mono-material barrier packaging solution, that has been designed to replace difficult-to-recycle laminated paper, pouches and cartons.

Our sustainable competitive advantages

As described on page 20 in 'Our business model', our sustainable competitive advantages include:

- High-value, unique assets
- Established market position
- Technical know-how
- Valued brands

Foam manufacturing facility, Kentucky, USA

Three further competitive advantages are also important contributors to our success

1. Growing global reach

Beginning from a single site in the UK, we now have major manufacturing sites operating in the USA and Poland, serving regional and international customers. Proximity to major manufacturing centres is a significant advantage in our markets. Having three sites provides the flexibility to serve regional markets, while retaining high capacity utilisation across the Group, and to serve markets that are growing at different rates with different products. Our manufacturing base also includes a well-located T-FIT subsidiary in China, a T-FIT sales subsidiary in India and a facility in Oklahoma, USA, cutting AZOTE parts for a valued customer.

2. Diversity of products and customers

We sell to customers in a wide variety of different sectors, so we have a more limited exposure to a downturn in any particular industry. We have also demonstrated the ability to quickly meet a change in demand, as with our work on producing foam for personal protective equipment during the COVID-19 pandemic.

3. Stable finances enabling organic growth

Our stable finances enable us to invest in new opportunities as they appear, giving us a significant competitive edge. We have the resources available to move into new polymers, or to displace competition by superior performance. We have grown organically for many years and we believe that much more is possible.

Critical resources and relationships

In order for us to continue as a viable and successful business, we are aware of the need to secure access to, and/or invest in, our key resources and relationships, which include:

- raw materials
- plant and equipment
- intellectual property, including patents
- well-trained people and their capacity to innovate (read more about our people on page 70)
- relationships with channel partners
- relationships with HPP end-users
- ability to move goods between manufacturing sites and customers
- financial resources.

MUCELL EXTRUSION

Innovative and accessible technology for greener and lower-cost plastic products. This pioneering technology injects gas into plastics during the manufacturing process to create micro-bubbles and is licensed to customers manufacturing plastic parts. The end-product uses 15–20% less material. The recently developed ReZorce® mono-material barrier packaging solution uses this technology.

For more information on MuCell, see pages 4 and 5, as well as information on the business unit performance on pages 35 and 46.

Our external context
Our response to short- and long-term trends

We deliver stakeholder value by using unique technology to create a portfolio of differentiated products. We focus resources primarily on markets where we are, or have the potential to be, a market leader. We intend to develop our business through sustained high levels of organic growth and, where appropriate, through partnerships or acquisitions.

We have built a clear long-term strategy for growth based around three long-term global megatrends that are driving demand for our products.

Understanding these market trends informs our strategy and product development, as well as the allocation of our resources. Given the diversity of applications for foam, it is not possible to track every use for our materials, and a new idea or application may come from a foam converter, an end-user or from within Zotefoams. We therefore actively monitor these and maintain flexibility to react to a wide variety of possibilities.

As the world around us changes, we regularly re-test our strategy. We believe our existing strategy continues to serve us well and continues to enable us to grow strongly.

Sometimes, as happened during the pandemic, short-term factors distort longer-term trends. With clarity of purpose and an understanding of the fundamental drivers of our business environment, we will make adjustments to our short-term approach, such as limiting expenses and capital expenditure, while ensuring that our longer-term goals remain achievable.

Environment

Optimising the use of scarce resources has become a universal driver. Lightweighting is fundamental to reducing fuel usage and controlling emissions for the aviation and automotive industries. High-quality insulation conserves thermal energy.

MuCell® technology uses less material to make everyday items and saves costs. ReZorce® mono-material technology can be used to create barrier packaging for items such as juices, food and dried goods, which can be recycled using common kerbside collections. Much of our AZOTE® foam is used in permanent packaging or packaging that is designed to be reused, while foams used in transportation are normally specified to the lightest weight for the required physical performance. Zotefoams products typically use less plastic than competitive solutions due to the cell structure of foam made in our autoclave process, giving us both a cost and environmental advantage.

With sustainability and carbon reduction a priority, Zotefoams has introduced the Ecozote® Sustainability+ foams range, which builds on the underlying sustainability credentials of all our block foams – lightweight, durable and foamed using nitrogen borrowed from the atmosphere – to give customers and end-users additional choices to address market- or application-specific requirements. Initial products in the range are low-density polyethylene foams with 30% recycled content.

Regulation

Regulatory pressures, primarily to safeguard consumers, are driving up standards worldwide. These standards in turn create demand for both safer products and protective equipment.

Regulatory requirements mainly cover the performance of end-use products, although there are specific tests for fire performance and toxicity limits in foams for certain industries and jurisdictions. Zotefoams provides specifically tested materials for semiconductor, pharmaceutical and biotech manufacture and automotive, aircraft and rail insulation and provides validated materials for medical transportation and devices, and military storage and personnel protection. Our technical team is closely involved in developing new materials to meet and anticipate changes in standards and we are currently working on projects for automotive batteries, high-tech composites, foams from recycled materials and foams which can be more easily recycled. We sell AZOTE grades for automotive, medical and packaging designed to minimise emissions and/or meet specific purity requirements. Around half of Zotefoams' revenue from foams in 2023 came from products with specific properties tested to customer requirements, although not all of this was demonstrably for regulation compliance.

Plastazote® from our AZOTE polyolefin foams range is the most frequently cited thermoplastic foam in medical literature due to its purity and hypoallergenic characteristics. It meets ISO 10993 standards for evaluating the biocompatibility of medical devices and is the material of choice for skin contact applications.

Demographics

Better healthcare has created a population boom, especially in older age groups, while globally, discretionary spending power is rising rapidly. Demand for healthcare products is accelerating. Wealthier and more discerning consumers are driving growth rates in other industries such as food and drink, sports equipment and transportation.

Transport, medical and sports and leisure applications account for around 55% of sales directly, while our T-FIT® insulation products – demand for which is currently linked to semiconductor, pharmaceutical and biotech manufacturing – account for a further 5% of sales.

Our strategic objectives
We measure progress against six strategic objectives

We have updated the first two of our strategic objectives to better align with our business strategy and reflect the focus of our management team.

1. Improved mix of products

Why?
We intend, over time, to deliver an improved mix of products. By this, we mean improved profitability, and a reasonable proxy is average selling price per cubic metre of foam, which is typically higher for HPP products. Products in the HPP portfolio typically offer higher growth rates and higher margins than polyolefin foams. The HPP business uses the same asset base as the Polyolefin Foams business and leverage our uniqueness by providing customers with solutions based on foams ideally suited to our technology. They offer larger-scale opportunities than our polyolefin foams and higher drop-through operating margins. Adding downstream processing, such as T-FIT® insulation products, enhances our margin, as does the cutting processes we perform for multiple customers globally. These downstream operations are light on capital and leverage our investment in foaming technology. Our polyolefin foams portfolio, under our AZOTE® brand, is typically viewed as best-in-class for performance, often measured by weight, purity and durability. When we increase capacity, we seek to utilise this capacity quickly (see objective 2 below), and this is most immediately achieved by offering our products into markets where the performance benefits are less valued while, over time, targeting markets that require specified, technical foams and offer higher margins.

This year
The HPP share of Group revenue increased this year from 43% to 46%. We adjust our HPP volumes to calculate a "capacity equivalent" to reflect the often-extended processing times of these products. The adjusted average selling price during 2023 across all our foam products improved by 2.7% compared with the prior year.

Next year, and beyond
We expect revenues and the Group share of HPP to continue to grow. We also expect to increase the share of higher-margin AZOTE® foam products. The rate of mix enhancement will depend on developing new applications in the portfolio, either from existing or newly developed products, as well as the level of footwear sales to Nike, the speed of recovery of, and further growth in, aviation and on our success in making our T-FIT business a recognised global solution for that industry.

2. Run at high capacity utilisation

Why?
We seek to run at high-capacity utilisation to optimise the returns from our assets. Zotefoams is a capital-intensive business with high operational gearing. The Polyolefin Foams business is the largest user of capacity and its volumes are particularly important for the absorption of fixed costs. Polyolefin foams provide unique solutions to a broad spread of customers across many industries, serving as a valuable mitigant against industry and customer risk. HPP foam sales are typically more concentrated, with fewer end users, and we respond to their needs with limited ability to proactively influence our capacity utilisation.

This year
In 2023, asset utilisation improved by 2.6% and is calculated using the adjusted production volume, with the same mix adjustment factors as used in the selling price calculation detailed in objective 1 above. Adjusted production volumes, against which we calculate asset utilisation, were 4% higher than adjusted sales volumes as we increased inventory during the final quarter of the year in anticipation of strong demand in the first few months of 2024. Efficiency gains in manufacturing during the year added 2% to the effective capacity of the Group.

Next year, and beyond
We are confident that we can continue to improve capacity utilisation over the economic and investment cycle. The key drivers of our business – use of materials, lightweighting, insulation etc. remain as relevant as ever and we are developing our product range and geographical reach accordingly. Our technical developments and market focus are heavily influenced by supply chain and internal (Scope 1 and 2 emissions) sustainability objectives to reduce and reuse waste, as well as provide materials which optimise our customers' sustainability position around use-phase emissions. All these developments are set to broaden Zotefoams' product range further and offer good opportunities to grow market share by aligning closely with market trends and customer needs. We review the demand/capacity relationship in the short to medium term via our sales and operational planning processes and in the medium to longer term via our Capacity Planning Steering Committee. When we create capacity through investment in additional assets (rather than operational improvements), we accept that capacity utilisation may decline in the short term, or our mix may move to more price-elastic products, while additional business is fully developed.

3. Increase our operating margins

Why?
Zotefoams targets improved operating margins through a continuous focus on the efficient use of its assets and mix enrichment across its product range and by developing applications which most effectively leverage its unique technology. This applies not only to our HPP business but also to our Polyolefin Foams business. Zotefoams adopts a medium- to long-term view, balancing immediate operating margin gain with the investments required in infrastructure and capacity (and their consequent impact on short-term margins), to maximise future growth. Higher operating margins generate higher returns for shareholders.

This year
In 2023, Group operating margin increased to 11.9% (2022: 10.9%), or 12.1% in constant currency. Excluding MEL, Group operating margin was 15.5% (2022: 12.7%), or 15.7% in constant currency. The full-year impact of price increases from 2022 and lower input costs were augmented by improved efficiencies within manufacturing, offset somewhat by an increase in technical, sales and administration costs, some associated with the increased investment in the ReZorce® mono-material barrier packaging opportunity.

Next year, and beyond
Continued progress with improved mix and asset utilisation, our first two strategic objectives above, will allow gross margins to continue to grow and the drop-through effect on underlying profit to increase. ZOTEK F sales recovery post pandemic will continue and grow beyond previous highs, plant efficiency at the newer USA and Poland facilities will improve based on experience and improved utilisation, distribution and administrative costs will be better absorbed and our investment behind the T-FIT technical insulation business will generate enhanced margins. In addition, across our foams businesses, we expect the sustainability objectives that improve energy and polymer use efficiency to help improve margins. Beyond our foams businesses, the opportunity from ReZorce remains significant and will become clearer as we hit key milestones during 2024.

4. Improve our return on capital (over our investment cycle)

Definition: Zotefoams defines the return on capital employed (ROCE), which is not an IFRS metric, as operating profit before exceptional items divided by the average sum of its equity, net debt and other non-current liabilities. This measure excludes acquired intangible assets and their amortisation costs, as well as any significant capacity investments under construction until they enter production.

Why?
Zotefoams uses unique and capital-intensive assets. We understand the importance of generating a good return on these assets to provide our shareholders with strong returns and maintain their support when funding is required to drive longer-term capital projects. As Zotefoams' business grows, we have invested in large capital programmes which have changed the shape of our balance sheet. Our assets generate higher returns when operational gearing (i.e. utilisation) is high. This, combined with our strategy to mix enrich our sales portfolio, is expected to generate the return on capital our shareholders seek.

This year
In 2023 and 2022, the ROCE has been materially impacted by our investment in the ReZorce mono-material barrier packaging opportunity, which offers the potential for very high returns but in the development phase requires significant discretionary cost. In 2023, the return on capital employed increased to 10.4% (2022: 10.1%) but increased to 14.2% (2022: 12.0%) when the MEL losses of £4.4m (2022: £1.9m) are excluded. The improvement in ROCE of the foams businesses is a result of increased profitability as the Group delivers on its strategic objectives.

Next year, and beyond
The Group has delivered a large capacity expansion programme over recent years and the balance sheet has increased significantly as a consequence. We approved these projects, acknowledging and accepting the dilution of return on capital over the short term but recognising the importance of adequately investing in the infrastructure and capacity needed for anticipated future growth and the corresponding improvement in return on capital that should accompany it. ROCE will continue to improve as the Group successfully delivers on its strategic objectives. The ReZorce opportunity is reaching key milestones in 2024, which should significantly reduce the level of operational and capital spend incurred in recent years and immediately impact ROCE, regardless of the eventual outcome.

Our strategic objectives
Continued

5. Clarify and improve the Group approach to environmental sustainability and climate change

Why?
Our purpose is to provide optimal material solutions for the benefit of society, reflecting our belief that, used appropriately, plastics are frequently the best solution for the sophisticated, long-term applications typically delivered by our customers. Materials manufactured using Zotefoams' unique technology help customers save energy – for example, by improving insulation and reducing the carbon emissions of cars, planes and trains by providing lower-weight solutions that lower fuel consumption. Our core process uses only temperature, pressure and nitrogen borrowed from the atmosphere for expansion, creating materials that are uniquely pure and durable and which use less polymer thanks to their superior performance-to-weight ratio. ReZorce mono-material barrier packaging technology presents the opportunity to increase recycling rates in consumer packaging, reducing waste and creating the potential for circularity. Zotefoams products frequently form part of the environmental sustainability agenda for our customers, and embedding this more formally into our strategic objectives will support Zotefoams' development over the short, medium and long term.

This year
Progress continues to be made against our sustainability targets. In 2023, energy consumption remained static despite a significantly higher proportion of HPP products, having a higher energy intensity, being manufactured. Excess polymer consumed was reduced and while we missed our 2023 target to develop sustainable new products designed to achieve use-phase efficiency, we continued the development of foams containing polymers from both renewable sources and circular solutions. Using a methodology that identifies products which, during manufacture or use, provide a substantial increase in the efficiency of resources used, we have assessed our product range as producing 85% green revenue. Further details are provided on page 65.

Next year, and beyond
We have set ambitious longer-term sustainability objectives, aligned with a sustainability-backed loan facility, which focus on three performance indicators: the energy we use to manufacture the products that we sell; the efficiency with which we utilise polymer in the manufacture of products: and the development of new products which offer our customers use-phase resource efficiency. The aim of our objectives is to ensure that Zotefoams has a more sustainable product portfolio, which minimises both the energy used and the polymer waste produced in its manufacture. Details of these objectives are presented on our website https://zote.info/3mjufjS. To further embed our drive towards environmental sustainability, during 2024 we aim to become accredited to ISO 50001:2018, the international standard for energy management, at our Croydon, UK, site.

6. Develop and invest in MuCell technology

Why?
MEL reduces plastics use at source using patented high-pressure gas technology at customers' facilities and operates on a royalty basis over a period in excess of ten years. This underlying technology is the basis for mono-material barrier packaging, which we have branded ReZorce. Using significant recycled plastic content and being readily recyclable, the potential market is large and facing significant pressure to improve sustainability rapidly.

This year
The focus and resource allocation at MEL continues to be on the development of the ReZorce opportunity. Very good strategic progress has been made, with advancements in the technology accelerated by the Group's 2022 acquisition of complementary know-how and assets in Denmark and the benefits of a joint development agreement with a world-leading packer of beverages showing immediate results. In addition to a £4.4m segment loss at MEL (2022: £1.9m) driven by investment in ReZorce, the Group also capitalised costs in line with accounting rules. The net book value of investments made in this opportunity as at 31 December 2023 amounted to £6.8m (31 December 2022: £4.7m).

Next year, and beyond
We expect 2024 to be a decisive year for ReZorce, with in-store trials planned at a major European retailer. In anticipation of success, we are preparing a roadmap to deliver scaled-up operational capacity linked to the significant commercial interest in ReZorce carton products. We simultaneously seek to engage with financial and strategic partners, recognising the limitations of Zotefoams' size and experience in this multi-billion pound industry. Our investment approach to ReZorce recognises that there is a high "option value" for success and at this time our business model remains flexible to deliver this value in the best way for our stakeholders. As development proceeds, we will have greater clarity over the business model that will capture the most value for the Group and its shareholders.

Chair's statement

L Drummond
Chair

A year of stepping up…

Dear shareholders

2023 was a year of stepping up at Zotefoams, marked by a significant increase in the profitability of our foams businesses. We further solidified our partnership with Nike through an extension of our exclusivity agreement and, additionally, we heightened our commitment to sustainability with increased investment in our ReZorce® mono-material barrier packaging technology, which is now progressing to the market trial phase. For a deeper understanding of our stepping-up journey, our experienced Executive team members share their own insights on what stepping up means to them on pages 8 to 9.

Record profits

I am pleased to report that the Group achieved record profits for the year, exceeding market expectations with a profit before tax of £12.8m (2022: £12.2m) on revenues at a similar level to the prior year. As we continue to deliver successfully on our established autoclave technology strategy, following significant capital investment across the UK, USA and Poland, we are aware of the importance of differentiating between this business, comprising the Polyolefin Foams and High-Performance Products business units, and our high-risk but potentially high-reward MuCell Extrusion (MEL) business unit, now primarily dedicated to the development of the highly innovative ReZorce technology. In 2023, our autoclave technology businesses generated an impressive profit before tax increase of 22% to £17.2m (2022: £14.1m) on revenues up 1%. Conversely, increased investment in the ReZorce opportunity generated a loss of £4.4m (2022: £1.9m), on lower revenues from the equipment/royalty part of the business, as we head into the market-testing phase following positive progress in the development of our award-winning technology. The Group CEO and CFO reviews provide details on our strong financial performance in the year.

Board composition

2023 saw two changes in the composition of the Board. I joined Zotefoams in early January and became Chair in May 2023, replacing Steve Good, who stepped down after nine years on the Zotefoams Board. In September 2023, Malcolm Swift joined the Board and took on the Chair of the Remuneration Committee, replacing Alison Fielding, who departed on the same date. I would like to offer my personal thanks to both colleagues for their valuable support to me, as well as my thanks on behalf of everyone connected to Zotefoams for their contributions to the Group. In November 2023, we announced the planned retirement of David Stirling, our Group CEO, after 26 years as a Board member and 23 years leading the business. David will leave behind him a growth business with a clear strategy, strength in depth and exciting opportunities. The search process for his replacement concluded with the appointment of Ronan Cox as Group CEO Designate on 2 April 2024. Ronan will join the Board and take over as Group CEO from David at the Annual General Meeting due to be held on 22 May 2024.

Dividend

The Board is proposing a final dividend of 4.90p (2022: 4.62p), which, if approved by shareholders, would make a total dividend for the year of 7.18p (2022: 6.80p), an increase of 5.6%. This reflects the Board's continued confidence in the Group's future and is in line with its progressive dividend policy, recognising the importance to our shareholders of the dividend as part of their overall return. See the Group's approach to capital allocation in the Group CFO's review on page 38. If approved, the final dividend will be paid on 3 June 2024 to shareholders on the register on 3 May 2024.

Chair's statement
Continued

Our people

Central to the Group's success is our talented, diverse and collaborative team. The Board recognises that it is this which makes Zotefoams a safe, great, enjoyable and fulfilling place to work. With travel restrictions no longer in place across all our geographies, we see how important and valuable direct interaction is and how diversity of thought and the sharing of our knowledge and expertise across locations accelerates the realisation of our Group strategy. We have been very mindful of the impact of the ongoing high-cost environment on our staff and took appropriate pay decisions during the year.

Having the right people at Zotefoams, who understand and promote our culture, act at all times with integrity, safety-consciousness and dedication and possess the right knowledge and skills, continues to be critical to our future success. For the first time as Chair, I warmly welcome our new employees, extend my gratitude to our colleagues who have helped them integrate and thank all our hard-working people and their supportive families who have helped the Group continue to make good strategic progress.

Sustainability

Our purpose is to provide optimal material solutions for the benefit of society, reflecting our belief that, used appropriately, plastics are frequently the best solution for the sophisticated, long-term applications typically delivered by our customers. The Board is focused on the importance of sustainability and our strategy incorporates the consideration of climate change in terms of financial and operational impacts. Further progress was made in 2023 towards our sustainability targets. See the Group CEO's review on page 33 and the ESG report on page 64.

Acting responsibly

The Board leads an ongoing programme to ensure the highest standards of corporate governance and integrity across the Group, and has remained abreast of developing governance standards. The Board's interactions and communications with executive management continue to be excellent and, as a result, the Board is well placed to challenge, guide and support executive management in the delivery of the growth strategy. We continue to pay particular attention to the provision of a safe working environment for our staff across all global locations and to the empowerment of our employees. The Board also acknowledges the benefits of diversity, including that of gender and ethnicity, and is committed to setting an appropriate tone from the top in all diversity and inclusion matters.

Looking to the future

Zotefoams is well positioned for the future with well-invested and differentiated assets, committed, capable and passionate people, and a clear strategy for delivering profitable organic growth in a sustainable way. While we are mindful of ongoing macroeconomic and geopolitical headwinds, we remain confident about our future prospects for growth, margin improvement, return on capital employed and cash generation.

L Drummond
Chair

5 April 2024

Group CEO's review

David Stirling
Group CEO

Zotefoams has delivered record profits through pricing, product mix and cost control in a year of significant investment in our ReZorce® recyclable packaging solution.

Overview

The business today has two distinct elements: the manufacturing and sale of specialist foams, which is well-established, profitable and growing; and ReZorce, which is currently a development project moving into market testing, with enormous potential and higher associated risk.

Group revenue of £127.0m was at a similar level to the previous year (2022: £127.4m), with lower demand from industrial and construction markets, particularly in Europe and Asia, offset by growth in footwear, medical and, to a lesser extent, the aviation and automotive markets.

Input costs, in particular polyolefin raw materials and energy, declined from the record-high prices experienced in 2022, allowing our margins to recover as sales prices aligned with these input costs throughout the period.

2023	United Kingdom	Continental Europe	North America	Rest of the world*	Total
Change %	**(13)%**	**0%**	**(7)%**	**6%**	**0%**
Group revenue (£000's)	**11,879**	**32,514**	**27,195**	**55,387**	**126,975**
% of Group revenue	**9%**	**26%**	**21%**	**44%**	**100%**
2022					
Group revenue (£000's)	13,702	32,374	29,127	52,166	127,369
% of Group revenue	11%	25%	23%	41%	100%

* Rest of the world comprises China: £27.1m (2022: £30.0m) and other countries: £28.3m (2022: £22.2m).

Our business strategy remains focused on the long-term opportunity for differentiated, market-leading foams and related products. This is underpinned by three main beneficial macro-trends: demographics, where the global population is more urban and ageing; regulation, often around the safety of people; and environmental sustainability. Sustainability, along with health and safety, is embedded within everything we do.

Fundamental to our success and goal of driving improving profitability is product-mix enrichment and high levels of asset utilisation over the investment and business cycles. We therefore invest in a portfolio of opportunities across products, markets, geographies and aligned technologies which have a spread of risk and return.

In 2023, we increased investment in ReZorce mono-material barrier packaging technology. Our focus is a market trial of beverage cartons made from ReZorce substrate and filled with juice using commercially available packaging equipment. We have made substantial progress, with the filling trials scheduled to begin imminently. There is strong commercial interest in ReZorce packaging, primarily due to its sustainability credentials.

Strategic update and progress

Zotefoams invests in assets and technology with the capability to support the organic growth opportunities afforded by its diverse and often unique products. As global markets evolve, we identify business trends and emerging technologies, assessing their impact on our own business and its potential for growth. Our market knowledge, experience and customer reach afford us insights into the emerging needs of many industries. Zotefoams has the capability to design and manufacture foams with specific attributes to meet these needs, and therefore our portfolio of technologies, products and customers will evolve over time, often in partnership along the supply chain. This translates into an improving product mix, while in-year capacity utilisation is more dependent on our own investment timing and the economic cycle's impact on our customers.

The volatility seen in demand and input prices over the past few years was alleviated somewhat in 2023, allowing better engagement with customers and alignment of our product range with their developing requirements in a higher-priced environment. This "right product, right price" approach was particularly evident in our Polyolefin Foams business, where many customers realigned their purchasing decisions and the mix of products changed, resulting in lower volumes and higher profitability.

Group CEO's review
Continued

Our extrusion technology business, MEL, is now substantially focused on ReZorce mono-material barrier packaging, a recyclable and circular solution for beverage cartons. The team's initial focus is on the market for liquid-containing cartons. This is an enormous market globally, offering retailers and consumers an efficient and convenient solution for packing liquids, such as fruit juice, milk and increasingly other products such as dairy alternatives, water, soup and even household cleaning products. We believe the ReZorce solution offers a better alternative to current technologies: one which has a lower carbon footprint, clear recyclability credentials and which will use a high proportion of recycled materials in its manufacture. Our technical ability to meet the packaging requirements of sterility, low oxygen and moisture transmission and packaging functionality has existed for some time now. Investment in 2023 has primarily been focused on our ability to deliver this solution all the way to the retailer, and in July a strategic cooperation agreement was signed with a world-leading packager of beverages to facilitate this. At the time of writing this report, we are preparing to fill 150,000 cartons, which will then be subject to stringent sterility testing in preparation for a market trial mid-year. Given the scale of the opportunity, we will be seeking a strategic investing partner for ReZorce, a process which the Board believes is best timed around this market trial. Key milestones such as this trial will enable us to determine the optimal path to realise value.

Sustainability

Zotefoams' products are typically sold into markets where they are used multiple times, often for many years, and can be recycled at the end of life. Their insulation, longevity and light weight often form a positive element of our customers' own sustainability agendas. In 2023, there was a notable trend towards lighter foams in certain markets in our Polyolefin Foams business, using less material, being less expensive to manufacture and offering lower cost to our customers.

Targets are in place to manage our own Scope 1 and 2 emissions through the reduction of energy consumption, material used in manufacturing processes and waste. We met these internal targets for 2023, reducing energy consumption and waste while increasing the proportion of remaining waste recycled, often into new foams. The core markets for our products are frequently where a "best in class" foam delivers our stated purpose: optimal material solutions for the benefit of society. Examples are performance and longevity in industrial applications and consumer durables such as footwear, medical devices, insulation for planes, cleanrooms, construction and cars, as well as military and marine uses. We follow the guidance provided by IAO 14021:2016 when making environmental claims and, where appropriate, have products certified by independent organisations when making claims such as those related to recycled content. We have not yet set a net zero target; however, we are committed to specifically reviewing this during our 2024 Board strategy session.

In 2023, 85% of our revenue was from products which are considered "green" based on a resource efficiency definition where, during manufacture or use, they provide a substantial increase in the efficiency of resources. This includes all sales from MEL, which provides solutions for increasing the efficiency of resource usage by reducing polymer consumption. There were no sales for the ReZorce product during the year, due to its stage of development, but its considerable potential as a sustainable packaging solution is discussed in depth in the MEL section below.

In 2023, the Polyolefin Foams business delivered much improved profitability against a backdrop of lower sales volumes, improved pricing, lower polymer costs and better cost management.

POLYOLEFIN FOAMS

AZOTE®

Segment revenue

£67.6m

Change **(4%)**
2022 **£70.1m**

Segment profit margin

11.1%

2022 **7.0%**

Segment profit

£7.5m

Change **53%**
2022 **£4.9m**

Sales declined 4%, with a 7% volume drop partially offset by a 3% average price improvement. Volumes globally were impacted by slower industrial markets generally, although we experienced growth in some of our smaller, more specialist segments, such as medical and aviation. All regions were impacted by lower demand, particularly in the latter part of the year. Pricing improvement was primarily a result of the full-year impact of price increases implemented part-way through 2022. These benefited margins, as did some changes in product mix, often to lower-cost products, which can deliver cost savings to customers while being less expensive to manufacture.

Regionally, demand patterns were relatively consistent, with differences more apparent in the specific applications for our foams. With high transportation costs due to their bulk, most polyolefin foams are sold in Europe (62% of segment sales, 2022: 62%) and North America (32% of segment sales, 2022: 31%) as these are efficiently served by our local manufacturing capability in these regions. Polyolefin foams are widely used in industrial and multiple-use consumer applications due to their robustness and durability. The main market segments are multiple-use packaging and protection, often in the context of long-term storage solutions, construction, sport and leisure, automotive, aviation, marine, military and healthcare. The segments that performed relatively better during the year were generally those still in recovery from previous years, for example automotive, where improved demand in 2023 was in comparison to a 2022 that had represented the lowest level for many years.

Our input costs are predominantly polymers, labour and energy, with nitrogen, which we use as our environmentally friendly blowing agent to expand the foams, largely linked to the energy price.

The main polymers used in our Polyolefin Foams business are low-density polyethylene (LDPE) and other similar polyolefins. During the year, the price of LDPE in Europe was trending around its long-term average, which was around 30% lower than the high prices experienced in 2022. LDPE pricing is related to the pricing of its feedstock and ethylene, and the regional supply vs demand balance. Overall, depressed industrial markets led to an oversupply situation and, alongside lower ethylene feedstock costs, this caused a fall in the polymer price in Europe, more marked in the second half of the year. Generally, this high correlation between industrial demand and polymer pricing provides a natural hedge to volume increases or declines in the Polyolefin Foams business.

HPP

ZOTEK®
T-FIT®

Segment revenue

£58.1m

Change **7%**
2022 **£54.4m**

Segment profit margin

26.5%

2022 **28.1%**

Segment profit

£15.4m

Change **1%**
2022 **£15.3m**

Average prices for energy and nitrogen, which have a much higher impact on polyolefin foams than on the products within our HPP business unit, increased by an average of around 8% compared with 2022, although there has been a marked decrease in the volatility of pricing. We hedge energy costs by fixing prices on a proportion of our expected usage up to twelve months in advance.

We manufacture polyolefin foams in three facilities, with full-process manufacture in the UK and USA and foam expansion, fabrication and logistics in Poland. An increasing proportion of European business is served through our Polish facility, which is now operating 24 hours, five days per week.

Segment profit margin has grown to 11% of sales (2022: 7%) through improved efficiency and pricing more aligned with input costs. We have delivered cost improvements, most notably through waste reduction, including internal recycling of polymer waste and logistics cost improvements alongside incremental gains from continuous improvement in our UK facility. In the USA, our factory has built on the efficiency gains delivered in 2022, seeing gains in right-first-time quality and many other aligned metrics such as waste. Globally, there is scope over time for further improvement, primarily through improved asset utilisation, operational efficiency and mix enrichment.

Sales in our HPP business unit grew 7% to £58.1m (2022: £54.4m). The main product groups are footwear, ZOTEK® fluoropolymer foams and T-FIT® technical insulation. Overall volumes were 12% ahead of 2022, with a slight adverse impact from currency and product mix. In footwear, where we have extended our exclusive arrangement with Nike, our materials are primarily used in midsoles for running shoes but, in a new development during the year, first sales were made into their basketball segment. In 2023, sales grew 7% to £45.3m (2022: £42.1m). This exclusive arrangement allows Zotefoams to work closely with Nike on foam innovation related to their specific needs as well as better align on supply chain, production efficiency, scrap reduction and cost. Currently, there is almost zero waste in this production process, with most scrap re-incorporated into products within the footwear supply chain. Pricing to Nike – covered in our exclusive agreement, which, in June 2023, was extended to 31 December 2029 – reflects our material input costs, production costs and efficiencies, and foreign exchange rates.

Other than footwear products, we offer a range of foamed sheet materials to technically demanding applications globally under the ZOTEK® brand. The main market is aviation, where insulation and fire performance at minimal weight is paramount, driven by safety and sustainability. Other markets include space, healthcare, packaging, military and personal protection. Zotefoams offers a variety of foams with specific properties, delivered through a combination of raw material selection and our unique foaming technology. Sales volumes of ZOTEK F materials increased 9%, translating into a 6% value increase to £6.5m (2022: £6.2m). We experienced high input cost inflation in the most common materials used, although this had relatively little profit impact in the year as previously purchased inventory was consumed. Pricing adjustments have been made, mostly effective from 2024, and we recognise some associated risk due to these higher prices.

ZOTEK foam sheet sales accounted for 11% (2022: 11%) of HPP segment sales.

T-FIT insulation is made using Zotefoams' own HPP products and is designed for clean processing environments, such as in pharmaceutical, biotech and food and drink manufacture. Sales grew 1% to £5.9m (2022: £5.8m), and 6% in constant currency. In China, one of the main markets, we delivered sales growth in food processing but activity in the biotech and pharmaceutical sector was slower, and we experienced a lower success rate on some targeted larger projects. In India, sales grew strongly, with good progress across our portfolio. Outside these geographies, we are looking to improve our performance with investment in staff and a renewed focus on our sales processes. We manufacture common T-FIT insulation manufacturing products locally, either at Zotefoams facilities or outsourced to trusted partners, to support North American and European business, while our facility in China supplies all other markets as well as the complete range of product dimensions globally.

T-FIT sales represent 10% (2022: 11%) of HPP segment sales.

Segment profit increased to £15.4m (2022: £15.3m), a segment profit margin of 26.5% (2022: 28.1%). Segment margin is slightly lower than the previous year due to product-mix changes and foreign exchange rate movements.

Group CEO's review
Continued

MEL

MuCell®
ReZorce®

Aligned with a world-leading packager of beverages and a retailer with leading-edge sustainability ambition, we are preparing to fill the first ReZorce cartons with fruit juice on commercial-scale equipment.

Over the past two years, substantially all the activity in our MEL business unit has been focused on the very significant opportunity in sustainable barrier packaging. We have developed the ReZorce mono-material barrier packaging technology to meet the needs of brands and retailers seeking a more sustainable solution to food packaging that requires protection from moisture and/or oxygen (hence the term "barrier packaging"). Current barrier packaging systems require a combination of different materials in the same pack. The carton format of these systems is very effective and cost-efficient and therefore widespread; however, it is often extremely difficult to recycle and almost never circular. We have proven that our ReZorce packaging system can provide the required barrier properties, is easily recycled using common infrastructure available today and can be made using a high proportion of recycled raw materials. Overall, this solution offers a lower carbon footprint for commonly packaged foodstuffs, in some cases a reduction of more than 50%, as well as lower water and energy consumption, factors that are increasingly important to the global sustainability agenda.

During 2023, our focus has been to move from technical possibility to market reality. Many innovations fail at this stage as implementation requires large investment or change to adopt the new solution. With this in mind, we have worked closely with existing industry players and in July 2023 signed a development agreement with a world-leading packager of beverages. Throughout the entire development process, we have considered the likely barriers to implementation and have assembled a team of industry experts with experience in downstream processes and commercial norms to deliver our technology solution and related intellectual property development. This team is augmented by a US-based strategic adviser with dedicated packaging expertise.

Revenue from our MEL business unit declined 56% to £1.2m (2022: £2.8m), with reduced equipment sales and reduced royalties affected by the Group's focus on realising the ReZorce initiative, while the segment loss widened to £4.1m (2022: £1.6m) before amortisation of acquired intangibles, a direct result of the non-capitalised investment to develop ReZorce technology. In addition to this, we capitalised £2.8m (2022: £2.2m).

Capacity and investment

Zotefoams' manufacturing process comprises three main stages: extrusion of a polymer sheet, high-pressure gassing of this sheet with nitrogen and final expansion in a lower-pressure environment. The infrastructure around these processes is complex and costly and, therefore, ideally supports multiple production vessels. Most products can be made on multiple production lines, although some of our older assets are less flexible.

In the UK, most investment is focused on cost reduction and efficiency, linked to sustainability, as well as on the replacement of older assets with upgraded equipment. The UK site manufactures all the HPP products and sends partly finished polyolefin products for the final expansion process to Poland, which is closer to many customers, reducing overall transport costs and emissions.

In the USA, we see good potential to increase sales and have therefore approved the purchase of a second low-pressure autoclave, used for foam expansion, which will increase capacity and reduce reliance on the current vessel which was installed in 2000. Linked to this capacity increase, we are upgrading some associated systems and increasing warehousing space. The total cost of these investments is c. £10m, funded from existing cash resources and expected to be incurred primarily during 2024–25.

Our facilities in the USA and Poland have the flexibility for further investment to support longer-term growth.

Zotefoams is also investing in the development of the ReZorce mono-material barrier packaging technology, which is explained in more detail above.

Measuring strategic progress

Zotefoams products are sold into a wide variety of applications globally. These markets are driven by global trends – environment, regulation and demographics – which we believe offer the potential for high rates of market growth as well as an opportunity for our disruptive technology solutions.

We assess progress on six separate metrics. The first two metrics have been updated, to better reflect the focus of our management team and align with the business strategy:

1. We intend, over time, to deliver an improved mix of products. By this we mean improved profitability, and a reasonable proxy is average selling price per m^3 of foam, which is typically higher for the HPP products. Adding downstream processing such as T-FIT insulation products enhances our margin, as does the cutting processes we perform for multiple customers globally. These downstream operations are capital-light and leverage our investment in foaming technology. We adjust our HPP volumes to calculate a "capacity equivalent" to reflect the often-extended processing times of these products. The adjusted average selling price during 2023 improved by 2.7% compared with the prior year.
2. We seek to run at high-capacity utilisation to optimise the returns from our assets. Asset utilisation in the year improved by 2.6%, and is calculated using the adjusted production volume, with the same mix adjustment factors as used in the selling price calculation. Adjusted production volumes, against which we calculate asset utilisation, were 4% higher than adjusted sales volumes as we increased inventory during the final quarter of the year in anticipation of strong demand in the first few months of 2024. Efficiency gains in manufacturing during the year added 2% to the effective capacity of the Group.

3. Group operating margin increased to 11.9% (2022: 10.9%). In constant currency, the operating margin was 12.1%. The full-year impact of price increases from 2022 and lower input costs were augmented by improved efficiencies within manufacturing, offset somewhat by an increase in technical, sales and administration costs, some associated with the increased investment in ReZorce. Excluding MEL/ReZorce, operating margin was 15.5% (2022: 12.7%) or 15.7% in constant currency.
4. Group return on capital employed improved to 10.3% (2022: 10.1%), with increased profitability of the Polyolefin Foams and HPP business units offset by the increased losses of MEL as noted above. Excluding MEL/ReZorce, return on capital employed was 14.2% (2022: 12.0%). Working capital at the year end accounted for 45% of net assets (2022: 38%), with this significant increase due primarily to investment in inventory in anticipation of increased demand in Q1 2024 and higher raw material prices for certain HPP products.
5. Our approach to environmental sustainability and climate change is paramount to our business. Led by the Board and with an executive steering committee, sustainability is embedded in decision-making Group-wide. A detailed environmental, social and governance (ESG) report is included within the Annual Report and further information is available at www.zotefoams.com. Targets are linked to our bank financing arrangements, and these are supplemented by internal targets in relation to other ESG metrics. We have not yet set a "net zero" target as we believe that detailed measurement of Scope 3 emissions reduction using our products is complex and ever-changing, when compared with the best-available alternative technology, while the validity of offsetting arrangements are increasingly being challenged. However, we are committed to specifically reviewing this during our annual Board strategy session and the Executive team, through our Group Sustainability Steering Committee, is evaluating the approach to net zero.
6. MEL has potentially disruptive technology to improve sustainability, primarily in consumer packaging. We intend to invest within the Group's risk appetite to develop and commercialise this technology, which at this time is focused on ReZorce mono-material barrier packaging specifically for beverage cartons. With initial market trials imminent, we are turning our focus to full-scale commercialisation and engagement with potential strategic partners to facilitate this.

People

Our top priority is ensuring the health and safety of employees and site visitors. The Board tolerance for risk is set accordingly, with health and safety an agenda item at every Board and Executive Committee meeting. We monitor both leading and lagging indicators to improve safety performance and behaviours across the Group. At Board level, the main safety metric in our business is reportable lost time incidents and, regrettably, we had one such incident during the year (2022: two). In line with our policy, a full follow-up and analysis with corrective actions was reviewed by the Board. Other metrics, which record less severe incidents and absences, have now been significantly below industry benchmarks for six years, representing the time elapsed since we began using this form of measurement, with measured incidents around one third of the rate of comparable companies.

Employee engagement is another priority and is delivered through clear communication of our strategy, objectives and progress, which includes interactive sessions and staff surveys to facilitate feedback. Employee engagement activities included Group CEO "all-staff briefings" across all regions with a Q&A session.

On behalf of the Board and my executive colleagues, I would like to thank all Zotefoams employees and their families for their support over the past year.

Forward-looking statements

Forward-looking statements have been made by the Directors in good faith using information available up until the date they approved this Annual Report.

Current trading and outlook

We have made a positive start to 2024, with overall sales ahead of the previous year's record first quarter. Sales of HPP products have, thus far, been strongly ahead of the prior year, with expectations for continued strength in H1 2024 and more muted growth after this, mainly linked to in-year footwear demand patterns and underlying improvements in the markets for aviation and T-FIT insulation products. To date, sales of polyolefin foams are below the comparative period in the prior year, with European customers particularly impacted by weaker industrial demand, partially offset by more robust conditions in North America. We are cautiously optimistic about the underlying demand environment for polyolefin foams later in the year, supported by a business focus on application-specific initiatives to increase market share. Currently, polymer and energy input prices remain relatively stable and therefore, other than in non-footwear HPP where prices have increased based on raw material price inflation experienced in 2023, we do not anticipate any uplift in selling prices this coming year. Improved asset utilisation, product mix and operational efficiency are our key drivers of margin enhancement. In our MEL business unit, we continue to make good progress against the commercialisation objectives we have set for ReZorce, with some important milestones expected to be reached in Q2. Investment to support this will continue during 2024 as we determine the optimal pathway to realising the opportunity presented by this technology. As a result, and while we remain mindful of the uncertain economic backdrop, 2024 is expected to be another year of good progress for Zotefoams.

D B Stirling
Group CEO

5 April 2024

Group CFO's review

Gary McGrath
Group CFO

A significant increase in profitability within the foams businesses, as we fill our new capacity and enrich our product mix. This is offset by increased costs in our ReZorce® mono-material barrier packaging solution as we reach late-stage development and market testing.

Overview

Group revenue was broadly similar year on year at £127.0m (2022: £127.4m), with £0.5m favourable currency impact. Margin management in the Polyolefin Foams business and a challenging H2 2023 environment took revenue 4% and volumes 7% below the previous year, while HPP revenue grew 7% on 12% volume growth. Excluding MuCell Extrusion LLC (MEL), Group revenue grew 1% to £125.7m (2022: £124.6m).

Operating profit for the year grew 9% to £15.1m and profit before tax (PBT) increased 5% to a Group record of £12.8m, after higher interest charges. The underlying foams business, comprising the Polyolefin Foams and High-Performance Foams business units, achieved a significant increase in PBT of 22% to £17.2m (2022: £14.1m), while MEL losses increased to £4.4m (2022: £1.9m).

Basic earnings per share fell 8% to 19.00p as a result of the higher tax charge of £3.6m (2022: £2.2m), which reflects the increase in corporation tax in the UK that took effect from 1 April 2023 and the mix of profits across Group entities. Currency movements negatively impacted PBT by £0.5m.

Return on capital employed (ROCE, see below for definition) increased to 10.3% (2022: 10.1%). Excluding MEL, which is generating losses as the Group invests in ReZorce, but with continued investment contingent on progress and expected outcome, ROCE increased to 14.2% (2022: 12.0%).

The Group's balance sheet at 31 December 2023 remains strong, with the leverage multiple (calculated as a multiple of net debt to EBITDA using definitions under the bank facility agreement, see section "Debt facility") unchanged at 1.2x (31 December 2022: 1.2x) and financial headroom of £19.4m (31 December 2022: £22.9m). This is after a £1.7m (7%) increase in EBITDA to £24.7m (2022: £23.0m), increased investment in working capital of £11.1m (2022: £0.3m), see "Cash flow" below, capital expenditure of £8.5m (2022: £7.1m) and total dividends of £3.4m (2022: £3.2m).

Summary P&L

	Zotefoams Group			Foams business units only		
	2023	2022	Change (%)	**2023**	2022	Change (%)
Net revenue	**127.0**	127.4	0	**125.7**	124.6	1
Gross profit	**41.1**	38.7	6	**42.5**	38.6	10
Distribution and administrative costs	**(25.9)**	(24.8)	(5)	**(23.1)**	(22.8)	(1)
Operating profit	**15.1**[1]	13.9	9	**19.5**	15.8	23
Finance costs	**(2.3)**	(1.8)	(34)	**(2.3)**	(1.8)	(34)
Profit before tax	**12.8**	12.2	5	**17.2**	14.1	22
Tax	**(3.6)**	(2.2)	(62)			
Earnings per share	**19.00**	20.61	(8)			

1 Adjusted for rounding.

Revenue performance

Polyolefin Foams business unit sales fell 4% to £67.6m (2022: £70.1m) and, at constant currency, by 5% to £66.7m. This reflects a drive to maintain margins through close collaboration with customers and identify the right product for the right application, including promotion of the Group's recycled Ecozote® foam range. European revenues grew 2% and US revenues were unchanged, while the UK declined 18% as key customers reduced inventory. HPP sales increased 7% to £58.1m (2022: £54.4m), and by 8% to £58.6m at constant currency. Footwear is the largest application within HPP, and revenue in this market grew a further 7% to £45.3m (2022: £42.1m), resulting in this business division accounting for 36% of Group sales (2022: 33%). ZOTEK® F fluoropolymer foam sales closed the year 6% up at £6.5m (2022: £6.2m), still significantly below the 2019 peak of £10.0m as the recovery in aviation continues. T-FIT® advanced insulation sales growth stalled at £5.9m (2022: £5.8m), with a downturn in demand in China following the withdrawal of support for the pharmaceutical industry by the country's government fully offset by very strong growth in India. MEL sales fell sharply during the year, by £1.6m to £1.2m (2022: £2.8m), with reduced equipment sales and reduced royalties impacted by the Group's focus on realising the ReZorce mono-material barrier packaging initiative.

Revenue by segment (£m)

	2023 Reported	2023 Adjusted[1]	2022 Reported	Net change % Reported	Net change % Adjusted
Polyolefin Foams	**67.6**	**66.7**	70.1	**(4)**	**(5)**
UK	**10.9**	**10.9**	13.2	**(18)**	**(18)**
Europe	**30.7**	**30.0**	30.2	**2**	**(1)**
USA	**22.5**	**22.4**	22.4	**0**	**0**
Rest of the world	**3.5**	**3.4**	4.3	**(17)**	**(19)**
HPP	**58.1**	**58.6**	54.4	**7**	**8**
Footwear	**45.3**	**45.3**	42.1	**7**	**7**
ZOTEK® F	**6.5**	**6.7**	6.2	**6**	**9**
T-FIT®	**5.9**	**6.1**	5.8	**1**	**6**
Other	**0.4**	**0.5**	0.3	**–**	**–**
Group excluding MEL	**125.7**	**125.3**	124.6	**1**	**1**
MEL	**1.2**	**1.3**	2.8	**(56)**	**(54)**
Group	**127.0[2]**	**126.6**	127.4	**0**	**(1)**

1 Constant currency, adjusting 2023 values to 2022 rates. See exchange rates table.
2 Adjusted for rounding.

Revenue by market (%)

	2023	2022
Sports and leisure	**39**	37
Product protection	**22**	23
Building and construction	**12**	13
Transportation*	**11**	12
Industrial	**5**	6
Medical	**6**	5
Other	**5**	4

* Within the transportation segment, aviation represented 6.4% (2022: 7.6%) and automotive 5.0% (2022: 4.8%) of Group revenue.

Gross profit

Gross margin increased to 32.3% (2022: 30.4%), representing an increase of £2.3m in absolute terms to £41.1m. Excluding MEL, gross margin was 33.9% (2022: 31.0%), or a £4.0m increase in absolute terms.

The Polyolefin Foams business unit in the UK and Europe focused on maintaining the operating margins it was achieving by the end of the previous year, which came after a number of price increases had been implemented to offset the rapid cost inflation experienced across most inputs. While raw material costs reverted to more normal levels during 2023, the inflationary effects of almost every other input cost, including labour, offset much of the benefit. Energy costs held at historic high levels, amounting to £8.0m in the year (2022: £7.3m), after having been £4.8m in 2021. Labour costs rose significantly, with the annual pay increase in the UK, the largest employer across the Group, being 7% to help alleviate the cost-of-living crisis. Margin management for the business unit included working closely with our customers to find the optimal product at the optimal price point for the customer's need. The US business focused on and succeeded in identifying and implementing operational efficiencies, with the support of a stronger local team and increased collaboration with the UK-based team.

Distribution and administrative costs

The Group has a clear expansion strategy, founded on proprietary cellular materials technology linked to longer-term demand growth in our chosen markets. Organic growth with a portfolio of unique and highly differentiated products requires that we invest in, and prioritise, technical, sales-focused and administrative resources to create, execute and manage this growth.

Included within distribution costs in the consolidated income statement are sales, marketing and warehousing expenses. These costs decreased by £0.1m, or 1%, to £7.9m (2022: £8.0m) during the year, with lower offsite warehousing costs offsetting inflationary costs such as labour. Included within administrative expenses are technical development, finance, information systems and administration costs as well as the impact of foreign exchange hedges maturing in the period and non-cash foreign exchange translation expenses.

These costs increased in 2023 by £1.2m, or 7%, to £18.0m (2022: £16.8m). However, after stripping out foreign exchange effects, which generated a movement of £0.3m (2022: £1.8m), these administrative costs increased by 19%, or £2.7m, to £17.7m (2022: £15.0m), with £0.9m of the increase related to the Group's investment in its ReZorce technology and the majority of the rest related to labour additions and cost increases. See "Currency review" below for further information and context around foreign exchange movements.

The business unit results do not include central plc costs, which are not considered to be segment specific. Neither do they include hedging movements. In 2023, central plc costs were £3.1m (2022: £2.5m).

Group CFO's review
Continued

Distribution and administrative costs breakdown

	2023	2022	Change (%)
Distribution costs	**7.9**	8.0	1
Administrative costs excluding hedging movements	**17.7**	15.0	(19)
Hedging movements	**0.3**	1.8	84
Administrative costs	**18.0**	16.8	(7)
Distribution and administrative costs	**25.9**	24.8	(5)

Operating profit
Operating profit was £15.1m, 9% above 2022 (£13.9m) and the operating margin increased to 11.9% from 10.9%. Operating profit of the foams businesses alone, excluding MEL, was £19.5m, 23% above 2022 (£15.8m), and the operating margin increased to 15.5% from 12.7%.

Finance costs
Gross finance costs for the year increased 40% to £2.5m (2022: £1.8m) and include £0.1m (2022: £0.1m) of interest on the Defined Benefit Pension Scheme obligation. This increase reflects the rise during the year in US dollar and euro base rates, which are the currencies in which the Group's debt obligations are held, while the prior year comparative included £0.3m related to unamortised costs of the previous banking facility, replaced in March 2022. Net finance costs, after finance income, increased 34% to £2.3m (2022: £1.8m).

Profit before tax
Profit before tax increased 5% to £12.8m (2022: £12.2m). The foams businesses increased 22% to £17.2m (2022: £14.1m), while the MEL loss increased to £4.4m (2022: £1.9m).

Currency review
Exchange rates
Zotefoams transacts significantly in US dollars and euros. The exchange rates used to translate the key flows and balances were:

	2023		2022	
	Average	**Closing**	Average	Closing
Euro/sterling	**1.150**	**1.150**	1.173	1.129
US dollar/sterling	**1.243**	**1.271**	1.238	1.204

While movements in foreign exchange rates can have a significant impact on Group results, the impact in 2023 was limited. During the year, the sterling average exchange rate year on year against the US dollar strengthened by 0.4% and the sterling average exchange rate against the euro weakened by 2.0%. The sterling spot rate against the US dollar from 31 December 2022 to 31 December 2023 strengthened by 5.6%, while the sterling spot rate against the euro from 31 December 2022 to 31 December 2023 strengthened by 1.9%.

Zotefoams is a predominantly UK-based exporter which invoices in local currency, with the exception of Asia where all business is invoiced in US dollars. In 2023, approximately 92% of sales (2022: approximately 90%) were denominated in currencies other than sterling, mostly US dollars or euros. While operating costs at the Croydon, UK, site are incurred in sterling, the main raw materials for polyolefin foams used for production in the UK are euro-denominated and US subsidiary production and operating costs, most other subsidiaries' staff and operating costs and some HPP raw materials are US dollar-denominated. Poland operating costs are incurred in zloty. The Group uses forward exchange contracts to hedge up to 80% of its forecast net cash flows over the following twelve months that are subject to US dollar and euro transaction risk.

The Group recorded a gain on forward exchange contracts in the year of £0.2m (2022 loss: £2.9m).

Zotefoams also faces translation risk. Zotefoams plc, the parent company, holds the Group's multi-currency borrowings facility and has provided intercompany loans and intercompany trading facilities to the USA and Poland to support the Group's recent capacity expansion projects. This translation exposure is mitigated, where possible, through an offset with same-currency liabilities, primarily through borrowing in the relevant currency. Every month, these foreign currency-denominated intercompany net positions, despite being cash neutral, require to be translated by Zotefoams plc on a mark to market basis and the movement taken to the Company income statement. The Group also has a fast-growing HPP business, which is mostly invoiced from the UK in US dollars, which adds to its exposure to foreign currency-denominated net assets and is accounted for in the same way as above. While FX exposure is partly mitigated by the forward currency contracts, risk remains based on the amount of forecast exposure not hedged, in line with Group policy, and the fact that there is a timing difference between the recording of accounts receivable and cash received. This timing difference is managed by further hedging activities, but their effectiveness is subject to the accuracy of forecasting cash receipts. The Group recorded a translation loss in the year of £0.5m (2022 gain: £1.0m).

Currency movements during the year positively impacted Group revenue by £0.5m (2022: £7.6m positive impact). They negatively impacted operating costs by £0.7m (2022: £3.2m negative impact), resulting in a net negative impact of £0.2m (2022: positive impact £4.3m) before hedging. After deducting the net hedging loss of £0.3m (2022: loss of £1.8m), the currency net negative impact on profit before tax for the year was £0.5m (2022: positive impact £2.5m).

We recognise that one of our principal risks is our exposure to foreign currency fluctuations, particularly the US dollar, which we will aim to manage through hedging strategies. Based on 2023 and with respect to transaction risk, it is estimated that for every one percentage point movement in the US dollar/sterling rate, profit moves by £0.6m unhedged and £0.2m hedged. In the year, it is assumed that the transaction risk from euro/sterling movements continues to be substantially naturally hedged, with the risk arising on sales revenues offset by the opportunity on costs, primarily related to raw material purchases and certain further processing costs.

The Group does not currently hedge for the translation of its foreign subsidiaries' assets or liabilities. The foreign currency hedging policy is kept under regular review and is formally approved by the Board on an annual basis.

Profit by segment (£m)

	2023 Reported	2023 Adjusted*	2022 Reported	Net change % Reported	Net change % Adjusted
Polyolefin Foams	**7.5**	**7.0**	4.9	**52**	**42**
HPP	**15.4**	**16.1**	15.3	**1**	**5**
MEL	**(4.4)**	**(4.3)**	(1.9)	**(130)**	**(127)**
Subtotal Business units	**18.5**	**18.8**	18.3	**1**	**2**
Central costs	**(3.1)**	**(3.1)**	(2.5)	**(22)**	**(22)**
Hedging	**(0.3)**	**–**	(1.8)	**–**	**–**
Finance costs	**(2.3)**	**(2.3)**	(1.8)	**(34)**	**(32)**
Subtotal Other	**(5.7)**	**(5.4)**	(6.1)	**(7)**	**(12)**
Group excluding MEL	**17.2**	**17.7**	14.1	**22**	**25**
Group	**12.8**	**13.4**	12.2	**5**	**9**

* Constant currency, adjusting 2023 values to 2022 rates. See exchange rates table above.

Taxation charge and earnings per share

The tax charge for the year is £3.6m (2022: £2.2m). The effective tax rate for the year is 28.0% (2022: 18.1%) and the Group's weighted average corporate tax rate for the year is 24.8% (2022: 19.5%). The tax charge reflects the increase in the UK corporation tax rate to 25% that came into force on 1 April 2023 and the Group's prudent approach to not recognising tax losses in its US subsidiaries (that are driven by MEL).

Impacted by the tax charge and despite increased PBT, basic earnings per share was 19.00p (2022: 20.61p), a decrease of 8%. Diluted earnings per share was 18.55p (2022: 20.20p).

ReZorce

The ReZorce technology being developed by MEL offers brand owners the ability to significantly reduce their carbon footprint and also help meet their pledges on both recycling and the use of recycled content in their packaging, putting sustainability at the heart of our MEL development agenda. During the year, Zotefoams continued its investment in this opportunity. In line with IAS 38 "Intangible assets", £2.5m (2022: £1.4m) was invested in labour and other directly attributable costs and capitalised. The Group also invested £0.3m (2022: £0.8m) during the year to purchase and develop equipment, which has been recorded under tangible assets. In total, capitalised investment in ReZorce amounted to £2.8m during 2023 (2022: £2.2m), and the net book value at 31 December 2023 of amounts capitalised over the life of the project amounts to £6.8m (2022: £4.7m). In addition to the investment capitalised and driven by the focus on ReZorce and developments and progress made during the year, MEL reported a loss before tax of £4.4m (2022: £1.9m). The total cash outflow from MEL in the year amounted to £5.5m (2022: £3.9m).

The Board does not currently consider any of these assets to be impaired, given the progress made in technical development, the signing of a joint development agreement with a global packaging company and the contributions this is making to progress, the preparations under way for an imminent in-store trial at a recognised supermarket chain in northern Europe, the assessed size of the commercial opportunities, and the Board's continuing commitment to the initiative.

Capital allocation

The discipline with which a company allocates capital is a key determinant of growth and sustained financial returns. The Board is actively engaged in this process. Zotefoams focuses on achievable sustainable profit growth by investing and developing its business in the following ways.

Capital expenditure in foam manufacturing

Given the capital-intensive nature of the Zotefoams business, long lead times for key equipment and the importance of operational gearing, investment decisions require significant planning and are made with a clear assessment of strategic fit, risk, risk appetite, sustainability credentials and expected returns. Confidence in the Group's developing portfolio of HPP opportunities is a significant consideration in determining the timing of certain investments, while the strategic importance of maintaining growth in the profitable Polyolefin Foams business, the Group's largest-volume product range, informs the decision to increase total Group capacity versus relying solely on mix enrichment. Outside significant capacity-related investments, the Group also invests to maintain its capital-intensive assets, mindful of the risk of operational disruption (see section in this Annual Report on principal risks), and opportunities to improve energy efficiency and further reduce health and safety risk, particularly at the older UK facility. The annual and five-year capital requirements planning outcomes, as well as progress against them, are reviewed by the Board and individual projects of a certain expenditure level require Board approval beyond that given in the normal annual Budget cycle.

Zotefoams targets improvements in the Group's return on capital over the investment cycle, while recognising the short-term impact on the return of sizeable capital investments during their construction and early operations phases, where they initially run at lower utilisation and mix optimisation levels. When Zotefoams embarks on investment in a major expansion or new location, such as the installation of extrusion and high-pressure capability at our existing Kentucky, USA, site, which we commissioned in 2018, or the most recent investment in foam manufacturing at the Poland site, commissioned in 2021, we take into account the importance of scale and dilution of heavy infrastructure cost over a (future) second or third line. As such, the first step is invariably more dilutive to capital return than any subsequent investments.

Research and development

Zotefoams is an innovator in advanced technical foams and pursues a strategy to continuously develop a portfolio of products that leverages its unique technology. Dedicated teams actively pursue raw material and new product development opportunities that further the technical performance and sustainability attributes of the product portfolio. Performance is reviewed at quarterly risk and opportunity steering committees, which include the Executive team, and the Director of Technology and Development engages frequently with the Board.

The Group is currently pursuing, and investing significantly behind, a transformative mono-material barrier packaging solution through its MEL business unit, branded as ReZorce. In this pre-revenue development phase, overall capital returns are diluted as a result of both the operating loss as well as the capital investments made, but the initiative offers significant potential if the technology is adopted.

Group CFO's review
Continued

Working capital
The business requires investment in working capital to achieve high levels of customer service and targeted margins. Customer payment terms reflect the competitive environment of each of the geographical and industrial markets in which the Group plays, as well as historical terms with long-term customers who have been integral to growth over the past one to two decades. Inventory levels reflect the value of the raw materials, the length of the supply chain and the volume of inventory required to achieve targeted customer satisfaction levels. Growing beyond the space-restricted site in the UK, as well as growing HPP at a faster rate than Polyolefin Foams, where supply chains are longer, technical testing is required, the customer is often more strategic, and raw material purchase costs are significantly higher, is increasing the investment required in inventory. The Group's main suppliers are either large multinational polymer manufacturers or energy companies, where the ability to negotiate credit terms is limited. The Board receives monthly financial updates, which include performance on working capital against the annual budget and the quarterly forecasts, both of which are reviewed and approved by the Board.

Dividend
The Board has a progressive dividend policy, recognising the importance to our shareholders of the dividend as part of their overall return while ensuring sufficient capital and liquidity to pursue its growth ambition. A minimum earnings cover of 2 times is targeted. The Board regularly reviews this policy as the Group grows and capital expenditure demands a lower share of the cash generated.

Non-organic growth
The Group's strategy focuses on leveraging its unique technology, filling assets and enriching the product sales mix. While it is open to non-organic opportunities, it has not pursued them in the past. This may change with the availability of capital from a growing business with reducing debt, the long lead-time associated with major capacity expansion, and the ambition to maintain a rate of growth that generates high shareholder returns.

Recent investment in capacity
Starting in 2015 with a programme to add the first and second stages of the Zotefoams manufacturing process into the USA, continuing with the addition of HPP capacity in the UK to support the Footwear opportunities and ending with the commissioning of the Brzeg, Poland, manufacturing facility in 2021, Zotefoams experienced a period of high capital investment. Over this period, we invested £91.4m in property, plant and equipment, of which £67.1m, or 73%, was directed to growth. With this programme complete, and over the medium term, the Group expects to return to levels of capital expenditure more in line with depreciation.

Return on capital employed
Zotefoams defines the return on capital employed (ROCE), which is a non-IFRS measure, as operating profit before exceptional items divided by the average sum of its equity, net debt and other non-current liabilities. This measure excludes acquired intangible assets and their amortisation costs. We also exclude significant capacity investments under construction until they enter production. We do not attempt to adjust for the first phase inefficiencies as mentioned above.

In 2023, the Group's ROCE increased to 10.3% (2022: 10.1%), mostly reflecting improved profitability in the year. Excluding MEL, which is incurring significant discretionary losses as we invest in a significant opportunity that could generate very high future returns, ROCE increased to 14.2% (2022: 12.0%). Before the increase in the capital base that resulted from our investments in the UK, USA and Poland, the additional operating costs arising from their operation, and the start of investment in ReZorce, ROCE was 16.5% (2018). Business growth, with this increased capacity matched by improved utilisation and mix enrichment, is expected to improve ROCE beyond that previously achieved, excluding the outcome of the ReZorce project which it is not possible to quantify at the current stage of its development.

Dividend
The Directors are proposing a final dividend of 4.90p (2022: 4.62p), which would be payable on 3 June 2024 to shareholders on the Company register at the close of business on 3 May 2024. The ex-dividend date will be 2 May 2024. Taken with the interim dividend of 2.28p (2022: 2.18p), this would bring the total dividend for the year to 7.18p (2022: 6.80p) and would represent a dividend cover of 2.6 times (2022: 3.0 times).

Cash flow
The Group is by its nature highly cash generative and, this year, net cash from operations before investment in working capital and provisions was £24.1m, in line with the previous year (2022: £24.1m). This includes the increased loss in MEL of £2.5m as we progress to in-store trials in H1 2024. Out of this, £11.1m (2022: £0.3m) was reinvested in working capital. Trade and other receivables increased £3.8m (2022: increased £4.8m), reflecting increased sales in November and December against the previous year and the year-end timing of certain sizeable Footwear customer receipts. Inventories increased £6.3m (2022: decreased £0.4m), with £2.2m reflecting a strategic build of footwear and European polyolefin foam to capitalise on available capacity in H2 2023 and in anticipation of high levels of capacity utilisation in 2024. It also reflected a significant increase in ZOTEK F inventory value as a result of a near doubling of unit purchase price during the year. Trade and other payables decreased £1.0m (2022: increased £4.1m) reflecting general payment timings. Zotefoams recognises the importance of its supplier relationships and has improved its performance with respect to honouring agreed payment terms. As a result of the above, cash generated from operations was significantly lower than the previous year at £12.1m (2022: £23.0m).

During the year, the Group paid interest on its borrowings of £2.1m (2022: £1.3m), reflecting increased base rates on similar average debt levels across much of the year. Net taxation paid during the year, net of refunds, amounted to £2.2m (2022: £0.7m), reflecting higher profits at the Company alongside an increased corporation tax rate, and compared against a 2022 tax credit of £0.8m from a tax computation refund and capital allowance recovery from previous years.

Zotefoams' property, plant and equipment capital expenditure remained at a lower level than in recent history, as expected, following several years of capacity expansion, with total expenditure of £5.8m (2022: £5.4m). Expenditure was split across several categories, the most significant being 41% on essential replacement and 26% on capacity expansion. ESG initiatives were a key component of capital expenditure in the year with 65% of expenditure offering benefits through improved energy efficiency, safety or reduced waste. Geographically, 68% was directed to our Croydon, UK, plant and 18% to our Walton, USA, plant.

Summary cash flow

	2023	2022
Profit before tax	**12.8**	12.2
Depreciation and amortisation	**8.2**	8.2
Other	**3.1**	3.7
Net cash from operations before provisions and investment in working capital	**24.1**	24.1
Employee defined benefit contributions	**(0.9)**	(0.8)
Working capital movement	**(11.1)**	(0.3)
Receivables	**(3.8)**	(4.8)
Inventory	**(6.3)**	0.4
Payables	**(1.0)**	4.1
Cash generated from operations	**12.1**	23.0
Interest paid	**(2.1)**	(1.3)
Taxation paid	**(2.2)**	(0.7)
Investments in intangible assets	**(2.7)**	(1.7)
Investments in tangible assets	**(5.8)**	(5.4)
Dividends	**(3.4)**	(3.2)
Movement in finance obligations	**0.4**	(7.8)
Lease payments	**(0.8)**	(0.4)
Other	**0.1**	–
Movement in cash and cash equivalents	**(4.2)**	2.5

The Group also invested £2.7m (2022: £1.7m) in intangible assets, almost entirely related to MEL patents and capitalised development costs for ReZorce. The combined investment of £8.5m (2022: £7.1m) is in line with the Group's combined depreciation and amortisation charge (2023: £8.2m).

After dividends paid in the year amounting to £3.4m (2022: £3.2m) and lease payments of £0.8m (2022: £0.5m), closing net debt rose 13% to £31.6m (2022: £27.8m). At the year end, the Group remains comfortably within its bank facility covenants, with a multiple of EBITDA to net finance charges of 11.2 (2022: 13.7), against a covenant minimum of 4 (2022: 4), and net debt to EBITDA (leverage) multiple of 1.2 (2022: 1.2), against a covenant of 3.5 (2022: 3.5). See "Debt facility" for a definition of leverage and information on the Group's bank facility arrangements.

Debt facility

The Group's gross finance facilities with Handelsbanken and NatWest comprise a £50.0m multi-currency revolving credit facility with a £25.0m accordion, a renewal date of March 2027 and an interest rate ratchet, and includes a small element related to the achievement of sustainability targets. The facility has two covenants: a finance cost covenant with a multiple of 4.0 and a leverage covenant with a multiple of 3.5.

At 31 December 2023, headroom, which we define as the combination of amount undrawn on the facility and cash and cash equivalents disclosed on the statement of financial position, amounted to £19.4m (2022: £22.9m).

Zotefoams defines EBITDA as profit for the year before tax, adjusted for depreciation and amortisation, net finance costs, the share of profit/loss from its joint venture and equity-settled share-based payments.

Net debt comprises short- and long-term loans less cash and cash equivalents and is adjusted from IFRS by the impacts of IFRS 2 and IFRS 16 under the bank facility definition.

Post-employment benefits

The Company operates a UK-registered trust-based Defined Benefit Pension Scheme (the "DB Scheme"), which provides defined benefits. Pension benefits are linked to the members' final pensionable salaries and service at their retirement (or date of leaving if earlier). The DB Scheme was closed to new members in 2001, as was the link to future accrual of salary in 2005. Inconsistencies in the way the DB Scheme's link to future accrual of salary was closed in 2005 were rectified in 2019. There are three categories of pension scheme members:

- deferred members with salary linkage: current employees of the Company who have not consented to the break in their salary linkage;
- deferred members: former and current employees of the Company not yet in receipt of pension; and
- pensioner members: in receipt of pension.

The last full actuarial valuation of the DB Scheme took place as at 5 April 2020. On a Statutory Funding Objective basis, a deficit was calculated for the DB Scheme of £7.7m (previous triennial valuation: £4.2m). As a result, the Company agreed with the Trustees to make contributions to the DB Scheme of £643,200 p.a., beginning 1 July 2021, to meet the shortfall by 31 October 2026 (previously 31 October 2026), up from £492,000 p.a. previously. In addition, the Company pays the ongoing DB Scheme expenses of £216,000 p.a. (previously £180,000 p.a.) to cover death-in-service insurance premiums, the expenses of administering the DB Scheme and Pension Protection Fund levies associated with the Scheme.

In line with the requirement to have a triennial valuation, a formal actuarial valuation is being carried out for the Trustees as at 5 April 2023 and, once finalised, the contributions may change.

The defined benefit obligation is valued by projecting the best estimate of the future benefit from the outlay of monies (allowing for future salary increases for deferred members with salary linkage, revaluation to retirement for deferred members and annual pension increases for all members) and then discounting to the balance sheet date. The majority of benefits receive increases linked to inflation (subject to a cap of no more than 5% p.a.). The valuation method used is known as the Projected Unit Method. The approximate overall duration of the Scheme's defined benefit obligation as at 31 December 2023 was around 12 years. The net IAS 19 deficit on the DB Scheme decreased by £0.6m to £2.7m as at 31 December 2023 (2022: £3.3m) and represents 2.3% (2022: 3.0%) of consolidated net assets. The value of the defined benefit obligation at the year end increased by £0.4m from £26.1m in 2022 to £26.5m in 2023 but was more than offset by the actual investment return achieved on the assets, which grew £1.0m from £22.8m in 2022 to £23.8m in 2023. Zotefoams does not consider its pension scheme to be a key risk to its ability to achieve its strategic objectives, due to the immaterial share of net assets that

Group CFO's review
Continued

Group banking covenants definition
Net debt to EBITDA ratio (Leverage)

£m	2023	2022	£m	2023	2022
Profit after tax	**9.2**	10.0	Net debt per IFRS	**31.6**	27.8
Adjusted for:			IFRS 16 leases	**(1.3)**	(1.0)
Depreciation and amortisation	**8.2**	8.2	Finance leases pre-1 January 2019	**–**	–
Finance costs	**2.5**	1.8	Roundings	**(0.1)**	–
Finance income	**(0.2)**	(0.1)	Net debt per bank	**30.2**	26.8
Share of result from joint venture	**–**	–			
Equity-settled share-based payments	**1.3**	0.8			
Taxation	**3.6**	2.2			
Roundings	**0.1**	0.1			
EBITDA	**24.7**	23.0	Leverage per bank	**1.2**	1.2

EBITDA to net finance charges ratio

£m	2023	2022	£m	2023	2022
EBITDA, as above	**24.7**	23.0	Finance costs	**2.5**	1.8
			Finance income	**(0.2)**	(0.1)
			Share of result from joint venture	**–**	–
EBITDA to net finance charges	**11.2**	13.7	Net finance charges	**2.3**	1.7

the deficit represents. Mitigation of further risk is expected to come from our growth expectations and the continued focus by the Trustees on a lower-risk strategy to meet the DB Scheme's deficit.

Going concern
The Group's business activities, together with the factors likely to affect its future development, performance and position, are set out in the Strategic Report on pages 1 to 77 and the section entitled "Risk management and principal risks" on pages 45 to 58. These also describe the financial position of the Group, its cash flows and liquidity position. In addition, note 21 to the financial statements includes the Group's objectives, policies and processes for managing its capital, its financial risk management objectives, details of its financial instruments and hedging activities, borrowing facilities and its exposure to credit risk and liquidity risk.

The Directors believe that the Group is well placed to manage its business risks and, after making enquiries including a review of forecasts and predictions, taking account of reasonably possible changes in trading performance and its available debt facilities, have a reasonable expectation that the Group has adequate resources to continue in operational existence for the next twelve months following the date of approval of the financial statements. The Directors have also continued to draw upon the experiences of 2020 and the Group's success in reacting to the challenges of COVID-19 through its safety protocols and cost and cash management, all of which could be replicated in a similar scenario.

After due consideration of the range and likelihood of potential outcomes, the Directors continue to adopt the going concern basis of accounting in preparing the Annual Report.

Financial risk management
The main financial risks of the Group relate to funding and liquidity, credit, interest rate fluctuations and currency exposures.

The management of these risks is documented in note 21.

G C McGrath
Group CFO

5 April 2024

Risk management and principal risks
Managing our risks to achieve our strategic objectives

Zotefoams' risk management process is designed to improve the likelihood of achieving its strategic objectives, keep its employees safe, protect the interests of its shareholders and key stakeholders, and enhance the quality of its decision-making. It is designed to identify key risks and provide assurance that these risks are understood and managed in line with the agreed risk appetite. The Group is committed to conducting business in line with all applicable laws and regulations and in a manner consistent with its values.

Risk management governance

The Board, in the context of our set objectives, is responsible for the risk management framework and for managing Group's key strategic and emerging risks. It delegates to the Audit Committee the review of the effectiveness of risk management, the system of internal control, the monitoring of the quality of financial statements and consideration of any findings reported by the External Auditor in relation to the Group's control environment and its financial reporting procedures as part of its annual audit. The Executive Committee supports the Board in its responsibilities, manages the risk framework on a day-to-day basis and considers any emerging risks that may not be covered under the existing framework. Comprising the Executive team, the Internal Control Committee meets bi-annually to validate the effective functioning of the framework, assess any need for change and consider the more detailed outputs of the functional steering committees. The functional steering committees, comprising Executive Committee members as well as functional experts, identify and address the specific and emerging risk areas within their area of focus.

The Board confirms that it has completed a robust assessment of the Company's and Group's principal and emerging risks and uncertainties. The procedures, and how these risks and uncertainties are being managed, are laid out below.

Risk appetite

Zotefoams is a business with good opportunities for growth. Reflecting the uniqueness of our technology, its capital intensity and the importance of matching capacity with our demand expectations, we plan for the future over five years and convert these plans into financial forecasts. To achieve more ambitious targets, we understand we must be willing to accept higher levels of risk. We seek an appropriately balanced outcome, where we consider the level of reward commensurate with the likelihood of success. We recognise the importance of taking these risks within clear boundaries as recommended by the Executive team and approved by the Board. We challenge, reassess and reaffirm these boundaries regularly and, for key decisions, on a case-by-case basis. As a manufacturing company, the health and safety of our employees will always be paramount, which translates into an extremely low tolerance for risk in this area.

Developments during the year

- The cost inflation challenges of the two previous years continued into 2023, with underlying energy, labour and borrowing costs driving many input costs up, and staff costs increasing significantly across all operating entities. In the Polyolefin Foams business, these increases were partly mitigated by raw material costs reverting to more normal levels and a stabilising, albeit at a high level, of energy prices. The business pursued a series of initiatives to maintain margins achieved towards the end of 2022, including product-range management via promoting recycled foams and challenging our customers to assess lower-cost, often lower-density, products, as well as through the continued pursuit of cost efficiencies in operations. In the High-Performance Products (HPP) business, raw material cost increases were more significant than in previous years, with a price-setting mechanism in footwear mitigating this risk, while the impact of significant increases in fluoropolymer materials for the aviation and T-FIT® technical insulation businesses will impact in 2024, once previously purchased inventories are consumed, and will be tackled with price increases, although at some risk of demand reduction.
- The conflict in Ukraine has had little direct impact on the Group. In Continental Europe and the UK, energy prices fell during the year but remain at higher levels than before, which has had some impact on customer demand in these regions.
- The conflict in Gaza has not had any immediate impact on the business and the challenges to shipping that began towards the end of 2023 are not expected to have any material impact on Zotefoams beyond slightly increased shipping times and costs.
- The Footwear business grew a further 7%, and sales represent 36% (2022: 33%) of Group sales. The relationship with Nike remains strong, with a dedicated Zotefoams team engaged in frequent discussions around current operations and future opportunities. Visibility of future opportunities extends two to three years out. In June, the Group announced the extension of its exclusivity agreement with Nike to 31 December 2029, demonstrating the commitment by both parties to further develop footwear technology and the partnership's success.
- The ReZorce® mono-material barrier packaging initiative, which puts circularity at the heart of the MEL business unit development agenda, made significant technical progress during the year, but challenges remain and investment in the opportunity remains high. In July, we announced a joint development agreement with a world-leading packer of beverages and a planned use of the technology in in-market trials for a major European retailer. This trial is imminent and is expected to be the catalyst for the next step of finding a strategic partner to help us maximise the value of this technology. The Board's level of oversight on this initiative was very high during the year, with frequent meetings with and without MEL management.

Risk management and principal risks
Continued

- Board-approved sustainability targets, which include commitments made as part of our 2022 refinancing agreement with Handelsbanken and NatWest, were monitored throughout the year. These included targets around waste reduction, energy consumption and new product development. Good progress was made and is reported on page page 67 in the ESG report.
- The Executive team, all of whom are members of the Internal Controls Committee, met twice during the year specifically to review and update the Group's principal risks and uncertainties, which included ensuring that any emerging risks were being effectively captured in a timely manner.
- Zotefoams prepares an annual strategic plan over a five-year period. The Board and Executive team risk-assessed this plan during the two-day annual strategic review in October.
- An outcome from the five-year strategic review was the recognition of Artificial Intelligence as both an emerging opportunity and risk. As a consequence, a new steering committee was formed with Terms of Reference related to both capturing the opportunity as well as ensuring that the correct controls are in place to protect the Group from risks such as the unintended sharing of trade secrets. Progress on these activities will be reported directly to the Board.
- A new Chair, Lynn Drummond, was appointed in May 2023 following a competitive process led by a leading, global recruitment company and the departure of Steve Good after serving nine years as a Board Director, in line with the Corporate Governance Code. L Drummond joined the Group as a Director in January 2023 and followed a thorough onboarding programme to ensure a smooth transition.
- David Stirling, Group CEO, advised the Board in November 2023 of his decision to retire in 2024. The search for his replacement concluded with the appointment of Ronan Cox as Group CEO Designate on 2 April 2024. R Cox will join the Board and take over as Group CEO from D Stirling at the Annual General Meeting due to be held on 22 May 2024.
- The Board reviewed the Group's key policies, including anti-bribery and corruption, competition, ethics, whistleblowing and share dealing, to make sure they remain relevant and are operating effectively.
- The Croydon, UK, and Brzeg, Poland, manufacturing plants retained accreditation to the Occupational Health and Safety Management System ISO 45001 during the year. This reflects significant focus and effort from a dedicated Health and Safety team at both sites, underpinned by high levels of Executive team engagement and a continuous focus by employees on risk identification and mitigation.
- Both plants also retained accreditation to the Environmental Management System ISO 14001 during the year.
- The Quality Management System accreditation ISO 9001 was recertified across the Croydon, UK, Walton, USA, and Brzeg, Poland, sites.
- The Group continues to use an external adviser to perform its financial internal audit services. During the year, based on the Group's internal risk assessments and an agreed three-year audit plan that requires two audit engagements per year, our Internal Auditor, Grant Thornton UK LLP, completed a global audit on GDPR and a UK-focused audit on Human Resources processes, with outcomes and improvement plans presented to the Audit Committee.
- Recognising the importance of formal and effective documentation of controls and the testing thereof, an Internal Control Manager was recruited at the end of 2022 with a three-year plan to achieve what, at the time, was expected to be the UK equivalent of Sarbanes-Oxley. Despite the recent decision by the government not to proceed with this, Zotefoams remains committed to such a process. During the year, the control environment at the largest of the Group's entities, the UK company Zotefoams plc, was fully documented and control testing commenced.
- Cyber security remains a critical part of our IT strategy and is embedded in our day-to-day operations. The Cyber Essentials Plus certification, an in-depth and thorough independent assessment of our IT systems, was re-awarded in 2023. Zotefoams also continued with its cyber security awareness testing programme for managers and staff across the Group, including the Board. This programme includes monthly phishing tests emailed to each staff member and uses the highest difficulty setting. During the period, the failure rate was consistently better than industry standards. There was no instance of a cyber security breach in 2023. Nevertheless, in recognition of the frequently changing risks related to cyber security, the IT function, with the support of the business, spent 2023 preparing for an accreditation to ISO 27001:2022, an information security standard which provides a framework and guidelines for establishing, implementing and managing an Information Security Management System. This accreditation was tested and awarded in February 2024 in the UK and in March 2024 in the USA and Poland.

Risk management framework

Board

- Ensures that risk is managed across the business
- Defines the Group's appetite for risk
- Assesses the Group's principal risks and opportunities

Executive Committee

- Inputs into the Board's process for setting risk appetite
- Implements strategy in line with the Group's risk appetite
- Manages opportunities and the resulting risks
- Maintains a watching eye over emerging risks
- Leads operational management's approach to risk
- Inputs its assessment of risk and opportunities into the Internal Controls Committee
- Ensures satisfactory resolution of actions identified at the Internal Controls Committee
- Is directly responsible for managing certain specific, high-level risks

Audit Committee

- Monitors and reviews the effectiveness of the Group's risk management framework
- Considers reports from the Internal Auditor and the External Auditor in relation to risk and control

Internal Controls Committee

- Reviews and assesses the effective functioning of, and proposed amendments to, the Group's risk management framework
- Reviews the outputs and the effectiveness of all functional steering committees and takes action where outputs do not achieve the desired effect
- Reviews the context within which Zotefoams operates and the effect of risks and opportunities on management systems and strategic direction
- Assesses and ensures mitigation actions identified at functional steering committees are planned, implemented and effective
- Reviews, updates and submits the Group's principal risks and uncertainties to the Board
- Reviews and approves the Zotefoams business continuity plan

Functional Steering Committees

- Chaired by, and including, Executive Committee members
- Provide a regular forum for active monitoring of key emerging and more established business risks as they relate to the achievement of the Group's strategic objectives, the controls and activities in place to mitigate them, the key actions required and their timings
- Report bi-annually to the Internal Controls Committee on adherence to their Terms of Reference specific to risk and raise any failures in the effectiveness of existing processes.

Steering committees are in place for:

With plc responsibility*

- Health and Safety (with a sub-committee on Fire Protection)
- Environment
- Group Sustainability
- IT (with a sub-committee on Artificial Intelligence, introduced in 2023)
- Quality
- Product Development
- Marketing Communications
- Planning and Capacity
- Capital Planning
- Foreign Exchange
- HR and Training
- T-FIT business unit
- Key Supplier Review
- Contract Control
- Credit Management
- Maintenance

With local responsibility

- Zotefoams Inc Executive, plus functional sub-committees
- MEL Executive, plus functional sub-committees
- Zotefoams Poland Executive, plus functional sub-committees

* Covers all entities other than those identified under local responsibility

Operational management

- Members of functional steering committees
- Creates an environment where risk management is embraced and the responsibility for risk management is accepted by all employees
- Implements and maintains risk management processes

Employees

- Active in the day-to-day understanding and management of risk

Audit processes

- External financial audit: the Group's External Auditor, PKF Littlejohn LLP, performs the annual statutory audit which includes a report to the Audit Committee on significant findings.
- Internal financial audit: the Group engages the services of a third-party provider of internal audit services, Grant Thornton UK LLP, and follows a risk-based annual audit plan as approved by the Audit Committee.
- Non-financial audit: the Group's main manufacturing sites hold accreditations to various international standards for health and safety, environment and quality. To maintain these accreditations, we engage reputable third parties to verify ongoing compliance. Additionally, internal audits are conducted globally by third-party providers of internal audit services and our own quality professionals.

Risk management and principal risks
Continued

Principal risks and uncertainties

The details of our principal and emerging risks and uncertainties and the key mitigating activities can be found on pages 49 to 58. We are disclosing those risks and uncertainties that we believe have the greatest impact on the achievement of our strategic objectives. The Group is exposed to a wide range of risks in addition to those listed, and these are managed through the risk management framework shown on page 47. This framework enables us to monitor for any increase in likelihood or impact and ensure that we have the appropriate mitigations in place.

Zotefoams' risk profile will evolve as the business grows at its targeted pace, although we expect these principal risks and uncertainties to remain broadly consistent.

We face a number of uncertainties where an emerging risk may potentially impact us in the longer term. In some cases, there may be insufficient information to understand the likelihood or impact of the risk. We also might not be able to fully define a mitigation plan until we have a better understanding of the threat. We continue to identify new emerging risk trends, using the inputs from all components of our risk management framework. These are normally identified and assessed within the functional steering committees and reviewed by the Internal Controls Committee in the course of its normal Terms of Reference. If they are identified at a higher level, they are pushed down into the relevant functional steering committee for tracking, assessment and consideration of treatment, or retained at a higher level within the risk management framework.

Our principal risks and uncertainties are:

- Operational disruption
- Environmental sustainability and climate change
- Global capacity management
- Technology displacement
- Scaling up international operations
- Customer concentration
- External

Having assessed the outcome of the risk management framework, which the Board considers to have run effectively throughout the year, we have concluded that there are no further changes to our assessment and that emerging risks fall within the risk grouping already identified.

Key to links to the strategy

1. **Deliver an improved mix of products**
2. **Run at high capacity utilisation**
3. **Increase our operating margins**
4. **Improve our return on capital (over our investment cycle)**
5. **Clarify and improve the Group approach to sustainability and climate change**
6. **Develop and invest in MuCell® technology to deliver potentially high-value disruptive, sustainable technology while remaining within the Group risk appetite**

Read more on pages 28 to 30.

Operational disruption

Strategy 1 2 3 4 Risk trend

Description and context

What is the risk?

The performance of our business will be impacted if we are unable to run our equipment and manufacture and distribute products at rates at least equivalent to those currently achieved. The potential impacts of operational disruption are: i) sizeable financial consequences related to missed sales and the high operational gearing nature of the business; ii) the commercial and longer-term consequences of not delivering to strategic customers dependent on our products; and iii) the reputational damage that might impact the business as well as the future chances to acquire new business.

Material influencing factors

- The Croydon, UK, site manufactures the majority of Zotefoams' polyolefin foams and, given their complexity, all of its high-performance products. It operates at high utilisation rates. A major incident specific to safety, health and the environment, including a fire, high absenteeism resulting from a pandemic such as COVID-19 or a significant operational disruption from the failure of either critical equipment or the IT systems that drive them, could shut down the plant for a period of time.
- We do what others do not, making us unique and providing significant opportunities. However, this uniqueness also means that certain of our engineering components and raw materials are sourced from single suppliers. Disruption to those supplies, either on a temporary or more permanent basis, could affect production and supply to the Group's customers, with the knock-on impact, in certain defined circumstances, of contractual commercial consequences resulting in possible customer claims.
- The Group production processes are energy intensive. Current regional conflicts have demonstrated their impact on energy availability and pricing, which would above all impact our UK and Poland foam manufacturing facilities. Failure to resolve a reduction in energy supply in the markets where we manufacture foam could impact the ability of these sites to operate. The risk to the USA facility is considered extremely low.

Mitigating actions

Safety, health and environment policies

We have extensive safety, health and environment (SHE) policies and procedures in place which are in line with best practice. The reporting of incidents, including "near misses" and damage to plant or equipment not resulting in personal injury, is mandatory in order to track issues and to prevent recurrences. Regular internal and external audits are performed, with high levels of Executive team engagement, and quarterly reports are submitted to, and discussed by, the Board.

Another pandemic in the workplace

We are now running our business in a similar way to that before the pandemic. Nevertheless, we now have the experience required to understand the impacts of a pandemic and are ready to reintroduce measures at short notice should circumstances ever dictate.

International trade

We have increased our capability around logistics and import/export compliance, through people, skills and focus, as a result of the increased complexity in trading internationally post Brexit, where input and output trade can be blocked at ports and penalties can be imposed for incorrect paperwork. We are accredited to the Authorised Economic Operator status, which is an internationally recognised quality mark that certifies that a business's role in the international supply chain is secure and has customs control procedures that meet Authorised Economic Operator standards and criteria.

Energy

Despite the ongoing conflict in Ukraine, coordinated global government actions have reduced dependency on Russia and seen a stabilising in energy costs. While energy costs remain at a higher level than before the conflict, this does not pose a material risk to the continuity of operations at Zotefoams as the Group can consume these costs and has the ability to pass them on to customers. In line with the Group's ESG strategy and documented targets, actions are also ongoing to reduce energy consumption, although we recognise that demand for certain types of energy during the transition to a low-carbon economy may adversely impact costs. Supply shortages in the UK and Poland would have a greater effect on the Group than any increase in cost. The Group assesses this risk as very low, with the greatest risk now behind us following the aforementioned government actions.

Insurance

The Group ensures that it has updated and sufficient insurance in place to cover capital restatement and loss of profits in the event of operational disruption caused by unforeseen events. We also work closely with our insurance advisers and their experts to ensure that operations maintain the highest level of fire protection measures.

Maintenance and replacement strategy

We ensure that our assets are well looked after through a well-resourced maintenance team, a globally recognised asset management system and proactive maintenance investment, including annual shutdowns. Our pressure equipment is operated under prevailing regulations and is subject to systematic internal and frequent external inspections. Appropriate contingency plans are in place in the event of the failure of certain major pieces of equipment, which include maintenance and support plans with key suppliers and well-resourced functions that manage stores inventory. We also have a well-resourced, highly experienced engineering team that collaborates closely with the maintenance team and, together, plan and implement equipment replacements and upgrades that target full elimination of operational disruption. The more experienced and larger UK-based teams have increased their collaboration with their US counterparts.

Risk management and principal risks
Continued

Operational disruption continued

Operations outside the UK

Zotefoams has completed a large investment programme in manufacturing capability outside the UK, adding 60% capacity to its starting point in 2018. The Kentucky, USA, site commissioned its first full manufacturing line in April 2018 and a second line became available in March 2020. This site now operates all three manufacturing stages, like in the UK. These lines provide polyolefin foam capacity, in the first instance, but could provide capacity for HPP foams if needed. We also started our third foam manufacturing location in Poland, the first line of which was commissioned in February 2021. Here, we are transitioning customers previously serviced from the UK to Poland and are able to manufacture semi-finished products in the UK, which we can ship to and store in Poland, prior to completing the third stage of the manufacturing process there and distributing the finished product to our European customers. The manufacture of semi-finished products for shipment to Poland can also be performed in the USA. These increased options, together with increased storage capability in Poland, near to our European customers, further reduce dependency on the UK facility. We have also been building our capabilities around maintenance and engineering in our USA manufacturing facility and have greatly increased the collaboration between the more experienced UK functions and their US counterparts to tackle inefficiencies and reduce the risk of operational disruption at this increasingly important location.

Seeking dual sources

Wherever possible, supplies and services are sourced from more than one supplier or location. However, this is not always possible due to the special nature of the raw materials, particularly those used to manufacture high-performance products, and the machinery used. We continually monitor suppliers, and search for new ones, and have strengthened our procurement department to support this. We have identified new component suppliers in the USA as a result of our investment activities at our Kentucky, USA, plant and continue to invest dedicated resources in the search for, and testing and approval of, alternative suppliers of critical materials and services. We also endeavour to have sufficient levels of safety stock to mitigate short-term supply issues, which is now further supported by our Poland plant, close to key European customers.

Investing in IT and IT security

We continue to invest in our IT systems and department. We operate the latest version of the Microsoft Dynamics AX ERP system across all our businesses and put through all recommended fixes without exception. We have multiple redundancy points limiting failure of any one piece of hardware or operating system, we are increasingly moving towards a cloud-based system and we have up-to-date policies and procedures and comprehensive documentation on all our critical assets and core configurations. We are accredited to the Cyber Essentials Plus certification, which is an in-depth and thorough annual independent assessment of our IT systems, which Zotefoams first achieved in 2018 and has maintained since. The Cyber Essentials Scheme is part of the UK government's National Cyber Security Strategy, with the primary aim of making the UK a safer place to conduct business online. It encourages organisations to implement digital protection against common cyber attacks, while allowing them to demonstrate an increased awareness of cyber security. We also train our employees on a regular basis to spot potential cyber attacks through communication and online training. During 2023, we also prepared ourselves for accreditation to the security standard ISO 27001:2022 and are delighted to have achieved this accreditation at our UK, USA and Poland manufacturing sites in Q1 2024.

Steering Committees

- Board
- Executive Committee
- Planning and Capacity Committee
- Health and Safety Steering Committee
- Environmental Steering Committee
- Key Supplier Review Steering Committee
- Contract Control Steering Committee
- IT Steering Committee
- Maintenance Steering Committee
- Zotefoams Inc Executive Committee
- Zotefoams Poland Executive Committee

Environmental sustainability and climate change

Strategy 1 2 3 4 5 6

Risk trend

Description and context

What is the risk?

Zotefoams' business model, strategy, investments or operations are assessed by stakeholders as having an unacceptable future impact on the natural environment and on national and international targets to tackle climate change, with consequences including financial penalties, an inability to hire the right staff, shareholders unwilling to invest, and not having products customers want to buy, all of which challenges business viability.

Material influencing factors

- Transitional risks exist relating to developments in political and regulatory requirements that affect the products that Zotefoams manufactures. As businesses progress towards a net zero greenhouse gas target by 2050, there is potential for abrupt government intervention aimed at ensuring that certain milestones are met. This intervention may involve legal and regulatory changes, including loss of financial incentives, new taxation, compliance costs relating to plastic products or enhanced reporting expenditure, with a resulting financial impact. A fuller analysis is included in the TCFD section. Our TCFD disclosures may be found on our website: https://zote.info/3mjufjS
- Growing global concerns exist over the waste generated from the over-consumption, misuse and over-packaging of consumer goods and there is a progressive tightening of restrictions on substances that are hazardous to the environment. A lack of understanding that plastic can be the optimal material solution for the benefit of society when used for certain applications could lead to changes in demand patterns for our products.

Mitigating actions

Firm environmental footing

We consider Zotefoams to be well positioned environmentally. Our core materials offer improved product performance using less material than competitors and MuCell® technology reduces polymer content and/or improves recycling. While there is understandable consumer concern at the environmental impact of what we consider ill-considered, single-use plastic, used predominantly in consumer packaging, products using our foams are primarily integral components in larger systems or products or are used in the long-term protection and storage of items. They are very rarely used in consumer disposable items. Our foams save weight and fuel in cars, trains and aircraft, save energy by insulating and provide protection to people and goods. Our products help our customers reduce emissions, lower energy usage, improve fuel efficiency and comply with increasingly stringent safety regulations. In the medium term, we anticipate our technology being used to meet the growing demand for improved sustainability, with foams which include recycled or renewable content polymers. Our ReZorce® mono-material barrier packaging technology, which represents a potentially revolutionary solution to packaging and is recyclable and circular, is a prime and current example.

We recognise the importance of reducing energy emissions in our production processes and pursue continuous improvement in our operations, supported by investment in capital additions or replacements which further this aim. This will be supported by effective reporting on our environmental, social and governance (ESG) performance, see below.

Environmental sustainability-focused developments

We have established sustainability targets focused on the reduction of our Scope 1 and 2 carbon emissions and report on them annually. In parallel with these specific Scope 1 and 2 targets, we have calculated the carbon cost of a representative selection of our foams (referred to as "carbon accounting") and ReZorce® mono-material barrier packaging technology and are utilising this information internally, and working with selected customers, to assess how this can be used constructively to make objective decisions, steer our own business and guide our customers in choosing the optimal materials for their solutions. We are adding products to our portfolio which have been developed to be more sustainable.

We have set long-term and interim targets for the design and development of products which are use-phase efficient with further product development of foams made from bio- and recycled polymers. For further information, refer to "Key targets" in the environmental, social and governance (ESG) report on pages 64 to 77.

Effective reporting on ESG performance

With an environmentally conscious technology and material solutions focused on applications that are not single-use, Zotefoams is uniquely positioned to help reduce customers' carbon footprints or increase material efficiency. Having recognised the need to provide stakeholders with financially material, decision-useful information relating to our ESG performance, we have adopted the Sustainability Accounting Standards Board (SASB) framework and are reporting against it in 2023. Zotefoams also provides disclosures in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). Our SASB and TCFD disclosures may be found on our website: https://zote.info/3mjufjS. The Group's bank facilities also include sustainability targets, for which details are provided on page 67.

Steering Committees

- Board
- Executive Committee
- Group Sustainability Steering Committee
- Environmental Steering Committee
- Key Supplier Review Steering Committee
- Zotefoams Inc Executive Committee
- MEL Executive Committee
- IT Steering Committee

Risk management and principal risks
Continued

Global capacity management

Strategy 1 2 3 4 5 Risk trend

Description and context

What is the risk?

As we grow our business at the rate we target, it is critical that we create the required capacity to match the anticipated demand. Failure to execute well and in a timely manner will impact both opportunity creation and the speed of growth. We face material risks due to the uncertainty of medium- to long-term demand, the high capital costs and long construction periods of our unique technology, the successful execution of our investment projects, the risk of loss of an important customer and the ability to finance these investments.

Material influencing factors

- Zotefoams' growth is founded upon its unique offering, its relevance to the global megatrends of environment, regulation and demographics, listed on pages 26 and 27, and its ability to create new markets and new applications. The nature of demand differs between our Polyolefin Foams and HPP business units. Polyolefin foam sales are very diversified and more aligned with GDP, but are boosted by the benefit of the environment, regulation and demographics megatrends. HPP sales are less influenced by general macroeconomic drivers and more aligned with specific, often larger, opportunities with the end-user, who also has a more direct involvement in the growth trajectory. This can make the timing of growth difficult to predict, but not having the right capacity available at the right time may mean the opportunity cannot be realised. While the improved margins associated with our high-performance products mean we will prioritise capacity for the HPP business, we also plan to continue our investment in polyolefin foams to support the future growth prospects of this profitable business unit.
- Our unique technology is highly capital intensive with long lead times. The UK site is highly developed, with space limitations restricting further investment, meaning the next growth initiatives have been in other sites and geographies, most recently the USA and Poland. New sites require sizeable infrastructural investment, accurate risk assessment and more time to implement them. Because foam is costly to transport, a geographical mismatch of capacity and customers could impact sales growth and/or margins in the Polyolefin Foams business.
- The Group needs to have sufficient cash or be able to draw on loan facilities or access capital markets to finance capacity expansion. Funds for investment are required up to a number of years before the assets start generating cash, which increases debt levels and leverage ratios.

Mitigating actions

New processes and longer-term planning

Our monthly sales and operations planning process generates high levels of cross-functional engagement to ensure collaboration and consistency in planning sales and production over the following 24 months. We also meet quarterly as a Planning and Capacity Steering Committee, which includes all of the Executive Committee, with a five-year view to reflect the longer time horizons related to capacity planning. Annually, our five-year strategic plan, which includes capacity considerations to meet projected sales growth, is rigorously tested by the Board. The last annual review meeting took place in October 2023.

Recent completion of a multi-year investment programme

We have recently been engaged in a significant programme of capital investment, ending with the commissioning of our Poland foam manufacturing facility in February 2021. The first stage of this programme was completed in the USA in 2018, comprising a high-pressure autoclave, extrusion and ancillary equipment and infrastructure for two further lines. This was followed by the commissioning of a second high-pressure autoclave in March 2020. In the UK, two high-temperature, low-pressure autoclaves, together with ancillary equipment and infrastructure, were completed in December 2019. The Poland facility, a greenfield site sized to offer significant further capacity in the future, currently expands sheets manufactured by the UK and USA in its high-temperature, low-pressure autoclaves, and already invested in the infrastructure to support a second expansion line.

Building on our experiences in the USA, UK and Poland

The experiences gained through the recent investments in the Kentucky, USA, and Brzeg, Poland, sites, as well as the work performed around high-temperature, low-pressure vessels in the UK, have provided a significant increase in know-how, spread across more personnel, which reduces uncertainty around the execution of future investments. We have identified new suppliers of critical equipment in the USA and mainland Europe, which were previously single-sourced in the UK. In-house project management expertise has been developed or enhanced through either new hires or existing staff having been given the opportunity to grow. We have engaged and developed relationships with experienced consultants to lead and/or work alongside us.

Pursuing a mix-enrichment strategy

We generate returns for shareholders through the most profitable use of our assets. Following completion of our investment programme, we have striven to recover and improve our return on capital employed through a strategy of filling our assets and mix enrichment. When enriching our mix, we seek not only to grow our HPP business at a faster rate than our Polyolefin Foams business, but also seek to improve the profitability mix within the latter. We do this by considering sales opportunities by profitability per hour of our most capacity-restraining capital, which is our high-pressure autoclaves. In doing so, we are able to manage capacity in the short to medium term and grow margins, while providing more time to consider the effectiveness of capital investment.

Sufficient funding to support investment

We have sufficient funding to support the growth ambitions as set out in our five-year plan. Our current banking facility expires in March 2027. As we go forward, we will consider further opportunities as they arise and consider options such as the £25m accordion we have within our current banking facility or an equity raise, the latter being an option we successfully drew upon in 2018. However, as the Group expands and generates cash, we expect debt levels to fall and debt capacity to be available for further investments without the need for recourse to equity markets while maintaining a strong balance sheet.

Steering Committees

- Board
- Executive Committee
- Planning and Capacity Steering Committee
- Group Sustainability Steering Committee
- Capital Planning Steering Committee
- Zotefoams Inc Executive Committee

Technology displacement

Strategy 1 2 3 4 5 6 Risk trend

Description and context

What is the risk?

The loss of our technological advantage could increase competition and affect growth rates and margins. Either our unique foam manufacturing process or our MuCell® technology (including ReZorce® mono-material barrier packaging) could be matched or bettered.

Material influencing factors

- Our processes for the manufacture of our products are unique to the Group. We are not aware of anyone using autoclave technology to make similar products in high commercial quantities. While the principles behind the processes are not confidential, the precise know-how is. Our autoclave technology is flexible, allowing us to manufacture foams from a range of polymers. For a product with substantial growth opportunities, or a product with a large consolidated market, a competitor could target an alternative, more economic, process.
- Our Footwear business now accounts for 36% of Group sales, with further growth anticipated in 2024 and beyond. Our competitive advantage relies on the unique formulation of our materials, which are primarily used in midsoles for running shoes. Companies operating in this market continuously seek new technologies that provide a performance or cost advantage. We monitor the competitive landscape, maintaining awareness of the other technologies, work closely with our partner Nike, and invest in product and process development to remain competitive in terms of performance.
- Critical to the success of MuCell Extrusion LLC (MEL) is the strength of its intellectual property and, on the back of that, its ability to grant commercial licences. Its intellectual property could become dated, or its patents expire or be successfully challenged or circumvented. We are investing significant resources in developing ReZorce, a technology that leverages MuCell technology to enable recyclable, circular, mono-material barrier packaging, which is high risk but offers the potential for very high returns. It is possible that another party launches a solution before we do which is perceived by the market as better, or the market decides that plastic, albeit fully circular, is not a path it wishes to pursue. In this case, we may be required to write off some or all of our investment in this technology.
- The rapidly growing use of Artificial Intelligence (AI) could accelerate the speed with which a potential competitor acquires the knowledge to develop an alternative product solution. Also, a Zotefoams employee might use AI to find a solution using highly sensitive internal information which, without the necessary safeguards, finds its way into the public domain.
- The size of the ReZorce opportunity and the risk that this investment might not result in an effective solution and require a write-off are why we continue to rate this risk as being on an upward trend. We rate displacement risk of the core Zotefoams technology as marginally increased as potential competitors seek alternative technologies that drive greater sustainability.

Mitigating actions

Reinforcing high barriers to entry

There are high barriers to entry for the manufacturing of our unique foams. Significant capital investment, know-how and time are required to invest in autoclaves and related infrastructure. High-performance products, which generate higher returns, greater publicity and are more likely to be the focus of a competitor's attention, are significantly more complex to manufacture than our polyolefin foams, and certain materials require years to be qualified for supply.

We have reduced, and continue to seek to reduce, technology displacement risk by entering new markets with significant barriers and cost of market entry for competitors. For example, the development of high-performance products and ReZorce mono-material barrier packaging technology using MuCell processes, where the product offerings are unique and protected by patents and/or process know-how and capability, opens up new markets for the Group with potentially significant and lasting differential advantages.

Investing in R&D capability and people

We invest in people to broaden our technical capability, research new ways to leverage our technology and accelerate the opportunities that make Zotefoams unique. We invest in people to ensure that know-how related to the design and efficient use of high-pressure autoclave systems and know-how related to polymer processing is retained by the business. We run a Graduate Scheme to attract high-potential individuals in the fields of material science and engineering. We dedicate financial resources to testing materials and solutions to remain at the forefront of cellular materials technology.

Protecting our intellectual property

We actively maintain our intellectual property and patent our technology, wherever we believe it is appropriate to do so, and guard our know-how to sustain protection when technology is not subject to patent or patents are no longer applicable. This know-how spans multiple disciplines across our business, making it difficult to poach. We protect our know-how using confidentiality and contractual agreements with employees, suppliers and customers and by maintaining cyber security. The Group keeps a watching brief on competitor activity and maintains close contact with its customers and end-users of its products to understand market activity.

The use of AI and improvements in its capabilities are growing at an exponential rate. Zotefoams needs to harness the opportunity it affords to accelerate development and remain ahead of the competition while mitigating the risks that come from unintended sharing of trade secrets. The Group has formed an AI steering committee specifically focused on managing both the opportunities and threats.

MEL actively maintains and updates its intellectual property portfolio. This is done by undertaking research and development to add new patents to the portfolio, further developing its know-how and obtaining licences for key third-party patents which are complementary to the existing portfolio. In some cases, our close connection with our customers and dedication to a customised solution has yielded new intellectual property opportunities. Protecting these patents also provides us with valuable insight into any possible competitive threats on the horizon and allows us to take timely action to mitigate possible displacement risk.

Risk management and principal risks
Continued

Technology displacement continued

MEL licences typically include a bundle of patents and know-how and therefore are not completely dependent on any particular patent. All licences are reviewed by senior personnel and the Group CEO to ensure that terms are appropriate. The portfolio is managed by a dedicated intellectual property director reporting into the MEL Executive Committee.

Managing the ReZorce opportunity

There is a clearly differentiated opportunity for the core MuCell technology, which can be applied to many existing products, and ReZorce mono-material barrier packaging, which requires market development of a new technology. Our priority is to deliver ReZorce as a fully developed technology platform, while selectively engaging on MuCell opportunities which clearly offer high value within our existing capability and capacity to execute. ReZorce has been staffed with experts in the field and the management team restructured. ReZorce has a carrying value of £6.8m as at 31 December 2023 and the MEL business unit incurred a loss for the year of £4.4m (2022: £1.9m loss).

Significant progress with ReZorce has been made in the year and the realisation of this opportunity is now close, albeit technical and financial risks remain. Progress has been significantly helped by the Group's acquisition of extrusion assets in Denmark in 2022 as well as the results of a joint development agreement it announced in July 2023 with a world-leading packer of beverages, which encompasses the development of the carton packaging and its planned use in in-market trials for a major European retailer. Board oversight has remained very high throughout the year. Following in-market trials, it is expected that interest from possible investing partners will increase, which will allow Zotefoams to maximise the value of this opportunity.

Steering Committees

- Board
- Executive Committee
- Product Development Steering Committee
- Zotefoams Inc Executive Committee
- MEL Executive Committee

Scaling up international operations

Strategy 1 2 3 4

Risk trend

Description and context

What is the risk?

Growing the business geographically, being more reliant outside the UK for Group performance, and engaging with legal environments and cultures less familiar to us increases the risk of not delivering on our growth opportunities or suffering a compliance incident. We must ensure that we hire the right people and manage the span of control challenges, finding the right balance between local and Group-wide expertise, and drive a culture of knowledge share.

Material influencing factors

- Our business is growing in Asia, with operations and staff in China and India, and our third foam manufacturing facility is in Poland.
- Until recently, most of Zotefoams' revenue was shipped from the UK. Following our investments in the USA, Europe and Asia, the Group now employs more people, holds more assets and generates a higher proportion of revenues outside the UK.
- We are hiring people outside the UK at a faster rate, have less direct contact with them from the UK base, and have high expectations of material contributions from our overseas subsidiaries to the Group's growth strategy.
- We work with more distributors in our more remote locations.
- Failure to ensure responsible corporate behaviour in these newer areas of operation will undermine our reputation in these new regions, could bring substantial financial penalties and affect our growth path. Failure to provide these distant operations with effective financial and IT systems, educate them effectively on all aspects of Zotefoams' culture and ethics, and align them on our strategic objectives could impact business performance.
- Critical to any group's success is its people. The failure to attract, develop or retain the right calibre of staff will impact our ability to deliver. Getting this right from a distance, in cultures less familiar to us, can be challenging.
- Our core engineering and technical capability is UK-based and our business model is to use this centre of excellence to support overseas locations. The ability to deliver on this depends on the free movement of people and openness of teams to seek and share knowledge.
- The Board and Executive Committee have continued to review the Group's corporate culture, its communication and the embedding of controls across the organisation.

Mitigating actions

Direct engagement with overseas employees

As we move on from the COVID-19 restrictions, management has resumed travel to overseas locations to help ensure that the right people are in the right roles and that behaviours are aligned with those at the corporate centre. In addition, the adoption of videoconferencing as a standard form of communication brings people together in a way not possible prior to the pandemic.

Hiring and developing overseas leaders

The Group's USA operations comprise Zotefoams Inc and its subsidiaries Zotefoams MidWest and MEL. Zotefoams Inc has been part of the Group since 2001 and MEL since 2008, with experienced teams, well-embedded reporting and control structures, and a culture of regular and effective communication with senior operational leaders of Zotefoams and the Board. The Zotefoams Inc President is a member of the Executive Committee.

The Group's China subsidiary was formed in 2016, while the India subsidiary was formed in 2019. With the exception of Finance, local management reports directly into the HPP Business Leader, who has created strong communication and reporting structures. The local finance teams report directly into the Group Financial Controller for independence, and greater assurance around governance. Zotefoams Denmark, established in 2022, is part of the MEL business unit, and reports into the MEL business president.

Running effective global functions and services

We have invested significantly in human capability in recent years as we have built global functions and hired leaders with the skills and experience to deliver the current and future needs of the Zotefoams business. With three major foam manufacturing sites, we recognise the importance of cross-site capability-sharing and relationship-building, particularly in functions such as engineering and maintenance and given the uniqueness of our assets, and we are now engaging more frequently face to face to accelerate learning and solve problems together.

Poland manufacturing site

This site has now been operational since 2021, the local leadership team is well integrated with key, UK-based Group functions and leaders, and regular communication and engagement is the norm.

Upgraded IT

We have up-to-date IT systems which standardise information and improve communication and visibility. We use Microsoft Teams for effective videoconferencing and have continued to roll out and educate staff on the upgrades that Microsoft has made to all systems the Group uses throughout the period. The Group's systems are implemented into all new subsidiaries as they are set up.

Training

We run a risk and role-based global compliance training programme, which includes tracking mechanisms across all our locations. Key policies are translated into local languages to facilitate understanding.

Steering Committees

- Board
- Audit Committee (in relation to Finance)
- Executive Committee
- HR and Training Steering Committee
- IT Steering Committee
- Zotefoams Inc Executive Committee
- MEL Executive Committee
- Zotefoams Poland Executive Committee

Risk management and principal risks
Continued

Customer concentration

Strategy 1 2 3 4

Risk trend

Description and context

What is the risk?

Group performance could be impacted by the loss, insolvency or divergence of interest with a key customer.

Material influencing factors

- Other than in our Footwear business, the Group's largest customers have traditionally been converters of foam, none of whom have represented a material share of the Group's revenue or future opportunities. The Group has successfully grown its Footwear business through an exclusive partnership with Nike, which in 2023 represented 36% of Group sales (2022: 33% of Group sales), and projects in the HPP portfolio have the potential to be much larger than those with our typical AZOTE® foam customers. Divergence of interest with Nike represents a material risk if the business is lost, while our growth opportunities in HPP are also likely to reshape this risk profile.
- The Group has invested in significant capacity expansion in the past years, built in some cases to service growth from these customers. In an organisation with high operational gearing, filling capacity is critical to strong financial performance.

Mitigating actions

We have good knowledge of the end-users of our major customers for polyolefin foams and, with some additional short-term work and a stable macroeconomic environment, would expect to bring or identify additional converter capacity, supply routes and channel partners or take a direct approach to service these markets.

We have a very close working relationship with Nike, led by a dedicated Executive team member. Visibility of future sales is good, with a close relationship on development and supply chain. Group resources and regular engagement ensure that we maintain close oversight over customer service levels and also understand Nike's future direction and expectations, enabling us to align our resources accordingly and remain a core technology for this important customer into the long term. In June 2023, the Group announced the extension of its exclusivity agreement with Nike to 31 December 2029, demonstrating the commitment by both parties to further develop footwear technology and the partnership's success.

We are excited by the size of the opportunities offered by our ZOTEK® product portfolio and have the capacity and risk appetite to pursue them. While the majority of our ZOTEK F sales have been into Boeing, and we forecast significant growth going forward, we are seeing increased interest and opportunity from Airbus. We are also pursuing alternative avenues for the attributes of this foam outside of aviation.

Where we engage with large HPP customers, we seek to ensure that our interests are protected by balanced commercial contracts and strong relationship management, such as with Boeing and Nike. The Board is heavily involved in such decisions. These relationships are by their nature longer term, providing a unique technical solution and competitive advantage to the ZOTEK foams customer or end-user. The loss of such a customer is likely to come with a reasonable notice period, allowing us time to take appropriate action. Continued investment in the portfolio should yield further successes that spread the risk of any single loss, while the T-FIT® insulation business provides further balancing with its more broadly spread global customer base.

Existing large HPP customers are blue-chip global organisations, which management considers have the financial strength or strategic importance to withstand macroeconomic challenges.

We will continually review our customer spread and balance, particularly as the HPP business segment takes on more importance.

Steering Committees

- Board
- Executive Committee

External

Strategy 1 2 3 4 5 6 Risk trend

Description and context

What is the risk?

Business growth prospects are vulnerable to movements in foreign exchange rates and geopolitical and economic developments. These factors are often out of our control and may influence our business in a number of ways, including affecting how we execute our strategy, impacting costs, creating competitive disadvantage and negatively impacting our return on capital employed. They can also influence the other principal risks and uncertainties listed in this section.

Material influencing factors

- COVID-19 has realised the previously considered low risk of a pandemic event severely impacting demand, affecting continuity of operations and the health of our staff, and restricting the ability to manage a business and people in different geographic locations.
- Our markets are exposed to general economic and political changes which have an influence on economic stability and market and consumer confidence, which in turn may impact the Group's performance and ability to achieve our strategic objectives. Being at the beginning of the value chain, the Group often sees the impacts of downturns early, accentuated as customers deplete their inventories, but it then benefits from seeing the recovery sooner too. The impact on profit of such risk is accentuated by the Group's operational gearing and its demand for skilled employees, given the business's uniqueness, which makes short-term cost cutting often inadvisable.
- The conflicts in Ukraine and Gaza have created volatility around the cost and availability of products and utilities. Input costs can rise faster than the Group's ability to raise prices, which are typically increased only after discussions and impact assessments with our customers, placing short- to mid-term pressure on margins due to the timing of inflation recovery.
- We consider the wider risk of geopolitical actions and seek to understand these to develop contingency plans which may mitigate, but are unlikely to eliminate, the impact on our business. The conflict in Ukraine has generated ripple effects across the political and macroeconomic environment, in particular in Europe but also in some of our other markets, which has resulted in energy price fluctuations, accentuated inflation and worsened a cost-of-living crisis, requiring us to adapt accordingly. Governments' responses to these challenges might also impact our business. Geopolitical tensions are increasing, which amplify the risk of protectionist responses or other forms of state interventions and security-related requirements that could affect our operations, supply chains and conditions for competition in various ways.
- Zotefoams is exposed to foreign exchange fluctuations, both at a transactional level and on the translation of foreign currency balances and the consolidation of its foreign subsidiaries. Despite recent investments overseas, our operations remain substantially based in the UK and, therefore, most of our manufacturing assets and costs are sterling-denominated. We normally invoice our customers in their local currencies and 2023 was consistent with previous years in having a large proportion of the Group's revenue in currencies other than sterling, mainly US dollars or euros. We therefore generate surpluses in US dollars and euros, which are converted into sterling.
- The level of the Group's debt and base rates of the currencies in which the Group borrows can vary and change rapidly, having a material impact on profitability, particularly as the interest rate terms are variable.
- While a trade deal was concluded between the UK and the European Union at the end of 2020 allowing for tariff-free trade, and the past year has seen a reduction in friction between the two sides and a resolution to the Northern Ireland protocol, the risk remains that this might be altered. This does not affect Zotefoams directly but could have repercussions, and which could lead to disruption and tariff penalties or, in the longer term, tariff or non-tariff barriers being introduced. There have also been sizeable challenges to managing import and export compliance, with the risk of HMRC imposing penalties and products being held at borders. Additionally, the risk remains of increased difficulty in attracting EU talent into our global headquarters in the UK as a result of the end of the free movement of people.

Mitigating actions

COVID-19 response

We have demonstrated through actions and performance our ability to negotiate the challenges raised by a pandemic. While we are now back to normal, we are prepared to reintroduce measures quickly should a similar situation reappear.

Diversifying our markets

Some of our markets can be cyclical. However, this risk is spread geographically and across a number of segments that are expected to diversify further with the growth of HPP and MEL. The Group is operationally geared, but our experience is that, during challenging times, certain operational labour costs can be reduced, polymer prices generally fall with reduced economic demand, giving a cost benefit, and cash can be generated quickly from both reducing working capital and slowing capital expenditure projects to help offset the effects of a downturn. This was our experience during 2020. Decisions in this regard are, however, taken with respect to our assessment of the underpinning reasons for a downturn, our belief in the likely recovery and an assessment of the impact of short-term cost control on medium-term growth potential.

Managing input cost pressure and margins

After a cross-the-board inflationary pressure in 2022, 2023 saw a continuation of cost pressures in many areas, partly offset by a relaxing of raw material prices in the Polyolefin Foams business. Zotefoams' policy is to adjust prices when the changes are considered structural but keep price changes infrequent to minimise disruption to customers and allow adjustments further along the supply chain where practical. This results in Zotefoams sharing the benefits and disadvantages of price movements through the cycle without fluctuations being linked to any particular input cost or index. Following margin erosion in 2021, the Group recovered margin in 2022 through a series of price increases and maintained these margins in 2023 through effective customer account management and operational efficiency initiatives.

Risk management and principal risks
Continued

External continued

Managing exposure to the US dollar and euro

We reduce our net foreign exposure to transactional items by making purchases either in US dollars or euros. For example, the majority of raw materials purchased for consumption in the Croydon, UK, manufacturing facility are in euros. With our European sales invoiced in euros, we have benefited from a net hedging position on the euro in recent years. With the US dollar, we incur US dollar costs associated with the Group's operations in Kentucky, USA, and MEL and our scaling-up of operations in Kentucky, USA, has reduced currency exposure to transactional items by increasing the operating cost base in the USA. Raw materials are purchased locally and a larger workforce supports full process production. Our greatest exposure to currency comes from the success of our Footwear business, where all sales are invoiced in US dollars, but most costs are either in sterling or euro. Our footwear agreement does, however, include arrangements to recover movements in foreign currency that affect the margin achieved on our sales, although these come with a time lag which can have a positive or negative benefit in the short term but balance out in the medium term.

Currency hedging

The Group has a hedging policy which is approved by the Board. The Group hedges a proportion of its net exposure to transactional risk by using forward exchange contracts. We do not hedge for the translation of our foreign subsidiaries' assets or liabilities in the consolidation of the Group's financial statements. We do, however, hedge our statement of financial position through matching, where possible, our foreign currency denominated assets with foreign currency denominated liabilities, such as by foreign currency debt financing.

Managing our debt facilities

We maintain close relationships with our supporting banks, meeting with them regularly and updating them on performance and outlook. In March 2022, we completed a new refinancing round, which led us to remain with the same banks following a strong competitive process and which has a five-year tenor.

Our debt facilities are based on variable interest rates, which we could hedge if we deemed appropriate. We have reviewed this as base rates have risen but have elected not to do so.

Based on our most recent five-year strategic plan and subject to the expected end to the significant investment we have been making in our high-risk, high-reward ReZorce opportunity, we expect our net debt levels to fall quickly. Our budgets and forecasts going forward include investments in growth opportunities, some of which can be slowed if necessary. We stress-test our possible outcomes and engage with our banks to ensure their continued support under all circumstances.

Steering Committees

- Executive Committee
- Foreign Exchange Steering Committee
- Zotefoams Inc Executive Committee
- MEL Executive Committee

Viability statement

The viability period

In accordance with provision 30 of the 2018 UK Corporate Governance Code, the Directors have assessed the prospects of the Group over a longer period than the twelve months required by the going concern provision.

The Directors consider the timeline of five years to be appropriate, being the period upon which the Group actively focuses, has reasonable visibility over its opportunity portfolio and, given the nature of capital investment needed to support the Group's anticipated rate of growth, covers investment that in some cases requires long lead times as a result of the unique nature and capital intensity of its technology. A longer period of assessment introduces greater uncertainty since the variability of potential outcomes increases as the period considered extends. A shorter period of assessment impacts the Group's ability to put the right capacity in the right place on time.

Assessing viability

The Group is considered to be viable if it maintains interest cover and net borrowings to EBITDA ratios, as prescribed by its existing financial covenants and presented in the Group CFO's review under "Debt facility" on page 43, and if there is available debt headroom to fund operations.

The Directors' assessment of viability has been made with reference to Zotefoams' current position and prospects, our alignment with global trends, our strategy, the Board's risk appetite and Zotefoams' principal risks and how these are managed, as detailed on pages 1 to 58.

The Board reviews the Group's internal controls and risk management policies as well as its governance structure. It also appraises and approves major financing and investment decisions as well as the Group's performance and prospects as a whole. The Board reviews Zotefoams' strategy and makes significant capital investment decisions over a longer-term time horizon, based on the Group's strategic growth objectives, individual project investment returns, the continuing performance of the business, the quality of its portfolio of opportunities, its financing arrangements and opportunities, and a multi-year assessment of return on capital.

The bottom-up five-year plan is reviewed at least twice annually by the Directors. In assessing the future prospects of the Group and the achievability of this plan, the Group has considered the potential effect of risks that could have a significant financial impact under severe but plausible scenarios. The risks considered were identified from the Group's principal risks and uncertainties assessment. While testing against each individual scenario, the Board has also considered the impact of a combination of the scenarios over the assessment period. This was in order to stress-test an aggregation of severe but plausible risks occurring that should represent the greatest potential financial impact both in the short-term and longer-term viability period.

The Directors considered mitigating factors that could be employed when reviewing these scenarios and the effectiveness of actions at their disposal. These include experiences and successes related to cost and capital expenditure management in 2020 during the COVID-19 pandemic, adequate insurance coverage, the unwinding of working capital in a downturn and ceasing some activities.

We are satisfied that we have robust mitigating actions in place. We recognise, however, that the long-term viability of the Group could also be impacted by other, as yet unforeseen, risks, or that the mitigating actions we have put in place could turn out to be less effective than intended.

Scenarios tested

Base case

The Group's five-year plan is prepared annually and presented, challenged and approved by the Board in October. The base case uses the five-year period out to 2028. It is based on organic growth and pursuit of the strategic objectives.

The following downside scenarios have been evaluated:

Scenario 1:

Pandemic disruption. We applied our experiences of the 2020 pandemic and the cost and cash-saving activities we successfully implemented to stress-test for Group revenue levels that breach banking covenants.

Read more. Principal risk: External pages 57 and 58.

Scenario 2:

Significant cost inflation over a long period with no ability to adjust prices. This also included a stress case scenario to assess the lowest margins that can be tolerated, which addresses the impact of commodity price volatility, high inflation, rising interest rates, high energy prices and high labour costs.

Read more. Principal risk: Operational disruption pages 49 and 50; **External** pages 57 and 58.

Scenario 3:

Business performance risks. These include both Polyolefin Foams and HPP growth at rates significantly below those included within the five-year plan.

Read more. Principal risk: Technology displacement pages 53 and 54; **External** pages 57 and 58.

Scenario 4:

Loss of a key customer in HPP. This scenario reflects losing the footwear business.

Read more. Principal risk: Operational disruption pages 49 and 50; **Global capacity management** page 52; **Customer concentration** page 56.

Scenario 5:

Sterling returning to 20-year highs of two US dollars to one pound sterling. This scenario evaluates the cash impact on the Group as a result of forecast growth coming increasingly from US-denominated sales. The euro impact is not considered material given the natural hedge of euro sales against raw materials and the operating costs of the Poland plant.

Read more. Principal risk: External pages 57 and 58.

Confirmation of longer-term viability

Based on the assessment explained above, the Directors confirm that they have a reasonable expectation that the Group will continue to operate and meet its liabilities, as they fall due, over the next five years.

Non-financial information statement

Zotefoams has reported extensively on its non-financial impacts within its Annual Report for a number of years and welcomes continued increasing focus from regulators, shareholders and other stakeholders. This table outlines how Zotefoams meets the non-financial reporting requirements contained within Sections 414CA and 414CB of the Companies Act 2006.

Reporting requirement	Relevant Group policies https://zote.info/3x0de78	Due diligence processes	Information relating to policies and due diligence processes
Environmental matters	Environmental Policy	Environmental Policy Governance by the Environmental Steering Committee and Group Sustainability Steering Committee SASB disclosures Sustainability targets TCFD disclosures in accordance with the Financial Conduct Authority (FCA) listing rule LR 9.8.6 R(8)	See our Risk management section on page 45 and our Environment section on pages 67 to 69, and our Sustainability page on our website https://zote.info/3mjufjS
Employees	Group-wide policies on equality, diversity and inclusion, ethics and whistleblowing Group health and safety policies	Social initiatives and policies Health and Safety Steering Committee Joint Consultative Committee Comprehensive Group-wide health and safety and compliance training programme] Board Diversity Policy	See our Social section on pages 70 to 77 and our website https://zote.info/3x0de78
Social matters	Group-wide policies on ethics and whistleblowing	S172 disclosures relating to stakeholders, including suppliers Environmental Policy and Sustainability Statement Community engagement	See our S172(1) statement on pages 61 to 63 and our Sustainability page on our website https://zote.info/3mjufjS
Anti-bribery and corruption	Group-wide policies on anti-bribery and corruption, fraud and whistleblowing	Training and compliance with anti-bribery and corruption, fraud and whistleblowing modules Supplier onboarding and review programme incorporating adherence to Zotefoams' ethics, modern slavery, anti-fraud and anti-bribery and corruption requirements Audit Committee and Internal Controls Committee reports	See our Social section on pages 70 to 77 and our S172(1) statement on pages 61 to 63
Human rights	Group-wide policies on ethics and dignity at work	Compliance with section 54(1) of the Modern Slavery Act 2015	Modern slavery disclosures on our website https://zote.info/3x0de78

S172(1) statement
Our shareholders and stakeholders

The Companies (Miscellaneous Reporting) Regulations 2018 (2018 MRR) require Directors to explain how they considered the interests of key stakeholders and the broader matters set out in Section 172(1) (a) to (f) of the Companies Act 2006 (S172) when performing their duty to promote the success of the Company under S172.

Decision-making

The Board delegates day-to-day management and decision-making to the Executive team but maintains oversight of the Group's performance and reserves to itself specific matters for approval, including significant new business initiatives. It monitors that management is acting in accordance with, and making progress on, the agreed Group strategy through regular Board meetings supported by information packs received in advance to enable effective preparation and consequent discussion, monthly reporting of business performance, direct engagement with the Executive team and employee groups and attendance by a Board member at the Joint Consultative Committee representing UK workforce views. Processes are in place to ensure that the Board receives all relevant information to enable it to make well-judged decisions in support of the Group's long-term success.

The Board has regard to the following matters in its decision-making:

- the likely consequences of any decision in the long term
- its environmental impact
- key stakeholders (including shareholders, employees, customers, suppliers and communities) and
- maintaining a reputation for high standards of business conduct.

Decision	Investment in a second Walton (USA) low-pressure (LP) autoclave and related infrastructure
Context	The USA market offers excellent potential to increase sales, requiring additional capacity to meet demand. A decision to invest in a second LP autoclave has been made to meet this need as well as reduce reliance on the current vessel, which was installed in 2000. Warehousing space is also being extended to cater for anticipated higher activity levels.
Stakeholder considerations	**Customers** Customers will benefit from the greater capacity on offer, supporting their growth. **Shareholders** The increased capacity will provide an opportunity for sales growth. The risk of operational disruption is reduced by having multiple autoclaves. **Environment** A more energy-efficient autoclave, benefitting from the latest-generation technology, will improve sustainability, lower downtime and offer better production yields.
Strategic actions supported by the Board	Approval of £10m capital expenditure to support AZOTE® foam growth in the USA and provide optionality for HPP sales in the future.
Impact of these actions on the long-term success of the Company	Increased capacity and efficiency savings will reinforce Zotefoams' competitive advantage in the USA.

Decision	Supply agreement extension at Nike to 2029
Context	Zotefoams entered into a strategic partnership with Nike in 2018. Since then, our foams have been added to a number of running programmes, including the Vaporfly, Alphafly and Invincible ranges. The collaboration continued in 2023 with the launch of the Ultrafly, Nike's pinnacle trail racing shoe, and for the first time, inclusion of our foam in a basketball shoe, the G.T. Cut 3. Zotefoams operates under an exclusive supply agreement with Nike for footwear products.
Stakeholder considerations	**Environment** We continue to work closely with Nike on waste reduction and recycling projects to support our respective and shared sustainability objectives. Both companies took significant steps during 2023 to reduce waste generated by manufacturing processes. **Shareholders** Extending, for a further six years, an agreement structure which has successfully aligned Zotefoams with a world-leading footwear brand. **Customers** Continuing to meet Nike's needs for high-performance foams used in a range of significant projects is key. Our partnership with Nike remains deeply rooted in our shared vision to help all athletes break barriers no matter their game or pace and by pushing the boundaries of ZoomX foam to offer ever higher levels of energy return and cushioning.
Strategic actions supported by the Board	Approval of supply agreement extension.
Impact of these actions on the long-term success of the Company	The Footwear business division is anticipated to continue to be a significant revenue contributor in future years and accounted for 36% of Group sales in 2023.

S172(1) statement
continued

Decision	Continued investment in ReZorce® mono-material barrier packaging technology
Context	As the pace of regulatory developments impacting food packaging increases, industries need a solution with clear recyclability credentials. Using significant recycled plastic content and being readily recyclable, ReZorce offers a viable alternative to traditional laminated material. Development of the technology continued in 2023, with the focus moving beyond technical success to commercial viability.
Stakeholder considerations	**Shareholders** Given the size of the market, ReZorce offers high potential returns with a commensurate level of risk. **Environment** Our ReZorce product line can be made with significant recycled plastic content and, as it is classified as a mono-material, can be readily recycled to support a circular economy.
Strategic actions supported by the Board	Entering into a strategic cooperation agreement with a world-leading packager of beverages. Approving the investment required to deliver market trials.
Impact of these actions on the long-term success of the Company	The market opportunity for lower carbon footprint packaging is vast. Cartons and pouches together generate revenue in excess of $40bn p.a. Zotefoams is well placed to develop a unique proposition that could capture some of this demand.

Decision	New CEO appointment
Context	Following David Stirling's announcement of his intention to retire in 2024, a formal succession process was initiated in November 2023 supported by global organisational consulting firm Korn Ferry. A successor, Ronan Cox, was identified in March 2024 and will be appointed at the 2024 AGM.
Stakeholder considerations	**Employees** A change of leadership requires careful management to minimise organisational disruption. Effective communications will be key, alongside an effective onboarding programme to allow R Cox to familiarise himself with the business quickly, which will include early visits to all parts of the organisation. Customised messaging will also help keep staff abreast of developments. **Customers** A plan is in place to introduce the new CEO to key customers. **Shareholders** R Cox will engage with shareholders in line with an onboarding plan. The Chair of the Remuneration Committee has engaged with key shareholders on remuneration matters.
Strategic actions supported by the Board	A thorough search process was carried out to identify the candidate with the most suitable attributes to lead Zotefoams. Further details are provided in our Nomination Committee report on pages 87 to 89.
Impact of these actions on the long-term success of the Company	A new CEO will bring a fresh perspective to the business and continue to set the direction of the business in line with the strategy.

Decision	Artificial Intelligence (AI): assessment of opportunities and risks
Context	AI developments generate significant operational and commercial opportunities. They also expose the business to new and complex risks which require a multi-disciplinary approach to effective mitigation. As a consequence, a new steering committee was formed with Terms of Reference related to both capturing the opportunity and ensuring that the correct controls are in place to protect the Group from AI-related risks.
Stakeholder considerations	**Employees** Unlike previous technological changes, AI will impact both routine and non-routine tasks and expand change to a broader spectrum of employees. AI can also lead to job creation by increasing demand for some STEM skills and some soft skills, such as high emotional intelligence. **Shareholders** The potential for increased productivity can lead to an increase in profitability and lower costs. AI can also support organic and non-organic growth by driving strategic transformation across many industries, for example through vertical data integration resulting in bringing products to market faster or the overhaul of customer support activities. It can also increase the risk of IP and trade secret losses if not controlled effectively. **Customers** AI can support the analysis of volume patterns and order trends to allow us to predict future demand and better meet customers' needs.
Strategic actions supported by the Board	The Board reviewed strategic opportunities and risks at its 2023 annual strategy day and approved a governance framework. An AI Steering Committee has been set up, tasked with providing oversight to protect Zotefoams from the risks associated with AI and manage related AI opportunities. Guidance on appropriate AI use has been issued to all staff, and training has been organised on a functional basis.
Impact of these actions on the long-term success of the Company	A framework for exploiting the great opportunities afforded by AI will be in place by the end of 2024. The risks are now managed as part of the risk management framework.

Decision	Focus on suppliers' ethical matters
Context	Our suppliers are key stakeholders in our business and we focus on building and maintaining long-term healthy relationships with them, which includes ensuring that we pay them on time and that they are aligned with Zotefoams' ethical standards.
Stakeholder considerations	**Customers** With an increasing importance placed on transparency, our customers expect us to provide evidence of adequate ethical standards in force in our supply chain. Our checks and balances are intended to meet customers' expectations in these matters. **Communities** Zotefoams considers that a healthy business environment supports the many communities in which we operate and forms the basis of our social licence.
Strategic actions supported by the Board	Monitors are in place to ensure that key suppliers are aligned with Zotefoams' standards on ethics, modern slavery, anti-fraud and anti-bribery and corruption requirements. Zotefoams has voluntarily added its details to the Modern Slavery Statement Registry to share the positive steps it has taken to tackle and prevent modern slavery. The registry enhances transparency and accessibility and allows users such as consumers, investors and civil society to scrutinise the actions that Zotefoams is taking to identify and address modern slavery risks in its operations. In 2023, our modern slavery process was extended to our global supply chain capturing suppliers' operations in India, China, Poland and the USA. Our current Modern Slavery Statement may be viewed on our website https://zote.info/3x0de78 A consistent, material improvement pattern has been noted in our payment practices, with the average settlement period in the UK being reduced from 50 days in 2019 to 27 days in 2023; visit https://zote.info/3Tp8xxh
Impact of these actions on the long-term success of the Company	Well-managed ethical risks related to suppliers contribute to long-term supply chain robustness and ensure that the many stakeholders positively impacted by our products can continue to benefit from them.

Environmental, social and governance (ESG) report

Zotefoams' Board considers that managing ESG contributes to long-term value creation, supports resilience, enhances the Group's reputation and helps safeguard the business's future. Sustainability is embedded through our strategic planning and decision-making. Below, we set out our ESG priorities, how we are progressing against them and our plan going forward.

L Drummond
Chair

Introduction from our Chair

Our purpose is to provide optimal material solutions for the benefit of society. We believe that, used appropriately, plastics are frequently the best solution offering the lowest environmental impact for the long-term applications typically delivered by our customers.

As a new Chair, it is important for me to see that we can drive growth which is both sustainable and inclusive. Significant progress has been achieved in ESG matters in the past three years and we continue to work with all our stakeholders to enhance our corporate disclosures. Our efforts have been rewarded with external recognition. Zotefoams holds an MSCI AAA rating reflecting very good standards of governance and well-established social practices. And as 85% of our revenues arise from green activities, the London Stock Exchange has awarded Zotefoams the Green Economy Mark. Our ReZorce® mono-material barrier packaging product was named Best Recycled Plastic Product of the Year at the 2023 Plastics Industry Awards. We began reporting voluntarily against the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in 2021, ahead of statutory requirements. The recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD) were also considered during 2023. Following a preliminary gap analysis, the Board has concluded that the support of a specialist consultant is required to map nature-related dependencies, impacts, risks and opportunities against our internal controls framework. This work is planned for 2024.

We recognise that ESG is a journey and, as we continue to improve our sustainability performance, we will look to set increasingly ambitious targets in order to remain leaders in sustainability.

How we manage ESG objectives, opportunities and risks

We have embedded ESG considerations within our risk and opportunity management process, described on page 45, through alignment with the Sustainability Accounting Standards Board (SASB) requirements and the Financial Conduct Authority (FCA) listing rule LR 9.8.6 R(8), which implements the TCFD recommendations. The risk management process aims to support the achievement of our strategic objectives through the identification and management of risks which may impact the long-term prospects of the Group. Corporate ESG objectives, which flow down to all areas of our operations and incorporate long-term aims, have been set and are frequently reviewed.

Group Sustainability Steering Committee's responsibilities

A Group Sustainability Steering Committee was formed in 2021 with Executive representation from all business units and locations. Its purpose is to ensure that the Group's activities align with the expectation of stakeholders. Its responsibilities include:

- providing governance and setting the direction for environmental sustainability matters for the Group
- establishing environmental sustainability objectives and ensuring their continued suitability, adequacy and alignment with the direction of the Group
- monitoring that the risks relating to environmental sustainability are identified and appropriately mitigated by the relevant steering committees and reporting any exception to the Group Internal Controls Committee.

Our HR and Training Steering Committee manages social matters. Governance issues are managed by the Board.

Environmental governance

The Board has ultimate responsibility for environmental governance and performance and oversees a system of policies, practices and procedures that are implemented Group-wide to support Zotefoams' environmental objectives. The Group CEO is directly responsible to the Board for environmental performance. All environmental matters are overseen by steering committees, which are chaired by the Group CEO in the UK (or the appropriate responsible person in subsidiary companies). The steering committees meet quarterly and consider environmental risks and opportunities, overall performance, and the impact of current and impending legislation. Under the internal controls framework outlined on page 47, the Audit Committee monitors the Group's risk management framework, including the review of risk matrices identifying key environmental risks and opportunities faced by the Group.

The Group takes the reporting of all environmental incidents very seriously and requires employees to report all incidents, including any near misses. All environmental incidents are investigated by appropriate levels of management to ascertain the root cause of the incident and, wherever possible, working practices and procedures are improved to minimise the risk of recurrence. In 2023, there were no prosecutions, fines or enforcement actions taken as a result of non-compliance with environmental legislation (2022: none).

Our approach to environmental sustainability

The environmental sustainability approach adopted by Zotefoams is centred on the twin principles of: i) minimising the use of natural resources through a series of internal measures aimed at reducing our carbon footprint; and ii) preferentially operating in markets where Zotefoams' products offer unique sustainability advantages which benefit society through their use-phase resource efficiency. This is a concept defined by SASB as a product that, through its use, can be shown to improve energy efficiency, eliminate or lower greenhouse gas (GHG) emissions, reduce raw materials consumption, increase product longevity or reduce water consumption.

Targets are in place to manage our Scope 1 and 2 emissions through the reduction of energy consumption, material used in manufacturing processes and waste; see pages 67 to 69. In order to align our commercial approach with customers' use-phase efficiency, we have created a Life Cycle Assessment (LCA) template which can be used to assess typical products and applications. Our Scope 1 and 2 emissions data, along with these example LCAs, are made available to customers to enable them to make informed decisions. We continue to monitor the Scope 3 emissions under our control, or alternatively over which we have influence, and use this to guide our decision-making; for example, we preferentially select polymers with a lower carbon footprint.

We are committed to using renewable electricity where feasible and 100% of the electricity used in our UK, USA (Walton) and Poland sites comes from renewable sources.

Green revenue

Our criteria for green revenues are products which, during manufacture or use, provide a substantial increase in the efficiency of resources used. The applications we serve are varied and diverse, so, in calculating green revenues, we have assumed that all applications within a market achieve the same benefits in resource efficiency. For transportation markets, the benefits are reduced weight products which not only use less material but also allow improved fuel efficiency. For both Product Protection and Sports and Leisure markets, the products are designed to be lighter so they use less material for the same or superior performance. For Building and Construction markets, our products are designed to save energy by sealing or insulating buildings and pipework. We have excluded revenue from sales to Industrial and Medical markets as, while some applications will undoubtedly offer resource efficiency benefits, many will use our products primarily for other performance attributes such as purity.

Zotefoams Green Revenue Index

Product	Green revenue definition	Sector revenue £m	Green revenue £m
Polyolefin Foams	Applies to: ▶ products typically manufactured using 30–50% less raw material than comparably performing foams ▶ products used for thermal insulation in construction, aviation, railway and road vehicles to replace heavier materials, enabling benefits in fuel economy ▶ products providing durable protection designed for multiple reuse.	67.6	49.6
High-Performance Products (HPP)	Applies to: ▶ foams that allow for considerable increases in the efficiency of resource usage ▶ products used for thermal insulation (predominantly building and construction but also aviation) and to replace much heavier materials, enabling benefits in fuel economy (aviation systems where foam replaces heavier materials) ▶ footwear components designed with the intent to use less material.	58.1	57.4
MuCell Extrusion LLC (MEL)	Applies to: ▶ microcellular foam technology licences and related machinery designed to allow considerable increases in the efficiency of resource usage by reducing the raw material used in components by 15–20%.	1.3	1.3
Total revenues		**127.0**	**108.3**
Percentage green revenues			**85%**

Environmental, social and governance (ESG) report
Continued

Environmental performance

Accreditations

ISO certification is focused on the three main sites (Croydon, UK, Brzeg, Poland, and Walton, USA) unless required locally for operational or financial reasons. For smaller sites, the costs arising from some ISO certifications outweigh the operational benefits and are therefore not sought. Structures sufficient to manage processes to a good standard are replicated from the larger sites.

Certification	In place	Planned for 2024
ISO 14001:2015 Environmental Management Systems	Croydon, UK Brzeg, Poland	
ISO 45001:2018 Occupational Health and Safety Management Systems	Croydon, UK Brzeg, Poland	Walton, USA Kunshan, China
ISO 9001:2015 Quality Management Systems	Croydon, UK Brzeg, Poland Walton, USA	Kunshan, China
ISO 27001:2022 Information Security Management Systems		Croydon, UK Walton, Tulsa and Woburn, USA Brzeg, Poland[1]
ISO 50001:2018 Energy Management Systems		Croydon, UK

We follow the guidance provided by ISO 14021:2016 when making environmental claims. Where appropriate, we have products certified by independent organisations when making environmental claims, such as for recycled content.

A Renewable Energy Guarantee of Origin (REGO) accredited supplier has been in place in the UK since 2021. Our foam manufacturing plants in Brzeg, Poland, and Walton, USA, also use 100% renewable electricity.

Policies

Environmental Policy

Governance

Environmental Steering Committee
Health and Safety Steering Committee
SASB requirements integrated in internal controls framework
TCFD compliance

Targets

Waste reduction
Sustainable product development
Energy consumption reduction

[1] The Information Security Management Sytems ISO 27001:2022 accreditation was successfully obtained for all stated locations in Q1 2024.

Scan the QR code to see the environmental reporting guidelines
zote.info/36LLN69

Environment

A decrease in Group energy usage of 458 MWh in 2023 mainly arose through better energy management across all sites. The year saw a continuation of our focus on energy reduction for the Group. Increased visibility and daily trend analysis were combined with improved energy and waste engagement.

Key metrics

	2023	2022	2021
Internally recorded environmental incidents			
Level 1	**0**	0	0
Level 2	**0**	1	0
Company metrics (UK only)			
Energy usage (MWh)	**45,169***	46,483*	50,078*
*Specific Energy Consumption (kWh/kg)	**7.73****	8.58**	9.22**
Group metrics (All sites)			
Energy usage (MWh)	**68,559***	69,017*	72,007*
Energy usage (GJ)	**246,812***	248,463*	
Proportion of energy from grid electricity (%)	**44**	45	
Proportion of energy from renewable sources (%)			
UK site	**46**		
USA sites	**40**		
Poland site	**46**		
China site	**28**		
Group	**44**	35	

* From 2022, the reported energy usage includes electricity, gas and other fuels (LNG, diesel and propane.) In prior years, not all fuels were included as they were not material. The 2021 comparative figure has been recalculated on the same basis as 2022. We are committed to using renewable electricity where feasible. 100% of the electricity used in our UK, USA (Walton) and Poland sites comes from renewable sources.

** Calculation shown as mix-neutral assessment of energy usage per kg of polymer processed.

There were no significant environmental incidents during the year (2022: none). Previous years have been analysed against an internal categorisation introduced in 2018, guided by the environmental reporting guidelines.

Environmental incidents are categorised as follows:

Level 1 – Reported to Environment Agency (e.g. polluting incident)

Level 2 – Reported to local authority (e.g. waste concerns)

Level 3 – Internal report only (e.g. small granule spills)

The Company ensures that all environmental reports of incidents are taken seriously and appropriately investigated and that the responses given are appropriate to their level of impact or potential impact. 13 internally reported Level 3 incidents (2022: 15) relating to minor machine oil spills and plastic granule spills were recorded during the year, all of which were contained. The incidents are captured by daily inspections and actioned as required. The continued yearly decrease is attributed to high levels of safety observations, employee education and ongoing implementation of the 5S method to reduce waste and increase productivity.

Key targets

Our sustainability targets, set in 2022, focus on the reduction of Scope 1, 2 and use-phase carbon emissions.

Objective	**Key performance indicator (KPI)**	**Target**		**Achievement**	**Score**
1 Achieve a 10% reduction in the energy used to manufacture our products by 2026	From a baseline of 0.74 kWh/£ in December 2021, reduce the energy used per unit revenue generated (kWh/£)	2022	0.73 kWh/£	0.66 kWh/£	●
		2023	0.72 kWh/£	0.56 kWh/£	●
		2024	0.70 kWh/£		
		2025	0.68 kWh/£		
		2026	0.66 kWh/£		
2 Further develop our product portfolio by designing and developing new products which offer our customers more sustainable solutions such that, by 2026, they will account for 5% of revenue	Share of sales from products introduced from 2021 which are designed for use-phase efficiency (% of revenue)	2022	0.5%	1.20%	●
		2023	2%	1.12%	●
		2024	3%		
		2025	4%		
		2026	5%		
3 Halve the polymer purchased that is not in the end-product (internal waste and oversized materials) by the end of 2026[1]	Reduction in the mass of excess polymer purchased to that sold (% reduction) from a baseline at the end of 2021	2022	2.5%	4.70%	●
		2023	7.5%	10.80%	●
		2024	15%		
		2025	30%		
		2026	40%		

[1] The objective to halve the polymer purchased that is not used in the end-product is calculated on a running rate at the end of 2026, whereas the KPI provides intermediate targets for the full year.

● Achieved in full or predominantly achieved ● Partially achieved ● Not achieved

Environmental, social and governance (ESG) report
Continued

Specific Energy Consumption (SEC) – UK

In October 2009, the Company entered into a Climate Change Levy (CCL) agreement, which involves meeting specific voluntary targets to increase energy efficiency and reduce carbon dioxide (CO_2) emissions. Provided the Company meets the requirements of the CCL agreement, it receives a rebate on its electricity bills and is also exempt from the Carbon Reduction Commitment Scheme for the plastics sector; the scheme is run by BPF Energy Limited, to which unadjusted SEC figures are reported quarterly. The scheme will run up to 2025.

The Company measures energy efficiency by taking energy consumption and dividing it by the amount of material (in kg) that passes through high-pressure autoclaves. The increase in production of our HPP foams, which generally require more processing energy than polyolefin foams, prompted us to update these metrics to be product-mix neutral in 2018. In 2023, our adjusted energy efficiency measure, Specific Energy Consumption (SEC), decreased 10% to 7.73 kWh/kg (2022: 8.58 kWh/kg), continuing a downward trend initiated in 2015. In 2023, the Company completed its third assessment under the Energy Saving Opportunity Scheme (ESOS) and remains compliant.

The SEC value has been reported in the Annual Report as a mix-adjusted value since 2018. This allows a product-mix-neutral assessment of energy efficiency improvements made.

Global carbon emissions

Zotefoams' products are used globally to improve people's lives and reduce energy consumption, primarily through insulation and weight reduction. The processes we employ to create these foams allow us to use less raw material and produce lighter foams than rival processes, both of which are beneficial for carbon reduction. In making these foams, energy (both gas and electricity) is the main source of carbon emissions from our facilities.

The methodology we have used is in accordance with the guidance published by the Department for Environment, Food and Rural Affairs in June 2013. We have only included emissions for which we are directly responsible. We have not included emissions for activities over which we have no direct control. For example, we have included business mileage on a company van and mileage claimed by employees in the UK, but not other forms of business travel, such as travel made by employees elsewhere in the Group or travel using public transport or air travel.

Waste, water and sustainability targets

Our website provides further metrics on waste, water and carbon emissions. https://zote.info/3mjufjS

Task Force on Climate-related Financial Disclosures (TCFD) response

Our climate-related financial disclosures for the financial year ended 31 December 2023, in accordance with the FCA listing rule LR 9.8.6 R(8), are provided on our website https://zote.info/3mjufjS. The rule requires relevant companies to report on a 'comply or explain' basis against the TCFD recommendations. We have considered our 'comply or explain' obligation in respect of the 11 TCFD recommendations.

Global carbon emissions

	2023	2022	2021	2020	2019
Group: carbon emissions (CO_2 tonnes)					
Scope 1 emissions (direct emissions from our operations which includes fuel)[1]	**7,021**	6,932	7,418	7,078	5,626
Scope 2 emissions (indirect emissions, primarily electricity)	**6,314**	6,029	6,792	7,464	6,787
Total	**13,335**	12,961	14,210	14,542	12,413
Carbon emissions (kg) per material gassed (kg)	**1.4**	1.4	1.5	1.6	1.6

1 We do not generate our own energy.

Global pollutant emissions

	2023	2022
NO_X (excluding N_2O)	**2.5**	2.5
SO_X	**0.0**	0.0
VOCs	**1.0**	0.3
HAPs	**0.1**	0.0

NO_X and SO_X calculated from Scope 1 emissions.
Volatile Organic Compounds (VOCs) and Hazardous Air Pollutants (HAPs) measured on a number of typical production days at factory emission points and scaled for total annual production volumes.

Sustainability Accounting Standards Board (SASB) disclosures

SASB standards identify the subset of ESG issues that are reasonably likely to have a material impact on the financial performance of the typical company in an industry. The following table summarises our response to the sector-specific standards for chemicals companies.

Topic	Accounting metric	Category	Unit of measure	Code	Supporting disclosure
Greenhouse gas emissions	Gross global Scope 1 emissions, percentage covered under emissions-limiting regulations	Quantitative	Metric tonnes (t) CO_2 Percentage (%)	RT-CH-110a.1	See Group carbon emissions table on page 68. 0% of Scope 1 emissions were covered under emissions-limiting regulations
	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	Discussion and analysis	n/a	RT-CH-110a.2	See Group carbon emissions table on page 68 and targets section on page 67
Air quality	Air emissions of the following pollutants: (1) NO_X (excluding N_2O), (2) SO_X, (3) volatile organic compounds (VOCs) and (4) hazardous air pollutants (HAPs)	Quantitative	Metric tonnes (t)	RT-CH-120a.1	See Group carbon emissions table on page 68
Energy management	(1) Total energy consumed (2) Percentage grid electricity (3) Percentage renewable (4) Total self-generated energy	Quantitative	Gigajoules (GJ) Percentage (%)	RT-CH-130a.1	See key metrics on page 67 We do not generate our own energy
Water management	(1) Total water withdrawn (2) Total water consumed (3) Percentage of each in regions with high or extremely high baseline water stress	Quantitative	Thousand cubic meters (m^3) Percentage (%)	RT-CH-140a.1	See water data table on our website https://zote.info/3mjufjS
	Number of incidents of non-compliance associated with water quality permits, standards and regulation	Quantitative	Number	RT-CH-140a.2	None
	Description of water management risks and discussion of strategies and practices to mitigate those risks	Discussion and analysis	n/a	RT-CH-140a.3	See water data table and TCFD disclosures on our website https://zote.info/3mjufjS
Hazardous waste management	Amount of hazardous waste generated and percentage recycled	Quantitative	Metric tonnes (t) Percentage (%)	RT-CH-150a.1	See waste data table on our website https://zote.info/3mjufjS
Product design for use-phase efficiency	Revenue from products designed for use-phase resource efficiency	Quantitative	Reporting currency	RT-CH-410a.1	See Key targets section on page 67
Safety and environmental stewardship of chemicals	(1) Percentage of products that contain Globally Harmonized System of Classification and Labelling of Chemicals (GHS) and Category 1 and 2 Health and Environmental Hazardous Substances	Quantitative	Percentage (%) by revenue	RT-CH-410b.1	Less than 5% of revenue is generated from substances that are regulated[1] or are considered to be of international concern.[2] 100% of goods purchased and sold undergo hazard assessments. The hazardous substances, such as flame retardants and low levels of stabilisers, are non-hazardous in the finished products as they are bound into the polymer matrix
	(2) Percentage of such products that have undergone a hazard assessment		Percentage (%)		
	Discussion of strategy to (1) manage chemicals of concern and (2) develop alternatives with reduced human and/or environmental impact	Discussion and analysis	n/a	RT-CH-410b.2	
Genetically modified organisms (GMOs)	Percentage of products by revenue that contain GMOs	Discussion and analysis	Percentage (%)	RT-CH-410c.1	No products contain GMOs
Management of the legal and regulatory environment	Discussion of corporate position related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	Discussion and analysis	n/a	RT-CH-530a.1	Zotefoams follows all local regulations relating to health, safety and environment as well as social factors. We have a low risk appetite towards safety See pages 75 to 77
Production by reportable segment	n/a	Quantitative	Cubic meters (m^3) or metric tonnes (t)	RT-CH-000.A	7,488 tonnes of AZOTE® Polyolefin Foam and 2,074 tonnes of HPP were manufactured. There is a lag between manufacturing and sale

1 Substances of very high concern under REACH and the EU's Restriction of Hazardous Substances Directive or substances listed under California Prop 65.
2 Substances controlled by the Montreal Protocol, Stockholm and Rotterdam Conventions, GHS category 1 and category 2 health hazards.

Environmental, social and governance (ESG) report
Continued

Social

The financial results achieved in 2023 were delivered with the continued dedication, talent and versatility of the Zotefoams workforce. While navigating the prevailing macroeconomic situation and balancing the needs of stakeholders, we granted pay rises commensurate with the exceptional inflation experienced in the period. We also reviewed our reward strategy in the UK, which we expect to generate Group-wide improvements during 2024.

Our people strategy

Our ambition is to be the world leader in cellular materials technology in our chosen markets. Our people strategy is approved by the Board annually.

Key 2023 strategic challenges

- Recruiting and retaining a sufficient number of competent staff: Our workforce strategy relies on identifying and filling existing and future gaps in our workforce through promotion and recruitment while retaining key contributors. In 2023, we carried out a reward strategy review in the UK, which confirmed that our remuneration framework was broadly aligned with the UK manufacturing industry and staff expectations. The review recommendations will be implemented in the UK in 2024 and provide a basis for reviews of the benefits programme in other locations. We continued to develop our succession planning through individual employee Learning & Development (L&D) plans and an expansion of the scope of our graduate management scheme.
- Fostering a culture of wellbeing to support effectiveness and staff retention: Feedback from employee focus groups was used to develop an employee engagement strategy encompassing female empowerment, the embedding of cultural values into the business and being safety leaders. The Board supported and attended a series of events held during International Women's Day in the UK and China.
- Ensuring that record management meets our needs: In 2023, our Human Resources (HR) team focused on mapping transactional HR processes to ensure that all system updates were correctly implemented. Efficiency improvements were identified, and manual processes were automated where feasible. Work is ongoing to implement payroll process maps with sign-off levels for all locations by the end of December 2024. Data integrity was considered in two internal audits, one of which specifically focused on HR processes and records. The findings are reported in our Audit Committee report on pages 83 to 86.

Our people strategy is delivered by our managers with the support of HR. The HR function operates via a Group team located in the UK and local leads in the USA, China and Poland. An online portal is in place to enable staff to easily manage certain HR tasks in our manufacturing sites, allowing the HR function to fully focus on supporting line managers and improve the employee experience.

Effective and flexible policies

Zotefoams' Group-wide people policies are aligned with business needs and, at a minimum, meet local legal requirements. Policies relating to maternity, paternity, adoption and parental leave, as well as time off for bereavement and dependants' sickness, are in place in all locations. Flexible working arrangements are offered to staff through a blended working policy in the UK and a compressed week in the USA. Adjusted working arrangements aligned with local legal requirements apply in our Poland, China and India operations.

80%
Group employee retention rate

63%
Participation rate in Group employee survey

45
Nationalities represented in Group workforce

45
Employee Net Promoter Score

12.8%
Gender pay gap

Our culture pillars

We live the brand values

We hold ourselves accountable

We understand how we contribute to Zotefoams' success

We are a learning organisation

We constructively challenge ourselves and others

We value people and recognise our successes

Culture, diversity and inclusion

Embedding culture in an increasingly virtual world

Zotefoams is a global manufacturing business with a diverse workforce operating cross-functionally in different locations. Having recognised that the Group's culture and inclusivity could be negatively impacted by the lack of personal interaction between staff working in different modes and at different locations, we continue to focus on embedding our culture in an increasingly virtual world with different challenges to effective collaboration. With the 2022 staff survey identifying that their freedom to make decisions appropriate to their role was a strength of the Zotefoams culture, management focused on the continued development of a supportive environment in that important area. Events focused on gender inclusivity and employees' health were also successfully run throughout the year. Recognising the important role that remuneration plays in employee satisfaction, a UK benefit review provided useful insights into staff's perception of the value of salaries, benefits and incentive schemes that the business has in place. Further details are provided below. All staff receive training on our culture pillars and brand values on joining the business and every two years thereafter.

In order to ensure that policies, practices and behaviour throughout the business are aligned with the Company's purpose, values and strategy, the Board monitors culture in a variety of ways, including through the Joint Consultative Committee, Board lunches with senior employees, plant visits and Executive presentations throughout the year.

The Board Diversity Policy adopted in 2021 demonstrates our commitment to fostering an inclusive culture. It was updated in 2023 to include age, gender reassignment, and educational, professional and social economic backgrounds as diversity indicators. We also replaced our Equal Opportunities Policy with a Group-wide Equality, Diversity and Inclusion Policy, which reaffirms our opposition to all forms of discrimination and captures our commitment to creating opportunities for all staff to access the training and resources they need to develop their full potential. The new policy was approved by the trade unions in the UK.

Group policies and internal controls are in place, and are monitored by the Board, on health and safety, modern slavery, ethics, anti-bribery and corruption, anti-fraud, whistleblowing and dignity at work; visit https://zote.info/3x0de78 for further information. The Group has in place a contact mechanism for stakeholders to reach out to the business on issues of concern. Biennial compliance training programmes, in local languages if needed, are delivered globally to relevant staff on modern slavery, anti-bribery and corruption, anti-fraud, anti-money laundering, insider trading and data protection. In 2023, we delivered compliance and health and safety training to 452 employees.

Zotefoams became a signatory to the Employer Pays Principle during the year, formalising our long-standing Group-wide commitment to recruitment costs being borne by the employer, not the employee.

Zotefoams aspires to net recruitment (joiners less leavers) reaching 50% female by 31 December 2024 and a number of specific initiatives aimed at supporting this objective were launched in 2023, resulting in a figure of 32% net female joiners Group-wide as at 31 December 2023. Following a series of webinars and events attended by our female Board members and our Chair on International Women's Day, we launched a Women's Forum in the UK to enhance the female voice within Zotefoams, having particular regard to women working in Operations. Its mission is to identify and promote concrete initiatives to tackle gender inequality. Our female senior managers were invited to attend a Women Advancing in Leadership seminar giving them the opportunity to examine their leadership style and consider how to overcome barriers to advancement. Following a presentation to the Board on diversity, our recruitment processes were modified to widen accessibility and support a greater diversity of applicants.

Senior managers play a critical role in developing talent, promoting connectivity across teams and linking strategy to culture. We are encouraged to see that the diversity data collected over the past two years in the UK indicates that this cohort has benefitted from inter-generational social mobility, which positively impacts Zotefoams' innovative and progress-driven culture.

Scan the QR code to see the Board Diversity Policy
zote.info/3UE6Deb

“It was interesting to understand why language matters and how to challenge negative messages.

Environmental, social and governance (ESG) report
Continued

Ethnicity distribution of Group workforce

	Director	UK	US	China	Poland	India	Group-wide
Arab	0	2	0	0	0	0	2
Asian	0	60	0	37	0	7	104
Black, African or Caribbean	0	60	7	0	0	0	67
Hispanic or Latino	0	0	25	0	0	0	25
Mixed	0	10	0	0	0	0	10
White	7	199	82	0	46	0	334
Other	0	3	0	0	0	0	3
Unknown	0	4	0	0	0	0	4
Total	**7**	**338**	**114**	**37**	**46**	**7**	**549**
Non-white ethnicity[1]	**0%**	**40%**	**28%**	**100%**	**0%**	**100%**	**38%**
Estimate of non-white ethnicity in the country	**–**	**18%**	**42%**	**100%**	**6%**	**100%**	**–**

1 Non-white ethnicity calculation excludes unknown and other and includes Directors.

Role by gender[1]

	2023						2022					
	Female	**%**	**Male**	**%**	**Prefer not to say**	**%**	Female	%	Male	%	Prefer not to say	%
Director	2	29	5	71	0	0	2	29	5	71	0	0
Executive team	1	17	5	83	0	0	1	17	5	83	0	0
Direct report to Executive team	10	26	29	74	0	0	15	28	38	72	0	0
Other staff	130	26	367	74	0	0	120	26	348	74	0	0
Total	**143**	**26**	**406**	**74**	**0**	**0**	**138**	**26**	**396**	**74**	0	**0**
Number of senior positions (CEO, CFO, SID or Chair)	1	–	3	–	0	–	0	–	4	–	0	–

1 In calculating headcount, we take into consideration all self-identified genders, including non-binary and intersex. Staff are also provided with the option of "Prefer not to say" on the equal opportunities form.

Around 26% of the total workforce is female (2022: 26%). Recognising the benefits of a gender-diverse workforce, we have put in place a number of measures to attract more women into the business but recognise that, in production environments, the shift patterns and physical nature of the work present a challenge which is only likely to be addressed in the longer term. We also see a gender imbalance across the broader business, with a much higher proportion of male employees at managerial and professional levels. Our talent pool at more junior levels, which is more representative of recent recruitment, is more balanced and we anticipate that over time this will increase the diversity at more senior levels. A blended working policy is in place in the UK to help us attract a greater number of professional women, with more flexible working arrangements increasing the pool of candidates with caring and/or family responsibilities. Our recruitment approach includes the consideration of pre-selection factors that will make Zotefoams more appealing to all minority candidates.

Our UK gender pay gap has fallen significantly since 2017 and stood at 12.8% in April 2023 (11.0% in April 2022), below a UK average of 14.3%.

Age diversity

Age equality forms part of our commitment to equal opportunity in employment and we have a good spread of age groups across the business.

The average age of our employees is 43 (2022: 43). 29% of our workforce is aged 51 or over (2022: 30%).

We expect our workforce to reflect the local communities in which we operate and recognising this forms part of our people strategy. Our principal site, with 62% of Group employees (2022: 63%), is located in South London, and 40% of the workforce is from a non-white ethnic group (2022: 36%); this is a close reflection of the local demographic and a much higher non-white ethnicity than the UK as a whole. We see similar locally influenced patterns in other locations, principally in the USA, where our employee demographic reflects local ethnicity in northern Kentucky and the Boston, MA, and Tulsa, OK, metropolitan areas.

As at 31 December 2023, the Group employed 549 staff (2022: 534).

Scan the QR code to see the Gender Pay Gap Report
zote.info/3iRXA5y

L Drummond, Company Chair, visiting our Poland plant

Employee engagement

Zotefoams recognises that employee engagement is a key enabler of our purpose. In the UK, our Joint Consultative Committee (JCC), which comprises an employee representative from each department and a Board representative, meets quarterly to consider a wide range of matters affecting employees' current and future interests. In the USA, employee engagement meetings are held monthly and the feedback is considered by management to action change where necessary. In all Zotefoams locations, feedback is elicited from leavers in areas such as the key influencing factors in their decision to leave, whether sufficient resources were made available to them, the perceived effective use of their skills, remuneration and recognition. New employees are also consulted on their views of the organisation.

Zotefoams offers work experience, graduate role opportunities and networking with our graduate employees at career days in our two largest sites in the UK and the USA. In 2023, a finance intern position was created in the USA.

To gain a better appreciation for the Group's performance, employees Group-wide were invited to join the Group CEO and Group CFO in live business presentations on interim and final results delivered through the Investor Meet Company platform. In January 2023, the Group CEO also delivered a number of business updates to all Zotefoams staff, accommodating shift patterns and geographical locations, which also included question and answer sessions. Board interaction with employees involved a visit by our new Chair to the Poland and USA sites, which enabled engagement with the local management team, and a programme of lunches for the Board and senior managers that coincided with Board meeting dates throughout the year.

The 2023 staff engagement survey was focused on job satisfaction and perceived development potential. An excellent response rate of 63% was noted, with a Net Promoter Score of 45.

Employee engagement survey questions

1. Do you feel you are recognised for the work you do?
2. Do you feel your work is meaningful and aligned with the Company's goals?
3. Would you recommend Zotefoams as a great place to work?
4. Do you have opportunities for growth and development in your role?

Community engagement

Our HR and Health and Safety Steering Committees consider the risks and opportunities associated with community interests. As a responsible employer and neighbour, we aim to have a beneficial impact on the local communities we operate in and understand that positive relations are key to maintaining our social licence. Our objective is to build trust and engagement over time through mutually beneficial interaction.

In the UK, our employee-led JCC opted to support local charities in 2023 focused on young people by equipping them with the skills for every stage of their lives and providing support with mental health challenges. Staff participated in a Christmas gift donation arranged through KidsOut, a registered charity, for disadvantaged children in the UK. A litter-picking exercise also took place. Our plant in Walton, USA, organised charity walks supporting the Alzheimer's Association and the American Cancer Society.

Our Graduates' outreach programme continues to support university graduates with their first job search. In 2023, we broadened our engagement to include coaching of university students in CV drafting, mock interviews and attending career days.

Sustainability Accounting Standards Board (SASB) disclosures

Topic	Accounting metric	Category	Unit of measure	Code	Supporting disclosure
Community relations	Discussion of engagement processes to manage risks and opportunities associated with community interests	Discussion and analysis	n/a	RT-CH-210a.1	See OHSE table page 77

Environmental, social and governance (ESG) report
Continued

Remuneration and benefits

The Group's remuneration strategy aims to align financial incentives with Zotefoams' purpose and values for optimising performance. The Company compensates its staff in line with market rates and takes into account regulatory guidance, which includes paying employees at or above the rates published by the Living Wage Foundation in the UK and liveable wages in the USA. In Poland, India and China, the rate of pay for Zotefoams employees is above the minimum wage applicable locally. Bonus arrangements vary from location to location.

Recognising the impact of the energy crisis and broader inflationary pressures, UK staff received a salary increase totalling 7% in 2023, part of which was implemented early, in October 2022, to staff earning below £50,000 p.a. This cohort constituted 77% of the UK workforce. Similar measures were implemented in the USA and Poland to ensure that salaries remained aligned with the market. Trade unions are consulted in all employee remuneration matters and were supportive of the measures taken.

For the UK workforce, the following increases have been agreed, effective 1 April 2024:

- a pay rise of 5%
- an increased employer pension contribution on the two direct contribution pension schemes currently run by the Company by 1%, for those meeting the maximum employee contribution.

> I definitely found the webinars useful and quite timely. After watching them, I started to look at the pension fund options and their potential returns quite differently.

> The webinar has certainly contributed to refreshing my awareness and I consequently took the decision to increase my pension contribution.

A wide range of benefits is available to staff generally, including bonus schemes, life assurance, flu vaccination, employee assistance programmes and free car parking. An employee reward scheme and a share incentive plan are also offered to UK staff. Benefits are provided to staff in other locations in line with local norms. Our UK Share Incentive Plan, in place since 2016, has seen an uptake in participation of 10% during the year.

As part of a 2023 UK benefits review, JCC members were consulted on reward priorities. The majority of UK staff felt that helping employees through the cost-of-living crisis was key, with the expectation that pay would be benchmarked externally. Benefits were a priority for c.40% of staff. Following the review, the Board approved a number of improvements to be implemented from 2024 onward, including wellbeing initiatives and a recognition scheme. The 2023 review will form the basis for Group-wide improvements in 2024.

90% of Zotefoams' staff are enrolled in a pension scheme in the UK, an encouraging figure which compares favourably to a UK average of 79%.[1] In other locations, all staff are enrolled in a government-backed pension scheme in line with local legislation. In 2023, the Board approved a switch in its main pension contribution scheme to a pension product offering a wider range of benefits to the majority of our UK workforce. This was combined with a series of webinars by Legal & General aimed at providing guidance on retirement options, leading to a 7% increase in membership during the year. During the year, the Company set up a Defined Contribution Pension Scheme Governance Committee, chaired by the Group CEO, to ensure, on behalf of the Board, that the plan remains suitable overall for the Zotefoams member base and that it is properly run.

A Care Concierge service that helps staff understand and find later-life care for their relatives has also been made available.

Organisation development

This year, we ran a leadership academy programme aimed at equipping team leaders and early entry talent with cross-functional skills and providing training on developing, managing and leading individuals and teams to achieve Zotefoams' objectives. Managing change and enhancing stakeholder relationships are key elements.

We actively manage a pipeline of future talent supported by the codification of knowledge and processes to support effective succession planning. As a knowledge-based business, we attract professionals at the beginning of their career and recognise that processes and practices which support knowledge transfer and cross-skilling are key to organisational development.

The UK Operations leadership team structure was updated during the year to augment skills specialisation in production management. In the USA, a flatter management structure has been adopted at operational level to foster greater engagement with management and support the strong safety culture in place.

People development

One of our culture pillars is that we are a learning organisation. Zotefoams has always fostered employee development through a variety of initiatives to equip them with key job-related skills aligned with the fulfilment of the Group's objectives, and we maintained this approach in 2023.

[1] Office for National Statistics, employee workplace pensions in the UK bulletin, April 2022

Performance management
Our performance management process aims to encourage a high level of employee engagement in the development of their performance. In the UK, staff competency is assessed against the competency framework launched in 2022. The framework was further developed in 2023 through a roll-out to our production employees in the UK as well as to all staff in China and Poland to help identify training and development opportunities.

Training opportunities are offered to staff as part of the personal development plan established through the performance management process. In addition, all staff undergo a programme of compliance and health and safety training commensurate with their role. All staff are required to acknowledge that they have read and understand policies applicable to them, which are translated as necessary for employees who are not proficient in English.

UK Graduate Scheme
Our dynamic two-year UK Graduate Scheme continues to play a pivotal role in enhancing the capacity of our team for the long term by generating a pipeline of emerging talent who have a comprehensive understanding of our business. These strong foundations enable participants to rapidly accelerate to a position where they can make a significant contribution to our future success, and we are proud of our programme's track record of nurturing versatile talent for Zotefoams' future.

All participants undertake a programme tailored to their individual backgrounds and career aspirations. This comprises several development roles and involves a blend of structured learning alongside hands-on exposure to all major business functions, providing a broad business perspective whilst developing the skills required to succeed on their chosen career path. Our Executive and senior management teams from across the business are engaged in supporting the Scheme and supporting existing graduates in mentoring newly recruited graduates. This has ensured the seamless integration of all 2023 participants into key business functions including Supply Chain and Technical Support.

In 2023, we also set out to enhance the public profile of our programme to ensure that we are well placed to attract the highest calibre of graduates each year, despite the challenges associated with attracting talent to a plastics industry tarnished by certain misconceptions and products used for the wrong purpose. By engaging with current participants and former programme alumni to identify opportunities to enhance our approach to student engagement, we rolled out an expanded programme of initiatives, such as participation in career days, providing coaching to students and supporting the development of stronger interview skills.

Beyond our UK Graduate Scheme, and as part of our ongoing efforts to diversify learning opportunities, we also provide work experience and internship opportunities at two of our world-class manufacturing facilities located in the UK and USA.

I was always interested in planning and industrial processes and in 2018 graduated as an engineer in logistics. Through a variety of roles, I developed an interest in health and safety. Zotefoams was the first company to offer me a comprehensive training programme when I joined the business in 2020. Although the pandemic had started and the health and safety function was under a lot of pressure, this was a great environment for learning. The Health and Safety Manager encouraged me to begin a programme of training with the Institute of Safety and Health, which I followed through to a NEBOSH qualification in Health and Safety, Fire Safety and Construction. I am passionate about protecting people in the workplace as I believe that people who feel safe are more productive and happier. My learning journey continues and in 2024 I plan to study for a NEBOSH Certificate in Process Safety Management with the support of Zotefoams.

Patrycja Zerafa
OHSE Coordinator

Health and Safety

Board-level accountability
Fostering a safety culture has a positive impact on risk and performance. Our approach prioritises health and safety, is supported by strong leadership and aims to train employees to develop the tools to continually improve safety in the working environment. The Company is certified to accredited standard ISO 45001:2018 for Health and Safety and is subject to a recertification regime requiring two surveillance audits per annum.

The Board, which has ultimate responsibility for health and safety policy and performance, has set a low risk appetite for health and safety matters, and reviews quarterly reports on Group health and safety issues. Annual performance objectives are agreed by the Board and performance against these is monitored as part of its quarterly reporting programme. RIDDORs (lost time accidents reportable under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013) are recorded immediately and are subject to a thorough root cause analysis reviewed by the Board, with appropriate follow-up actions agreed with management, both in the UK and in our overseas locations. Additionally, the Board has a detailed review of performance, targets, metrics and approach in health, safety and environmental matters through monthly updates.

The Group CEO is directly responsible to the Board for health and safety performance. All health and safety matters are overseen by steering committees, chaired by the Group CEO (or appropriate senior person in subsidiary companies). The steering committees meet quarterly and consider overall performance and the impact of current and impending legislation.

Environmental, social and governance (ESG) report
Continued

Safety day 2023, Croydon, UK

Training and performance
Employees are made aware that each and every one of them has a part to play in ensuring their own safety at work and that of their colleagues. Role-appropriate health and safety training is provided to each employee on joining the business and at regular intervals. Employees are required to report any unsafe, or potentially unsafe, acts or conditions and any incident (including near misses), as well as damage to plant or equipment which has not resulted in personal injury. All incidents are investigated by appropriate levels of management to ascertain the root cause of the incident and, wherever possible, working practices and procedures are improved to minimise the risk of recurrence. In 2023, there were no prosecutions, fines or enforcement actions taken as a result of non-compliance with health and safety legislation (2022: none).

Controlled substances and high-pressure gas
Few controlled substances are used in the manufacture of our foams, but where they are, the Group has established procedures in which the relevant employees are trained to ensure safe storage and handling of such substances, in accordance with regulatory requirements. The manufacturing process involves manual handling and processing of materials; therefore when new or altered equipment or materials are introduced, and at regular periods thereafter, the risks to the processes are assessed and improvements made wherever possible, such as to the design of the equipment, to reduce or eliminate the risks identified.

The most strictly controlled parts of the Group's sites are where high-pressure gas is used. The high-pressure autoclaves are subject to the Pressure Systems Safety Regulations 2000 in the UK, OSHA (Occupational Safety and Health Administration) in the USA and the Journal of Laws of the Republic of Poland, Dz. U. 2022 poz. 68. Tightly defined procedures and operational controls are in place to manage the safety of these pressure systems. Fail-safe mechanisms, known as pressure relief valves and bursting discs (which act like fuses in an electrical system), are included in the design of the pressure systems which, when triggered, allow safe depressurisation of sections of the system and prevent any further risks. Operation of these fail-safe mechanisms releases harmless nitrogen gas into the atmosphere.

Safety leading indicators evolve across the group
Zotefoams has a mature safety culture. Having reached a high level of staff engagement by 2020, the Group began to focus on leading indicators, a forward-looking metric designed to foster continuous improvement to help identify new potential risks and allow for timely intervention. Since then, a significant increase in safety engagement has been noted in all our locations, with a more focused and proactive approach to safety performance. The consistent improvement in our DART (Days Away Restricted or Transferred) and DAFW (Days Away From Work) metrics reflects this work.

9,202 Group-wide safety engagements were completed in 2023 (2022: 5,000).

Focus on health
Employee health and safety issues are embedded widely in Group activities. Further details are available on page 77. Two interactive safety days held in the UK in 2023, with support from key suppliers in the fields of hazard identification, wellbeing, fire safety and protecting the environment, were attended by over 100 staff members, and positive feedback was received. Safety events were also held in Poland and are planned in the USA in 2024.

Occupational health monitoring in relevant functions is in place in all manufacturing facilities.

An employee assistance programme is in place in our two largest sites in the UK and the USA, providing staff with confidential helplines and practical resources to support their emotional, physical and financial wellbeing. Group-wide, a team of mental health first aiders is available to offer initial support to employees and to direct them towards appropriate internal and external resources.

Also in the UK and USA, webinars and discussions focused on female and male health were held throughout the year. A flu vaccine programme was also continued in 2023.

Health and safety performance

The primary metric used to monitor the number of reportable injuries for the Group is RIDDOR. The Group also uses metrics devised by the United States Department of Labor to measure staff absence resulting from workplace incidents and accidents. This allows a comparison with a large, relevant peer group and also provides an established methodology with which we can benchmark our performance annually. In 2023, a good performance continued on DAFW and DART relative to the latest benchmark data for Rubber and Plastics Processors. RIDDOR, DAFW and DART are our primary metrics. Other metrics are provided below to meet SASB chemical industry requirements.

In 2023, one RIDDOR incident occurred across the Group (2022: two).

	2023	2022	2021	Industry (latest published figures)
RIDDOR	**1**	2	0	n/a
DAFW	**0.7**	0.5	1.2	1.2
DART	**0.9**	0.5	1.7	2.3

	2023	2022
Total Recordable Incident Rate (TRIR)		
Direct Employees	**1.0**	3.1
Contract Employees	**0**	0
Process Safety Incidents Count[1]	**2**	4
Process Safety Incident Rate[1]	**0.3**	0.7
Process Safety Incident Severity Rate[1]	**1.0**	1.5
Number of transport incidents[1]	**0**	0
Fatality rate		
Direct Employees	**0**	0
Contract Employees	**0.0**	0.0

1 Tier 1 level incidents.

Sustainability Accounting Standards Board (SASB) disclosures

Topic	Accounting metric	Category	Unit of measure	Code	Supporting disclosure
Workforce health and safety	(1) Total recordable incident rate (TRIR) (2) Fatality rate for: (a) direct employees and (b) contract employees	Quantitative	Rate	RT-CH-320a.1	See Health and safety performance table on page 77
	Description of efforts to assess, monitor and reduce exposure of employees and contract workers to long-term (chronic) health risks	Discussion and analysis	n/a	RT-CH-320a.2	We assess all hazards within all roles and have a health surveillance programme based on higher risk hazards. We continuously work to eliminate or mitigate all risks that could lead to long-term health risk
Operational safety, emergency preparedness and response	Process Safety Incidents Count (PSIC), Process Safety Total Incident Rate (PSTIR) and Process Safety Incident Severity Rate (PSISR)	Quantitative	Number, rate	RT-CH-540a.1	See Health and safety performance table on page 77
	Number of transport incidents	Quantitative	Number	RT-CH-540a.2	Zotefoams had no reportable transport incidents

Board of Directors

⬢ Chair of Committee

A
Member of the Audit Committee

R
Member of the Remuneration Committee

N
Member of the Nomination Committee

Douglas Robertson
Senior Independent Director
A N R

Appointed
August 2017

Skills
Extensive multinational experience in both public and private companies, strategic planning, acquisitions and divestments.

Experience
Doug is a Chartered Accountant and was Group Finance Director of SIG plc until his retirement in January 2017. Prior to joining SIG, Doug had been Group Finance Director of Umeco plc and Seton House Group Limited, having spent his early career with Williams plc in a variety of senior financial and business roles.

External appointments
Non-Executive Director, Chair of the Audit Committee, member of the Remuneration and Nomination Committees, HSS Hire Group plc. Non-Executive Director, Chair of the Audit Committee, member of the Remuneration and Nomination Committee, Mpac plc.

David Stirling
Group CEO

Appointed
September 1997 (Finance Director) and May 2000 (Group CEO).
As recently announced, David will retire at the 2024 AGM.

Skills
Global leadership, strategy and commercial experience, with a specific skillset in intellectual property, business development, finance and manufacturing. He has over 20 years' plc board experience.

Experience
David started his career with KPMG in Scotland, where he qualified as a Chartered Accountant. He has worked for Price Waterhouse in the USA and Poland and for BICC plc. David is a graduate of Glasgow University and has an MBA from Warwick University and an MSc in Finance from the London Business School. David is a Fellow of the Institute of Materials, Minerals and Mining.

External appointments
None

Lynn Drummond
Non-Executive Chair
N R

Appointed
January 2023

Skills
Experienced Chair and Non-Executive Director, with significant expertise in banking and the healthcare sector.

Experience
Lynn worked in the Cabinet Office in London as Private Secretary to the Chief Scientific Adviser before spending 16 years as a Managing Director in Investment Banking for Rothschild & Co. She has held non-executive directorships at Venture Life Group plc, RPC Group plc, Infirst Healthcare, Shield Holdings AG, Allocate Software plc, Consort Medical plc and Alimentary Health Ireland. She has also been Chairman of Trustees for Breast Cancer Haven and was a member of the University of Cambridge Centre for Science and Policy Development Group. Lynn holds a Bachelor of Science Degree in Chemistry from the University of Glasgow and a PhD in Biochemistry from the University of London. She is a Fellow of the Royal Society of Chemistry and a Fellow of the Royal Society of Edinburgh.

External appointments
Chair and Pro-Chancellor of the University of Hertfordshire. Non-Executive Director of Stevenage Bioscience Catalyst. Board mentor for Criticaleye.

Malcolm Swift
Non-Executive Director
A N R

Appointed
September 2023

Skills
Experienced Non-Executive Director with significant expertise in global consumer and B2B markets and international joint venture boards.

Experience
Malcolm brings a global business perspective acquired over a 30-year career. He was an Executive Committee member of McCormick & Co Inc, where his executive positions included President, Global Flavour Solutions, and Chief Administration Officer. From 2017 to 2023, he was a Non-Executive Director and, from 2019, Chair of the Remuneration Committee of Devro plc, and prior to this a Non-Executive Director of Stolt Sea Farm Holdings plc.

External appointments
Non-Executive Director of NovaTaste Group, Board adviser to Nactarome S.p.A., President of the European Brands Association, Chair of Governors at Caldicott School, Buckinghamshire.

Gary McGrath
Group CFO

Appointed
December 2015 (Executive Director) and February 2016 (Group CFO)

Skills
Diverse international experience across a range of manufacturing businesses. He has a track record of building world-class finance organisations and delivering commercial finance support and effective control environments to achieve board strategies.

Experience
Gary is a Chartered Accountant, qualifying with Arthur Andersen. He spent 11 years with RMC Group plc before joining Koch Industries Inc, where he spent several years in various positions, including Global Finance Director of INVISTA Apparel and EMEA Vice President of Finance, Planning and Analysis at Georgia Pacific. Before joining Zotefoams, Gary was CFO of GC Aesthetics Limited. He has worked across public, private and private equity environments in the UK, Belgium, Germany, the USA and the Republic of Ireland.

External appointments
None

Catherine Wall
Non-Executive Director
A N R

Appointed
May 2020

Skills
Skilled independent Chair and Non-Executive Director for private equity owned, quoted and family companies. Sectors: industrials, business services, consumer.

Experience
Catherine has 30 years' experience in the private equity industry, primarily with Equistone Partners Europe, where she led numerous management buy-outs and later became UK Portfolio Partner supervising the management of all the business's UK investments. Catherine also has extensive industrial markets and Non-Executive Director experience, working with and helping develop many management teams to deliver ambitious growth plans.

External appointments
Trustee of City of Birmingham Symphony Orchestra.

Jonathan Carling
Non-Executive Director
A N R

Appointed
January 2018

Skills
Extensive engineering, manufacturing, operational and business experience at board level, having led the development and production of a number of luxury cars and aero engines.

Experience
Jonathan was previously the CEO of Tokamak Energy Limited, a technology business developing a faster route to fusion power, COO for Civil Large Engines at Rolls-Royce plc, COO at Aston Martin Lagonda Limited, and Chief Engineer with Jaguar Land Rover Limited. Jonathan has extensive engineering, operational and business experience. He was also a Non-Executive Director of Aga Rangemaster Group plc between 2011 and 2015.

External appointments
None

Corporate governance
Committed to the highest standards of corporate governance

Dear Shareholder

The Board recognises the importance of being a well-managed business in the interests of our shareholders and stakeholders. Sound governance principles must permeate the entire organisation, providing a fundamental underpin to the process of value creation, value protection and value preservation. Governance drives the quality of decision-making that will help Zotefoams achieve its strategic objectives more efficiently and effectively.

Throughout the year, the Board has remained committed to the Group's strategy and continued alignment with its purpose of providing 'optimal material solutions for the benefit of society'.

The Board has a detailed programme of activities ensuring that operational and financial performance, risk, governance, strategy, culture and stakeholder matters are discussed frequently and supporting Directors' oversight and understanding. This ensures that the Board's discussions and decisions are appropriate for the business, our stakeholders and the markets in which we operate.

Strategy sessions, at which members of the Executive team present on each of our global business areas, as well as participate in broader longer-term considerations impacting the Group, are held annually. This is in addition to business unit reviews which are led by the relevant Executive team member. The aim is to better understand market trends, technology development, our place in the lower-carbon economy and people strategies. The culture, diversity and inclusion supporting the long-term planning and strategic direction of the Group are also explored during these sessions.

Key areas covered by the Board in 2023 included:

- overseeing Board changes (Chair, Remuneration Committee Chair and a CEO search process)
- approval of capital expenditure for a new low-pressure vessel to increase expansion capacity in Walton, USA
- approval of a supply agreement extension with Nike to 2029 in continuance of a partnership started in 2018 on footwear products
- continued tracking of progress with ReZorce® mono-material barrier packaging and the appetite to invest behind it
- embarking on a process to identify opportunities and risks arising from Artificial Intelligence (AI).

Further details may be found in our S172(1) statement on pages 61 to 63 **and in our Strategic Report on** pages 1 to 77.

I am pleased to present the report on corporate governance on behalf of the Board.

Key performance indicators

Governance

The business is managed in line with our risk management framework on page 47. The Company complies with the requirements of the UK Corporate Governance Code and has due regard to best practice in governance matters.

Accreditations

The Company is certified to ISO 14001:2015 (Environmental Management), ISO 45001:2018 (Occupational Health and Safety), ISO 9001:2015 (Quality Management), and from 2024 ISO 27001:2022 (Information Security Management).

We follow ISO 14021:2016 when making environmental claims and have taken steps to gain independent accreditation for these. Further details are provided in our Environment section on pages 67 to 69. The Cyber Essentials Plus certification, an in-depth and thorough independent assessment of our IT systems, was re-awarded in 2023.

Policies

The Company has in place a wide range of ethical and control policies. Further details are provided in our Social section on pages 70 to 77 and our Environment section on pages 67 to 69.

Statement of compliance with the 2018 UK Corporate Governance Code

Throughout the financial year ended 31 December 2023, the Board has considered the contents and requirements of the Code and confirms that the Group has been compliant with the provisions of the Code.

The Code can be downloaded here https://bit.ly/2AKGqTm

Further details are provided in this report, the Board Committee reports and the Directors' report that follow on pages 83 to 106.

The disclosures required by Disclosure and Transparency Rules DTR 7.2.6R have been provided in the Directors' report.

Roles and responsibilities

The Board's role is to provide entrepreneurial leadership of the Group within a framework of prudent and effective controls that enable risk to be assessed and managed. The Board sets the strategic aims of the Group, ensures that the necessary resources are in place to achieve the Group's objectives and reviews management performance. The Board acts as the representative of the shareholders and other stakeholders and focuses on the governance of the Group. Management is delegated to the Executive Directors and Executive team.

As part of their role as members of a unitary Board, the Non-Executive Directors constructively challenge and develop proposals on strategy. The Non-Executive Directors scrutinise the performance of management in meeting agreed goals and objectives and monitor the reporting of performance. They satisfy themselves on the integrity of financial information and that financial controls and systems of risk management are robust and defensible. They are responsible for determining appropriate levels of remuneration for the Executive Directors and have a prime role in appointing and, where necessary, removing Executive Directors and in succession planning.

Three principal Committees report into the Board, functioning within defined Terms of Reference. These are the Audit, Remuneration and Nomination Committees. The Terms of Reference for these Committees are available on the Group's website: https://zote.info/3ESyJZy

The Board has put in place a schedule of matters that are reserved for its determination or which need to be reported to the Board. This schedule is reviewed regularly and was last updated in June 2022.

The Chair is responsible for the leadership of the Board, ensuring its effectiveness on all aspects of its role and setting its agenda. The Chair is also responsible for ensuring that the Directors receive accurate, timely and clear information. The Chair facilitates the effective contribution of the Non-Executive Directors and ensures constructive engagement between Executive and Non-Executive Directors.

The Board considers that L Drummond has sufficient time to devote to her role as Chair of the Company. L Drummond is currently Chair and Pro-Chancellor of the University of Hertfordshire and a Non-Executive Director of Stevenage Bioscience Catalyst.

The Group CEO is responsible for the running of the Group's business. He is supported by the Group CFO and the Executive team.

Composition and diversity

The Board and its committees acknowledge the benefits of diversity, including that of gender and ethnicity, and are committed to setting an appropriate 'tone from the top' in such matters. The Board's Diversity Policy reflects its aspiration to meet the following thresholds:

- at least 40% women on the Board
- at least one of the senior Board positions (Chair, Chief Executive, Chief Financial Officer or Senior Independent Director) is a woman
- at least one director from a non-white minority-ethnic background.

It is acknowledged that, in periods of Board change, there may be times when these thresholds are not maintained.

The Board's female membership was increased to 43% in May 2023 following the appointment of L Drummond as Chair, which also allowed us to make progress toward the additional target of having at least one senior Board position held by a woman. It returned to the previous level of 29% following the resignation of A Fielding in September 2023.

The Board Diversity Policy informed the process followed by the Nomination Committee in relation to Board changes in 2023. The policy is mirrored in Zotefoams' wider recruitment strategy and is having a positive impact on the talent pipeline in what has historically been a male-dominated industry. More details can be found in our Social section on pages 70 to 77, and in our Nomination Committee report on pages 87 to 89.

The Board members have gained their business experience across a broad range of industries, covering industrial, engineering, energy, education, medical, food, intellectual property and financial services, which results in significant collective knowledge of business practices and a high degree of international exposure. The Board also benefits from the broad cultural, educational and professional backgrounds of its members.

The structure, diversity and composition of the Board remain under review to ensure that we have the appropriate mix of skills and experience to best serve a dynamic, growing international company.

As at 31 December 2023, the Board comprised two Executive Directors, four independent Non-Executive Directors and the independent Non-Executive Chair. L Drummond was appointed to the Board on 17 January 2023 as Non-Executive Director and Chair Designate and became Chair on 24 May 2023. D Robertson was appointed Senior Independent Director at the AGM held on 16 May 2018. The Board considers D Robertson to be independent.

L Drummond is also Chair of the Nomination Committee and a member of the Remuneration Committee. Only the respective Committee Chairs and members are entitled to be present at meetings of the Remuneration, Audit and Nomination Committees, but others may attend at the invitation of the Committee Chair. During the year, the Chair met with the Non-Executive Directors regularly without the Executive Directors present and the Non-Executive Directors met without the Chair present to carry out a review of the Chair's performance, in line with the principles of the Code.

The Directors' tenures are as follows:

Tenure and attendance

Director	Tenure at 31 December 2023
J Carling	6 years and 0 months
L Drummond	1 year and 0 months
G McGrath	8 years and 1 month
D Robertson	6 years and 4 months
D Stirling	26 years and 4 months
M Swift[5]	0 years and 3 months
C Wall	3 years and 7 months

Evaluation and development

A formal review of the performance of the Board and its Committees is carried out each year. The review of the Chair's performance is led by the Senior Independent Director, together with the other Non-Executive Directors in consultation with the Executive Directors. The other Non-Executive Directors' performance is evaluated by the Chair in consultation with the Executive Directors. The Executive team's performance is evaluated by the Remuneration Committee in conjunction with the Group CEO (except in the case of the Group CEO, when the Group CEO is not present).

Having considered the merits of retaining the services of an external facilitator, the Board concluded that, given the Group's size, the Board's needs and the recent appointment of a new Chair, more benefit would be derived from carrying out a fully facilitated Board evaluation in 2024.

Further details of the 2023 Board evaluation may be found in our Nomination Committee report on pages 87 to 89.

The review confirmed that the Board and its Committees remained effective and continued to fulfil their remit, that the matters reserved for the Board were up to date and that appropriate Committees' Terms of Reference were in place. All Directors contributed effectively and provided appropriate commitment to their role.

The Board considers that it is functioning well and that its current composition contains an appropriate balance and diversity of views, qualifications, skills, experience and personal attributes necessary to carry out its duties and responsibilities.

Each month, all Directors receive management reports and briefing papers in relation to Board matters in a timely manner to ensure that they have due time to consider the information and act accordingly. New appointments to the Board receive an induction and, where appropriate, training. The Directors have access to the Company Secretary and independent professional advisers, at the Group's expense, if required for the furtherance of their duties.

The Directors also undertake continuing professional development activities through the year to support development areas identified through the Board evaluation process as well as to keep themselves up to date with evolving rules, regulations and guidance.

The Directors' attendance at meetings of the Board and Committees is as follows:

	Board meetings		Audit Committee meetings		Remuneration Committee meetings		Nomination Committee meetings	
Attendance at meeting	**Eligible**	**Attended**	**Eligible**	**Attended**	**Eligible**	**Attended**	**Eligible**	**Attended**
J Carling[1]	13	12	4	4	3	3	4	4
L Drummond[2]	13	13	1	1	3	3	4	4
A Fielding[3]	9	9	2	2	2	2	3	2
S Good[4]	5	5	–	–	2	2	1	1
G McGrath	13	13	–	–	–	–	–	–
D Robertson	13	13	4	4	3	3	4	4
D Stirling	13	13	–	–	–	–	–	–
M Swift[5]	4	4	2	2	1	1	1	1
C Wall	13	13	4	4	3	3	4	4

1 J Carling's absence from a Board meeting was due to attending a funeral.
2 L Drummond was appointed Non-Executive Director and Chair Designate on 17 January 2023 and Chair on 24 May 2023. From the date of her appointment as Chair, she ceased to be a member of the Audit Committee and thus was no longer eligible to attend its meetings.
3 A Fielding, who joined the Board in May 2020, resigned as Non-Executive Director on 29 September 2023. Her absence from a Nomination Committee meeting was due to sickness.
4 S Good, who joined the Board in October 2014, resigned as Chair on 24 May 2023.
5 M Swift was appointed Non-Executive Director on 29 September 2023.

Corporate governance
Continued

Relations with shareholders

Our communication strategy with shareholders is guided by the principle of effective and transparent engagement.

Meetings with institutional shareholders are usually held twice a year following the announcement of the Group's interim and preliminary results, in August and March respectively. Other meetings are held at institutional shareholders' request. In 2023, these meetings continued to be held, with a mix of in-person and virtually. To ensure that the Board, particularly the Non-Executive Directors, understands the views of the shareholders, the Group's corporate brokers provide summary feedback from the investor meetings, in particular from the meetings held following the interim and preliminary results announcements. The Chair and the Senior Independent Director, as well as the other Non-Executive Directors, are available to meet institutional shareholders if requested. Our new Chair, L Drummond, was introduced to key institutional shareholders and took part in an online presentation held after the 2023 Annual General Meeting. The Chair and the Group CEO also made themselves available to shareholders on 7 November 2023 following the announcement of a Group CEO succession process being initiated. During the year, the Company increased the number of Regulatory News Services announcements to keep shareholders abreast of developments within the business, including the extension of an exclusivity agreement with Nike to December 2029, a new joint development agreement and a Best Recycled Plastic Product of the Year award in relation to ReZorce® mono-material barrier packaging. In Q1 2024, our MSCI ESG rating assessment improved from AA to AAA.

The Board also recognises the importance of engaging with individual shareholders, and the Executive Directors continue to hold presentations through the Investor Meet Company digital platform at least twice per year. The platform provides individual investors with the same opportunity for two-way engagement as institutional investors through live, interactive presentations as part of the investor roadshows.

A shareholder consultation on the proposals for the Remuneration Policy adopted at the 2023 AGM was held in 2022 and early 2023. This included an outline of the proposals being sent to the top 20 shareholders of the business who at the time accounted for 78% of the shareholder base, and subsequent engagement by telephone or through online meetings, with feedback being taken into account to ensure that the proposals were fully aligned with shareholders' expectations. Further details are provided in the 2022 Directors' Remuneration report on pages 88 to 109. The new Directors' Remuneration Policy was approved by 95.27% of votes cast.

The Annual Report, the AGM, the corporate website www.zotefoams.com and social media channels also support communication with investors. The Chairs of the Board Committees will normally be available at the AGM to answer questions.

Internal control

Internal control framework

In compliance with the UK Corporate Governance Code, the Board monitors the Group's risk management and internal control systems and, at least annually, reviews their effectiveness. The Board's monitoring covers all controls, including financial, operational and compliance controls. Bi-annually, the effectiveness and the outputs of the risk management framework, as documented on pages 45 to 47 of the Risk management and principal risks section of this Annual Report, are reviewed. This is based principally on reviewing reports from management and the Internal Controls Committee to consider whether significant and emerging risks are identified, evaluated, managed and controlled, and whether any significant weaknesses are promptly remedied. The Board, via the Audit Committee, also sets a rolling three-year, risk-based, internal audit plan and reviews the actions and closure of report findings. Annually, the Board receives a report from management on the key financial policies, processes and controls in place for the purpose of preparing the consolidated financial statements and reviews their effectiveness.

The Audit Committee assists the Board in discharging its review responsibilities.

During the course of its review of the internal control framework and the principal risks facing the Group, the Board did not identify, nor was it advised of, any failings or weaknesses it determined to be significant. Therefore, a confirmation in respect of necessary actions has not been considered appropriate.

Key elements of the Group's internal control framework are listed below.

Control environment

The Group has an appropriate organisational structure for planning, executing, controlling and monitoring business operations in order to achieve Group objectives. Overall business objectives are set by the Board and communicated through the organisation. Lines of responsibility and delegations of authority are clearly documented. The Group's ERP IT system is fit for purpose, well maintained and used whenever possible to automate controls, including the effective application of segregation of duties.

Control procedures

The Group has implemented control procedures designed to ensure complete and accurate accounting for financial transactions and to limit the potential exposure to loss of assets or fraud. Measures taken include physical controls, segregation of duties, financial authority levels and reviews by management, the Internal Auditor and the External Auditor. The effectiveness of these control procedures is tested by the Group's Internal Controls Committee (which is chaired by the Group CEO), the Audit Committee and the Board.

A process of control self-assessment and hierarchical reporting has been established, which provides for a documented and auditable trail of accountability. These procedures are relevant across the Group and provide for successive assurances to be given at increasingly higher levels of management and, finally, to the Board. Planned corrective actions are independently monitored for timely completion.

Risk management

Group management is responsible for the identification and evaluation of key risks applicable to its areas of business. These risks are assessed on a continual basis and may be associated with a variety of internal or external sources.

The Group's risk management framework is detailed on page 47.

Monitoring and corrective action

There are clear and consistent procedures in place for monitoring the system of internal financial and non-financial controls. The Audit Committee normally meets not less than three times a year and, within its remit, reviews the effectiveness of the Group's system of internal financial controls. The Committee receives reports from the External Auditor, Internal Auditor and management.

Non-financial controls are reviewed regularly by executive management, which reports any issues and corrective actions taken.

Information and communication with the Board

The annual budget and quarterly forecast updates are a key part of the planning and performance management process and the Board reviews performance against these. In addition, the Board receives monthly management reports, which highlight financial results, performance against key performance indicators and significant activities and matters of note during the month under review.

Through these mechanisms, the performance of the Group is regularly monitored, risks are identified in a timely manner, their financial implications assessed, control procedures evaluated, and corrective actions agreed and implemented.

Accountability

The Board acknowledges its responsibility to give a fair, balanced and understandable view of the financial position and future prospects of the business. On behalf of the Board, and at the recommendation of the Audit Committee, I confirm we believe that the 2023 Annual Report presents a fair, balanced and understandable assessment of the Group's position, its performance and its prospects, as well as of its business model and strategy.

Annual General Meeting

Our AGM will be held at our UK foam manufacturing facility. Attendees will have the opportunity to meet the Board informally and ask questions. Further information is provided in our Notice of the 2024 AGM. In addition, a separate virtual presentation, open to all existing shareholders and other stakeholders, will take place after the AGM on the Investor Meet Company platform: https://www.investormeetcompany.com/register-investor

The Directors and I look forward to welcoming shareholders to the AGM.

L Drummond
Chair

5 April 2024

Audit Committee report
Focus on internal controls

Dear Shareholder

The Audit Committee has reviewed the contents of the 2023 Annual Report and advised the Board that it considers the Report to be fair, balanced and understandable and provides the information necessary for shareholders to assess the Group's position and performance, business model and strategy.

The Committee remains responsible for keeping under review the adequacy and effectiveness of the Group's internal controls and risk management systems.

Financial performance

During 2023, the Committee was focused on matters relating to maintaining the Group's strong financial performance in a robust control environment.

Profitability in the foams business, which comprises our Polyolefin Foams and High-Performance Products (HPP) business units, increased by 22% to £17.2m (2022: £14.1m) as a result of customer pricing management in the Polyolefin Foams business, continued faster growth in HPP and operational efficiency improvements. This was partly offset by increased losses in the MuCell Extrusion LLC (MEL) business of £4.4m (2022: £1.9m), and further capitalisation of development costs and some equipment, amounting to £2.5m (2022: £1.4m) as focus continued on the development of ReZorce® mono-material barrier packaging, resulting in a net increase in Group profit before tax of 5% to £12.8m (2022: £12.2m) on similar revenues. Future capacity requirements were also considered and, in response to increasing opportunities in the USA, the Board approved a significant capital investment of approximately £10m to fund further development of its foam manufacturing site in Kentucky, USA, with investment in a second low-pressure autoclave and increased warehouse space.

MuCell Extrusion LLC (MEL) carrying value

MEL's carrying value remained an important area of judgement in 2023. Having engaged regularly during the year on progress of the ReZorce® mono-material barrier packaging opportunity via the Board, the Committee challenged management to confirm that its annual assessment of the impairment value of intangible assets was fair and reasonable. The Committee noted the favourable opinion from the External Auditor, who had gained comfort on the recoverable value of the assets by reviewing and testing the inputs and assumptions used in management's value-in-use model, together with assessing the progress achieved during the year, including the securing of a joint development agreement and ongoing effective collaboration with a globally recognised beverage packager, the technological advancements achieved, the anticipated timeline to in-market trials with a reputable supermarket chain in northern Europe, the estimated market size, the ability to secure interest from future potential customers and the plans for commercialisation of the proposition. Taking the External Auditor assessment, and drawing on its own investigations and analysis, the Committee also concluded that there was no impairment as at 31 December 2023. Furthermore, the Committee noted that the challenges inherent in running a start-up proposition such as ReZorce alongside an established business such as the Zotefoams autoclave technology business created a specific set of risks that were being well managed. It also noted how the recruitment of a C-Suite level finance resource towards the end of 2023 had augmented managerial capability within MEL.

Internal controls

Based on its continued assessment of the risks facing the business, the Audit Committee maintained its focus on internal controls in 2023. As part of a planned three-year project led by a fully dedicated and newly recruited internal controls manager, internal financial controls on the key transactional processes in the UK were fully documented, and testing commenced. Testing will become continuous, in addition to an extension of the documentation and testing of the internal controls to other Group legal entities. Policies and financial authorities lists were also reviewed, tested and updated where required. The internal controls manager presented his plan and progress at two Audit Committee meetings during the year.

The Committee noted that an effective and well-embedded risk management process remained in place. Zotefoams employees derive great benefit from the process, which provides a mechanism for identifying and managing risks that allows everyone to understand their place in supporting the Group to achieve its strategic and operational objectives. The Committee challenged management to find ways to improve the effectiveness of this process further. This was followed in Zotefoams Inc, resulting in a significant improvement in the risk and control identification and risk mitigation activities in the USA and subsequently an increased engagement by functional managers.

As introduced the previous year, the Committee received a report from the Group Financial Controller on the accounting matters that arose for the year ended 31 December 2023 on financial processes controls and received confirmation that, in their opinion, there were no accounting issues of a material nature within the Group's consolidated financial statements, and that they reflect a true and fair view of the Group's financial performance for the year and position for the year ended 31 December 2023. It also received a report from the Group Financial Controller detailing the main features of the Group's internal control and risk management systems in relation to the process of preparing consolidated accounts, and received and accepted their conclusion that the systems are appropriate for an organisation of the size and resources of Zotefoams.

During the year, the Committee monitored the consultation by the UK's Department for Business, Energy and Industrial Strategy on reforms to audit and corporate governance and satisfied itself that adequate measures are in place to ensure that the Group will be prepared for the implementation of any enhanced requirement imposed by regulation from 2025.

Internal audit

The enhanced internal audit plan approved in 2022 was reviewed and updated by the Committee during the year to reflect the increased operational importance of subsidiaries. The following internal audits were carried out in 2023:

- data privacy controls: the review assessed data protection controls for operations in the UK, Poland and USA. It established that Zotefoams has embedded the key elements supporting data protection compliance and developed processes and controls to manage risks around data protection, achieving broad compliance with data privacy legislation. Minor documentation upgrades identified by the Internal Auditor to align with best practice and further mitigate risk have been completed during the year. Zotefoams' personal data processing is primarily centred around HR records
- HR processes for onboarding new staff and dealing with job changes and departures in the UK: the audit identified that the HR team is focused on supporting management in people activities, with a need to evolve toward more strategic support of the business by utilising technology enhancements and increasing the use of process automation. Work is under way to assess how best to progress the actions.

The majority of findings were ranked medium or low, with appropriate management actions planned or implemented during the year to mitigate the issues identified, none of which were material.

Audit Committee report
Continued

As mentioned in the 2022 Annual Report, an internal audit on the processes and controls in place for the effective governance of contracts, covering the UK and the USA, was initiated towards the end of 2022 and the Committee reviewed the findings in Q1 2023. Progress on actions that mostly focused on formalising policy and processes through effective documentation, as well as ensuring that best practice and processes in the UK were replicated in the USA, was monitored by the Committee during the year. The Committee will continue to keep under review and assess the continued independence and effectiveness of the internal audit function in 2024.

Payment practices reporting
Zotefoams plc's payment performance continues to be better than the UK's standard of 37 days (per the Small Business Commissioner, an independent public body set up by the Government under the Enterprise Act 2016 to tackle late payment and unfavourable payment practices in the private sector). Invoices are now paid on average within 27 days of issue. Given the importance of maintaining good relationships with suppliers, the Committee extended this review in 2023 to cover payment practices in Poland and China and requested that statistics for these subsidiaries continue to be monitored to ensure that they align with local standards. The Committee noted draft regulations aimed at extending and strengthening the Reporting on Payment Practices and Performance Regulations 2017, including the introduction of value metrics and comparable sector data, and remains confident that the Company will continue to perform well against these criteria.

Non-audit services
The Committee carried out its required triennial review of the Non-Audit Services Policy first adopted in 2020. The policy prohibits the provision of non-audit services by the External Auditor without the prior approval of the Committee, which will only be granted in compliance with the latest Financial Reporting Council (FRC) Revised Ethical Standard. Annually, the Group CFO provides an assessment of compliance with this Policy that summarises for the Committee all audit firms used during the year, in order to be aware of potential tender restrictions and ensure that the Group maintains sufficient options to permit a competitive tender should one become necessary. Any engagement of financial advisers, who otherwise provide external audit services, must be approved by the Group CFO. This includes appointments by the Board and its committees. After due consideration, the Committee re-approved the Policy for the next three years.

The Committee's responsibilities
In the discharge of its duties, the Committee has given due consideration to all relevant laws and regulations including the provisions of the UK Corporate Governance Code (the "Code"), the FRC Guidance to Audit Committees, the requirements of the UK Listing Authority's Listing Rules and the Prospectus and Disclosure and Transparency Rules (DTRs).

The Committee continues to fulfil a key role in the Group's governance framework, providing valuable independent challenge and oversight across the Group's financial reporting and internal control procedures. In a rapidly evolving climate, it seeks to ensure that shareholders' long-term interests are protected and that long-term value is created.

As a result of its work during the year, the Audit Committee has concluded that it has acted in accordance with its Terms of Reference and has assessed satisfactorily the independence and objectivity of the External Auditor. I am available to answer any questions you may have about the work of the Committee. Please contact the Company Secretary in this regard.

D G Robertson
Chair of the Audit Committee

5 April 2024

Summary of the role of the Audit Committee
The main responsibilities of the Audit Committee are:

- to monitor significant financial reporting issues and judgements and the clarity and completeness of disclosures made in connection with the preparation of the Group's and Company's financial statements, assumptions for the going concern and viability statements, interim reports, preliminary announcements and related formal statements, including any matters which the External Auditor may wish to raise; where the Committee is not satisfied with any aspect of the proposed financial reporting by the Company, it shall report its views to the Board
- to review and challenge, where necessary: the application of significant accounting policies and any changes to them; the methods used to account for significant or unusual transactions where different approaches are possible; whether the Group has adopted appropriate accounting policies and made appropriate estimates and judgements, taking into account the External Auditor's views on the financial statements; and the clarity and completeness of disclosures in the financial statements and the context in which statements are made
- to review on behalf of the Board the integrity of the Group's internal financial controls and assess the scope and effectiveness of the systems established by management to identify, assess, manage and monitor financial and non-financial risks and make recommendations to the Board
- to keep under review the adequacy and effectiveness of the Group's internal financial controls and internal control and risk management systems
- to review the Group's systems and controls for the prevention of bribery and receive reports on non-compliance
- to review the adequacy and security of the Group's arrangements for its employees, contractors and external parties to raise concerns, in confidence, about possible wrongdoing in financial reporting or other matters
- to review the Group's procedures for detecting fraud
- to consider and approve the remit of the internal audit function and ensure that it has adequate resources and appropriate access to information to enable it to perform its function effectively and in accordance with the relevant professional standards, free from management or other restrictions
- to review and approve the terms of engagement of the External Auditor, including any engagement letter issued at the start of each external audit and the scope of any audit before it begins

- to assess annually the qualification, skills and resources, effectiveness, objectivity and independence of the External Auditor
- to ensure that the annual report includes disclosures in line with the Financial Conduct Authority (FCA) listing rule LR 9.8.6 R(8), which implements the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)
- to review tri-annually a policy in relation to the provision of non-audit services by the External Auditor and the approval by the Committee of such services; this policy serves two purposes: to avoid any threat to the External Auditor's objectivity and independence and the impact that such services could have on the audited financial statements, while taking into account any relevant ethical guidance on the matter; and to ensure that the Group maintains sufficient options to permit a competitive tender should one become necessary
- to report to the Board on how it has discharged its responsibilities, including making recommendations, when necessary, on any actions or improvements required.

The Audit Committee's Terms of Reference, which are available on the Group's website, include all matters indicated by the Disclosure and Transparency Rule 7.1 and the UK Corporate Governance Code. The Terms of Reference are reviewed annually by the Audit Committee to ensure that they remain appropriate and reflect current best practice. The Terms of Reference were last reviewed in August 2023.

Composition of the Audit Committee

In line with the Code, the Committee comprises the four independent Non-Executive Directors and excludes the Company Chair.

The members of the Audit Committee on 31 December 2023 were D Robertson (Chair), J Carling, M Swift (appointed in September 2023) and C Wall.

Their biographies can be found on pages 78 and 79. **A Fielding, who was a Director and member of the Committee during the year, resigned on 29 September 2023.**

D Robertson is a Fellow of the Institute of Chartered Accountants of England and Wales and was Group Finance Director of SIG plc until January 2017, having previously held that position at both Umeco plc and Seton House Group Limited. In the opinion of the Board, D Robertson has significant, recent and relevant financial experience to fulfil the requirements of the role. All current members of the Audit Committee have held, or currently hold, board-level positions in manufacturing industries with international reach.

The Audit Committee's membership, as a whole, has competence relevant to the sector in which the Group operates and is able to function effectively with the appropriate degree of challenge.

Meetings

The Audit Committee has a planned calendar, linked to events in the Group's financial calendar. The Audit Committee met four times in 2023. Further details may be found on page 81.

The Company Secretary acts as secretary to the Audit Committee. The Company Chair, Group CEO, Group CFO, Group Financial Controller and senior representatives of the External Auditor and Internal Auditor are invited to attend relevant meetings of the Committee, although the Committee reserves the right to request any of these individuals to withdraw. At each meeting, the External Auditor is given the opportunity to raise matters without management being present. Other senior managers may be invited to present such reports as are required for the Committee to discharge its duties. During the year, on an informal basis, the Audit Committee Chair liaises with senior representatives of both the External Auditor and Internal Auditor to discuss matters outside the formal Committee meetings.

Overview of the actions taken by the Audit Committee to discharge its duties

Since the beginning of 2023, the Audit Committee has:

- reviewed the financial statements in the 2022 Annual Report, including the going concern and viability statements and the stress-testing of the viability statement, and received the External Auditor's report on the 2022 Annual Report
- satisfied itself that the European Single Electronic Format (ESEF) requirements applicable to consolidated primary financial statements for financial periods beginning 1 January 2021 have been integrated into the Annual Report planning and appropriate testing had been carried out in anticipation of the 2023 Annual Report's publication; the Audit Committee also confirmed with the External Auditor that there was no UK requirement for them to audit the ESEF format
- reviewed the Interim Report issued in August 2023 and received the report from the External Auditor on its review of the Interim Report
- reviewed and approved an updated three-year rolling internal audit programme, agreed a programme of work for 2023 to be performed by the Internal Auditor and received the Internal Auditor's reports on the work undertaken and management's responses to the recommendations therein
- reviewed and agreed the scope of the audit work to be undertaken by the External Auditor
- agreed the fees to be paid to the External Auditor for its audit and work on the Annual Report and Interim Report
- undertaken an evaluation of the independence, objectivity and effectiveness of the External Auditor, including reviewing the amount of non-audit services provided by the External Auditor
- monitored the engagement of audit firms providing non-audit services to ensure that the requirement for independence would not hinder future External Auditor tenders
- in respect of the various pension schemes offered to UK staff, noted the switch to a pension product offering staff better value overall and the set-up of a new internal Defined Contribution Pension Scheme Governance Committee, led by the CEO, to provide assurance to the Board that the scheme is well governed
- sought management assurances that appropriate staff media training had been provided to support the Group's public response in the event of a disaster recovery situation
- considered the inventory management and working capital position of the Group
- considered the geopolitical risks impacting the Group, its customers and the wider economic environment, and the Group's preparations to mitigate those risks
- considered the output from the Group-wide process used to identify, evaluate and mitigate high-level business risks
- considered the views of both the External and Internal Auditor on the effectiveness of the Group's internal financial controls
- reviewed and challenged the effectiveness of the Group's internal controls (including, but not limited to, financial controls and measures for detecting fraud) to ensure that they remain appropriate and adequate as the Group grows
- received reports from the Internal Auditor, noted findings identified and oversaw the fulfilment of appropriate management actions to address the same
- reviewed the Group's policies on ethics, anti-bribery, corruption and fraud, and the arrangements in place for employees to receive appropriate training and for employees, contractors and other interested parties to raise concerns, in confidence, about possible wrongdoing in financial reporting or other matters
- approved publication of the Whistleblowing Policy on Zotefoams' website
- noted the constitution of an Artificial Intelligence (AI) Steering Committee with the objective of identifying and mitigating risks arising from AI and also noted the circulation of guidance to staff on appropriate AI use
- satisfied itself that the requirements of the Regulations made under section 3 of the Small Business, Enterprise and Employment Act 2015 relating to payment practices reporting had been met, with a focus on maintaining a high level of compliance with UK suppliers' payment terms in 2023 and considered payment practices in subsidiary operations in China and Poland

Audit Committee report
Continued

- confirmed with management that Zotefoams plc and its subsidiaries have paid all applicable tax in the jurisdictions in which they operate
- reviewed its own effectiveness by conducting a confidential evaluation through an online portal, the anonymised outcome of which was discussed by the Board; it was agreed that the Committee remained effective, had fulfilled its remit and had in place appropriate Terms of Reference
- considered the provisions of the 2018 UK Corporate Governance Code and the FRC Guidance on Audit Committees
- ensured that the 2022 Annual Report included disclosures in line with the FCA listing rule LR 9.8.6 R(8) which implements the recommendations of the TCFD
- satisfied itself that the Sustainability Accounting Standards Board (SASB) framework, implemented through the risk management framework, ensured that all business risks relating to sustainability, including climate change risks, were identified, assessed and treated at each of the appropriate Control Committees within the Group. Further details about Zotefoams' ESG framework may be found on pages 64 to 66.

Financial reporting and significant financial issues

The Audit Committee assesses whether suitable accounting policies have been adopted and whether management has made appropriate estimates and judgements. The Committee reviews accounting papers prepared by management which provide details on the main financial reporting judgements. The Committee reviews reports by the External Auditor on the full-year and half-year results, which highlight any issues with respect to the work undertaken on the audit or review.

During the year, no changes to accounting policies were made and all new reporting requirements were implemented. Details of significant accounting policies may be found in the notes to the financial statements on page 121. The Committee considered the correct treatment of, and potential impairment of, intangible assets in MEL as well as the pension assumptions applied to the Company's closed Defined Benefit Pension Scheme as the most significant financial issues in 2023.

- Impairment of intangible assets in MEL. The Audit Committee received a report from management on the approach and rationale behind the capitalisation of intangible assets as well as the justification for continued full recognition of the capitalised value in the Group's Statement of Financial Position. Having considered the paper, a report from the External Auditor on its audit work in this regard and the Board's regular reviews of the ReZorce opportunity held during 2023, the Audit Committee is satisfied that the treatment is appropriate.
- Pension assumptions. As the Company's closed Defined Benefit Pension Scheme represented one of the largest individual liabilities on the consolidated statement of financial position at £2.7m as at 31 December 2023, the Audit Committee assessed the appropriateness of the key assumptions used by management to value the pension liability and is satisfied that these are appropriate.

External audit tender

The Audit Committee is aware of the requirement for FTSE 350 companies to put to tender their external audits at least once every ten years (as set out in the Competition and Markets Authority's Statutory Audit Services for Large Companies Market Investigation (Mandatory Use of Competitive Tender Processes and Audit Committee Responsibilities) Order 2014) and for audit committees to state their plans for when they are likely to consider a tender process if the external audit has not been put to tender in the past five years.

The Group is, by virtue of the FRC Revised Ethical Standard 2019, subject to the requirement to put the audit to tender every ten years. A tender process for the external audit for the Group was undertaken in 2020, following which PKF Littlejohn LLP (PKF) was selected as the External Auditor. The Committee intends to monitor PKF's performance and determine the most appropriate time to carry out a new tender process in due course, which will be, at the latest, in 2030. Given that the rules on independence may preclude an audit firm from participating in a tender if it has previously advised the Group in a non-audit capacity, a register of firms used by the Group for non-audit work is maintained by the Group CFO, whose authorisation is required prior to engaging any new firm. Any future tender will be carried out in line with the prevailing best practice. The 2023 Audit was PKF's fourth annual audit for the Group and was led by J Archer as Audit Partner. J Archer is the Responsible Individual in charge of the audit and signs the independent auditor's report to the members of Zotefoams plc on behalf of PKF Littlejohn LLP.

The Committee confirms that there were no contractual obligations that acted to restrict the Committee's choice of External Auditor and that the agreement with PKF will not restrict the shareholders' choice of auditor in future general meetings.

Effectiveness of the External Auditor

The Audit Committee assesses the effectiveness of the external audit process in a number of ways. At least annually, the External Auditor presents a report which includes an assessment and confirmation of its independence, as well as the activities that the External Auditor is undertaking to ensure compliance with best practice and regulation. At the conclusion of the annual audit, the Audit Committee undertakes an assessment of the External Auditor in relation to its fulfilment of the agreed audit plan, the robustness and perceptiveness of the External Auditor in handling key accounting and audit judgements and the thoroughness of the External Auditor's review of internal financial controls. As part of this assessment, management's opinions on the External Auditor are also considered. An extended questionnaire aligned with FRC guidance implemented in 2021 was again used in 2023 and continued to evidence that there was open and complete dialogue between the External Auditor and the Committee. The Committee also considered the processes put in place by PKF Littlejohn LLP to monitor its quality and drive improvements consistently. The Committee noted established practices aimed at simplifying and standardising processes, strong supervisory arrangements at all levels of the organisation and a good degree of professional scepticism applied to management judgements.

In August 2023, the Committee reviewed and re-approved the policy related to the provision of non-audit services by the External Auditor. The policy mandates that no non-audit services may be provided by the External Auditor without the prior approval of the Audit Committee, which will only be granted in compliance with the FRC Revised Ethical Standard 2019. Other than the review of the Group's Interim Report, the External Auditor did not provide any non-audit services in 2023.

The Audit Committee, having conducted its review of the External Auditor, concluded that the External Auditor has performed in a satisfactory manner and continues to be objective and independent and, therefore, has recommended to the Board that a resolution be put to the shareholders at the 2024 AGM to re-appoint PKF Littlejohn LLP as the External Auditor.

Nomination Committee report
Leveraging new strengths

Dear Shareholder
I am pleased to present my first report on the activities of the Nomination Committee in 2023.

This year has seen significant Board changes. Following the retirement of S Good at our AGM after 9 years' service, I was appointed Chair of the Company. A new Remuneration Committee Chair, M Swift, also joined us in September. Our Group CEO, D Stirling, who has served on the Board for over 26 years, announced his intention to retire during 2024.

Effective succession planning is essential to the delivery of our strategy and has been considered from both a short- and long-term perspective by the Committee over the past two years. To ensure that its implementation successfully links talent development to business needs, the Committee has reviewed the balance of skills, knowledge, experience and diversity to maintain robust and effective challenge and stewardship of the Group's purpose and strategy. Further details of our searches in 2023 are provided below.

Recognising that a stable and engaged team is key in supporting the Group CEO and meeting the challenges of a global business aiming to deliver long-term sustainable growth, key position succession plans are in place for Executive roles and their direct reports. The Group continues to develop a pipeline of employees demonstrating high potential through a talent pool initiative. Further details are provided in our Social section on pages 70 to 77.

Scan the QR code to see the Board Diversity Policy
zote.info/3UE6Deb

The principle of diversity is strongly supported by the Board. Having updated the Board Diversity Policy in 2022 to reflect its voluntary adoption of Listing Rules LR 9.8.6R(9) and LR 14.3.33R(1) from 1 January 2022, the Board has considered further steps to enhance its diversity and in late 2023 approved a Board Apprentice programme designed to offer Board experience to a talented senior executive from a minority-ethnic background. The recruitment for this role is anticipated to be completed in 2024 and further details will be made available in the 2024 Annual Report.

An annual performance evaluation exercise was led by the Company Chair and facilitated by the Company Secretary, who is considered a suitable and independent person to conduct this process. The Board concluded that it had operated effectively in 2023 against a backdrop of market, operational and inflationary challenges.

Recognising that a people strategy sits at the core of the future of the Group, the Human Resources (HR) function is managed through quarterly risk steering committee meetings, which focus on the mitigation of HR risks and optimisation of opportunities that might impact the Group's achievement of its business objectives. These matters include the consideration of diversity at Group level, employee engagement and effective succession planning. The Executive Committee is also provided with regular updates and reports are made to the Board at least twice a year on key HR strategic matters.

The Committee is satisfied that the separation of Executive and Non-Executive roles at the head of the Group has been maintained, with the Company Chair being responsible for leading the Board and the Group CEO being responsible for the executive leadership of the business.

Further details are provided in the corporate governance section on pages 80 to 82.

The Committee will continue to focus on succession planning and talent development over the long term in 2024.

L Drummond
Chair of the Nomination Committee

5 April 2024

Board appointments
Appointments to the Board are ultimately proposed by the Nomination Committee and approved by the Board. New appointments are made on merit against objective criteria, taking account of the specific skills and experience, independence and knowledge needed to ensure a rounded Board and the benefits each candidate can bring to the overall Board composition. Search consultants selected by Zotefoams are required to cast their search sufficiently broadly to identify the best candidates, regardless of background. Care is taken to ensure that appointees, as well as the existing Directors, have sufficient time to devote to their roles.

A number of Board changes took place in 2023. A new Company Chair, L Drummond, was appointed on 24 May 2023 following the resignation of S Good after nine years' service. Details of the search process undertaken for the Company Chair role are provided on page 86 of the 2022 Annual Report. M Swift was appointed as Non-Executive Director and Remuneration Committee Chair on 29 September 2023 following the resignation of A Fielding. After 23 years in post as Group CEO and 26 years' service as a Director, D Stirling indicated his intention to retire in 2024. In order to support an effective transition in the leadership of the Group, the Board commenced a formal succession process in 2023.

Following a competitive tender exercise, Korn Ferry, an independent executive search consultancy with no connections to the Company or any of its individual Directors, was engaged to support the selection process for both the Remuneration Committee Chair and Group CEO roles. Korn Ferry is compliant with the Enhanced Code of Conduct for Executive Search Firms. Diversity matters were given due consideration during the searches and are reported on below.

Following a compilation of the roles' specification, a timetable was drawn up setting out key milestones in the process, including the drawing up of long and shortlists of candidates and the commencement of a staged interview process.

The search process for the Remuneration Committee Chair involved the setting up of a subcommittee to oversee the search process until the shortlist stage had been reached. All Board members met with and approved the appointment of M Swift.

The search for a new Group CEO was led by the Nomination Committee Chair. Following an extensive interview and assessment process involving all Directors, the Committee recommended Ronan Cox to the Board as its preferred candidate. The Board considered and accepted the recommendation and R Cox was appointed as Group CEO Designate with effect from 2 April 2024, with the intention that he will join the Board and be appointed as Group CEO when the current incumbent, D Stirling, steps down from the Board at the 2024 AGM.

Nomination Committee report
Continued

Diversity Listing Rule
Under Listing Rules LR 9.8.6R(9) and LR 14.3.33R(1), Zotefoams plc is required to confirm whether the Company has met the following diversity targets:

- at least 40% of the Board should be women
- at least one of the senior Board positions (Chair, Chief Executive Officer (CEO), Senior Independent Director (SID) or Chief Financial Officer (CFO)) should be a woman
- at least one member of the Board should be from a minority-ethnic background.

The reference date used for the purposes of this disclosure is 31 December 2023. At the end of 2023, our Board comprised five male and two female Directors, giving an overall female membership of 29%. All Board members are from a white ethnicity background.

The search processes undertaken in 2023 considered the following.

Remuneration Committee Chair
23 candidates, 57% of whom were females and 9% of whom were from a minority-ethnic background. The final shortlist comprised two males and one female from white ethnicity backgrounds. A male from a white ethnicity background, M Swift, was selected.

Group CEO
52 candidates, 25% of whom were females and 12% of whom were from a minority-ethnic background. The final shortlist comprised two males from white ethnicity backgrounds. A male from a white ethnicity background, R Cox, was selected.

Both appointments were made on merit against objective criteria, taking account of the specific skills and experience, independence and knowledge needed to ensure a rounded Board and the benefits the candidates could bring to the overall Board composition. The search processes undertaken were fair and took into consideration the aspirational targets set by the Hampton-Alexander review and the Parker review.

In line with the Board Diversity Policy and the new Equality Diversity and Inclusion Policy (introduced in 2023), the Company will continue to strive to improve its ethnic diversity. Given the tenure profile of the Board, there are no immediate vacancies that would allow for the consideration of candidates from minority-ethnic backgrounds. To address this, the Nomination Committee has recommended a Board Apprentice programme under which a minority-ethnic senior executive candidate would be appointed to offer the Company a different perspective on a range of issues. The Board approved the recommendation and a recruitment process was initiated in early 2024. The Board is also considering initiatives which may improve the internal pipeline of ethnically diverse talent and will report further on progress in the 2024 Annual Report. Further details about the Group's approach to diversity and our aspiration to achieve 50% net annual female joiners by 31 December 2024 are provided in our Social section on pages 70 to 77.

Board induction
The new Company Chair and the new Remuneration Committee Chair both followed a comprehensive induction programme designed to provide a thorough introduction to the business.

Induction programme
- Meetings with the Company Chair and Non-Executive Directors
- Meetings with the Group CEO, Group CFO and Executive team members
- Risk management briefing
- Directors' duties and governance training from the Group Company Secretary
- Compliance training, including data protection, anti-bribery and corruption, modern slavery and insider trading
- Briefing on the stance of key shareholders
- Meeting with auditors, brokers, PR advisers and solicitors

In addition, the Chair visited Zotefoams' premises in Poland and the USA.

Board evaluation
The 2023 Board evaluation covered all aspects of the Board's structure, composition and operation, Board interactions (external and internal) and business strategy, risks and priorities.

The process involved the following steps:

- completion of a combined qualitative questionnaire for the Board and its Committees
- completion of a skills matrix
- individual interviews and a group discussion
- feedback from the Executive team on their interaction with the Board.

The main observations from the evaluation were:

- the balance of our focus between immediate and long-term success is good. Good progress has been made on the environmental sustainability agenda. Further details are provided in our Environment section on pages 67 and 69
- in response to the 2022 Board evaluation results, more informal discussions have been held by the Board outside of Board meetings and Board members have increased engagement with Executive team members. Employee engagement has also improved through attendance at Board lunches
- given that the purpose of an evaluation is to enable a continual process of self-improvement and that the Board membership has fluctuated in the past two years, the Board will consider retaining a facilitator to support the 2024 Board effectiveness review process.

The review confirmed that the Board and its Committees remained effective and continued to fulfil their remit, that the matters reserved for the Board were up to date and that appropriate Committees' Terms of Reference were in place. All Directors contribute effectively and provide the appropriate level of commitment to their role.

The Board considers that it is functioning well, is aligned with the Company's values and that its current composition contains an appropriate balance and diversity of views, qualifications, skills, experience and personal attributes necessary to carry out its duties and responsibilities.

Each month, all Directors receive management reports and briefing papers in relation to Board matters in a timely manner to ensure that they have sufficient time to consider the information and act accordingly. New appointments to the Board receive an induction and, where appropriate, training. The Directors have access to the Company Secretary and independent professional advisers, at the Group's expense, if required for the furtherance of their duties.

The Directors also undertake continuing professional development activities through the year to support development areas identified through the Board evaluation process as well as to keep themselves up to date with evolving rules, regulations and guidance.

Key areas of focus
The Nomination Committee comprises the Chair (appointed in May 2023) and the four independent Non-Executive Directors as at 31 December 2023. The members of the Nomination Committee on 31 December 2023 were L Drummond (Chair), J Carling, D Robertson, M Swift (appointed in September 2023) and C Wall.

Their biographies can be found on pages 78 and 79. A Fielding, who was a Director and member of the Committee during the year, resigned on 29 September 2023. S Good chaired the Committee until his resignation as Director and Chair of the Company on 24 May 2023.

The Non-Executive Directors' independence is reassessed annually through the review of a personal declaration.

The Nomination Committee operates within defined Terms of Reference and is responsible for putting in place succession plans for the Board, reviewing the continuation in office of the Directors and managing the recruitment of new Board members within criteria set by the Board. The Committee met four times in 2023 as detailed on page 81. In addition, the Chair and Committee members held informal discussions and a number of meetings with Korn Ferry in relation to the search for a new Remuneration Committee Chair and Group CEO. The Committee is supported by the Company Secretary in planning its activities, monitoring best practice and meeting its Terms of Reference.

The main responsibilities of the Committee are to:

- evaluate and review the structure, size and composition of the Board, including the balance of skills, knowledge, experience and diversity of the Board, taking into account the Group's risk profile and strategy
- identify and nominate suitable candidates for appointment to the Board, including the Chair of the Board and its Committees, against a specification of the role and capabilities required for the position
- lead on the annual performance evaluation of the Board and its Committees
- identify and manage any potential conflicts of Directors' interests
- review the external interests and time commitments of the Directors to ensure that each has sufficient time to effectively discharge his/her duties
- manage succession planning for the Executive team and Non-Executive Directors
- seek engagement with shareholders on significant matters related to the Committee's areas of responsibility when appropriate to do so.

During 2023, the Committee:

- reviewed its Terms of Reference in line with current best practice
- managed the recruitment process for a new Remuneration Committee Chair who took office on 29 September 2023, and initiated a recruitment process for a new Group CEO
- arranged for the Board to review diversity considerations in succession planning, having regard to the requirements of the Hampton-Alexander review and the Parker review and agreed compliance with Listing Rules LR 9.8.6R(9) and LR 14.3.33R(1) in relation to the Board diversity
- agreed the recruitment process for a Board Apprentice role
- kept the composition of the Board and its Committees under review
- considered and recommended to the Board the re-election of each Director ahead of their re-election by shareholders at the Company's 2023 AGM
- continued to review succession and development plans for the Executive team and wider senior management team to ensure that a suitable talent pool remained in place and continued to be nurtured to meet the Group's strategic objectives
- ensured that, at least annually, the Non-Executive Directors met without the Executive Directors present.

Directors' Remuneration report

Our Executive team led the delivery of record profit before tax in 2023 and continued to progress our strategic objectives. Our Remuneration Policy, approved by shareholders at the 2023 AGM, has been successful in attracting a new Group CEO, who is scheduled to join the Board at the conclusion of the Annual General Meeting on 22 May 2024.

Dear Shareholder

I am pleased to present the Remuneration report for the year ended 31 December 2023.

Introduction

This is my first report as Chair of the Remuneration Committee, after taking over on 29 September 2023. I would like to take this opportunity to thank my predecessor, A Fielding, for her chairing of the Committee.

2023 is the first year of our refreshed Remuneration Policy, approved at the 2023 AGM with over 95% of the votes cast in favour. We were pleased that our 2022 Directors' Remuneration report was approved by over 97% of the votes cast.

Our Remuneration Policy is designed to reflect the Group's strategic priorities, while balancing the need to attract, retain and motivate the Executive team, to ensure progress against our strategic goals, with the interests of all stakeholders, including our shareholders and employees.

- The Board is pleased to report that Zotefoams maintained its improving performance in 2023, achieving Group revenue of £127.0m (2022: £127.4m) and increasing gross profit by 6% to £41.1m (2022: £38.7m).
- The Group's balance sheet at 31 December 2023 remains strong, with the leverage multiple unchanged at 1.2 (31 December 2022: 1.2) and financial headroom of £19.4m (31 December 2022: £22.9m).
- The Executive Directors led the Group effectively throughout the year and continued to deliver on the Group's long-term strategic objectives, having made significant progress on two priority initiatives: 1) the development of ReZorce® mono-material barrier packaging having reached market trial stage in early 2024, following implementation of a joint development agreement with a world-leading packer of beverages; and 2) the extension of an exclusivity agreement with Nike to 2029.

The Committee also considered executive remuneration in the light of outcomes for the wider workforce, our shareholders' experience and other stakeholders, taking a fair and balanced approach to remuneration.

2023 incentive outcomes

Annual bonus

Considering the excellent performance delivered in 2023, the Committee determined that 95.0% and 93.0% of the maximum bonus should be paid to the Group CEO and Group CFO respectively, reflecting the Group's financial performance and strategic progress made in the year. In considering the outcomes of the annual bonus, the Committee carefully considered the cash flow targets and actions taken by management during the year that were aligned with the Group's longer-term strategy. During the year, the Group's cash flow was significantly impacted by a number of one-off factors including the exceptional unbudgeted increases in fluoropolymer resin prices and management's decision to proactively invest in inventory during 2023 to meet the previously unforecast increase in demand in 2024. Reflecting on these factors, the Committee determined that the formulaic out-turn of the cash flow metric did not reflect the intended stretch of the targets set at the start of the year or disciplined cash performance delivered during the year and responsible decisions taken by management in 2023. The Committee exercised its discretion to adjust the cash targets set at the start of the year for these exceptional factors, to maintain the level of intended performance. A detailed description of performance against the targets is set out on pages 95 and 96.

Long-Term Incentive Plan (LTIP): 2021 Plan outcome

Regarding longer-term performance, the Group achieved earnings per share before exceptional items, of which there were none, of 19.0p in 2023 versus 14.9p in 2020, as well as relative Total Shareholder Return (TSR) performance of below median against the FTSE SmallCap Index (excluding investment trusts) over the three-year performance period and Return on Capital Employed (ROCE) of 10.3% versus a threshold target of 10.0%. The Committee therefore determined that 70.0% of the 2021 Long-Term Incentive Plan award should be paid to the Group CEO and Group CFO.

In assessing whether the outcomes generated by the annual bonus and LTIP scorecards were fair in the context of broader performance, the Committee took into account the underlying financial performance of the Group and the wider stakeholder experience (including, but not limited to, the shareholder experience).

Given that significant progress has therefore been made to set Zotefoams up to deliver long-term success, other than the above adjustment to the annual bonus cash flow targets, the Committee felt that the formulaic outcome was an appropriate reflection of performance delivered. It has, therefore, not exercised any further discretion in relation to incentive outcomes during the year.

Implementation of Remuneration Policy in 2024

D Stirling will retire from the Board at the forthcoming 2024 AGM scheduled for 22 May 2024, after 24 years in post as Group CEO. He will be replaced by R Cox, who will join the Board on the same date. Given the long tenure of the existing Group CEO, the Committee has considered leadership continuity arrangements and the value of incentivising the retention of G McGrath, who has continued to perform well in 2023.

Base salary

The Group CEO's base salary will increase in line with the base salary increases for the wider workforce of 5%. This will apply to D Stirling until his planned retirement as Group CEO at the 2024 AGM and to R Cox from the date of his appointment as Group CEO Designate on 2 April 2024.

Reflecting his significant contribution to the Group, his strong performance and the increasing scope of his role in light of the key role he will play in the onboarding of R Cox and supporting the Executive function, G McGrath's salary will increase by an additional c.2.5% above the increase for the wider workforce.

All salary increases are effective from 1 April 2024.

Pension

All Executive Directors receive an employer pension contribution of 6%, aligned with the wider workforce. This will be increased by 1% from 1 April 2024.

Incentive awards

The Remuneration Policy adopted at the 2023 AGM provides for an overall incentive opportunity headroom of 250% of salary, with a limitation that no more than 125% of salary can be earned under the annual bonus. Given our focus on driving long-term sustainable value creation for our shareholders and long-term retention of the Executive Directors, the maximum annual bonus will remain at 100% of salary and the LTIP award will increase from 125% of salary to 150% of salary for 2024.

Details of the metrics for the 2024 annual bonus are set out on page 92, with 65% of the bonus based on financial metrics, 15% based on performance against ESG-related metrics and 20% based on other strategic metrics. The metrics and targets for the 2024 LTIP award are set out on page 97. For the 2024 LTIP award, awards will be based 45% on adjusted EPS growth (as defined on page 97), 15% on average ROCE (as defined on page 97), 5% on sustainable product development (as defined on page 97), and 35% on relative TSR against the FTSE Small Cap Index excluding investment trusts. The increase in weighting on TSR reflects the importance of driving long-term shareholder value through the renewed focus on ReZorce. Performance targets for incentive plans have been set to reflect the business plan for the Group over the relevant performance period and external expectations of performance.

As part of his recruitment, R Cox will not receive any additional buy-out awards but will receive relocation benefits in line with our Remuneration Policy. Full details of the new CEO's package will be set out in the 2024 Directors' Remuneration Report.

Looking forward

We will continue to monitor the operation of the Remuneration Policy to ensure that targets remain relevant and stretching and that it provides an appropriate level of reward to attract and retain high-calibre individuals in a competitive market. We will continue to consider the experiences of the wider workforce, our shareholders and other stakeholders and to remunerate Executive Directors fairly and responsibly.

In line with the three-year cycle, the Committee will undertake a thorough review of the Remuneration Policy during 2025, both from a structural and opportunity perspective, to ensure that it is reflective of the Group's strategic priorities and the calibre of executives in role.

The Committee and I would like to thank you for your continued engagement over the last year and look forward to receiving your support in respect of the Directors' Remuneration report at the AGM.

In the meantime, I will be available to answer any questions you may have.

M S Swift
Chair of the Remuneration Committee

5 April 2024

Directors' Remuneration report
Continued

Directors' Remuneration report

The Directors' Remuneration report has been prepared in accordance with the relevant provisions of the Listing Rules, section 421 of the Companies Act 2006 and Schedule 8 to the Large and Medium sized Companies and Groups (Accounts and Reports) (Amendment) Regulations 2013.

Directors' Remuneration Policy and Implementation in 2024

The Directors' Remuneration Policy (the "Remuneration Policy") was approved with a vote of 95.27% for at the 2023 AGM held on 24 May 2023 and is intended to remain in place until the AGM in 2026. A summary of the Remuneration Policy and how it will be implemented in 2024 has been set out below.

The full version may be found on pages 91 to 99 of the 2022 Annual Report. A copy of the 2022 Annual Report may be found by following this link: https://zote.info/3Lj0oYj, and operated as intended during the year in terms of Company performance and quantum.

<table>
<tr><th>Element and purpose/
link to strategy</th><th>Implementation for 2024</th></tr>
<tr><td>Salary
Positioned at a level needed to recruit and retain Executive Directors of the calibre required to develop and deliver the business strategy.</td><td>The base salaries for the Executive Directors will be increased on 1 April 2024 as follows.
The Group CEO's base salary will be increased in line with the base salary increases for the wider workforce of 5%. This will apply to D Stirling until his planned retirement as Group CEO at the 2024 AGM.
Reflecting his significant contribution to the Group, his strong performance and the increasing scope of his role in light of the key role he will play in the successful induction of R Cox and supporting the Executive function, G McGrath's salary will increase by an additional c.2.5% above the increase for the wider workforce.
The Group CEO Designate, R Cox, who will take over from D Stirling as Group CEO on 22 May 2024 at the conclusion of the AGM, will receive a salary equivalent to that of D Stirling, as set out above.</td></tr>
<tr><td>Benefits
Provide market-competitive benefits for the Executive Directors, to assist in carrying out their duties effectively.</td><td>Benefits to be provided in line with approved policy.</td></tr>
<tr><td>Retirement benefits
Provide competitive post-retirement benefits and reward sustained contribution.</td><td>All Executive Directors receive an employer pension contribution of 6%, aligned with the wider workforce. This will be increased for all UK employees (including the Executive Directors) on the two direct contribution pension schemes currently run by the Company by 1%, for those meeting the maximum employee contribution, with effect from 1 April 2024.</td></tr>
<tr><td>Annual bonus
Incentivise Executive Directors to achieve specific financial and predetermined strategic goals aligned with the Group's annual business plan.
Deferred proportion of annual variable pay provides a retention element and alignment with shareholders.</td><td>Maximum opportunity – up to 100% of salary.
33% of the bonus is deferred into shares in the Company for three years under the Deferred Bonus Share Plan (DBSP).
For 2024, the bonus will be assessed against the following measures for all Executive Directors:
<table>
<tr><th>Measure</th><th>Weighting – Group CEO %</th><th>Weighting – Group CFO %</th></tr>
<tr><td>Profit before tax</td><td>50</td><td>50</td></tr>
<tr><td>Free cash flow delivery</td><td>15</td><td>15</td></tr>
<tr><td>Individual Objectives (including MEL/ReZorce® mono-material barrier packaging opportunity)</td><td>20</td><td>20</td></tr>
<tr><td>Environmental, social and governance (ESG)</td><td>15</td><td>15</td></tr>
</table>
The underlying performance targets for these measures have not been disclosed in advance as they are considered to be commercially sensitive. Underlying targets will be provided, where appropriate, in next year's Directors' Remuneration report.</td></tr>
<tr><td>Long-Term Incentive Plan
To incentivise the delivery of long-term sustainable operational performance and the growth potential of the Group.
To align interests of Executive Directors and shareholders.
To attract and retain executives of the calibre required to drive the Group's long-term strategic ambitions.</td><td>Maximum opportunity – 150% of salary.
Awards granted are subject to a three-year performance period and a subsequent two-year holding period such that no shares will normally be released until the end of year five.
Awards will be subject to three performance conditions:
<table>
<tr><th>Measure</th><th>Weighting</th><th>Threshold
(20% vesting)[1]</th><th>Maximum
(100% vesting)[1]</th></tr>
<tr><td>Adjusted EPS[2]</td><td>45%</td><td>5% p.a.
compound growth</td><td>15% p.a.
compound growth</td></tr>
<tr><td>Average ROCE</td><td>15%</td><td>11%</td><td>16%</td></tr>
<tr><td>Relative TSR[3]</td><td>35%</td><td>Median</td><td>Upper quartile</td></tr>
<tr><td>Sustainable product development</td><td>5%</td><td>5% of revenue</td><td>6% of revenue</td></tr>
</table>
1 Straight-line vesting occurs between threshold and maximum.
2 In line with the approach for the previous LTIP awards, the EPS targets have been set based on a constant tax rate. The Committee retains the discretion to override this where it considers it appropriate.
3 Relative to the FTSE Small Cap Index excluding investment trusts. The increase in weighting on TSR (from 30% to 35%) reflects the Executives, focus on driving long-term shareholder value through the renewed focus on ReZorce.</td></tr>
</table>

Element and purpose/ link to strategy	Implementation for 2024
Non-Executive Director fees	The Non-Executive Directors and the Company Chair will receive a fee increase of 7% effective 1 April 2024, in line with the general salary increase that was given to the Company's staff in the UK in 2023.
Shareholding requirement and post-cessation shareholding policy Aligns the interests of Executive Directors and shareholders.	Executive Directors are required to hold shares in the Company equivalent to 200% of base salary. Executive Directors are expected to retain their full shareholding requirement for one year post cessation of employment and 50% for two years after leaving, unless the shares were acquired from LTIP and DBSP awards granted from 1 January 2023. If the shares were acquired from LTIP and DBSP awards granted from 1 January 2023, Executive Directors are expected to retain their full shareholding requirement for two years post cessation of employment.

Provision 40 of the UK Corporate Governance Code

The Committee has considered how the proposed remuneration framework appropriately addresses the following principles set out in Provision 40 of the 2018 UK Corporate Governance Code. The following table sets out how the Committee has addressed these factors.

Clarity	Incentive arrangements are based on clearly defined financial, non-financial and personal performance objectives which are aligned with the Group's long-term strategy, purpose and values. Incentive payments operate across the Group (with participation in the LTIP based on seniority) to ensure that there is alignment on key priorities throughout the Group.
Simplicity	Remuneration arrangements are simple to understand for both participants and shareholders, comprising the following key elements: ▶ fixed pay: comprises base salary, benefits and pension ▶ annual bonus: incentivises the delivery of financial, non-financial and personal performance objectives ▶ LTIP: incentivises financial performance over a three-year period, promoting long-term sustainable value creation for shareholders. Awards are subject to a two-year holding period post vesting.
Risk	Performance targets for incentive plans are designed to reward outperformance, while at the same time being calibrated to ensure that they do not encourage excessive risk taking by the Executive Directors. Deferral of part of the annual bonus into shares and the holding period applying to LTIP awards ensures that variable remuneration is linked to sustainable performance and discourages short-term behaviours. The Remuneration Committee retains the flexibility to review formulaic outcomes under incentive plans to ensure that they are appropriate in the context of the overall performance of the Group, and all annual bonus and LTIP awards to Executive Directors include provisions for malus and clawback.
Predictability	The Remuneration Policy sets out the threshold targets and maximum level of pay that the Executive Directors may earn in any given year (and the potential remuneration that can be earned in several performance scenarios is set out in the illustrative scenario charts). The actual incentive outcomes will vary depending upon the level of performance against pre-determined performance measures.
Proportionality	The Committee is satisfied that the remuneration framework does not reward poor performance. Incentives are directly aligned with the Group's strategic objectives, with performance targets calibrated to reward outperformance both over the short and long term. The Committee also takes account of the pay and conditions for the wider workforce when considering executive remuneration.
Alignment with culture	The Remuneration Policy has been set in the context of the nature, size and complexity of the Group. It has been designed to support the delivery of the Group's key strategic priorities and values and is in the best interests of the Group and its stakeholders. The Committee is focused on ensuring that the remuneration framework and practices support Zotefoams' culture pillars and ensure that employees across the Group are appropriately recognised and rewarded for efforts and financial results.

Directors' Remuneration report
Continued

Single total figure of remuneration (audited)

The following tables set out the single figure for total remuneration for Directors for the 2023 and 2022 financial years.

Executive Directors

	Salary (£)	Benefits (£)	Matching Shares (£)	Bonus (£)	LTIP (£)	Pension (£)	Total fixed pay (£)	Total variable pay (£)	Total (£)
D Stirling									
2023	**393,580**	**27,969**	**406**[1]	**389,500**	**253,997**[1]	**23,615**	**445,570**	**643,497**	**1,089,067**
2022	341,007	26,065[3]	442[2]	236,546	102,640[4]	51,151	418,665[3]	339,186	757,851[3]
G McGrath									
2023	**252,298**	**24,558**	**406**[1]	**241,800**	**169,070**[1]	**29,543**	**306,805**	**410,870**	**717,675**
2022	226,986	23,300[3]	439[2]	162,696	67,919[4]	26,091	276,816[3]	230,615	507,431[3]

1 The Matching Shares' and LTIP's value for 2023 has been calculated on the basis of the average share price over the three months to 31 December 2023 of £3.15. There is no share price appreciation attributable to the LTIP value as the share price at grant was greater than £3.15.
2 The Matching Shares' value for 2022 has been calculated on the basis of the average share price over the three months to 31 December 2022 of £3.03.
3 The benefits, total fixed pay and total pay figures for 2022 have been restated to include a car allowance.
4 The LTIP value has been restated to reflect the actual share price on the date of vesting, 21 September 2023, of £3.37. There is no share price appreciation attributable to the LTIP value as the share price at grant was greater than £3.37.

Under the rules of the LTIP, participants may also receive an award of shares in lieu of the value of dividends paid over the vesting period on vested shares (paid at the end of the holding period). For the 2021 LTIP this was 4,790 shares for D Stirling and 3,187 shares for G McGrath with a valuation of £15,089 and £10,039 respectively, calculated on the basis of the average share price over the three months to 31 December 2023 of £3.15.

Non-Executive Directors[1,2,3]

	Fees paid in respect of 2023 (£)	Fees paid in respect of 2022 (£)
J Carling	43,449	38,560
L Drummond[4]	99,667	Nil
A Fielding[5]	37,245	43,712
S Good[5]	51,620	115,204
D Robertson	50,370	43,712
M Swift[4]	13,326	Nil
C Wall	43,449	38,560

1 Non-Executive Directors who also chair a Board Committee receive an additional fee.
2 The Non-Executive Directors (excluding the Company Chair) received a fee increase to £45,000 p.a. effective 1 April 2023. Chairs of the Audit and Remuneration Committee received a fee increase of £7,500 p.a. in addition to their Non-Executive Director fee. S Good, the former Company Chair, received an increase of 7%.
3 The Non-Executive Directors and the Company Chair will receive a fee increase of 7% effective 1 April 2024.
4 L Drummond joined the Board on 17 January 2023 and M Swift joined the Board on 29 September 2023.
5 S Good stepped down from the Board on 24 May 2023 and A Fielding stepped down from the Board on 29 September 2023.

Notes to the table (audited)

Base salary

As at 31 December 2023, the base salary for D Stirling was £410,000 p.a. (£344,318 p.a. as at 31 December 2022).

As at 31 December 2023, the base salary (before salary sacrifice) for G McGrath was £260,000 p.a. (£229,190 p.a. as at 31 December 2022).

Pension contributions

The Company operates a Defined Contribution Pension Scheme (the "DC Scheme") or a cash contribution equivalent. When participating in the DC Scheme, individuals may elect to enter a salary sacrifice arrangement, whereby their salary is reduced and the Company makes a corresponding contribution into their DC Scheme.

D Stirling receives a cash contribution in lieu of pension contributions in accordance with the rules of the DC Scheme, which apply to all members. G McGrath opted for the salary sacrifice arrangement and the amounts shown for his base salary are after salary sacrifice. Similarly, the amounts shown for the pension element of total remuneration include the amounts of salary that were sacrificed.

Benefits

Benefits include a company car allowance, private medical insurance and the value of the Matching Shares (at dates when awarded) acquired during the year under the Share Incentive Plan (SIP).

Annual bonus 2023

The targets for the annual bonus for 2023 for D Stirling and G McGrath are as set out in the below table:

	Weighting (% max)			Targets		Pay-out	
Measure	**D Stirling**	**G McGrath**	**Trigger point**	**Maximum**	**Performance achieved**	**D Stirling**	**G McGrath**
Profit before tax and any exceptional items[1]	50%	50%	£13.0m	£15.9m	£17.2m	50%	50%
Meet Group operating cash flow budget[2]	15%	15%	£9.4m	£11.5m	£12.0m	15%	15%
MEL/ReZorce® opportunity	10%	10%	See below	See below	See below	5%	5%
Strategic financial – Nike agreement renewal	5%	0%	See below	See below	See below	5%	n/a
Strategic financial – T-FIT®	5%	0%	See below	See below	See below	5%	n/a
Strategic financial – R&D tax credit	0%	5%	See below	See below	See below	n/a	3%
Strategic financial – Internal controls compliance	0%	5%	See below	See below	See below	n/a	5%
Sustainability – Emissions reduction	5%	5%	See below	See below	See below	5%	5%
Sustainability – Waste	5%	5%	See below	See below	See below	5%	5%
Sustainability – Safety	5%	5%	See below	See below	See below	5%	5%
Total	**100%**	**100%**	**n/a**	**n/a**	**n/a**	**95%**	**93%**

1 This metric excludes MEL.
2 During the year, the Group's cash flow was significantly impacted by a number of one-off factors including the exceptional unbudgeted increases in fluoropolymer resin prices and management's decision to proactively invest in inventory during 2023 to meet the forecasted higher than expected demand in 2024. Reflecting on these factors, the Committee determined that the formulaic out-turn of the cash flow metric did not reflect the intended stretch of the targets set at the start of the year or disciplined cash performance delivered during the year and responsible decisions taken by management in 2023. The Committee exercised its discretion to use the adjusted cash flow outcome, as set out in this table.

Directors' Remuneration report
Continued

The table below sets out the targets and performance for the Executive Directors.

Strategic financial metrics – D Stirling & G McGrath

	Weighting (% max)				Scoring	
Measure	**D Stirling**	**G McGrath**	**Objective**	**Performance**	**D Stirling**	**G McGrath**
MEL/ReZorce® opportunity	10%	10%	Subjectively assessed against the four key criteria taken as a whole (i.e., success or failure on these individual criteria may not result in a portion of bonus being paid or not being paid, depending on the overall outcome): ▶ securing an investing strategic partner ▶ agreement with a world-leading beverage packager as keystone commercial partner ▶ successful trial i. carton scale-up on external filling machine ii. flexibles (as requested by potential strategic partners) ▶ financial outcomes in line with 'agreed spend'.	5% Partially achieved, recognising significant project progress and a key development partnership agreed in June.	●	●
Strategic financial – Nike agreement	5%	n/a	Agreement renewed for a minimum of three years on acceptable terms.	Achieved	●	n/a
Strategic financial – T-FIT®	5%	n/a	Deliver the capability to execute for the customer in four key regions China, India, Europe, North America through: a) approved installer programme; and b) local manufacturing of tube and compression-moulded product (ex-India).	Achieved	●	n/a
Strategic financial – R&D tax credit	n/a	5%	Complete R&D tax credit and action plan.	3% – Partly achieved, recognising good progress has been made in improving our R&D tax credit position, which will deliver cash benefits in future years.	●	n/a
Strategic financial – Internal controls compliance	n/a	5%	As the first step in a global roll-out, document and test key controls at the Company that would meet future UK SOX-style reporting requirements	Achieved	n/a	●
Sustainability – Emissions reduction	5%	5%	Deliver 2023 objective in relation to sustainability target 1 detailed on page 67. Achieve a 10% reduction in the energy used to manufacture our products by 2026.	Achieved	●	●
Sustainability – Waste	5%	5%	Deliver 2023 objective in relation to sustainability target 3 detailed on page 67. By the end of 2026, halve the polymer purchased that is not in the end-product.	Achieved	●	●
Sustainability – Safety	5%	5%	Meet commitments of the Executive team engagement initiative, with an underpin based on RIDDOR/DART performance. Further details are provided on page 77.	Achieved	●	●

The annual bonus was based on base salary before salary sacrifice. The maximum opportunity for the bonus was 100% of salary. 33% of the bonus is deferred into shares held in trust for three years under the DBSP. Full details of the operation of the DBSP are set out in the Directors' Remuneration Policy.

2023	Cash bonus (£)	Deferred bonus (£)	Total bonus (£)
D Stirling	259,667	129,833	389,500
G McGrath	161,200	80,600	241,800

In assessing whether the outcome generated by the annual bonus was fair in the context of broader performance, the Committee took into account the underlying financial performance of the Group and the wider stakeholder experience (including, but not limited to, the shareholder experience) over the course of the year. As set out above, significant progress has been made over the year to set Zotefoams up to deliver long-term sustainable success and, with the exception of the above adjustment to the annual bonus cash flow targets, the Committee felt that the formulaic outcome was an appropriate reflection of performance delivered. It has, therefore, not exercised any further discretion in relation to incentive outcomes during the year.

● Achieved in full or predominantly achieved ● Partially achieved ● Not achieved

LTIP

The 2021 LTIP award was subject to three performance conditions measured over the three financial years ended 31 December 2023: 30% of the award was subject to relative TSR against the FTSE SmallCap Index (excluding investment trusts), 50% of the award was subject to an EPS growth target and 20% of the award was subject to a ROCE growth target (excluding large asset investments not yet commissioned). Performance is measured over a three-year period and the restricted shares will be released to the participant after two years, to the extent that TSR, EPS and ROCE targets over the period have been met, together with additional shares that represent the dividends that would have been paid during the performance period on the restricted shares that have been released.

The total award vesting is the sum of the awards for TSR, EPS and ROCE. Where performance is below the threshold point for any performance condition, then no part of the award vests in relation to that performance condition. If performance is below the TSR threshold point, then no part of the TSR award vests. If performance is below the ROCE threshold point, then no part of the ROCE award vests. Between the threshold point and the maximum, the award vests on a sliding scale basis.

The table below summarises the performance criteria for the 2021 award, which is due to vest on 26 April 2024.

	Trigger point		Maximum			
	Performance target	**% of award vesting**	**Performance target**	**% of award vesting**	**Achievement**	**Level of vesting (% maximum)**
Relative TSR performance	Median performance against peer group	6	Upper quartile performance against peer group	30	Below median performance against peer group	0%
Annualised EPS growth	5%	10	15%	50	Above 15% p.a.[1]	50%
ROCE	8%	4	10%	20	10.34%	20%

1 Based on adjusting for a constant tax rate of 19%.

Based on the above level of performance, the 2021 LTIP will vest at 70%. The Committee considered the formulaic out-turns under the LTIP relative to Group and individual performance and determined that no discretion should be exercised.

Scheme interests granted during 2023 (audited)

The table below sets out details of scheme interests granted to the Executive Directors during 2023:

	Type of award	**Date of grant**	**Number of shares granted**	**Face value[1] (£)**
D Stirling	Deferred bonus[2] (Unconditional shares)	18.04.2023	15,009	59,135
G McGrath			10,323	40,673

	Type of award	**Date of grant**	**Number of shares granted**	**Face value[1] (£)**	**Face value (% of salary)**	**Trigger point for vesting (% of face value)**	**Performance condition**	**End of performance period**
D Stirling	LTIP[3] (Conditional shares)	18.04.2023	130,076	512,499	125	20% of maximum (further details set out below)	30% based on relative TSR growth.[4] 45% on adjusted EPS compound growth,[5] 15% on average ROCE[6] and 10% on sustainable product development.[7]	31.12.2025
G McGrath			82,487	324,999	125			

1 Face value calculated using the average share price for the period 11 April 2023 to 17 April 2023 (£3.94). The share price was £3.94 on 18 April 2023.
2 Awards vest on the third anniversary of grant. There are no performance conditions for these awards.
3 Award is subject to a three-year performance period and, subject to performance, is released after a two-year holding period.
4 Relative TSR growth is measured against the FTSE SmallCap Index (excluding investment trusts). The threshold point for relative TSR performance is median performance against the peer group, where 6% of the award will vest, to upper quartile performance against the peer group, where the maximum of 30% of the award will vest.
5 Adjusted EPS is the EPS for the financial year ending 31 December 2025. The threshold point is 5% p.a. compound growth, where 5% of the award will vest, to the maximum 15% p.a. compound growth, where 45% of the award will vest. In line with the approach for previous LTIP awards, the EPS targets have been set based on a constant tax rate reflecting the significant deviation of the reported tax rate. The Committee retains the discretion to override this where it considers it appropriate.
6 Return on capital employed (ROCE) is defined as operating profit before exceptional items for the year, divided by the average sum of its equity, net debt and other non-current liabilities for the beginning and end of the year. This measure excludes acquired intangible assets and their amortisation cost. The threshold point is average ROCE of 11%, where 3% of the award will vest. Maximum vesting occurs for average ROCE of 15%, where 15% of the award will vest.
7 Sustainable product development is defined as the development of products valued by Zotefoams' customers for their use-phase resource efficiency (defined by the Sustainability Accounting Standards Board) as a product that, through its use, can be shown to improve energy efficiency, eliminate or lower greenhouse gas (GHG) emissions, reduce raw materials consumption, increase product longevity or reduce water consumption. The threshold point is 4% of revenue, where 2% of the award will vest, to the maximum 5% of revenue, where 10% of the award will vest.

Directors' Remuneration report
Continued

Total pension entitlements (audited)
The Zotefoams Defined Benefit Pension Scheme (the "DB Scheme") was closed to the future accrual of benefits as from 31 December 2005. At this time, all active members left the DB Scheme and were granted preserved pensions payable from their normal retirement age (or immediately, if the member had reached normal retirement age).

The following Director was a member of the DB Scheme during the year.

	Accrued pension at 31 December 2023 (£ p.a.)	Gross increase in pension (£)	Increase in accrued pension net of CPI inflation (£)	Change in value over the year (£)
D Stirling	25,447	2,234	0	0

Notes
(1) The pension entitlement shown is that which would be paid annually on retirement at normal retirement age (or immediately upon late retirement where applicable), based on service to 31 December 2005 (the date the DB Scheme was closed to future accrual), pensionable salary increases to 31 March 2018 (the date salary linkage ceased) and including statutory increases to the year end but excluding any future increases under the Rules of the Scheme.
(2) As required by the Large and Medium-sized Companies and Groups (Accounts and Reports) (Amendment) Regulations 2013, the pension input amount has been calculated using the method set out in section 229 of the Finance Act 2004(a) where:
– "pension input period" is the year ended 31 December 2023; and
– in the application of section 234 of the Act, the figure 20 is substituted for the figure 16.
(3) The following is additional information relating to the Director's pension from the DB Scheme:
(a) Normal retirement age is 65.
(b) On death before retirement, a spouse's pension is payable of one half of the member's preserved pension at leaving, revalued from leaving to the date of death. On death in retirement, a spouse's pension is payable of one half of the member's pension at death, without reduction for any part of the member's pension commuted for cash at retirement.
(c) Members' Guaranteed Minimum Pensions increase at statutory rates. Other pensions increase in payment at 5% p.a., or the increase in the Retail Prices Index (RPI) if lower.
(d) From 1 January 2006, active employee members were able to pay contributions to the DC Scheme set up by the Company in order to receive retirement benefits. The Company also contributes to this arrangement. Details of the contributions made into this Scheme have been disclosed in the single figure calculation and are not included in the above disclosure.

Payments made to past Directors (audited)
No payments were made during 2023.

Payments for loss of office (audited)
No payments were made during 2023.

Statement of Directors' shareholding and share interests (audited)
Current Executive Directors are required to hold shares in the Company equivalent to 200% of base salary, with a five-year period to build up this holding from: (1) appointment to the Board; or (2) the date of the 2017 AGM (17 May 2017). A newly appointed Executive Director will have five years from the date of his or her appointment to the Board to build up such a holding. The Remuneration Policy adopted at the 2020 AGM also requires 100% of the shareholding requirement to be held for one year following cessation of employment with the Group and 50% of the shareholding requirement to be held for two years following cessation of employment with the Group.

With effect from 1 January 2023, the Committee has adopted a new post-employment shareholding policy. Shares are subject to this policy only if they are acquired from LTIP and DBSP awards granted from 1 January 2023 onwards. Following cessation of employment, an Executive Director must retain for two years such of their shares which are subject to this policy as have a value equal to 200% of salary. If an Executive Director's relevant shares have a value of less than 200% of salary then, in line with the company's previous approach, Executive Directors will be expected to retain their full "in-service" shareholding requirement for one year post cessation of employment and 50% for two years after leaving. The Committee retains discretion to vary the application of the post-employment shareholding policy in compassionate circumstances.

Throughout 2023, D Stirling complied with the Policy, holding 428% of base salary at 31 December 2023. G McGrath is making progress towards meeting the requirement and holds 186% of base salary at 31 December 2023.[1]

[1] Includes shares owned outright and interests in share incentive scheme without performance conditions. Calculated on the basis of the average share price over the three months to 31 December 2023 of £3.15.

The tables below set out the Directors' interests (including those of their connected persons) in Zotefoams shares as at 31 December 2023. There were no changes in the Directors' interests between the year end and the date of this report.

Executive Directors

	Shares owned outright[1]	Interest in share incentive schemes without performance conditions[2]	Interest in share incentive schemes with performance conditions[3]
D Stirling	493,766	119,356	289,187
G McGrath	101,405	89,890	188,397

1 Includes Partnership Shares, Dividend Shares and vested Matching Shares under the SIP.
2 Comprises: vested Company Share Option Plan awards, DBSP shares, unvested Matching Shares under the SIP, the unvested portion of the 2021 LTIP awards due to vest on 26 April 2024 and the unvested portion of the 2020 LTIP awards.
3 Comprises: unvested LTIP shares.

Non-Executive Directors

	Shares owned outright
J Carling	3,323
L Drummond[1]	6,639
D Robertson	7,302
M Swift[1]	0
C Wall	7,936
A Fielding[2]	9,121
S Good[2]	30,047

1 L Drummond and M Swift joined the Board on 17 January 2023 and 29 September 2023 respectively.
2 S Good and A Fielding stepped down from the Board on 24 May 2023 and 29 September 2023 respectively and the shareholding is shown as at the date of stepping down from the Board.

Directors' Remuneration report
Continued

Scheme interests (audited)
The table below provides details of the current position of outstanding awards made to the Executive Directors who served in the year under review:

	Scheme	As at 31 Dec 2022	Date of exercise or release	Granted during the year	Exercised or released	Lapsed or cancelled	As at 31 Dec 2023	Market price on exercise date	Exercise price	Date from which exercisable	Expiry date
D Stirling	LTIP (2018)	5,238	06.06.2023	–	(5,238)	–	**–**	£3.45		24.05.2021	n/a
	LTIP (2020)[1]	87,674	–	–	–	(57,217)	**30,457**	–	–	21.09.2023	n/a
	LTIP (2021)	115,192	–	–	–	–	**115,192**	–	–	26.04.2024	n/a
	LTIP (2022)	159,111	–	–	–	–	**159,111**	–		29.04.2025	n/a
	LTIP (2023)	–	–	130,076	–	–	**130,076**	–		18.04.2026	n/a
	DBSP (2019)[2]	11,835	20.04.2023 to 25.04.2023	–	(11,835)	–	**–**	£3.72 to £3.82	–	20.04.2023	n/a
	DBSP (2020)	3,678	–	–	–	–	**3,678**	–	–	08.04.2024	n/a
	DBSP (2021)	4,207	–	–	–	–	**4,207**	–	–	29.04.2025	n/a
	DBSP (2022)	–	–	15,009	–	–	**15,009**	–	–	18.04.2026	n/a
	SIP[3]	860	–	129	–	–	**989**	–	–	–	n/a
G McGrath	CSOP	10,344	–	–	–	–	**10,344**	–	£2.90	05.04.2019	05.04.2026
	LTIP (2018)	3,530	06.06.2023	–	(3,530)	–	**–**	£3.45	–	24.05.2021	n/a
	LTIP (2020)	58,015	–	–	–	(37,861)	**20,154**	–	–	21.09.2023	n/a
	LTIP (2021)	76,676	–	–	–	–	**76,676**	–	–	26.04.2024	n/a
	LTIP (2022)	105,910	–	–	–	–	**105,910**	–	–	29.04.2025	n/a
	LTIP (2023)	–	–	82,487	–	–	**82,487**	–	–	18.04.2026	n/a
	DBSP (2019)[2]	7,444	20.04.2023 to 25.04.2023	–	(7,444)	–	**–**	£3.72 to £3.82	–	20.04.2023	n/a
	DBSP (2020)	3,303	–	–	–	–	**3,303**	–	–	08.04.2024	n/a
	DBSP (2021)	2,036	–	–	–	–	**2,036**	–	–	29.04.2025	n/a
	DBSP (2021)	–	–	10,323	–	–	**10,323**	–	–	18.04.2026	n/a
	SIP[3]	812	–	129	–	–	**941**	–	–	–	n/a

1 30% based on relative TSR. 50% based on annualised EPS growth. 20% based on ROCE. As set out in the 2022 Annual Report and Accounts, this award vested at 34.74% of maximum based on performance in the period ending 31 December 2022.
2 Shares were exercised over a period of six days from 20 April 2023 to 25 April 2023 at a range of market prices from £3.72 to £3.82.
3 Matching Shares under the SIP. Participants buy Partnership Shares monthly under the SIP. The Company provides one Matching Share for every four Partnership Shares purchased. These Matching Shares are first available for vesting three years after being awarded or on leaving if the person is considered to be a "good leaver".

Details of Directors' service contracts and appointment letters (unaudited)
The following table sets out the details of the service contracts and appointment letters for the Directors as at 31 December 2023. Copies of the Directors' service contracts and appointment letters are available for inspection at the Company's registered office.

Director	Date of current service contract or appointment letter	Unexpired terms at 31 December 2023
J Carling[1]	1 April 2023	2 years and 5 months
L Drummond	17 January 2023	2 years and 5 months
G McGrath	15 April 2019	–
D Robertson[1]	1 April 2023	2 years and 5 months
D Stirling	13 May 2019	–
M Swift	29 September 2023	2 years and 5 months
C Wall[2]	1 April 2023	2 years and 5 months

1 Both J Carling and D Robertson were appointed by the Board for a third term in April 2023 with effect from 24 May 2023 to expire at the 2026 AGM and were re-elected by shareholders at the 2023 AGM.
2 C Wall was appointed by the Board for a second term in April 2023 with effect from 24 May 2023 to expire at the 2026 AGM and was re-elected by shareholders at the 2023 AGM.

S Good's service contract was terminated upon stepping down from the Board effective 24 May 2023. A Fielding's service contract was terminated upon stepping down from the Board effective 29 September 2023.

External appointments

During 2023, Executive Directors did not receive any fees from external appointments.

Change in remuneration of Group Directors and employees (unaudited)

The table below illustrates the percentage change in salary and benefits for the Group Directors from the prior year compared with the average percentage change for the UK workforce.

The employee subset consists of an average of the UK workforce employees for the period under review. This subset has been selected as this employee representative group is the largest group of employees within the organisation. The Non-Executive Directors receive no taxable benefits or annual bonus.

	% change in base salary (2023 to 2022)[1]	% change in taxable benefit (2023 to 2022)[1]	% change in annual bonus UK employees only (2023 to 2022)[1]	% change in base salary (2022 to 2021)[1]	% change in taxable benefit (2022 to 2021)[1]	% change in annual bonus UK employees only (2022 to 2021)[1]	% change in base salary (2021 to 2020)[1]	% change in taxable benefit (2021 to 2020)[1]	% change in annual bonus UK employees only (2021 to 2020)[1]
D Stirling	15.4	7.3	6.4	5.1	2.2	10.4	7.0	-3.5	-14.1
G McGrath	11.1	5.4	6.6	5.4	1.8	10.1	7.4	-1.9	-53.7
J Carling	12.7	n/a	n/a	2.5	n/a	n/a	2.5	n/a	n/a
S Good[2]	-44.8	n/a	n/a	35.0	n/a	n/a	1.7	n/a	n/a
D Robertson	15.2	n/a	n/a	2.5	n/a	n/a	1.7	n/a	n/a
A Fielding[2]	-14.8	n/a	n/a	2.5	n/a	n/a	61.6[4]	n/a	n/a
C Wall	12.7	n/a	n/a	2.5	n/a	n/a	61.6[4]	n/a	n/a
Average employee	8.75	8.36	21.75[3]	4.66	0	512.1	2.5	0	4.7

1 L Drummond was appointed to the Board in January 2023. M Swift was appointed to the Board in September 2023. Both have been excluded from this table as there are no prior year comparatives.
2 S Good retired from the Board on 24 May 2023. A Fielding retired from the Board on 29 September 2023.
3 The mean staff bonus in the UK was 6.35% of base salary in relation to 2023 (2022: 7.24% of base salary).
4 A Fielding and C Wall were appointed to the Board on May 2020. Their 2021 increases reflect that they were only paid their respective fees for part of the year.

The UK employees' salary review is negotiated with the unions and a 7.0% increase was agreed in relation to 2023. For 2024, a salary increase of 5.0% has been agreed for UK employees.

CEO pay ratio

Companies with more than 250 employees are required to publish the CEO-to-employee pay ratio. The ratio compares the total remuneration of the Group CEO against the remuneration of the median employee, and employees in the lower and upper quartiles. These pay ratios form part of the information that is provided to the Committee on broader employee pay policies and practices. The Committee has considered the pay data and concluded that the current ratio is proportionate and allows the business to retain high-calibre individuals capable of delivering the growth strategy.

The ratios set out below were calculated using the Option A methodology, which uses the pay and benefits of all UK employees as it provides the most accurate information and representation of the ratios. The employee pay data used was based on the total remuneration of all Zotefoams plc's full-time employees as at 31 December 2023. The Group CEO's total remuneration has been taken from the single total figure of remuneration for 2023, as disclosed on page 94.

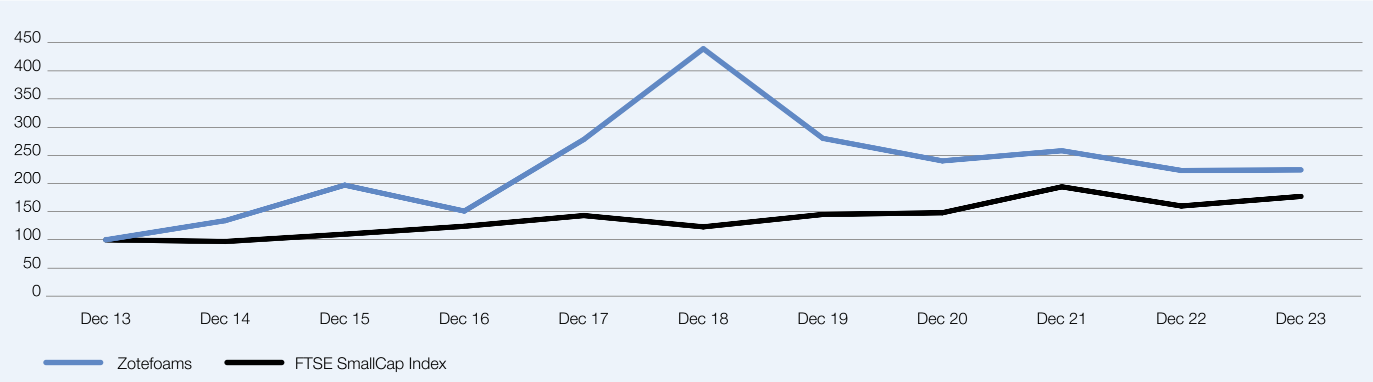
The Committee considers that the median CEO pay ratio is consistent with the relative roles and responsibilities of the Group CEO and the identified employees. Base salaries of all employees, including our Executive Directors, are set with reference to a range of factors, including market practice, location, experience and performance in role. The Group CEO's remuneration package is weighted towards variable pay (including the annual bonus, LTIP and DBSP) due to the nature of the role, which means that the ratio is likely to fluctuate depending on the outcomes of incentive plans in each year. The increase in the total pay ratio at the 25th, 50th and 75th percentiles since 2021 is due to no LTIP vesting, low annual bonus pay-out in 2021 and higher LTIP and annual bonus outcomes in both 2022 and 2023.

Year	Method	25th percentile pay ratio	50th percentile pay ratio	75th percentile pay ratio
2023 – Base salary	Option A	12:1	10:1	8:1
2023 – Total pay		30:1	25:1	19:1
2022 – Total pay[1]		22:1	19:1	15:1
2021 – Total pay		15:1	12:1	10:1
2020 – Total pay		17:1	14:1	10:1
Pay data (£'000)			**Base salary**	**Total pay**
CEO's remuneration			393,580	1,089,067
UK employees 25th percentile			32,684	36,130
UK employees 50th percentile			38,770	42,913
UK employees 75th percentile			52,000	26,580

1 The 2022 total pay figure has been restated to reflect a restated single total figure of remuneration for 2022.

Directors' Remuneration report
Continued

Historical TSR performance and Group CEO remuneration outcomes (unaudited)
The graph below compared the TSR of Zotefoams against the FTSE SmallCap Index (excluding investment trusts), which is considered the most appropriate choice of index by the Remuneration Committee due to the Group's size and membership of this index.



Workforce alignment
While it remains important to set base salaries on a market-competitive basis reflective of the size and complexity of the business, the Committee has considered alignment of executive remuneration with workforce reward structures.

The table below illustrates the Group CEO's single figure for total remuneration, annual bonus pay-out, LTIP vesting as a percentage of maximum opportunity, the EPS and the average share price for the final quarter for the same ten-year period.

	Group CEO's single total figure of remuneration (£)	Annual bonus pay-out (% of maximum)	LTIP vesting (% of maximum)	EPS (p)	Average share price for the final quarter (p)
2023	**1,089,067**	**95.0**	**70.0**	**19.0**	**315.0**
2022	757,851[2]	91.6	34.7	20.6	303.0
2021	441,369	22.0	0.0	9.0	402.0
2020	491,548	28.0	23.5	14.9	415.5
2019	637,473	37.1	47.0	14.9	375.4
2018	794,905	35.1	100.0	18.7	570.5
2017	676,816	84.4	58.0	16.6[1]	389.2
2016	497,545	55.0	37.7	13.7	252.5
2015	418,568	44.4	50.0	11.1	344.3
2014	439,452	44.0	66.0	10.7	237.8

1 While basic EPS before exceptional items for 2017 was 16.04p, the Remuneration Committee decided to eliminate the impact on deferred tax (the net operating losses which are carried forward) of the change in expected future US corporate tax rates, which resulted in an EPS of 16.59p before exceptional items being used for calculating the satisfaction of the EPS target for the vesting of the 2015 LTIP awards.
2 The Group CEO's single total figure of remuneration for 2022 has been restated.

Relative importance of spend on pay (unaudited)
The table below illustrates the year-on-year change in total Executive Directors' remuneration and Executive Directors' remuneration compared with profit after tax and distributions to shareholders for 2023 and 2022.

	% change 2022/2023	2023 £'000	2022 £'000
Total remuneration[1]	13%	28,460	25,227
Executive Directors' remuneration	45%	1,807	1,265[3]
Profit after tax	-8%	9,242	10,006
Shareholder distributions[2]	5%	3,350	3,188

1 Social security costs paid by the Group have been excluded from this figure.
2 Shareholder distributions refer to the dividends paid during the year.
3 The Executive Directors' remuneration for 2022 has been restated to reflect the restated single total figure of remuneration for 2022.

Committee role and advisers (unaudited)

The Group has established a Remuneration Committee, which is constituted in accordance with the recommendations of the UK Corporate Governance Code. J Carling, L Drummond, D Robertson, M Swift and C Wall were members of the Committee as at 31 December 2023 and to the date of this report. S Good, who resigned as Chair and Non-Executive Director with effect from 24 May 2023, ceased to be a member of the Committee from that date. A Fielding, who resigned as Chair of the Remuneration Committee and Non-Executive Director with effect from 29 September 2023, ceased to chair the Committee from that date. All the members are independent Non-Executive Directors, with the exception of L Drummond, who was independent on appointment as Chair of the Company. The Committee was chaired by A Fielding until 29 September 2023 and by M Swift for the remainder of the year. The Committee's Terms of Reference were last updated in August 2023 and may be found on the Group's website.

None of the Committee members have any personal financial interest (other than fees paid as disclosed on page 94 and as shareholders) in the Company, nor do they have any interests that may conflict with those of the Group, such as cross directorships. None of the Committee members are involved in the day-to-day management of the business. The Committee makes recommendations to the Board on remuneration matters. No Director is involved in any decision concerning his or her own remuneration.

The Remuneration Committee met three times in 2023, with full attendance at each meeting. The Company Secretary acts as secretary to the Committee.

In 2023, the Remuneration Committee carried out the following work:

- completed a review of the remuneration arrangements for the Executive Directors and the wider workforce and concluded a consultation initiated in 2022 with the Group's largest shareholders in relation to the proposed Remuneration Policy put forward for approval at the 2023 AGM
- approved the 2022 Directors' Remuneration report
- considered and approved the annual bonus for the Executive team
- considered and approved the grant of awards under the LTIP and the DBSP in 2023 and the vesting of awards made in 2020 under the LTIP
- considered the salary reviews of the Executive team and concluded that no increase would be awarded above the salary review applicable to the general workforce
- considered the salary review of the Company Secretary and awarded a pay increase commensurate with market rates of pay
- considered the performance targets for the 2023 Executive Directors' bonus and LTIP awards.

Deloitte LLP (Deloitte) was engaged in 2016 to assist and provide advice to the Remuneration Committee in relation to Directors' remuneration. Following a retendering exercise involving three firms in 2022, they continued to work with the Committee through 2023 in respect of general remuneration advice. Deloitte is a member of the Remuneration Consultants Group and adheres to its Code on Executive Remuneration Consulting in the UK. The Committee is comfortable that Deloitte does not have connections with Zotefoams plc that may impair its objectivity and independence. Deloitte provided no other services to the Company during 2023.

Total fees for advice provided to the Committee amounted to the following:

	2023 (£)	2022 (£)
Deloitte LLP	25,000	64,450
Total	**25,000**	**64,450**

Shareholder voting (unaudited)

The table below sets out the results of the votes received on the 2022 Directors' Remuneration report at the 2023 AGM as well as the Directors' Remuneration Policy approved at the 2023 AGM:

	Directors' Remuneration Policy	%	Report on remuneration	%
Votes in favour	30,822,412	95.22	31,439,387	97.13
Votes against	1,530,762	4.73	913,788	2.82
Discretion	15,969	0.05	15,969	0.05
Total votes	32,369,143	100.00	32,369,144	100.00
Votes withheld	1,101	–	1,100	–

Directors' report
The Directors present their Annual Report and audited consolidated financial statements for the year ended 31 December 2023

Results and dividends
Profit attributable to shareholders for the year amounted to £9.2m (2022: £10.0m). An interim dividend of 2.28p (2022: 2.18p) per share was paid on 6 October 2023. The Directors recommend that a final dividend of 4.90p (2022: 4.62p) per share be paid on 3 June 2024 to shareholders who are on the Company's register at the close of business on 3 May 2024, resulting in a total dividend of 7.18p per share for the year (2022: 6.80p). For further information on the performance of the Company refer to the Strategic Report on pages 1 to 77, which should be read as forming part of the Directors' report.

Directors
The Directors who were in office during the year were:

L Drummond
(appointed Non-Executive Director and Chair Designate 17 January 2023 and Company Chair on 24 May 2023)
S Good (Company Chair) (resigned 24 May 2023)
J Carling
A Fielding (resigned 29 September 2023)
G McGrath
D Robertson
D Stirling
M Swift (appointed 29 September 2023)
C Wall

All Directors other than S Good and A Fielding were in office up to the date of signing of the financial statements. The biographical details of Board Directors in post as at 5 April 2024 are set out on pages 78 and 79. The Group CEO announced his intention to retire from the business on 7 November 2023. A search for a new Group CEO concluded in March 2023 and further details are provided in our Nomination Committee report on pages 87 to 89.

The appointment, replacement and powers of the Directors are governed by the Company's Articles of Association (the "Articles"), the UK Corporate Governance Code, the Companies Act 2006, prevailing legislation and resolutions passed at the Annual General Meeting (AGM) or other general meetings of the Company.

The Articles give the Directors power to appoint and replace Directors. Under the Terms of Reference of the Nomination Committee, any appointment must be recommended by the Nomination Committee for approval by the Board of Directors. The Articles also require new Directors to retire and submit themselves for election at the first AGM following their appointment and for existing Directors to retire and, if they so wish, submit themselves for re-election at every AGM thereafter.

D Stirling and G McGrath, the Executive Directors, have service contracts which are terminable on twelve months' written notice. All other Directors have letters of appointment which are terminable on six months' written notice.

The Company maintained Directors' and Officers' Liability Insurance cover throughout 2023. The Company has issued Deeds of Indemnity in favour of all Directors. These Deeds were in force throughout the year ended 31 December 2023 and remain in force as at the date of this report. These Deeds, as well as the service contracts and the Company's Articles of Association, are available for inspection during normal business hours at the Company's registered office and will be available at the AGM.

Conflicts of interest
All Directors submit details to the Company Secretary of any new situations, or changes to existing ones, which may give rise to an actual or potential conflict of interest with those of the Company.

Where an actual, or potential, conflict is approved by the Board, the Board will normally authorise the situation on the condition that the Director concerned abstains from participating in any discussion or decision affected by the conflicted matter. Authorisation of a conflict is only given to Directors who are not interested in the matter. No new conflicts of interest were noted during 2023 or between the year end and the date of signing of the financial statements.

Amendment to the Articles of Association
The Company's Articles of Association may only be amended by a special resolution of the shareholders passed in general meeting and were last amended in May 2021.

Corporate governance report
The Corporate governance report on pages 80 to 82 **should be read as forming part of the Directors' report.**

Employees
To safeguard employee welfare, the Group has documented and well-publicised policies on occupational health and safety, the environment and training. The Group operates an equal opportunities, single-status, employment policy and an open management style.

Zotefoams operates an equality, diversity and inclusion policy and we believe diversity (ethnicity, age, gender, language, sexual orientation, gender re-orientation, religion and socio-economic status) of the employees promotes a better working environment, which in turn leads to innovation and business success. Applications for employment by disabled persons are always fully considered and, in the event of an employee becoming disabled, every effort is made to ensure that their employment with Zotefoams continues and that appropriate training and support is provided where necessary. Zotefoams' policy is that the training, career development and promotion of disabled persons should, as far as possible, be identical to that of other employees.

Zotefoams places considerable value on the involvement of its people and holds formal and informal meetings to brief them on matters affecting them as employees and on the various factors (including financial and economic factors) affecting the performance of the Group; it also ensures that their views are taken into account in making decisions which are likely to affect their interests. In the UK, there is a Joint Consultative Committee (JCC), which comprises an employee representative from each department or group of departments. The JCC meets regularly and considers a wide range of matters affecting the employees' current and future interests. From January 2019, J Carling has attended meetings of the JCC in his capacity as Board representative, to provide employees with an opportunity to engage with the Board and allow the Board to have regard to employees' views in their decision-making. Further details of the JCC activities in 2023 may be found on page 73.

In order to encourage employees to share in the success of Zotefoams, an all-employee share incentive scheme was established in 2015 in the UK. Under the scheme, employees can purchase shares each month directly from their salary. For every four shares bought, one further share is awarded. The shares vest on the third anniversary of award and are normally exempt from tax after five years.

The Company operates to a number of recognised industry standards.

Further details of our certifications are provided in our ESG report on page 66.

Relationships with others
In its decision-making, the Board considers how the Group fosters its business relationships with suppliers, customers and others in order to achieve good-quality outcomes.

Further information on this topic can be found on pages 61 to 63 **of the Strategic Report (the S172(1) statement), which is incorporated into this Directors' report by cross-reference.**

Human rights

Zotefoams does not, at present, have a specific policy on human rights; however, it believes in recognising and respecting all human rights as defined in international conventions. This belief is embedded within the organisation's values and ethical policies. We conduct every aspect of our business with honesty, integrity and openness, respecting human rights and the interests of our employees, customers and other stakeholders, according to the principles set out in our Ethics Policy, which covers:

- ensuring that our employees have the freedom to join a union, associate or bargain collectively without fear of discrimination against the exercising of such freedoms
- not using forced labour or child labour
- prohibiting the use of worker-paid fees and the confiscation of workers' original identification documents
- complying with the Employer Pays Principle and
- respecting the rights of privacy of our employees and protecting access to and use of their personal information.

The Company operates an Equality, Diversity and Inclusion Policy and a Dignity at Work Policy, which promote the right of every employee to be treated with dignity and respect and not be harassed or bullied. We work hard to ensure that goods and services are from sources that do not jeopardise human rights, safety or the environment, and expect our suppliers to observe business principles consistent with our own.

Business ethics

Zotefoams is committed to high standards of business conduct and aims to maintain these standards across all of our operations throughout the world. Under our Ethics Policy, we state that we will:

- operate within the law
- not tolerate any discrimination or harassment
- not make any political donations or grant public donation for the purpose of political advocacy of any kind and confirm that no political donations or contributions to political parties have been made during the year
- not make or receive bribes
- avoid situations that might give rise to conflicts of interest
- not enter into any activity that might be considered anti-competitive
- aim to be a responsible company within our local communities
- support and encourage our employees to report, in confidence, any suspicions of wrongdoing.

Supporting our Ethics Policy, we have policies on anti-bribery and corruption, anti-fraud, anti-competitive behaviour, employee share trading and whistleblowing. We also became a signatory to the Employer Pays Principle during the year, formalising our long-standing Group-wide commitment to recruitment costs being borne by the employer, not the employee.

In 2020, we introduced a declaration of adherence to the principles laid out in the Anti-Bribery and Corruption, Anti-Fraud and Ethics policies in the business dealings with all new suppliers. In 2023, we extended our modern slavery enquiries to suppliers in our subsidiary entities in Poland, the USA, China and India.

Scan the QR code to see our Modern Slavery statement
zote.info/3OGGN5N

Suppliers' ethical disclosures will remain under review.

Substantial shareholdings

In accordance with the Disclosure and Transparency Rules DTR 5, the Company, as at 4 April 2024, had received notices of 3% or more the following material interests of 3% or more in the issued ordinary share capital:

	Ordinary shares of 5.0p	Percentage of issued share capital
Schroder Investment Mgt	8,571,051	17.55
Raymond James Investment Services	4,534,273	9.28
BGF Investments	3,231,270	6.62
Premier Miton Investors	2,635,554	5.40
Mr Marc & Mrs Claire Downes	2,162,417	4.43
Mr Nicholas Beaumont-Dark	2,124,347	4.35
Canaccord Genuity Wealth Mgt	1,625,644	3.33
Interactive Investor	1,561,460	3.20

Directors' shareholdings are shown in the Directors' Remuneration report on pages 98 and 99.

Research and development (R&D)

The amount spent by the Group on R&D in the year was £3.0m (2022: £2.0m). In the opinion of the Directors, £2.2m (2022: £1.2m) of this expenditure met the requirements for capitalisation under IAS 38, while £0.8m (2022: £0.8m) did not and was consequently expensed in the consolidated income statement.

Share capital and reserves

The Company has one class of ordinary shares, which has no right to fixed income. Each share carries the right, on a poll, to one vote at general meetings of the Company. There are no specific restrictions on the size of a holding nor on the transfer of shares, which are both governed by the general provisions of the Articles of Association and prevailing legislation. The Directors are not aware of any agreements between holders of the Company's shares that may result in restrictions on the transfer of securities or on voting rights. No person has any special rights of control over the Company's share capital and all issued shares are fully paid.

At 31 December 2023, the Zotefoams Employees' Benefit Trust (EBT) held 244,286 shares (approximately 0.5% of issued share capital) (2022: 107,130 shares) to satisfy share plans as described in the Directors' Remuneration report. During the year, the EBT released 87,844 shares in respect of these share plans. In accordance with best practice, the voting rights on the shares held in the EBT are not exercised and the right to receive dividends has been waived.

At the AGM held on 24 May 2023, authority was given to the Directors to allot unissued shares in the Company up to a maximum amount equivalent to approximately two-thirds of the issued share capital of the Company. Authority was also given to the Directors to allot equity securities in the Company for cash without regard to the pre-emption provisions of the Companies Act 2006. Both authorities expire at the AGM to be held on 22 May 2024. The Directors seek new authorities for a further year, in line with market practice.

The Company was given authority at the 2023 AGM to purchase up to 4,862,123 of its ordinary shares. This authority will also expire on 22 May 2024 and, at the date of this Report, had not been used. In accordance with normal practice for listed companies, a special resolution will be proposed at this year's AGM to seek a new authority to make market purchases up to a maximum of 10% of the issued share capital of the Company.

Directors' report
Continued

Subsidiaries and branches
Details of the joint ventures, subsidiaries and branches within the Group are given in the financial statements.

Treasury and financial instruments
Information in respect of the Group's policies on financial risk management objectives, including policies for hedging, as well as an indication of exposure to financial risk, is given in note 21 to the financial statements.

Future developments
Information on future developments for the Group has been set out in the Chair's Statement and the Group CEO's review on pages 31 to 37.

Greenhouse gas emissions
Information on the Group's greenhouse gas emissions may be found in the ESG report on page 68.

Pension schemes
Refer to the post-employment benefits section of the Group CFO's review on pages 43 and 44 and note 23 to the financial statements for information related to the Company's pension schemes.

In the UK, Zotefoams plc runs a number of defined contribution pension schemes. New joiners are eligible to join the Zotefoams Stakeholder Pension Scheme.

Finance costs capitalised
No finance costs were capitalised in the year (2022: none).

Events after the reporting period
Refer to note 27 to the financial statements for details of any events after the reporting period affecting the Group.

Disclosure of information to Auditor
The Directors who held office at the date of approval of this Directors' report confirm that, in so far as they are each aware, there is no relevant audit information of which the Company's External Auditor is unaware, and each Director has 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 External Auditor is aware of that information.

Independent Auditor
A resolution to re-appoint PKF Littlejohn LLP as the Company's External Auditor will be proposed at the forthcoming AGM.

On behalf of the Board,

G C McGrath
Director

5 April 2024

Statement of Directors' responsibilities in respect of the financial statements

The Directors consider the Annual Report, taken as a whole, to be fair, balanced and understandable

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

Company law requires the Directors to prepare financial statements for each financial year. Under that law, the Directors have prepared the Group and Company financial statements in accordance with UK-adopted international accounting standards. 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 the profit or loss of the Group and Company for that period. In preparing the financial statements, the Directors are required to:

- select suitable accounting policies and then apply them consistently
- state whether applicable UK-adopted international accounting standards have been followed subject to any material departures disclosed and explained in the financial statements
- make judgements and accounting estimates that are reasonable and prudent
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the Group and Company will continue in business.

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

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

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

Directors' confirmations

The Directors consider that the Annual Report, taken as a whole, is fair, balanced and understandable and provides the information necessary for shareholders to assess the position and performance, business model and strategy of the Group and Company.

Each of the Directors in post as at 5 April 2024, whose names and functions are listed on pages 78 and 79 of the Annual Report, confirm that, to the best of their knowledge:

- the Consolidated and Company financial statements, which have been prepared in accordance with UK-adopted international accounting standards, give a true and fair view of the assets, liabilities, financial position and profit of the Group and Company
- the Group CEO's review includes a fair review of the development and performance of the business and the position of the Group and Company. A description of the principal risks faced by the Group and the Company is provided on pages 48 to 58.

Independent auditor's report to the members of Zotefoams plc

Opinion

We have audited the financial statements of Zotefoams Plc (the "parent company") and its subsidiaries (the 'group') for the year ended 31 December 2023 which comprise the Consolidated income statement, the Consolidated statement of comprehensive income, the Consolidated and Parent Company statements of financial position, the Consolidated and Parent Company statements of cash flows, the Consolidated and Parent Company statements of changes in equity, and notes to the financial statements, including significant accounting policies. The financial reporting framework that has been applied in their preparation is applicable law and UK-adopted international accounting standards and as regards the parent company financial statements, as applied in accordance with the provisions of the Companies Act 2006.

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 2023 and of the group's profit for the year then ended
- the group financial statements have been properly prepared in accordance with UK-adopted international accounting standards
- the parent company financial statements have been properly prepared in accordance with UK-adopted international accounting standards and as applied in accordance with the provisions of the Companies Act 2006 and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (UK) (ISAs (UK)) and applicable law. Our responsibilities under those standards are further described in the Auditor's responsibilities for the audit of the financial statements section of our report. We are independent of the group and parent company in accordance with the ethical requirements that are relevant to our audit of the financial statements in the UK, including the FRC's Ethical Standard as applied to listed public interest entities, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Conclusions relating to going concern

In auditing the financial statements, we have concluded that the directors' use of the going concern basis of accounting in the preparation of the financial statements is appropriate. Our evaluation of the directors' assessment of the group's and parent company's ability to continue to adopt the going concern basis of accounting included:

- obtaining and documenting an understanding of the directors' going concern assessment process, including the controls over the review and approval of the budget and five-year plan
- assessing the appropriateness of the duration of the going concern assessment period to 30 June 2025 and considering the existence of any significant events or conditions during and beyond this period; the group undertakes a comprehensive five-year plan, and upon reviewing this plan, no concerns arise within the ensuing twelve month period from the date of signing the financial statements
- evaluating management's historical forecasting accuracy and the consistency of the going concern assessment with information obtained from other areas of the audit, such as our audit procedures on management's impairment assessments
- testing the going concern assessment, including forecast liquidity, for mathematical accuracy
- agreeing the underlying cash flow projections to management-approved forecasts and recalculating the impact on banking covenants and liquidity headroom for the base case scenario
- assessing whether key assumptions made were reasonable and appropriately severe, in light of the group's relevant principal risks and uncertainties and our own independent assessment of those risks
- performing independent sensitivity analysis on management's key inputs and assumptions including applying incremental adverse cash flow sensitivities; the sensitivity analysis included the impact of certain severe but plausible scenarios, evaluated as part of management's work on the group's viability including major operational disruption, loss of key customer in HPP, increase in cost due to inflation and foreign exchange risk and
- considering the appropriateness of management's downside scenario, to understand how severe conditions would have to be, to result in a breach of liquidity and whether the reduction in EBITDA required has no more than a remote possibility of occurring.

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

In relation to the entities reporting on how they have applied the UK Corporate Governance Code, we have nothing material to add or draw attention to in relation to the directors' statement in the financial statements about whether the directors considered it appropriate to adopt the going concern basis of accounting.

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

Our application of materiality

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

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

	Group financial statements	Company financial statements
Overall materiality	£962,000 (2022: £900,000)	£817,000 (2022: £810,000)
Performance materiality	£674,000 (2022: £630,000)	£571,900 (2022: £567,500)
Basis of materiality	7.5% (2022: 7.5%) of profit before tax (PBT)	7.5% (2022: 7.5%) of PBT
Rationale	PBT is the primary key performance indicator used by management in assessing the performance of the group. As a profit generating group, we consider the users of the financial statements, such as investors, will also consider PBT to be a key metric. Based on our assessment indicating minimal risk in the control environment, we have chosen to set performance materiality at the lower end of the medium-risk range, which we deem most appropriate.	PBT is the primary key performance indicator used by management in assessing the performance of the parent company. As a profit generating company, we consider the users of the financial statements, such as investors, will also consider PBT to be a key metric. Based on our assessment indicating minimal risk in the control environment, we have chosen to set performance materiality at the lower end of the medium-risk range, which we deem most appropriate.

For each component in the scope of our group audit, we allocated a materiality that is less than our overall group materiality. The range of materiality allocated across components was between £263,000 and £525,000 (2022: between £251,000 and £429,000). Certain components were audited to a local statutory audit materiality that was also less than our overall group materiality.

We agreed with the Audit Committee that we would report on the misstatements identified during our audit above £48,000 (2022: £45,000) for the consolidated financial statements and £40,800 (2022: £40,500) for the parent company financial statements as well as misstatements below those amounts that, in our view, warranted reporting for qualitative reasons.

Our approach to the audit

As part of designing our audit, we determined materiality and assessed the risk of material misstatement in the financial statements. In particular, we looked at areas involving significant accounting estimates and judgement by the directors and considered future events that are inherently uncertain such as the impairment of intangible assets, valuation of the defined benefit pension scheme, including the assumptions used in those calculations, and valuation of deferred tax and share-based payments. We also addressed the risk of management override of controls, including among other matters, the consideration of whether there was evidence of bias that represented a risk of material misstatement due to fraud.

The group has ten trading companies (including a joint venture) in 2023 within the consolidated financial statements. There are two trading companies based in the UK, one based in Europe, four in Asia and three in the USA. We identified four significant components. These included the parent company Zotefoams plc, and the subsidiaries – Zotefoams Inc. MuCell Extrusion LLC and Zotefoams Poland Sp. z.o.o. – which were subject to a full scope audit by a team with relevant sector experience undertaken from our office based in London. We engaged the assistance of PKF network firms and local auditors to assist with inventory count procedures, as we were not able to visit some of the overseas components.

In addition, we identified components which were neither material nor significant to the group and we performed an audit of specific account balances, classes of transactions or disclosures to ensure that those balances which were material to the group were subject to audit procedures, including:

- revenue, cost of sales, operating expenses, wages, property, plant and equipment, trade receivables and cash and cash equivalent in Zotefoams Midwest LLC
- inventories, revenue, cost of sales, operating expenses, cash and cash equivalent and receivables in Zotefoams T-FIT Material Technology (Kunshan) Limited
- inventories, revenue, cost of sales, trade receivables and cash and cash equivalent in T-FIT Insulation Solutions India Private Limited and
- cash and cash equivalent in Zotefoams Operations Limited.

The components identified as not significant and not material were subject to review procedures undertaken by the same audit team.

Independent auditor's report to the members of Zotefoams plc
Continued

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period and include the most significant assessed risks of material misstatement (whether or not due to fraud) that we identified, including those which had the greatest effect on the overall audit strategy, the allocation of resources in the audit, and directing the efforts of the engagement team. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter	How our scope addressed this matter
Impairment of intangible assets in MuCell Extrusion LLC ("MuCell") The group's consolidated statement of financial position as at 31 December 2023 includes intangible assets with a carrying value of £8,863k (2022: £7,774k). The group's intangible assets in respect of the cash generating unit (CGU) MuCell comprise goodwill that arose on the acquisition of MuCell in a previous accounting period, and other intangible assets principally relating to the development of ReZorce technology. MuCell has historically been loss making and has continued to incur losses in 2023. Per IAS 36 "Impairment of Assets", goodwill is required to be tested for impairment annually. Other intangible assets are required to be tested for impairment when an indication of impairment exists, together with intangible assets not yet ready for use. The losses being incurred in MuCell are an example of a potential impairment indicator. During the year, as part of the group's strategic plans, the group entered into a joint development agreement (JDA) with a world-leading packer of beverages. This agreement includes a large-scale trial plan to achieve commercial viability. Based on this plan, management has assessed impairment of intangible assets supported by a value-in-use (VIU) model. The VIU model involves estimation about the future performance of the ReZorce technology when fully operational and upon achieving commercial success. The determination of the ReZorce forecasts are sensitive to projected sales levels, contribution margin, the timeliness of successful trials and commercialisation, and discount rate. We have assessed this to be a key audit matter due to the level of judgement and estimation required in determining the recoverable amount of the intangible assets. For more details refer to notes 12 and 26.	Our work in this area included: ▶ obtaining and reviewing the impairment assessment supported by the VIU model prepared by management ▶ testing the VIU model for mathematical accuracy ▶ reviewing and challenging the key inputs and assumptions used in the VIU model for reasonableness and obtaining supporting evidence, including internally approved budgets and external data where available, such as economic and industry forecasts for the relevant markets, and assessing these key inputs and assumptions for consistency with evidence obtained from other areas of the audit ▶ assessing independently the sensitivity of the VIU to reasonable variations in significant assumptions and the impact it will have on the headroom ▶ gaining an understanding of the potential market size for the ReZorce product and management's strategy to break into the market and potential customer appetite for ReZorce and ▶ challenging management on the development of ReZorce and obtaining an in-depth understanding on the status of ongoing trials with key customers and their current status, as well as the achievements of the milestones planned per the JDA. **Key observations** We agree with management's conclusion that no impairment charge is required to be recognised in the year in respect of the carrying value of intangible assets of MuCell Extrusion LLC.
Valuation of defined benefit obligation The liabilities relating to the group's closed defined benefit pension obligation totalled £2,656k at 31 December 2023 (2022: £3,290k), representing 4% (2022: 5%) of total liabilities on the consolidated statement of financial position. The valuation of the pension scheme's liabilities requires management to use their judgment in making several highly sensitive assumptions, being the rate of inflation, Consumer Price Index (CPI) and Retail Price Index (RPI), the discount rate, and the life expectancy of the scheme members. Given the financial significance and the judgements and estimates involved within the calculation, the valuation of defined benefit obligation has been assessed as a key audit matter. For more details refer to note 23	Our work in this area included: ▶ assessing the competence, capabilities and objectivity of management's actuary used to calculate the defined benefit obligation ▶ involving our internal, actuarial team to assess the reasonableness of assumptions used in the valuation of the defined pension obligation ▶ comparing key assumptions used in the actuarial report to industry benchmarks with the assistance of our internal actuarial team ▶ obtaining confirmations and control reports from the investment manager and custodian to confirm the existence and accuracy of the pension scheme assets ▶ testing for completeness and accuracy of employee data used in the actuarial valuation ▶ tracing contributions and payments/claims paid to the pension fund to bank statements and ▶ assessing whether adequate disclosures have been included in the annual report, and whether the accounting treatment of the pension scheme liabilities is in line with IAS 19 "Employee Benefits". **Key observations** We are satisfied that the overall methodology is appropriate, and the key assumptions applied in relation to determining the pension valuation are within an acceptable range.

Other information
The other information comprises the information included in the annual report, other than the financial statements and our auditor's report thereon. The directors are responsible for the other information contained within the annual report. Our opinion on the group and parent company financial statements does not cover the other information and, except to the extent otherwise explicitly stated in our report, we do not express any form of assurance conclusion thereon. Our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the course of the audit, or otherwise appears to be materially misstated. If we identify such material inconsistencies or apparent material misstatements, we are required to determine whether this gives rise to a material misstatement in the financial statements themselves. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact.

We have nothing to report in this regard.

Opinions 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.

In our opinion, based on the work undertaken in the course of the audit:

- the information given in the strategic report and the directors' report for the financial year for which the financial statements are prepared is consistent with the financial statements and
- the strategic report and the directors' report have been prepared in accordance with applicable legal requirements.

Matters on which we are required to report by exception
In the light of the knowledge and understanding of the group and the parent company and their environment obtained in the course of the audit, we have not identified material misstatements in the strategic report or the directors' report.

We have nothing to report in respect of the following matters in relation to which the Companies Act 2006 requires us 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.

Corporate governance statement
We have reviewed the directors' statement in relation to going concern, longer-term viability and that part of the Corporate Governance Statement relating to the group's and parent company's compliance with the provisions of the UK Corporate Governance Code specified for our review by the Listing Rules.

Based on the work undertaken as part of our audit, we have concluded that each of the following elements of the Corporate Governance Statement is materially consistent with the financial statements or our knowledge obtained during the audit:

- directors' statement with regards the appropriateness of adopting the going concern basis of accounting and any material uncertainties identified set out on page 44 of the annual report
- directors' explanation as to their assessment of the group's prospects, the period this assessment covers and why the period is appropriate set out on page 59 of the annual report
- directors' statement on whether they have a reasonable expectation that the group will be able to continue in operation and meet its liabilities set out on pages 44 and 59 of the annual report
- directors' statement that they consider the annual report and the financial statements, taken as a whole, to be fair, balanced and understandable set out on page 107 of the annual report
- board's confirmation that it has carried out a robust assessment of the emerging and principal risks set out on pages 45 to 58 of the annual report
- the section of the annual report that describes the review of effectiveness of risk management and internal control systems set out on page 82 of the annual report and
- the section describing the work of the audit committee set out on pages 83 to 86 of the annual report.

Responsibilities of directors
As explained more fully in the directors' responsibilities statement, the directors are responsible for the preparation of the group and parent company financial statements and for being satisfied that they give a true and fair view, and for such internal control as the directors determine is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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

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

Independent auditor's report to the members of Zotefoams plc
Continued

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

- We obtained an understanding of the group and parent company and the sector in which they operate to identify laws and regulations that could reasonably be expected to have a direct effect on the financial statements. We obtained our understanding in this regard through discussions with management, industry research, application of cumulative audit knowledge and experience of the sector. We corroborated our enquiries through our review of board minutes, papers provided to the Audit Committee, correspondence received from regulatory bodies, attendance at all meetings of the Audit Committee, as well as consideration of the results and knowledge gained from our audit procedures across the group and parent company.
- We determined the principal laws and regulations relevant to the group and parent company in this regards to be those arising from the Listing Rules, the Companies Act 2006, the Disclosure and Transparency Rules, the UK Corporate Governance Code, the Chemicals (Hazard Information and Packaging for Supply) (Amendment) Regulations 2008, the Institution of Chemical Engineers (Charter Amendment) Order 2004, the Offshore Chemicals Regulations 2002, the Export and Import of Dangerous Chemicals Regulations 2005, the Industry and Exports (Financial Support) Act 2009, the Export Control Act 2002, the Import and Export Control Act 1990, the Consumer Protection Act 1987, anti-money laundering regulations, EU Registration, Evaluation, Authorisation and Restriction of Chemicals regulations, the Pressure Systems Safety Regulations 2000, the UK Chemical Industries Association regulations and GDPR.
- We designed our audit procedures to ensure that the audit team considered whether there were any indications of non-compliance by the group and parent company with those laws and regulations. The group and parent company are subject to laws and regulations that directly affect the financial statements, including financial reporting legislation, pensions legislation, distributable profits legislation, and taxation legislation, and we assessed the extent of compliance with these laws and regulations as part of our procedures on the related financial statement items.
- In addition, the group and parent company are subject to many other laws and regulations where the consequences of non-compliance could have a material effect on amounts or disclosures in the financial statements, for instance through the imposition of fines or litigation. We identified the following areas as those most likely to have such an effect: health and safety; various regulation around the handling of chemicals and general environmental protection legislation; fraud; bribery and corruption; export control; Consumer Rights Act; and employment law recognising the nature of the group and parent company's activities. These procedures included, but where not limited to, enquiry of the directors and other management and inspection of regulatory and legal correspondence.
- We assessed the susceptibility of the group's financial statements to material misstatement, including how fraud might occur by meeting with management and reviewing the risk and uncertainties committee minutes to understand where it considered there was susceptibility to fraud. We also considered performance targets and their propensity to influence on efforts made by management to manage earnings. We considered controls that the group has established to address risks identified, or that otherwise prevent, deter and detect fraud; and how senior management monitors those programmes and controls. We identified that, in addition to the non-rebuttable presumption of a risk of fraud arising from management override of controls, there was potential for management bias in determining the key estimates and judgements used in the value-in-use model of Mucell operations. Refer to the Key Audit Matter section for procedures performed as our response to the assessed risk.
- As in all of our audits, we addressed the risk of fraud arising from management override of controls by performing audit procedures which included, but were not limited to: the testing of journals with a focus on manual consolidation journals and journals indicating large or unusual transactions based on our understanding of the business; reviewing key accounting estimates for evidence of bias; reviewing minutes of meetings of those charged with governance and internal audit reports; and evaluating the business rationale of any significant transactions that are unusual or outside the normal course of business.

Because of the inherent limitations of an audit, there is a risk that we will not detect all irregularities, including those leading to a material misstatement in the financial statements or non-compliance with regulation. This risk increases the more that compliance with a law or regulation is removed from the events and transactions reflected in the financial statements, as we will be less likely to become aware of instances of non-compliance. The risk is also greater regarding irregularities occurring due to fraud rather than error, as fraud involves intentional concealment, forgery, collusion, omission or misrepresentation.

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

Other matters which we are required to address

We were appointed by the Audit Committee on 6 October 2020 to audit the financial statements for the period ending 31 December 2020 and subsequent financial periods. Our total uninterrupted period of engagement is four years, covering the periods ending 31 December 2020 to 31 December 2023.

The non-audit services prohibited by the FRC's Ethical Standard were not provided to the group or the parent company and we remain independent of the group and the parent company in conducting our audit.

Our audit opinion is consistent with the additional report to the audit committee.

Use of our report

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.

Joseph Archer (Senior Statutory Auditor)
For and on behalf of PKF Littlejohn LLP
Statutory Auditor
15 Westferry Circus
Canary Wharf
London E14 4HD
5 April 2024

Consolidated income statement
For the year ended 31 December 2023

	Note	2023 £'000	2022 £'000
Revenue	3	**126,975**	127,369
Cost of sales		**(85,920)**	(88,639)
Gross profit		**41,055**	38,730
Distribution costs		**(7,927)**	(8,037)
Administrative expenses		**(17,993)**	(16,762)
Operating profit		**15,135**	13,931
Finance costs	6	**(2,540)**	(1,814)
Finance income	6	**191**	56
Share of profit from joint venture	9	**54**	50
Profit before income tax		**12,840**	12,223
Income tax expense	7	**(3,598)**	(2,217)
Profit for the year		**9,242**	10,006
Profit attributable to:			
Equity holders of the Company		**9,242**	10,006
		9,242	10,006
Earnings per share:			
Basic (p)	8	**19.00**	20.61
Diluted (p)	8	**18.55**	20.20

All activities of the Group are continuing.

The notes on pages 121 to 159 form an integral part of these financial statements.

The Company has elected to take the exemption under section 408 of the Companies Act 2006 from presenting the Company income statement and other comprehensive income.

Company number: 2714645

Consolidated statement of comprehensive income
For the year ended 31 December 2023

	Note	2023 £'000	2022 £'000
Profit for the year		**9,242**	10,006
Other comprehensive income			
Items that will not be reclassified to profit or loss			
Actuarial (losses)/gains on defined benefit pension scheme	23	**(88)**	584
Tax relating to items that will not be reclassified		**22**	(146)
Total items that will not be reclassified to profit or loss		**(66)**	438
Items that may be reclassified subsequently to profit or loss			
Foreign exchange translation (losses)/gains on investment in foreign subsidiaries		**(1,885)**	3,681
Change in fair value of hedging instruments		**1,712**	(3,025)
Hedging (losses)/gains reclassified to profit or loss		**(192)**	2,865
Tax relating to items that may be reclassified		**(575)**	185
Total items that may be reclassified subsequently to profit or loss		**(940)**	3,706
Other comprehensive income for the year, net of tax		**(1,006)**	4,144
Total comprehensive income for the year		**8,236**	14,150
Total comprehensive income attributable to:			
Equity holders of the Company		**8,236**	14,150
Total comprehensive income for the year		**8,236**	14,150

The notes on pages 121 to 159 form an integral part of these financial statements.

Consolidated statement of financial position
As at 31 December 2023

	Note	2023 £'000	2022 £'000
Non-current assets			
Property, plant and equipment	10	**91,743**	94,295
Right-of-use assets	11	**1,272**	939
Intangible assets	12	**9,418**	7,774
Investment in joint venture	9	**207**	153
Trade and other receivables	15	**70**	122
Deferred tax assets	19	**435**	410
Total non-current assets		**103,145**	103,693
Current assets			
Inventories	14	**31,904**	26,139
Trade and other receivables	15	**33,002**	29,447
Derivative financial instruments	21	**1,264**	486
Cash and cash equivalents	16	**6,294**	10,594
Total current assets		**72,464**	66,666
Total assets		**175,609**	170,359
Current liabilities			
Trade and other payables	17	**(12,953)**	(13,500)
Derivative financial instruments	21	**(28)**	(1,550)
Current tax liability		**(1,078)**	(226)
Lease liabilities	11	**(507)**	(509)
Interest-bearing loans and borrowings	18	**(36,527)**	(37,446)
Total current liabilities		**(51,093)**	(53,231)
Non-current liabilities			
Lease liabilities	11	**(827)**	(454)
Deferred tax liabilities	19	**(5,270)**	(3,846)
Post-employment benefits	23	**(2,656)**	(3,290)
Total non-current liabilities		**(8,753)**	(7,590)
Total liabilities		**(59,846)**	(60,821)
Total net assets		**115,763**	109,538
Equity			
Issued share capital	20	**2,442**	2,431
Share premium	20	**44,178**	44,178
Own shares held		**(12)**	(5)
Capital redemption reserve		**15**	15
Translation reserve		**4,024**	5,909
Hedging reserve		**660**	(285)
Retained earnings		**64,456**	57,295
Total equity		**115,763**	109,538

The notes on pages 121 to 159 form an integral part of these financial statements.

The financial statements on pages 113 to 160 were authorised for issue by the Board of Directors on 5 April 2024 and were signed on its behalf by:

G C McGrath
Group CFO

Company number: 2714645

Company statement of financial position
As at 31 December 2023

	Note	2023 £'000	2022 £'000
Non-current assets			
Property, plant and equipment	10	**42,027**	40,838
Right-of-use assets	11	**143**	347
Intangible assets	12	**504**	641
Investment in subsidiaries	13	**30,822**	30,822
Trade and other receivables	15	**70**	122
Total non-current assets		**73,566**	72,770
Current assets			
Inventories	14	**22,616**	18,732
Trade and other receivables	15	**61,052**	57,526
Derivative financial instruments	21	**1,264**	486
Cash and cash equivalents	16	**2,875**	7,288
Total current assets		**87,807**	84,032
Total assets		**161,373**	156,802
Current liabilities			
Trade and other payables	17	**(8,999)**	(10,039)
Derivative financial instruments	21	**(28)**	(1,550)
Current tax liability		**(767)**	(75)
Lease liabilities	11	**(101)**	(245)
Interest-bearing loans and borrowings	18	**(36,527)**	(37,446)
Total current liabilities		**(46,422)**	(49,355)
Non-current liabilities			
Lease liabilities	11	**(46)**	(101)
Deferred tax liabilities	19	**(5,270)**	(3,846)
Post-employment benefits	23	**(2,656)**	(3,290)
Total non-current liabilities		**(7,972)**	(7,237)
Total liabilities		**(54,394)**	(56,592)
Total net assets		**106,979**	100,210
Equity			
Issued share capital	20	**2,442**	2,431
Share premium	20	**44,178**	44,178
Capital redemption reserve		**15**	15
Hedging reserve		**660**	(285)
Retained earnings		**59,684**	53,871
Total equity		**106,979**	100,210

The notes on pages 121 to 159 form an integral part of these financial statements.

The financial statements on pages 113 to 160 were authorised for issue by the Board of Directors on 5 April 2024 and were signed on its behalf by:

G C McGrath
Group CFO

Company number: 2714645

Consolidated statement of cash flows
For the year ended 31 December 2023

	Note	2023 £'000	2022 £'000
Cash flows from operating activities			
Profit for the year		**9,242**	10,006
Adjustments for:			
Depreciation and amortisation	10,11,12	**8,217**	8,245
Loss on disposal of assets	4	**4**	283
Finance costs	6	**2,349**	1,758
Share of profit from joint venture	9	**(54)**	(50)
Net exchange differences		**(641)**	871
Equity-settled share-based payments	24	**1,335**	809
Taxation	7	**3,598**	2,217
Operating profit before changes in working capital and provisions		**24,050**	24,139
Increase in trade and other receivables		**(3,774)**	(4,818)
(Increase)/decrease in inventories		**(6,279)**	401
(Decrease)/increase in trade and other payables		**(1,027)**	4,119
Employee defined benefit contributions	23	**(859)**	(859)
Cash generated from operations		**12,111**	22,982
Interest paid		**(2,082)**	(1,255)
Income taxes paid, net of refunds		**(2,248)**	(659)
Net cash flows generated from operating activities		**7,781**	21,068
Cash flows from investing activities			
Interest received	6	**191**	56
Purchases of intangibles	12	**(2,739)**	(1,724)
Purchases of property, plant and equipment		**(5,744)**	(5,368)
Net cash used in investing activities		**(8,292)**	(7,036)
Cash flows from financing activities			
Repayment of borrowings		**(1,231)**	(50,883)
Proceeds from borrowings		**1,609**	43,044
Payment of principal portion of lease liabilities	11	**(753)**	(499)
Dividends paid to equity holders of the Company	8	**(3,350)**	(3,188)
Net cash generated from financing activities		**(3,725)**	(11,526)
Net (decrease)/increase in cash and cash equivalents		**(4,236)**	2,506
Cash and cash equivalents at 1 January		**10,594**	8,055
Exchange (losses)/gains on cash and cash equivalents		**(64)**	33
Cash and cash equivalents at 31 December	16	**6,294**	10,594

Cash and cash equivalents comprise cash at bank and short-term highly liquid investments with a maturity date of less than three months, per the breakdown in note 21.

The net exchange differences of £641k within operating activities relate to the foreign exchange movement on borrowings and open forward contracts in the income statement (2022: £871k).

Refer to note 18 for a reconciliation of liabilities arising from financing activities.

The notes on pages 121 to 159 form an integral part of these financial statements.

Company statement of cash flows
For the year ended 31 December 2023

	Note	2023 £'000	2022 £'000
Cash flows from operating activities			
Profit for the year		**7,890**	7,010
Adjustments for:			
Depreciation and amortisation	10,11,12	**3,792**	4,166
Loss on disposal of assets		**4**	212
Finance costs		**1,103**	1,119
Net exchange differences		**(2,274)**	3,880
Equity-settled share-based payments	24	**1,335**	809
Taxation		**3,003**	1,942
Operating profit before changes in working capital and provisions		**14,853**	19,138
Increase in trade and other receivables		**(4,621)**	(4,258)
Increase in inventories		**(3,884)**	(37)
(Decrease)/increase in trade and other payables		**(1,716)**	3,505
Employee defined benefit contributions	23	**(859)**	(859)
Cash generated from operations		**3,773**	17,489
Interest paid		**(2,077)**	(1,251)
Income taxes paid, net of refunds		**(1,800)**	(534)
Net cash flows generated from operating activities		**(104)**	15,704
Cash flows from investing activities			
Interest received		**62**	–
Loans repaid by subsidiaries, net of prepayments		**2,771**	1,174
Purchase of intangibles	12	**(174)**	(149)
Purchase of property, plant and equipment		**(3,713)**	(3,183)
Net cash used in investing activities		**(1,054)**	(2,158)
Cash flows from financing activities			
Repayment of borrowings		**(1,231)**	(50,883)
Proceeds from borrowings		**1,609**	43,044
Principal elements of lease payments		**(283)**	(265)
Dividends paid to equity holders of the Company	8	**(3,350)**	(3,188)
Net cash generated from financing activities		**(3,255)**	(11,292)
Net (decrease)/increase in cash and cash equivalents		**(4,413)**	2,254
Cash and cash equivalents at 1 January		**7,288**	5,034
Cash and cash equivalents at 31 December	16	**2,875**	7,288

Cash and cash equivalents comprise cash at bank and short-term highly liquid investments with a maturity date of less than three months, per the breakdown in note 21.

The net exchange differences of £2,274k within operating activities relate to the foreign exchange movement on borrowings and open forward contracts in the income statement (2022: £3,880k).

Refer to note 18 for a reconciliation of liabilities arising from financing activities.

The notes on pages 121 to 159 form an integral part of these financial statements.

Consolidated statement of changes in equity
For the year ended 31 December 2023

	Note	Share capital £'000	Share premium £'000	Own shares held £'000	Capital redemption reserve £'000	Translation reserve £'000	Hedging reserve £'000	Retained earnings £'000	Total equity £'000
Balance as at 1 January 2022		2,431	44,178	(10)	15	2,228	(310)	49,243	97,775
Profit for the year		–	–	–	–	–	–	10,006	10,006
Other comprehensive income for the year									
Foreign exchange translation gains on investment in subsidiaries		–	–	–	–	3,681	–	–	3,681
Change in fair value of hedging instruments recognised in other comprehensive income		–	–	–	–	–	(3,025)	–	(3,025)
Reclassification to income statement – administrative expenses		–	–	–	–	–	2,865	–	2,865
Tax relating to effective portion of changes in fair value of cash flow hedges, net of recycling		–	–	–	–	–	185	–	185
Actuarial gain on defined benefit pension scheme	23	–	–	–	–	–	–	584	584
Tax relating to actuarial gain on defined benefit pension scheme		–	–	–	–	–	–	(146)	(146)
Total comprehensive income for the year		–	–	–	–	3,681	25	10,444	14,150
Transactions with owners of the parent:									
Options exercised		–	–	5	–	–	–	(5)	–
Equity-settled share-based payments net of tax		–	–	–	–	–	–	801	801
Dividends paid	8	–	–	–	–	–	–	(3,188)	(3,188)
Total transactions with owners of the parent		–	–	5	–	–	–	(2,392)	(2,387)
Balance as at 31 December 2022		2,431	44,178	(5)	15	5,909	(285)	57,295	109,538
Balance as at 1 January 2023		**2,431**	**44,178**	**(5)**	**15**	**5,909**	**(285)**	**57,295**	**109,538**
Profit for the year		**–**	**–**	**–**	**–**	**–**	**–**	**9,242**	**9,242**
Other comprehensive income for the year									
Foreign exchange translation losses on investment in subsidiaries		**–**	**–**	**–**	**–**	**(1,885)**	**–**	**–**	**(1,885)**
Change in fair value of hedging instruments recognised in other comprehensive income		**–**	**–**	**–**	**–**	**–**	**1,712**	**–**	**1,712**
Reclassification to income statement – administrative expenses		**–**	**–**	**–**	**–**	**–**	**(192)**	**–**	**(192)**
Tax relating to effective portion of changes in fair value of cash flow hedges, net of recycling		**–**	**–**	**–**	**–**	**–**	**(575)**	**–**	**(575)**
Actuarial loss on defined benefit pension scheme	23	**–**	**–**	**–**	**–**	**–**	**–**	**(88)**	**(88)**
Tax relating to actuarial loss on defined benefit pension scheme		**–**	**–**	**–**	**–**	**–**	**–**	**22**	**22**
Total comprehensive income for the year		**–**	**–**	**–**	**–**	**(1,885)**	**945**	**9,176**	**8,236**
Transactions with owners of the parent:									
Options exercised		**–**	**–**	**4**	**–**	**–**	**–**	**(4)**	**–**
Proceeds of shares issued, net of expenses		**11**	**–**	**(11)**	**–**	**–**	**–**	**–**	**–**
Equity-settled share-based payments net of tax		**–**	**–**	**–**	**–**	**–**	**–**	**1,339**	**1,339**
Dividends paid	8	**–**	**–**	**–**	**–**	**–**	**–**	**(3,350)**	**(3,350)**
Total transactions with owners of the parent		**11**	**–**	**(7)**	**–**	**–**	**–**	**(2,015)**	**(2,011)**
Balance as at 31 December 2023		**2,442**	**44,178**	**(12)**	**15**	**4,024**	**660**	**64,456**	**115,763**

The aggregate current and deferred tax relating to items that are debited to equity is £591k (2022: credited 31k).

The notes on pages 121 to 159 form an integral part of these financial statements.

Company statement of changes in equity
For the year ended 31 December 2023

	Note	Share capital £'000	Share premium £'000	Capital redemption reserve £'000	Hedging reserve £'000	Retained earnings £'000	Total equity £'000
Balance as at 1 January 2022		2,431	44,178	15	(310)	48,810	95,124
Profit for the year		–	–	–	–	7,010	7,010
Other comprehensive income for the year							
Change in fair value of hedging instruments recognised in other comprehensive income		–	–	–	(3,025)	–	(3,025)
Reclassification to income statement – administrative expenses		–	–	–	2,865	–	2,865
Tax relating to effective portion of changes in fair value of cash flow hedges, net of recycling		–	–	–	185	–	185
Actuarial gain on defined benefit pension scheme	23	–	–	–	–	584	584
Tax relating to actuarial gain on defined benefit pension scheme		–	–	–	–	(146)	(146)
Total comprehensive income for the year		–	–	–	25	7,448	7,473
Transactions with owners:							
Equity-settled share-based payments net of tax		–	–	–	–	801	801
Dividends paid	8	–	–	–	–	(3,188)	(3,188)
Total transactions with owners		–	–	–	–	(2,387)	(2,387)
Balance as at 31 December 2022		2,431	44,178	15	(285)	53,871	100,210
Balance as at 1 January 2023		**2,431**	**44,178**	**15**	**(285)**	**53,871**	**100,210**
Profit for the year		**–**	**–**	**–**	**–**	**7,890**	**7,890**
Other comprehensive income for the year							
Change in fair value of hedging instruments recognised in other comprehensive income		**–**	**–**	**–**	**1,712**	**–**	**1,712**
Reclassification to income statement – administrative expenses		**–**	**–**	**–**	**(192)**	**–**	**(192)**
Tax relating to effective portion of changes in fair value of cash flow hedges, net of recycling		**–**	**–**	**–**	**(575)**	**–**	**(575)**
Actuarial loss on defined benefit pension scheme	23	**–**	**–**	**–**	**–**	**(88)**	**(88)**
Tax relating to actuarial loss on defined benefit pension scheme		**–**	**–**	**–**	**–**	**22**	**22**
Total comprehensive income for the year		**–**	**–**	**–**	**945**	**7,824**	**8,769**
Transactions with owners:							
Proceeds of shares issued, net of expenses		**11**	**–**	**–**	**–**	**–**	**11**
Equity-settled share-based payments net of tax		**–**	**–**	**–**	**–**	**1,339**	**1,339**
Dividends paid	8	**–**	**–**	**–**	**–**	**(3,350)**	**(3,350)**
Total transactions with owners		**11**	**–**	**–**	**–**	**(2,011)**	**(2,000)**
Balance as at 31 December 2023		**2,442**	**44,178**	**15**	**660**	**59,684**	**106,979**

The aggregate current and deferred tax relating to items that are debited to equity is £591k (2022: credited 31k).

The notes on pages 121 to 159 form an integral part of these financial statements.

Notes

1. General information

Zotefoams plc (the "Company") is a public limited company, which is listed on the London Stock Exchange and incorporated and domiciled in England, UK. The registered office of the Company is 675 Mitcham Road, Croydon, CR9 3AL.

The Company, its subsidiaries and joint venture (together referred to as the "Group") are engaged in the manufacturing and sale of high-performance foams and licensing of related technology for specialist markets worldwide.

2. Significant accounting policies

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

2.1 Basis of preparation

The consolidated financial statements of Zotefoams plc have been prepared in accordance with UK adopted International Accounting Standards ("UK adopted IAS") and as applied in accordance with the provisions of the Companies Act 2006. The consolidated financial statements have been prepared under the historical cost convention except for derivative financial instruments, which are measured at fair value through profit or loss.

The preparation of financial statements in conformity with UK adopted IAS requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the Group's accounting policies. The areas involving a higher degree of judgement or complexity, or areas where assumptions and estimates are significant to the financial statements, are disclosed in note 26.

i) Going concern

The Group's business activities, together with the factors likely to affect its future development, performance and position, are set out in the Strategic Report on pages 20 to 27 and the section entitled "Risk management and principal risks" on pages 45 to 58. These also describe the financial position of the Group, its cash flows and liquidity position. In addition, note 21 to the financial statements includes the Group's objectives, policies and processes for managing its capital, its financial risk management objectives, details of its financial instruments and hedging activities, borrowing facilities, and its exposure to credit risk and liquidity risk.

At 31 December 2023, the Group's gross finance facilities were £50.0m (2022: £50.0m), consisting entirely of a multi-currency term loan.

In March 2023, the Group completed a retender of its debt facility and selected Handelsbanken and NatWest, the incumbents, to continue as its lenders. Under the terms of the new facility, the Group's gross finance facility now comprises a £50m multi-currency revolving credit facility with a £25m accordion, on a 4+1 tenor, with an interest rate ratchet on slightly improved terms to the previous facility and including an element related to the achievement of sustainability targets. The finance cost and leverage covenants remain in place, with the former remaining at a multiple of 4 and the latter increasing to 3.5 from 3.0. In January 2023, the Group successfully extended the facility by a year in line with the term option, resulting in an end term date now of March 2027.

The Directors believe that the Group is well placed to manage its business risks and, after making enquiries including a review of forecasts and predictions, taking account of reasonably possible changes in trading performance and considering the existing banking facilities, have a reasonable expectation that the Group has adequate resources to continue in operational existence for the next twelve months following the date of approval of the financial statements. The Directors have also drawn upon the experiences of reacting to the challenges of COVID-19 through its safety protocols and cost and cash management, all of which could be replicated in a similar scenario.

After due consideration of the range and likelihood of potential outcomes, the Directors continue to adopt the going concern basis of accounting in preparing the Annual Report.

2.2 Basis of consolidation

The consolidated financial statements comprise the financial statements of the Company, its subsidiaries and joint ventures as at 31 December 2023.

i) Subsidiaries

Subsidiaries are all entities over which the Group has control. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Group. If the Group loses control over a subsidiary, it derecognises the related assets (including goodwill), liabilities, non-controlling interest and other components of equity, while any resultant gain or loss is recognised in profit or loss. Any investment retained is recognised at fair value.

ii) Transactions eliminated on consolidation

All intra-group balances and transactions, including any unrealised gains and losses or income and expenses arising from such transactions, are eliminated in full on preparing the consolidated financial statements. Unrealised losses are eliminated in the same way as unrealised gains, but only to the extent that there is no evidence of impairment. Where necessary, amounts reported by subsidiaries have been adjusted to conform with the Group's accounting policies.

iii) Joint arrangements

The Group applies IFRS 11 to its joint arrangements. Under IFRS 11, investments in joint arrangements are classified as either joint operations or joint ventures, depending on the contractual rights and obligations of each investor. The Group has assessed the nature of its joint arrangements and determined them to be joint ventures. Interests in the joint ventures are accounted for using the equity method, after initially being recognised at cost.

iv) Equity method

Under the equity method of accounting, the investment is initially recognised at cost and the carrying amount is increased or decreased to recognise the investor's share of the change in net assets of the investee after the date of acquisition.

If the ownership interest in the joint venture is reduced but joint control is retained, only a proportionate share of the amounts previously recognised in other comprehensive income is reclassified to profit or loss where appropriate.

The Group's share of post-acquisition profit or loss is recognised in the income statement, and its share of post-acquisition movements in other comprehensive income is recognised with a corresponding adjustment to the carrying value of the investment. Where the Group's share of losses in the joint venture equals or exceeds its interest in the joint venture, including any other unsecured receivables, the Group does not recognise further losses unless it has incurred legal or constructive obligations or made payments on behalf of the joint venture. Distributions received from the joint venture reduce the carrying value of the investment.

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

Gains and losses resulting from upstream and downstream transactions between the Group and the joint venture are recognised in the Group's financial statements only to the extent of an unrelated investor's interests in the joint venture. Unrealised losses are eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of the joint venture have been aligned where necessary to ensure consistency with the policies adopted by the Group.

Notes
Continued

2. Significant accounting policies (continued)

v) Accounting for business combinations
Business combinations are accounted for using the acquisition method as at the acquisition date, which is the date on which control is transferred to the Group. Control is the power to govern the financial and operating policies of an entity so as to obtain benefits from the activities. In assessing control, the Group takes into consideration potential voting rights that are currently exercisable.

The Group measures goodwill at the acquisition date as:

- the fair value of the consideration transferred; plus
- the recognised amount of any non-controlling interests in the acquiree; plus
- if the business combination is achieved in stages, the fair value remeasured at acquisition date of the existing interest in the acquiree; less
- the net recognised amount of the identifiable assets acquired and liabilities assumed.

Goodwill is initially measured at cost. After initial recognition, goodwill is measured at cost less any accumulated impairment losses. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash-generating units (CGUs) that are expected to benefit from the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units.

Where goodwill has been allocated to a CGU and part of the operation within that unit is disposed of, the goodwill associated with the disposed operation is included in the carrying amount of the operation when determining the gain or loss on disposal. Goodwill disposed of in these circumstances is measured based on the relative values of the disposed operation and the portion of the CGU retained.

The cost of an acquisition is measured as the aggregate of the consideration transferred, which is measured at fair value at the acquisition date. When the excess is negative, a bargain purchase gain is recognised immediately in the income statement. The consideration transferred does not include amounts related to the settlement of pre-existing relationships. Such amounts are generally recognised in the income statement. Costs related to the acquisition, other than those associated with the issue of debt or equity securities, that the Group incurs in connection with a business combination are expensed as incurred.

When share-based payment awards (replacement awards) are required to be exchanged for awards held by the acquiree employees (acquiree awards) and relate to past services, then all or a portion of the amount of the acquirer replacement awards are included in measuring the consideration transferred in the business combination. This determination is based on the market-based value of the replacement awards compared with the market-based value of the acquiree awards and the extent to which the replacement awards relate to past and/or future services.

vi) Investments in subsidiaries and joint arrangements
The Company's investments in subsidiaries and joint arrangements are stated at cost.

2.3 Foreign currency

i) Functional and presentation currency
The Group's consolidated financial statements are presented in sterling, which is the Group's functional currency. For each entity, the Group determines the functional currency, and items included in the financial statements of each entity are measured using that functional currency. The Group uses the direct method of consolidation and, on disposal of a foreign operation, the gain or loss that is reclassified to profit or loss reflects the amount that arises from using this method.

The Company's financial statements are prepared and presented in sterling, which is its functional currency.

ii) Transactions and balances
Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation (where items are remeasured). Monetary assets and liabilities denominated in foreign currencies are translated at the functional currency spot rates of exchange at the reporting date. Foreign exchange gains and losses resulting from the settlement of monetary assets and liabilities denominated in foreign currencies are recognised in the income statement, except when deferred in other comprehensive income as qualifying cash flow hedges. All foreign exchange gains and losses are presented in the income statement within administrative expenses.

Translation differences related to items classified through other comprehensive income (OCI) are recognised in OCI while remaining translation differences are recognised in the income statement.

Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates at the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value is determined. The gain or loss arising on translation of non-monetary items measured at fair value is treated in line with the recognition of the gain or loss on the change in fair value of the item (i.e. translation differences on items whose fair value gain or loss is recognised in OCI or profit or loss are also recognised in OCI or profit or loss respectively).

In determining the spot exchange rate to use on initial recognition of the related asset, expense or income (or part of it) or the derecognition of a non-monetary asset or non-monetary liability relating to advance consideration, the date of the transaction is the date on which the Group initially recognises the non-monetary asset or non-monetary liability arising from the advance consideration. If there are multiple payments or receipts in advance, the Group determines the transaction date for each payment or receipt of advance consideration.

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

- assets and liabilities of foreign operations are translated at the closing rate of exchange prevailing at the reporting date
- income and expenses for each income statement are translated at average exchange rates (unless this average is not a reasonable approximation of the cumulative effect of the rates prevailing on the transaction dates, in which case income and expenses are translated at the rate on the dates of each transaction).

All resulting exchange differences are recognised in OCI. On disposal of a foreign operation, the component of OCI relating to that particular foreign operation is reclassified to profit or loss.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity, and they are translated at the closing rate. Exchange differences arising are recognised in OCI.

2.4 Derivative financial instruments and hedge accounting
The Group uses derivative financial instruments to hedge its exposure to foreign currency risks arising from operational, financing and investment activities. The Group does not hold or issue derivative financial instruments for trading purposes. However, derivatives that do not qualify for hedge accounting are accounted for as trading instruments.

Derivatives are initially recognised at fair value on the date when a derivative contract is entered into, and they are subsequently remeasured at their fair value. Derivatives are carried as financial assets when the fair value is positive and as financial liabilities when the fair value is negative. The method of recognising the resulting gain or loss depends on whether the derivative is designated as a hedging instrument and, if so, the nature of the item being hedged. The Group designates all derivatives as hedges of a particular risk associated with a recognised asset or liability or a highly probable forecast transaction (cash flow hedge).

2. Significant accounting policies (continued)

At the inception of the transaction, the Group designates and documents the relationship between hedging instruments and hedged items, as well as its risk management objectives and strategy for undertaking various hedging transactions. The Group also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items.

The fair values of various derivative instruments used for hedging purposes are disclosed in note 21. The full fair value of a hedging derivative is classified as a non-current asset or liability where the remaining maturity of the hedged item is more than twelve months, and as a current asset or liability where the remaining maturity of the hedged item is less than twelve months. Trading derivatives are classified as a current asset or liability.

The fair value of forward exchange contracts is their quoted market price at the statement of financial position date, being the present value of the quoted forward price.

i) Cash flow hedging

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognised in the hedging reserve within equity. The gain or loss relating to the ineffective portion is recognised immediately in the income statement within administrative expenses.

When forward contracts are used to hedge forecast transactions, the Group generally designates only the change in fair value of the forward contract related to the spot component as the hedging instrument. Gains or losses relating to the effective portion of the change in the spot component of the forward contracts are recognised in the cash flow hedging reserve within equity. The change in the forward element of the contract that relates to the hedged item ("aligned forward element") is recognised within other comprehensive income in the costs of hedging reserve within equity. In some cases, the entity might designate the full change in fair value of the forward contract (including forward points) as the hedging instrument. In such cases, the gains or losses relating to the effective portion of the change in fair value of the entire forward contract are recognised in the cash flow hedging reserve within equity.

When a hedging instrument expires or is sold or terminated, or when a hedge no longer meets the criteria for hedge accounting, any cumulative deferred gain or loss and deferred costs of hedging in equity at that time remain in equity until the forecast transaction occurs, resulting in the recognition of a non-financial asset. When the forecast transaction is no longer expected to occur, the cumulative gain or loss and deferred costs of hedging that were reported in equity are immediately reclassified to the income statement.

2.5 Property, plant and equipment

i) Owned assets

Items of property, plant and equipment are stated at cost or deemed cost less accumulated depreciation and any impairment losses. Such costs include those directly attributable to making the asset capable of operating as intended. The carrying amount of the replaced part is derecognised. When parts of an item of property, plant and equipment have different useful lives, those components are accounted for as separate items of property, plant and equipment.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, only when it is probable that future economic benefits associated with the item will flow to the Group and the cost of the item can be measured reliably. All other repairs and maintenance are charged to the income statement during the financial year in which they are incurred.

An item of property, plant and equipment and any significant part initially recognised is derecognised upon disposal (i.e. at the date the recipient obtains control) or when no future economic benefits are expected from its use or disposal. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying amount of the asset) is included in the statement of profit or loss when the asset is derecognised.

The cost of assets under construction includes the cost of materials and direct labour, and any other costs directly attributable to bringing the asset to a working condition for its intended use.

ii) Depreciation

Land is not depreciated. Depreciation is charged to the income statement on a straight-line basis over the estimated useful lives of each part of the item of property, plant and equipment. The estimated useful lives are as follows:

Buildings	20–40 years
Plant and equipment	5–20 years
Fixtures and fittings	3–5 years

Assets under construction are depreciated from the month in which the asset is ready for its intended use.

The assets' residual values and expected useful lives are reviewed, and adjusted if appropriate, at the end of each financial year.

2.6 Intangible assets

i) Research and development

Expenditure on research activities undertaken with the prospect of gaining new scientific or technical knowledge and understanding is recognised in the income statement as an expense as incurred.

Development costs that are directly attributable to the design and testing of identifiable and unique products controlled by the Group are recognised as intangible assets where the following criteria are met:

- it is technically feasible to complete the asset so that it will be available for use
- management intends to complete the asset and use or sell it
- there is an ability to use or sell the asset
- it can be demonstrated how the asset will generate probable future economic benefits
- adequate technical, financial and other resources to complete the development and to use or sell the asset are available
- the expenditure attributable to the asset during its development can be reliably measured.

Directly attributable costs that are capitalised as part of the asset include the product development employee costs and an appropriate portion of relevant overheads.

Following initial recognition of the development expenditure as an asset, the asset is carried at cost less any accumulated amortisation and accumulated impairment losses. Amortisation of the asset begins when development is complete, and the asset is available for use. It is amortised over the period over which future economic benefits are expected to be derived. Amortisation is recorded in cost of sales. During the period of development, the asset is tested for impairment annually.

Other development expenditures that do not meet these criteria are recognised as an expense as incurred. Development costs previously recognised as an expense are not recognised as an asset in a subsequent period.

ii) Goodwill

Goodwill represents the excess of the cost of acquisition over the fair value of the Group's interest in the identifiable assets, liabilities and contingent liabilities acquired in a business combination. Goodwill is stated at the amount recognised on the date of acquisition less any accumulated impairment losses. Goodwill is tested annually for impairment or more frequently if there are indications that goodwill may be impaired.

iii) Software

Acquired computer software licences are capitalised on the basis of the costs incurred to acquire and bring to use the specific software. Following initial recognition, items of software are carried at cost less any accumulated amortisation and accumulated impairment losses.

Notes
Continued

2. Significant accounting policies (continued)

iv) Patents
Patents are initially measured at purchase cost and are amortised on a straight-line basis over their estimated useful economic lives.

v) Other intangible assets
Intangible assets acquired from a business combination are capitalised at fair value as at the date of acquisition and amortised over their estimated useful economic life. Their carrying value is the fair value at acquisition less cumulative amortisation and any impairment. An intangible asset acquired as part of a business combination is recognised outside goodwill if the asset is separable or arises from contractual or other legal rights and its fair value can be measured reliably.

Development costs that are directly attributable to the design and development of internally generated intangible assets controlled by the Group are recognised when the relevant criteria are met. Internally generated intangible assets are amortised from the point at which the asset is ready for use.

Expenditure on internally generated goodwill and brands is recognised in the income statement as an expense as incurred. Research expenditure and development expenditure that do not meet the criteria above are recognised as an expense as incurred. Development costs previously recognised as an expense are not recognised as an asset in a subsequent period.

vi) Amortisation
The estimated useful lives of the Group's intangible assets are as follows:

Marketing related	5–15 years
Customer related	2–10 years
Technology related	5–20 years
Software related	3–10 years
Capitalised development	3–10 years, from the date the patent is granted

Amortisation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

2.7 Financial instruments

i) Classifications
The Group classifies its financial assets in the following categories: a) those to be measured subsequently at fair value, and b) those to be measured at amortised cost.

The classification depends on the purpose for which the financial assets were acquired. Management determines the classification of its financial assets at initial recognition.

a) Financial assets measured at fair value through profit or loss
Financial assets measured at fair value through profit or loss are financial assets held for trading. A financial asset is classified in this category if acquired principally for the purpose of selling it in the short term. Derivatives are also categorised as held for trading unless they are designated as hedges.

b) Financial assets measured at amortised cost
Financial assets measured at amortised cost are held for collection of contractual cash flows where those cash flows solely represent payments of principal and interest.

c) Financial assets measured at fair value through other comprehensive income
Purchases and sales of financial assets measured at fair value through other comprehensive income are recognised on settlement date with any change in fair value between trade date and settlement date being recognised in the fair value through other comprehensive income reserve.

ii) Recognition and measurement
Financial assets not carried at fair value through profit or loss are initially recognised at fair value plus transaction costs. Financial assets carried at fair value through profit or loss are initially recognised at fair value, and transaction costs are expensed in the income statement. Financial assets are derecognised when the rights to receive cash flows from the investments have expired or have been transferred and the Group has transferred substantially all risks and rewards of ownership. Interest income from financial assets at amortised cost is included in finance income using the effective interest rate method. Any gain or loss arising on derecognition is recognised directly in profit or loss and presented in other gains/(losses) together with foreign exchange gains and losses. Impairment losses are presented as a separate line item in the statement of profit or loss.

Gains or losses arising from changes in the fair value of the "financial assets at fair value through profit or loss" category are presented in the income statement within administrative expenses in the financial year in which they arise.

iii) Impairment of financial assets carried at amortised cost
The Group assesses on a forward-looking basis the expected credit losses associated with its debt instruments carried at amortised cost. The impairment methodology applied depends on whether there has been a significant increase in credit risk. For trade receivables, the Group applies the simplified approach permitted by IFRS 9, which requires expected lifetime losses to be recognised from initial recognition of the receivables. Further details are provided in note 21.

iv) Derecognition of financial assets
The Group derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity. If the Group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Group recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

v) Financial liabilities
Financial liabilities are recognised when the Group becomes party to the contractual provisions of the instrument. The Group derecognises financial liabilities when the obligation specified in the contract is discharged, cancelled or expired. The measurement of financial liabilities depends on their classification, as follows:

a) Financial liabilities measured at fair value through profit or loss
Financial liabilities that meet the definition of being held for trading are classified as measured at fair value through profit or loss. Such liabilities are carried on the statement of financial position at fair value with gains or losses recognised in the income statement. Derivatives, other than those designated as effective hedging instruments, are included in this category.

b) Financial liabilities measured at amortised cost
All other financial liabilities are initially recognised at fair value, net of directly attributable transaction costs. For interest-bearing loans and borrowings, this is typically equivalent to the fair value of the proceeds received, net of issue costs associated with the borrowing. After initial recognition, other financial liabilities are subsequently measured at amortised cost using the effective interest method. Amortised cost is calculated by taking into account any issue costs and any discount or premium on settlement. Gains and losses arising on the repurchase, settlement or cancellation of liabilities are recognised in finance income and finance costs respectively.

This category of financial liabilities includes trade and other payables.

vi) Offsetting of financial assets and liabilities
Financial assets and liabilities are presented gross in the balance sheet unless both of the following criteria are met: the Group currently has a legally enforceable right to offset the recognised amounts, and the Group intends to either settle on a net basis or realise the asset and settle the liability simultaneously. A right of offset is the Group's legal right to settle an amount payable to a creditor by applying against it an amount receivable from the same counterparty. The relevant legal jurisdiction and laws applicable to the relationships between the parties are considered when assessing whether a legally enforceable right to offset currently exists.

2. Significant accounting policies (continued)

vii) Current versus non-current classification

The Group classifies assets and liabilities in the statement of financial position as either current or non-current.

An asset is classified as current when it is:

- expected to be realised or intended to be sold or consumed in the normal operating cycle
- held primarily for the purpose of trading
- expected to be realised within twelve months after the reporting period or
- cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least twelve months after the reporting period.

All other assets are classified as non-current.

A liability is classified as current when it is:

- expected to be settled in the normal operating cycle
- held primarily for the purpose of trading
- due to be settled within twelve months after the reporting period or
- there is no unconditional right to defer the settlement of the liability for at least twelve months after the reporting period.

The terms of the liability that could, at the option of the counterparty, result in its settlement by the issue of equity instruments do not affect its classification.

The Group classifies all other liabilities as non-current. Deferred tax assets and liabilities are classified as non-current assets and liabilities.

2.8 Trade and other receivables

Trade receivables are amounts due from customers for goods sold or services performed in the ordinary course of business. They are generally due for settlement within 30–90 days and are therefore all classified as current. Trade receivables are recognised initially at the amount of consideration that is unconditional, unless they contain significant financing components, in which case they are recognised at fair value. The Group holds the trade receivables with the objective of collecting the contractual cash flows, and so it measures them subsequently at amortised cost using the effective interest method.

Due to the short-term nature of current receivables, their carrying amount is considered to be the same as their fair value. Information about the impairment of trade receivables and the Group's exposure to credit risk and foreign currency risk can be found in note 21.

2.9 Inventories

Inventories are stated at the lower of cost and net realisable value. Net realisable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expenses.

In determining the cost of raw materials, consumables and goods purchased for resale, the weighted average purchase price is used.

The cost of finished goods and work in progress comprises design costs, raw materials, direct labour, other direct costs and related production overheads (based on normal operating capacity) but excludes borrowing costs. For work in progress and finished goods manufactured by the Group, cost is taken as production cost, which includes an appropriate proportion of attributable overheads.

2.10 Cash and cash equivalents

Cash and cash equivalents comprise cash balances and short-term highly liquid investments with an original maturity of three months or less, that are readily convertible to a known amount of cash and subject to an insignificant risk of changes in value.

2.11 Impairment of non-financial assets

The carrying amounts of the Group's non-financial assets are reviewed at each statement of financial position date where there is an indication that the asset may be impaired. If any such indication exists, the asset's recoverable amount is estimated (see below).

For goodwill, property, plant and equipment and intangible assets that have indefinite useful lives or that are not yet available for use, the recoverable amount is estimated each year at the same time. An impairment loss is recognised if the carrying amount of an asset or its related cash generating unit (CGU) exceeds its estimated recoverable amount.

i) Calculation of recoverable amount

With the exception of the current development investment in ReZorce®, a mono-material barrier packaging solution that uses MuCell® technology, the recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value using a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU. For the purpose of impairment testing, assets that cannot be tested individually are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or CGUs. Subject to an operating segment ceiling test, for the purposes of goodwill impairment testing, CGUs to which goodwill has been allocated are aggregated so that the level at which impairment testing is performed reflects the lowest level at which goodwill is monitored for internal reporting purposes. Goodwill acquired in a business combination is allocated to groups of CGUs that are expected to benefit from the synergies of the combination.

In the case of ReZorce, management judgements based on factors such as market potential, customer interest, technology development status, funding capability and Board appetite form the basis for assessing the recoverable amount.

Impairment exists when the carrying value of an asset or CGU exceeds its recoverable amount, which is the higher of its fair value less costs of disposal and its value in use. The value in use calculation is based on a discounted cash flow (DCF) model. The cash flows are based on a value in use calculation using cash flow projections from forecasts approved by management. The recoverable amount is sensitive to the discount rate used for the DCF model as well as the sales volume and cost of sales. The key assumptions used to determine the recoverable amount for the CGU, including a sensitivity analysis, are disclosed and further explained in note 12.

The Group's corporate assets do not generate separate cash inflows and are utilised by more than one CGU. Corporate assets are allocated to CGUs on a reasonable and consistent basis and tested for impairment as part of the testing of the CGU to which the corporate asset is allocated.

ii) Impairment losses

Impairment losses are recognised in the income statement. Impairment losses recognised in respect of CGUs are allocated first to reduce the carrying amount of any goodwill allocated to the CGU (or group of CGUs), and then to reduce the carrying amounts of the other assets in the CGU (or group of CGUs) on a pro rata basis.

iii) Reversal of impairment

An impairment loss in respect of goodwill is not reversed. In respect of other assets, impairment losses recognised in prior years are assessed at each reporting date for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortisation, if no impairment loss had been recognised.

2.12 Dividends

Final dividends are recognised as a liability in the financial year in which they are approved, and the corresponding amount is recognised directly in equity. Interim dividends are recognised when paid.

Notes
Continued

2. Significant accounting policies (continued)

2.13 Interest-bearing loans and borrowings

Interest-bearing borrowings are recognised initially at fair value less attributable transaction costs. Subsequent to initial recognition, interest-bearing borrowings are stated at amortised cost with any differences between cost and redemption values being recognised in the income statement over the period of the borrowings on an effective interest basis, where material. Adherence with loan covenants is discussed in note 21.

2.14 Employee benefits

i) Defined contribution plans

A defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate entity. The Group has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. Obligations for contributions to defined contribution pension plans are recognised as an expense in the income statement as incurred.

For defined contribution plans, the Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Group has no further payment obligations once the contributions have been paid. The contributions are recognised as an employee benefit expense when they are due. Prepaid contributions are recognised as an asset to the extent that a cash refund or reduction in future payments is available.

ii) Defined benefits plans

A defined benefit plan is a pension plan that is not a defined contribution plan. Typically, defined benefit plans define an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors, such as age, years of service and compensation.

The liability recognised in the statement of financial position in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the financial year, less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using AA credit-rated bonds that have terms to maturity approximating to the terms of the related pension obligation.

The current service cost of the defined benefit plan, recognised in "staff expenses" in the income statement, except where included in the cost of an asset, reflects the increase in the defined benefit obligation resulting from service in the current year, benefit changes, curtailments and settlements.

Past service costs are recognised immediately in the income statement.

The net interest cost is calculated by applying the discount rate to the net balance of the defined benefit obligation and the fair value of plan assets. This cost is included in finance costs in the income statement.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the year in which they arise.

2.15 Share-based payment transactions

i) Equity settled transactions

The Company operates a number of equity-settled, share-based compensation plans, under which the entity receives services from employees as consideration for equity instruments (share awards) of the Company. The fair value of the employee services received in exchange for the grant of the share awards is recognised as an expense. The total amount of the share award to be valued is determined by reference to the fair value of the share awards granted:

- including any market performance conditions (for example, an entity's share price)
- excluding the impact of any service and non-market performance vesting conditions (for example, profitability, sales growth targets and remaining an employee of the entity over a specified time period) and
- including the impact of any non-vesting conditions (for example, the requirement for employees to save or hold shares for a specific period of time).

Where material, share awards granted since 1 January 2006 with market-based vesting conditions are valued using the Black-Scholes model. Per the standard, these have no revisions to original estimates.

At the end of each reporting period, the Company revises its estimates of the number of share awards that are expected to vest based on the non-market vesting conditions and service conditions. It recognises the impact of the revision to original estimates, if any, in the income statement, with a corresponding adjustment to equity.

In addition, in some circumstances, employees might provide services in advance of the grant date, and so the grant date fair value is estimated for the purposes of recognising the expense during the period between service commencement and grant date.

When the share awards vest or are exercised, the Employee Benefit Trust (EBT) will normally release the shares to the participant. This may involve selling all, or a portion of, the shares. The proceeds received from the sale, net of any directly attributable transaction costs, are credited to share capital (nominal value) and share premium.

Any social security contributions payable in connection with the grant of the share awards are considered an integral part of the grant itself, and the charge will be treated as a cash-settled transaction.

ii) Own shares held by the EBT

Transactions of the EBT are treated as being those of the Group and are therefore reflected in the financial statements. In particular, the EBT's purchase and sale of shares in the Company are debited and credited directly to equity.

2.16 Trade and other payables

Trade and other payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers.

Trade and other payables are classified as current liabilities if payment is due within one year or less (or in the normal operating cycle of the business, if longer). If not, they are presented as non-current liabilities. Trade and other payables are stated at cost.

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

2.17 Borrowing costs

General and specific borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets until such time as the assets are substantially ready for their intended use or sale.

Investment income earned on the temporary investment of specific borrowings, pending their expenditure on qualifying assets, is deducted from the borrowing costs eligible for capitalisation. All other borrowing costs are recognised in the income statement in the period in which they are incurred.

2.18 Revenue

Revenue comprises the sale of finished goods (foam), trading goods (equipment) and licence and royalty income. All these revenue streams are revenues arising from contracts with customers. The recognition and measurement principles of IFRS 15 are applied as set out below.

Revenue excludes intercompany revenues and value added taxes and is stated net of discounts and returns.

2. Significant accounting policies (continued)

i) Sale of finished goods (foam)
Revenue from the sale of foam is recognised when control of the goods has been transferred to a customer at an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods. This usually occurs when the title passes to the customer, either on shipment or on receipt of goods by the customer, depending on agreed trading terms. Payment is due within credit terms which are consistent with industry practices, with no financing components.

ii) Sale of trading goods (equipment)
Revenue from the sale of equipment is recognised when control of the goods has been transferred to a customer. This usually occurs when the title passes to the customer, either on shipment or on receipt of the goods by the customer, depending on agreed trading terms.

iii) Licence and royalty income
Revenue from usage-based royalties in exchange for a licence of the Group's technology is recognised when the performance obligation is satisfied, which is at the time when the sale or usage occurs. Licence revenue from contracts, which include a minimum royalty guarantee to provide use of the Group's technology, is recognised at a point in time when the uptake of the minimum royalty becomes unconditional. Royalty income which does not include a minimum royalty guarantee is recognised when the usage occurs.

2.19 Leases
The Group leases offices and various equipment. Rental contracts are typically between two and seven years. Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. The lease agreements do not impose any covenants, but leased assets may not be used as security for borrowing purposes.

Leases are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the Group. Each lease payment is allocated between the liability and finance cost. The finance cost is charged to the income statement over the lease period to produce a constant periodic rate of interest on the remaining balance of the liability for each period. The right-of-use asset is depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis.

Assets and liabilities arising from a lease are initially measured on a present value basis. Lease liabilities include the net present value of the following lease payments:

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

The lease payments are discounted using the Group's incremental borrowing rate, being the rate that the Group would have to pay to borrow the funds necessary to obtain an asset of similar economic environment within similar terms and conditions. After the commencement date, the amount of lease liabilities is increased to reflect the accretion of interest and reduced for the lease payments made. In addition, the carrying value of lease liabilities is remeasured if there is a modification, a change in the lease term, a change in the lease payments (e.g. changes to future payments resulting from a change in an index or rate used to determine such lease payments) or a change in the assessment of an option to purchase the underlying asset.

Right-of-use assets are measured at cost comprising the following:

- the amount of initial measurement of lease liability
- any lease payments made at or before the commencement date, less any lease incentives received
- any initial direct costs
- restoration costs.

Payments associated with short-term leases and leases of low value are recognised on a straight-line basis as an expense in the income statement. Short-term leases are leases with a lease term of twelve months or less. Low-value assets comprise small items of equipment.

2.20 Current and deferred tax
The tax expense for the period comprises current and deferred tax. Tax is recognised in the income statement except to the extent that it relates to items recognised directly in other comprehensive income or directly in equity, in which case it is recognised in other comprehensive income or directly in equity respectively.

The current tax charge is calculated on the basis of the tax laws enacted at the statement of financial position date in the countries where the Group operates and generates taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions, where appropriate, on the basis of amounts expected to be paid to the tax authorities.

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

Deferred tax assets are recognised only to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

Deferred tax liabilities are provided on taxable temporary differences arising from investments in subsidiaries and joint arrangements, except for any deferred tax liability where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax assets are recognised on deductible temporary differences arising from investments in subsidiaries and joint arrangements only to the extent that it is probable that the temporary difference will reverse in the future and there is sufficient taxable profit available, against which the temporary difference can be utilised.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities and there is an intention to settle the balances on a net basis.

2.21 Share capital
Ordinary shares are classified as equity. Incremental costs directly attributable to the issue of new ordinary shares or options are shown in equity as a deduction, net of tax, from the proceeds.

Where any Group company purchases the Company's equity share capital (treasury shares), the consideration paid, including any directly attributable incremental costs (net of income tax), is deducted from equity attributable to the Company's equity holders until the shares are cancelled or reissued. Where such ordinary shares are subsequently reissued, any consideration received, net of any directly attributable incremental transaction costs and the related income tax effects, is included in equity attributable to the Company's equity holders.

2.22 Exceptional items
Exceptional items are disclosed separately in the financial statements where it is necessary to do so to provide further understanding of the financial performance of the Group. These are items that are material, either because of their size or their nature, or that are non-recurring, and are presented within the line items to which they best relate.

Notes
Continued

2. Significant accounting policies (continued)

2.23 New standards and interpretations

The IASB and IFRS Interpretations Committee have issued the following standards and interpretations with an effective date of implementation for accounting periods beginning after the date on which the Group's financial statements for the current year commenced.

New standards and amendments – applicable 1 January 2023

The Group applied for the first time certain standards and amendments, which are effective for annual periods beginning on or after 1 January 2023 (unless otherwise stated). The Group has not early adopted any other standard, interpretation or amendment that has been issued but is not yet effective:

FRS 17 Insurance Contracts

The new standard had no impact on the Group's consolidated financial statements.

Definition of Accounting Estimates – Amendments to IAS 8

The amendments to IAS 8 clarify the distinction between changes in accounting estimates, changes in accounting policies and the correction of errors. They also clarify how entities use measurement techniques and inputs to develop accounting estimates. The amendments had no impact on the Group's consolidated financial statements.

Disclosure of Accounting Policies – Amendments to IAS 1 and IFRS Practice Statement 2

The amendments to IAS 1 and IFRS Practice Statement 2 Making Materiality Judgements provide guidance and examples to help entities apply materiality judgements to accounting policy disclosures. The amendments aim to help entities provide accounting policy disclosures that are more useful by replacing the requirement for entities to disclose their "significant" accounting policies with a requirement to disclose their "material" accounting policies and adding guidance on how entities apply the concept of materiality in making decisions about accounting policy disclosures.

The amendments have had an impact on the Group's disclosures of accounting policies, but not on the measurement, recognition or presentation of any items in the Group's financial statements.

Deferred Tax related to Assets and Liabilities arising from a Single Transaction – Amendments to IAS 12

The amendments to IAS 12 Income Tax narrow the scope of the initial recognition exception, so that it no longer applies to transactions that give rise to equal taxable and deductible temporary differences such as leases and decommissioning liabilities.

The amendments had no significant impact on the Group's consolidated financial statements.

International Tax Reform—Pillar Two Model Rules – Amendments to IAS 12

The amendments to IAS 12 have been introduced in response to the OECD's BEPS Pillar Two rules and include:

- a mandatory temporary exception to the recognition and disclosure of deferred taxes arising from the jurisdictional implementation of the Pillar Two model rules and
- disclosure requirements for affected entities to help users of the financial statements better understand an entity's exposure to Pillar Two income taxes arising from that legislation, particularly before its effective date. The mandatory temporary exception – the use of which is required to be disclosed – applies immediately. The remaining disclosure requirements apply for annual reporting periods beginning on or after 1 January 2023, but not for any interim periods ending on or before 31 December 2023.

The amendments had no impact on the Group's consolidated financial statements as the Group is not in scope of the Pillar Two model rules as its revenue is less that EUR750m/year.

Forthcoming requirements

As at 31 December 2023, the following standards and interpretations had been issued but were not mandatory for annual reporting periods ending on 31 December 2023.

	Effective for accounting periods beginning on or after	Expected Impact
Amendments to IFRS 16: Lease Liability in a Sale and Leaseback	1 January 2024	None
Amendments to IAS 1: Classification of Liabilities as Current or Non-current	1 January 2024	See below
Supplier Finance Arrangements – Amendments to IAS 7 and IFRS 7	1 January 2024	None

Amendments to IAS 1: Classification of Liabilities as Current or Non-current

The Group is currently assessing the impact the amendments will have on current practice and whether existing loan agreements may require reclassification.

3. Segment reporting

The Group's operating segments are reported in a manner consistent with the internal reporting provided to and regularly reviewed by the Group Chief Executive Officer, David Stirling, who is considered to be the "chief operating decision maker" for the purpose of evaluating segment performance and allocating resources. The Group Chief Executive Officer primarily uses a measure of profit for the year (before exceptional items) to assess the performance of the operating segments.

The Group manufactures and sells high-performance foams and licenses related technology for specialist markets worldwide. The Group's activities are categorised as follows:

- Polyolefin Foams: These foams are made from olefinic homopolymer and copolymer resin. The most common resin used is polyethylene.
- High-Performance Products (HPP): These foams exhibit high performance on certain key properties, such as improved chemical, flammability, temperature or energy management performance. Revenue in the segment is currently mainly derived from products manufactured from three main polymer types: polyvinylidene fluoride (PVDF) fluoropolymer, polyamide (nylon) and thermoplastic elastomers. Foams are sold under the brand name ZOTEK®, while technical insulation products manufactured from certain materials are branded as T-FIT®.
- MuCell Extrusion LLC (MEL): This business licenses microcellular foam technology and sells related machinery. It is also currently developing a fully circular solution for mono-material barrier packaging, which it has branded ReZorce®.

	Polyolefin Foams		HPP		MEL		Consolidated	
	2023 £'000	2022 £'000	**2023 £'000**	2022 £'000	**2023 £'000**	2022 £'000	**2023 £'000**	2022 £'000
Group revenue	**67,596**	70,123	**58,132**	54,439	**1,247**	2,807	**126,975**	127,369
Segment profit/(loss) pre-amortisation of acquired intangibles	**7,455**	4,883	**15,418**	15,321	**(4,098)**	(1,634)	**18,775**	18,570
Amortisation of acquired intangible assets	**–**	–	**–**	–	**(257)**	(258)	**(257)**	(258)
Segment profit/(loss)	**7,455**	4,883	**15,418**	15,321	**(4,355)**	(1,892)	**18,518**	18,312
Foreign exchange losses	**–**	–	**–**	–	**–**	–	**(296)**	(1,844)
Unallocated central costs	**–**	–	**–**	–	**–**	–	**(3,087)**	(2,537)
Operating profit							**15,135**	13,931
Financing costs	**–**	–	**–**	–	**–**	–	**(2,540)**	(1,814)
Financing income	**–**	–	**–**	–	**–**	–	**191**	56
Share of profit from joint venture	**54**	50	**–**	–	**–**	–	**54**	50
Taxation	**–**	–	**–**	–	**–**	–	**(3,598)**	(2,217)
Profit for the year							**9,242**	10,006
Segment assets	**110,374**	116,426	**50,456**	40,358	**14,344**	13,165	**175,174**	169,949
Unallocated assets	**–**	–	**–**	–	**–**	–	**435**	410
Total assets							**175,609**	170,359
Segment liabilities	**(37,631)**	(39,814)	**(14,363)**	(15,508)	**(1,504)**	(1,427)	**(53,498)**	(56,749)
Unallocated liabilities	**–**	–	**–**	–	**–**	–	**(6,348)**	(4,072)
Total liabilities							**(59,846)**	(60,821)
Depreciation of property, plant and equipment (PPE)	**5,189**	5,422	**1,122**	1,079	**532**	369	**6,843**	6,870
Depreciation of right-of-use assets	**422**	306	**92**	70	**204**	156	**718**	532
Amortisation	**223**	386	**101**	144	**332**	312	**656**	842
Capital expenditure:								
Property, plant and equipment	**4,619**	3,584	**1,421**	888	**343**	785	**6,383**	5,257
Intangible assets	**118**	112	**56**	43	**2,565**	1,569	**2,739**	1,724

Unallocated assets made up of deferred tax assets are £435k for the year (2022: £410k). Unallocated liabilities are made up of corporation tax £1,078k (2022: £226k) and deferred tax liabilities £5,270k (2022: £3,846k).

Segment profit/(loss) is made up of operating profit/(loss) before exceptional items, foreign exchange gains/(losses) and unallocated central costs. Unallocated central costs are not directly attributable to, or cannot be allocated to, a segment. Hedging gains/(losses) are not allocated to the segment but are instead recorded under unallocated central costs.

Segment profit/(loss) pre-amortisation only excludes amortisation on acquired intangible assets.

Notes
Continued

3. Segment reporting (continued)
Geographical segments
Polyolefin Foams, HPP and MEL are managed on a worldwide basis but operate from UK, USA, European and Asian locations. In presenting information on the basis of geographical segments, segmental revenue is based on the geographical location of customers. Segment assets are based on the geographical location of assets.

	United Kingdom £'000	Continental Europe £'000	North America £'000	Rest of the world £'000	Total £'000
For the year ended 31 December 2023					
Group revenue from external customers	**11,879**	**32,514**	**27,195**	**55,387**	**126,975**
Non-current assets	**42,745**	**19,815**	**39,697**	**246**	**102,503**
Capital expenditure – PPE	**4,393**	**524**	**1,464**	**2**	**6,383**
For the year ended 31 December 2022					
Group revenue from external customers	13,702	32,374	29,127	52,166	127,369
Non-current assets	41,951	20,943	39,869	367	103,130
Capital expenditure – PPE	3,057	559	1,618	23	5,257

Non-current assets do not include deferred tax assets or investments in joint ventures.

Major customer
Revenue from one customer located in 'Rest of the world' contributed £45,294k to the Group's revenue (2022: one customer located in 'Rest of the world' contributed £42,176k to the Group's revenue).

Analysis of revenue by category
Breakdown of revenues by products and services for the Group:

	2023 £'000	2022 £'000
Sale of foam	**125,729**	124,562
Licence and royalty income	**893**	1,528
Sale of equipment	**353**	1,279
Group revenue	**126,975**	127,369

4. Expenses by nature

	2023 £'000	2022 £'000
Included in profit for the year are:		
Changes in inventories of finished goods and work in progress	**4,713**	1,926
Changes in raw materials and consumables used	**1,053**	(1,742)
Inventory write-down	**215**	489
Employee benefits expenses	**33,204**	29,264
Operating lease charges (note 11)	**386**	185
Amortisation (note 12)	**656**	842
Depreciation of PPE and right-of-use assets (note 10 and note 11)	**7,561**	7,402
Disposal of assets	**4**	283
Tax relief qualifying research and development costs expensed	**821**	787
Development costs capitalised (note 12)	**(2,244)**	(1,192)
Net exchange losses	**296**	1,844
External Auditor's remuneration:		
Group – Fees payable to the Group's External Auditor for the audit of the Company and consolidated financial statements:		
PKF Littlejohn LLP	**235**	224
Fees payable to the External Auditor in respect of other services:		
Audit-related assurance services	**22**	18
Total cost of sales, distribution costs and administrative expenses	**111,840**	113,438

5. Staff numbers and expenses

The monthly average number of people employed by the Group and Company (including Executive Directors) during the year, analysed by category, was as follows:

	Number of employees			
	Group		Company	
	2023	2022	**2023**	2022
Production	**285**	280	**167**	169
Maintenance	**40**	38	**25**	25
Distribution and marketing	**77**	83	**41**	44
Administration and technical	**134**	117	**89**	83
	536	518	**322**	321

The aggregate payroll costs of these persons were as follows:

	Group		Company	
	2023 £'000	2022 £'000	**2023 £'000**	2022 £'000
Wages and salaries*	**26,882**	23,852	**17,139**	16,048
Social security costs*	**3,409**	3,228	**1,716**	1,691
Share options granted to directors and employees (note 23)	**1,335**	809	**1,335**	809
Pension costs, including past service costs	**1,578**	1,375	**1,025**	958
	33,204	29,264	**21,215**	19,506
* Net of directly attributable costs capitalised	**911**	884	**291**	337

Notes
Continued

5. Staff numbers and expenses (continued)
Details of aggregate Directors' emoluments are provided below:

	2023 £'000	2022 £'000
Aggregate emoluments	**1,333**	994
Aggregate gains made on the exercise of share options	**73**	83
Aggregate amounts receivable under long-term incentive schemes	**423**	153
Company contribution to money purchase pension scheme	**53**	77
	1,882	1,307

Further details of Directors' emoluments, including details of the highest-paid Director, are included in the Directors' Remuneration report on pages 90 to 103.

6. Finance income and costs
Finance income

	2023 £'000	2022 £'000
Interest income	**191**	56

Finance costs

	2023 £'000	2022 £'000
Interest on borrowings	**2,328**	1,714
Interest on lease liabilities	**75**	24
Finance costs expensed	**2,403**	1,738
Interest on defined benefit pension obligation (note 24)	**137**	76
	2,540	1,814

7. Income tax expense

	2023 £'000	2022 £'000
UK corporation tax	**2,051**	1,137
Overseas tax	**632**	232
Adjustment for tax for prior years	**81**	44
Total current tax	**2,764**	1,413
Deferred tax	**834**	804
Income tax expense	**3,598**	2,217

7. Income tax expense (continued)

Factors affecting the tax charge

The weighted average applicable tax rate for the Group is 24.8% (2022: 19.5%). The main elements of the income tax expense are as follows:

	2023 £'000	2022 £'000
Tax reconciliation		
Profit before tax	**12,839**	12,223
Tax at the UK tax rate of 23.5% (2022: 19.0%)	**3,019**	2,335
Effects of:		
Expenses not deductible for tax purposes	**271**	223
Research and development and other tax credits	**–**	(115)
(Utilisation of) tax losses for which no deferred income tax asset recognised	**518**	(68)
Effect of different overseas tax rates	**72**	60
Changes in tax rates	**7**	206
Capital allowance super-deductions	**(13)**	(146)
Special Economic Zone Relief	**(375)**	(373)
Other differences	**18**	29
Adjustments to prior year UK corporation tax charge	**81**	66
	3,598	2,217

The main rate of UK corporation tax substantively enacted at the start of the period was 19.0%. An increase in the UK corporate tax rate from 19% to 25% was effective from 1 April 2023.

The Group has not identified any uncertain tax positions as at 31 December 2023 (2022: none).

On 20 June 2023, Finance (No.2) Act 2023 was substantively enacted in the UK, introducing a global minimum effective tax rate of 15%. The legislation implements a domestic top-up tax and a multinational top-up tax, effective for accounting periods starting on or after 31 December 2023. However, this legislation does not apply to the Group in the financial year beginning 1 January 2024 as its consolidated revenue does not meet the legislation requirements of being greater than €750m in two of the four preceding years. The Group will continue to monitor the legislation in future years.

8. Dividends and earnings per share

	2023 £'000	2022 £'000
Prior year final dividend of 4.62p (2022: 4.40p) per 5.0p ordinary share	**2,243**	2,131
Interim dividend of 2.28p (2022: 2.18p) per 5.0p ordinary share	**1,107**	1,057
Dividends paid during the year	**3,350**	3,188

The proposed final dividend for the year ended 31 December 2023 of 4.90p per share (2022: 4.62p) is subject to approval by shareholders at the AGM and has not been recognised as a liability in these financial statements. The proposed dividend, which would be payable on 3 June 2024 to shareholders on the Company register at the close of business on 3 May 2024, would amount to £2,382k if paid to shareholders who are on the Company register as at 31 December 2023.

Earnings per ordinary share

Earnings per ordinary share is calculated by dividing consolidated profit after tax attributable to equity holders of the Company of £9,242k (2022: £10,006k) by the weighted average number of shares in issue during the year and excluding own shares held by the EBT which are administered by independent trustees. The number of shares held in the trust at 31 December 2023 was 244,286 (2022: 107,130). Distribution of shares from the trust is at the discretion of the trustees. Diluted earnings per ordinary share adjusts for the potential dilutive effect of share option schemes in accordance with IAS 33 "Earnings per Share".

	2023	2022
Weighted average number of ordinary shares in issue	**48,643,755**	48,551,379
Adjustments for share options	**1,161,180**	987,750
Diluted number of ordinary shares issued	**49,804,935**	49,539,129

Notes
Continued

9. Investments in joint venture

During 2013, the Group entered into joint-venture arrangements with INOAC Corporation. As a result, the Group had a 50% interest in Azote Asia Limited (a private company incorporated in Hong Kong) and Inoac Zotefoams Korea Limited (incorporated in South Korea). Azote Asia Limited commenced trading in 2014 and is the exclusive distributor of Zotefoams' AZOTE® products in the Far East. The registered address and principal place of business is 1318-22, Park-In Commercial Centre, 56 Dundas Street, Kowloon, Hong Kong. Inoac Zotefoams Korea Limited remained non-trading until closure in 2022. As at the end of the year, there were no contingent liabilities or commitments relating to the Group's interest in the joint venture.

The joint venture has share capital consisting solely of ordinary shares which are held directly by the Group. Azote Asia Limited is a private company and there is no quoted market price available for its shares.

Set out below is the summarised financial information for Azote Asia Limited, which is accounted for using the equity method.

Summarised statement of financial position:

	As at 31 December	
	2023 £'000	2022 £'000
Cash and cash equivalents	**721**	664
Other assets (excluding cash)	**770**	1,190
Disposal of Inoac Zotefoams Korea Ltd	**–**	(120)
Total assets	**1,491**	1,734
Financial liabilities (excluding trade payables)	**(62)**	(173)
Other current liabilities (including trade payables)	**(1,016)**	(1,256)
Total liabilities	**(1,078)**	(1,429)
Net assets	**413**	305

Summarised statement of comprehensive income:

	As at 31 December	
	2023 £'000	2022 £'000
Revenue	**3,533**	4,382
Finance costs	**5**	–
Profit before tax	**108**	100
Income tax expense	**–**	–
Profit before tax	**108**	100
Other comprehensive income	**–**	–
Total comprehensive income	**108**	100
Dividend received from joint venture	**–**	–

The information above reflects the amounts presented in the financial statements of the joint venture. There are no material differences in accounting policies between the Group and the joint venture.

A reconciliation of the summarised financial information presented to the carrying amount of the interest in the joint venture is provided below:

	2023 £'000	2022 £'000
Opening net assets	**305**	325
Profit for the year	**108**	100
Disposal of Inoac Zotefoams Korea Ltd	**–**	(120)
Closing net assets	**413**	305
Interest in joint venture @ 50%	**207**	153

9. Investments in joint venture (continued)

	2023 £'000	2022 £'000
Information of the joint venture		
Carrying value at 1 January	**153**	163
Share of profit for the year	**54**	50
Disposal of Inoac Zotefoams Korea Ltd	**–**	(60)
Carrying value at 31 December	**207**	153

10. Property, plant and equipment

Group

	Land and buildings £'000	Plant and equipment £'000	Fixtures and fittings £'000	Under construction £'000	Total £'000
Cost					
Balance at 1 January 2022	45,776	110,791	3,871	4,466	164,904
Additions	13	441	37	4,766	5,257
Transfers	346	5,699	196	(6,241)	–
Disposals	(535)	(3,336)	(683)	–	(4,554)
Effect of movement in foreign exchange	1,798	4,996	141	57	6,992
At 31 December 2022	47,398	118,591	3,562	3,048	172,599
At 1 January 2023	**47,398**	**118,591**	**3,562**	**3,048**	**172,599**
Additions	**8**	**77**	**93**	**6,205**	**6,383**
Disposals	**–**	**(941)**	**(194)**	**(44)**	**(1,179)**
Effect of movement in foreign exchange	**(793)**	**(2,451)**	**(73)**	**(91)**	**(3,408)**
At 31 December 2023	**46,613**	**115,276**	**3,388**	**9,118**	**174,395**
Accumulated depreciation					
Balance at 1 January 2022	14,160	56,361	2,982	–	73,503
Depreciation charge	1,374	5,176	320	–	6,870
Disposals	(521)	(3,139)	(680)	–	(4,340)
Effect of movement in foreign exchange	640	1,521	110	–	2,271
At 31 December 2022	15,653	59,919	2,732	–	78,304
At 1 January 2023	**15,653**	**59,919**	**2,732**	**–**	**78,304**
Depreciation charge	**1,737**	**4,862**	**244**	**–**	**6,843**
Disposals	**–**	**(984)**	**(191)**	**–**	**(1,175)**
Effect of movement in foreign exchange	**(331)**	**(925)**	**(64)**	**–**	**(1,320)**
At 31 December 2023	**17,059**	**62,872**	**2,721**	**–**	**82,652**
Net book value					
At 1 January 2022	31,616	54,430	889	4,466	91,401
At 31 December 2022 and 1 January 2023	31,745	58,672	830	3,048	94,295
At 31 December 2023	**29,554**	**52,404**	**667**	**9,118**	**91,743**

Depreciation is included in cost of sales in the income statement.

Bank borrowings are secured on property, plant and equipment. Refer to note 18 for details.

Notes
Continued

10. Property, plant and equipment (continued)
Company

	Land and buildings £'000	Plant and equipment £'000	Fixtures and fittings £'000	Under construction £'000	Total £'000
Cost					
Balance at 1 January 2022	24,072	67,154	2,634	2,773	96,633
Additions	13	21	20	3,003	3,057
Disposals	(535)	(3,337)	(679)	–	(4,551)
Transfers	785	3,393	156	(4,334)	–
At 31 December 2022	24,335	67,231	2,131	1,442	95,139
At 1 January 2023	**24,335**	**67,231**	**2,131**	**1,442**	**95,139**
Additions	**–**	**13**	**3**	**4,376**	**4,392**
Disposals	**–**	**(988)**	**(191)**	**–**	**(1,179)**
Transfers	**983**	**802**	**176**	**(1,961)**	**–**
At 31 December 2023	**25,318**	**67,058**	**2,119**	**3,857**	**98,352**
Accumulated depreciation					
Balance at 1 January 2022	8,865	44,275	2,092	–	55,232
Depreciation charge	847	2,361	200	–	3,408
Disposals	(521)	(3,139)	(679)	–	(4,339)
Transfers	–	–	–	–	–
At 31 December 2022	9,191	43,497	1,613	–	54,301
At 1 January 2023	**9,191**	**43,497**	**1,613**	**–**	**54,301**
Depreciation charge	**1,160**	**1,905**	**134**	**–**	**3,199**
Disposals	**–**	**(984)**	**(191)**	**–**	**(1,175)**
At 31 December 2023	**10,351**	**44,418**	**1,556**	**–**	**56,325**
Net book value					
At 1 January 2022	15,207	22,879	542	2,773	41,401
At 31 December 2022 and 1 January 2023	15,144	23,734	518	1,442	40,838
At 31 December 2023	**14,967**	**22,640**	**563**	**3,857**	**42,027**

Depreciation is included in cost of sales in the income statement.

Bank borrowings are secured on property, plant and equipment. Refer to note 18 for details.

11. Leases

(i) Amounts recognised in the statement of financial position relating to leases:

Right-of-use assets

	Group		Company	
	2023 £'000	2022 £'000	**2023 £'000**	2022 £'000
Property	**940**	574	**–**	–
Equipment	**332**	365	**143**	347
	1,272	939	**143**	347

Lease liabilities

	Group		Company	
	2023 £'000	2022 £'000	**2023 £'000**	2022 £'000
Lease liability falls due within 1 year	**507**	509	**101**	245
Lease liability falls due within 1–3 years	**797**	454	**39**	101
Lease liability falls due in more than 3 years	**30**	–	**7**	–
	1,334	963	**147**	346

Additions to the right-of-use assets during the financial year were £1,098k (2022: £309k) for Group and £77k (2022: £78k) for Company.

(ii) Amounts recognised in the income statement relating to leases:

Amortisation charge of right-of-use assets

	Group		Company	
	2023 £'000	2022 £'000	**2023 £'000**	2022 £'000
Property	**361**	224	**–**	–
Equipment	**357**	308	**282**	250
	718	532	**282**	250
Interest expenses (included in finance costs)	**76**	24	**7**	11
Expense relating to short-term leases (included in cost of sales and administrative expenses)	**386**	185	**295**	91
Expense relating to leases of low-value assets that are not shown above as short-term leases (included in administrative expenses)	**27**	21	**27**	21
The total cash outflow for leases	**753**	499	**283**	265

Notes
Continued

12. Intangible assets
Group

	Marketing related £'000	Customer related £'000	Technology related £'000	Software related £'000	Goodwill £'000	Capitalised development £'000	Total £'000
Cost							
Balance at 1 January 2022	235	382	5,366	3,901	2,254	1,371	13,509
Additions	–	–	378	154	–	1,192	1,724
Disposals	–	–	–	(129)	–	–	(129)
Effect of movement in foreign exchange	29	32	668	8	275	122	1,134
Balance at 31 December 2022	264	414	6,412	3,934	2,529	2,685	16,238
Balance at 1 January 2023	**264**	**414**	**6,412**	**3,934**	**2,529**	**2,685**	**16,238**
Additions	**–**	**–**	**321**	**174**	**–**	**2,244**	**2,739**
Transfer	**–**	**–**	**–**	**14**	**–**	**(14)**	**–**
Effect of movement in foreign exchange	**(14)**	**(16)**	**(329)**	**(2)**	**(130)**	**(160)**	**(651)**
Balance at 31 December 2023	**250**	**398**	**6,404**	**4,120**	**2,399**	**4,755**	**18,326**
Accumulated amortisation							
Balance at 1 January 2022	235	382	3,143	3,246	–	279	7,285
Charge for the year	–	–	303	511	–	28	842
Disposals	–	–	–	(120)	–	–	(120)
Effect of movement in foreign exchange	29	32	400	(4)	–	–	457
Balance at 31 December 2022	264	414	3,846	3,633	–	307	8,464
Balance at 1 January 2023	**264**	**414**	**3,846**	**3,633**	**–**	**307**	**8,464**
Charge for the year	**–**	**–**	**323**	**154**	**–**	**179**	**656**
Transfer	**–**	**–**	**–**	**14**	**–**	**(14)**	**–**
Effect of movement in foreign exchange	**(14)**	**(16)**	**(182)**	**–**	**–**	**–**	**(212)**
Balance at 31 December 2023	**250**	**398**	**3,987**	**3,801**	**–**	**472**	**8,908**
Net book value							
At 1 January 2022	–	–	2,223	655	2,254	1,092	6,224
At 31 December 2022 and 1 January 2023	–	–	2,566	301	2,529	2,378	7,774
At 31 December 2023	**–**	**–**	**2,417**	**319**	**2,399**	**4,283**	**9,418**

Goodwill arising on acquisition is allocated to the CGU that is expected to benefit, this being MEL. The recoverable amount of the CGU has been determined based on an assessment of the MuCell® technology and the potential of the ReZorce® mono-material barrier packaging solution.

The business has prepared financial models approved by management which support the carrying value of intangibles. Please see the Group CEO's review on pages 33 to 37 for more detail. The assessment of the potential of ReZorce has been made based on:

- the technology and current stage of development
- its link to MuCell technology
- the potential market size for the solution
- management plans to access this market
- potential customer appetite
- sufficient funding
- Board risk appetite
- an assessment of the recoverable amount.

The Group performs its annual impairment test for goodwill at 31 December and for intangible assets when there is an indicator of impairment of an asset. The losses being incurred by the MEL CGU are an indication of a potential impairment of goodwill and intangible assets.

The carrying value of MEL intangibles amount to £8,863k as at 31 December 2023. For impairment testing purposes, the carrying amounts of the Group's intangible assets were compared with their recoverable amount. This has been determined based on a value-in-use calculation using cash flow projections from forecasts approved by management. Revenue growth is based on management plans to access this market, potential customer appetite and the potential market size. Polymer price assumptions were made using available market data and management forecasts. The discount rate used is based on a pre-tax weighted average cost of capital (WACC) of 12%. A forecast period of greater than five years has been used, as this aligns with management's plan to achieve the technology's potential in the market.

12. Intangible assets (continued)

The estimated value in use of MEL's intangible assets and goodwill exceeded their carrying value and no impairments were recognised during the year to 31 December 2023.

Key assumptions used in value-in-use calculation and sensitivity to changes in assumptions

The calculation of value-in-use is most sensitive to the assumptions used in determining the future volumes of carton sales from ReZorce technology, raw material polymer prices and discount rate. The sensitivities in the table below represent the amount by which the key assumptions must change, in isolation, in order for the recoverable amount to be equal to its carrying amount.

Assumption	Sensitivity applied
Discount rate	Increase of 8%
Volume of carton sales	Decrease of 25%
Raw material prices	Increase of 15%

Company

	Customer related £'000	Software related £'000	Capitalised development £'000	Total £'000
Cost				
Balance at 1 January 2022	121	3,796	732	4,649
Additions	–	149	–	149
Disposals	–	(129)	–	(129)
Balance at 31 December 2022	121	3,816	732	4,669
Balance at 1 January 2023	**121**	**3,816**	**732**	**4,669**
Additions	**–**	**174**	**–**	**174**
Disposals	**–**	**–**	**–**	**–**
Transfers	**–**	**14**	**(14)**	**–**
Balance at 31 December 2023	**121**	**4,004**	**718**	**4,843**
Accumulated amortisation				
Balance at 1 January 2022	121	3,239	279	3,639
Charge for the year	–	480	28	508
Disposals	–	(119)	–	(119)
Balance at 31 December 2022	121	3,600	307	4,028
Balance at 1 January 2023	**121**	**3,600**	**307**	**4,028**
Charge for the year	**–**	**132**	**179**	**311**
Disposals	**–**	**–**	**–**	**–**
Transfers	**–**	**14**	**(14)**	**–**
Balance at 31 December 2023	**121**	**3,746**	**472**	**4,339**
Net book value				
At 1 January 2022	–	557	453	1,010
At 31 December 2022 and 1 January 2023	–	216	425	641
At 31 December 2023	**–**	**258**	**246**	**504**

13. Investment in subsidiaries

Company

	2023 £'000	2022 £'000
Shares in Group undertakings – at cost	**30,822**	30,822

Notes
Continued

13. Investment in subsidiaries (continued)
The following is a complete list of the subsidiary undertakings of the Company:

	Registered office	Ownership	Incorporated in:
Zotefoams International Limited	675 Mitcham Road, Croydon CR9 3AL	100%	Great Britain
Zotefoams Pension Trustees Limited	675 Mitcham Road, Croydon CR9 3AL	100%	Great Britain
Zotefoams Inc (indirectly owned)	Corporation Trust Center, 1209 Orange Street, Wilmington, New Castle, Delaware	100%	USA
Zotefoams Midwest LLC (indirectly owned)	Corporation Trust Center, 1209 Orange Street, Wilmington, New Castle, Delaware	100%	USA
MuCell Extrusion LLC (indirectly owned)	Corporation Trust Center, 1209 Orange Street, Wilmington, New Castle, Delaware	100%	USA
Zotefoams Operations Limited (indirectly owned)	675 Mitcham Road, Croydon CR9 3AL	100%	Great Britain
Zotefoams Technology Limited (indirectly owned)	675 Mitcham Road, Croydon CR9 3AL	100%	Great Britain
KZ Trading and Investment Limited (indirectly owned)	15/F OTB Building, 160 Gloucester Road, Hong Kong	100%	Hong Kong
Zotefoams T-FIT Material Technology (Kunshan) Limited (indirectly owned)	181 Huanlou Road, Kunshan, Jiangsu	100%	China
Zotefoams France SAS (indirectly owned)	29 Boulevard Albert Einstein, Nantes	100%	France
Zotefoams Poland Sp. z.o.o. (indirectly owned)	ul. Grzybowska 2/29, 00-131, Warszawa	100%	Poland
T-FIT Insulation Solutions India Private Limited (indirectly owned)	335 Udyog Vihar Phase IV Gurgaon, Gurgaon, Haryana 122015	100%	India
Zotefoams Denmark ApS (indirectly owned)	Niels Bohrs Vej 36, 8660 Skanderborg	100%	Denmark

The principal activities of the subsidiary undertakings are as follows:

Zotefoams International Limited is a holding company. Zotefoams Pension Trustees Limited and Zotefoams Technology Limited are currently inactive. Zotefoams Inc is a wholly owned subsidiary of Zotefoams International Limited and purchases, manufactures and distributes cross-linked block foams. Zotefoams Midwest LLC, a wholly owned subsidiary of Zotefoams Inc, is a trading company with operations in Oklahoma, USA, and supplies specialist materials, based on AZOTE® foams, for the construction industry. MuCell Extrusion LLC, a wholly owned subsidiary of Zotefoams Inc, holds and develops microcellular foam technology, which it licenses to customers, and is also developing a mono-material barrier packaging solution branded ReZorce®. Zotefoams Operations Limited, a wholly owned subsidiary of Zotefoams International Limited, is a trading company and distributes T-FIT® technical insulation products. KZ Trading and Investment Limited, a wholly owned subsidiary of Zotefoams International Limited, is a holding and trading company for Zotefoams T-FIT Material Technology (Kunshan) Limited (previously known as Kunshan Zotek King Lai Limited), which is a trading company based in Kunshan, China, processing Zotefoams foams into T-FIT technical insulation products and distributing them. Zotefoams France SAS, a wholly owned subsidiary of Zotefoams International Limited, did not engage in any trading activities in 2023. Zotefoams Poland Sp. z.o.o. is a wholly owned subsidiary of Zotefoams International Limited, which purchases, manufactures and distributes cross-linked block foams. T-FIT Insulation Solutions India Private Limited, majority owned by Zotefoams International Limited with a one percent shareholding held by Zotefoams Operations Limited in line with local legislation, distributes T-FIT technical insulation products. Zotefoams Denmark ApS Limited is a wholly owned subsidiary of Zotefoams International and engaged in no trading activities during 2023. In the opinion of the Directors, the investments in the Company's subsidiary undertakings are worth at least the amount at which they are stated in the statement of financial position.

Zotefoams plc Employee Benefit Trust (EBT) is a wholly owned entity with its registered office JTC House, 28 Esplanade, St Helier, Jersey, Channel Islands, JE2 3QA. The EBT releases shares in the Company when share awards vest or are exercised.

Zotefoams International Limited, Zotefoams Technology Limited and Zotefoams Operations Limited are relying upon the exemption from audit of individual financial statements as permitted by section 479A of the Companies Act 2006. All outstanding liabilities as at 31 December 2023 of these companies have been guaranteed by the Company and no liability is expected to arise under this guarantee.

14. Inventories

	Group		Company	
	2023 £'000	2022 £'000	**2023 £'000**	2022 £'000
Raw materials and consumables	**13,948**	12,895	**10,342**	9,803
Work in progress	**10,632**	7,645	**8,558**	6,573
Finished goods	**7,324**	5,599	**3,716**	2,356
	31,904	26,139	**22,616**	18,732
Inventories are shown net of:				
Provision for impairment losses	**(2,476)**	(2,261)	**(788)**	(1,042)

In 2023, the value of inventory recognised by the Group as an expense in cost of goods sold was £52,282k (2022: £57,336k).

14. Inventories (continued)

Movement in provision

Movements in the inventory provision during the financial year are set out below:

	Group		Company	
	2023 £'000	2022 £'000	**2023 £'000**	2022 £'000
Provision for impairment losses as at 1 January	**2,261**	1,772	**1,042**	1,051
Inventories written off against provision	**(440)**	(173)	**(357)**	(144)
Additional provisions recognised	**655**	662	**103**	135
Provision for impairment losses as at 31 December	**2,476**	2,261	**788**	1,042

15. Trade and other receivables

	Group		Company	
	2023 £'000	2022 £'000	**2023 £'000**	2022 £'000
Amounts falling due over one year:				
Prepayments and accrued income	**70**	122	**70**	122
Amounts falling due within one year:				
Trade receivables	**28,850**	25,803	**19,421**	16,040
Amounts owed by Group undertakings	**–**	–	**39,190**	39,787
Other receivables	**2,515**	1,867	**1,958**	1,294
Prepayments and accrued income	**1,637**	1,777	**483**	405
	33,072	29,569	**61,122**	57,648

Trade receivables are generally on terms of 30 to 90 days.

Amounts owed by Group undertakings are payable on demand. The trading portion does not attract any interest. Unsecured loans provided to Group undertakings totalling £23,371k (2022: £24,840k) attract an interest charge of 6.64% for loans linked to US dollar, 5.2% for euro, 7.16% for sterling and 6.75% for Danish krone (2022: 6.10% for loans linked to US dollar, 4.00% for euro and 4.45% for sterling). Bank borrowings are secured on the trade receivables of the Group. Refer to note 18 for details.

16. Cash and cash equivalents

	Group		Company	
	2023 £'000	2022 £'000	**2023 £'000**	2022 £'000
Cash at bank and in hand	**6,294**	10,594	**2,875**	7,288

Cash at bank earns interest at floating rates based on daily bank deposit rates.

17. Trade and other payables

	Group		Company	
	2023 £'000	2022 £'000	**2023 £'000**	2022 £'000
Trade payables	**5,246**	5,706	**4,337**	4,672
Amounts owed to Group undertakings	**–**	–	**30**	30
Other taxation and social security	**619**	560	**515**	454
Other payables	**3,515**	3,276	**2,291**	2,119
Accruals and deferred income	**3,573**	3,958	**1,826**	2,764
	12,953	13,500	**8,999**	10,039

Amounts owed to Group undertakings are unsecured, repayable on demand and attract no interest.

Notes
Continued

18. Interest-bearing loans and borrowings

	Note	Group 2023 £'000	Group 2022 £'000	Company 2023 £'000	Company 2022 £'000
Current bank borrowings	21	**36,527**	37,446	**36,527**	37,446

In March 2022, the Group completed a debt refinancing and selected Handelsbanken and NatWest, the incumbents, to continue as its lenders. Under the terms of the new facility, secured against the property, plant and equipment and trade receivables, the Group's gross finance facility consists of a £50m multi-currency revolving credit facility with a £25m accordion. With a 4+1 tenor, the extending year option was taken up in January 2023.

At the end of the financial year, the Group has utilised £36.5m (31 December 2022: £37.4m) of its multi-currency revolving credit facility of £50m. The total amount of £36.5m, repayable on the last day of each loan interest period, which is of either a three- or six-month duration, is net of £0.4m origination fees paid up front and being amortised over four years. The Group has headroom of £19.4m, being £6.3m cash and cash equivalents, as per note 16, and the undrawn facility of £13.1m, being the facility of £50m less the drawn-down balance of £36.5m, less the £0.4m origination fees.

The interest rates on the debt facility ranged between 3.70% and 6.60% in 2023 (2022: between 1.60% and 6.00%).

The Group and the Company have the following undrawn borrowing facilities as per the bank at the end of the financial year:

	2023 £'000	2022 £'000
Floating rate:		
Expiring beyond one year	**13,074**	12,295
Total	**13,074**	12,295

Reconciliation of liabilities arising from financing activities:

Group	2022 £'000	Non-cash changes: Net cash inflows £'000	Loan origination fee £'000	Loan restructure £'000	Recognition of lease liabilities £'000	Foreign exchange movement £'000	2023 £'000
Long-term borrowings	–	–	–	–	–	–	**–**
Short-term borrowings	37,446	378	180	–	–	(1,477)	**36,527**
Total liabilities	37,446	378	180	–	–	(1,477)	**36,527**

Group	2021 £'000	Non-cash changes: Net cash (outflows)/ inflows £'000	Loan origination fee £'000	Loan restructure £'000	Recognition of lease liabilities £'000	Foreign exchange movement £'000	2022 £'000
Long-term borrowings	14,710	–	73	(14,749)	–	(34)	–
Short-term borrowings	26,564	7,826	(373)	–	–	3,429	37,446
Total liabilities	41,274	7,826	(300)	(14,749)	–	3,395	37,446

18. Interest-bearing loans and borrowings (continued)

Company	2022 £'000	Net cash inflows £'000	Non-cash changes: Loan origination fee £'000	Non-cash changes: Loan restructure £'000	Non-cash changes: Recognition of lease liabilities £'000	Non-cash changes: Foreign exchange movement £'000	**2023 £'000**
Long-term borrowings	–	–	–	–	–	–	**–**
Short-term borrowings	37,446	378	180	–	–	(1,477)	**36,527**
Total liabilities	37,446	378	180	–	–	(1,477)	**36,527**

Company	2021 £'000	Net cash (outflows)/ inflows £'000	Non-cash changes: Loan origination fee £'000	Non-cash changes: Loan restructure £'000	Non-cash changes: Recognition of lease liabilities £'000	Non-cash changes: Foreign exchange movement £'000	2022 £'000
Long-term borrowings	14,710	–	73	(14,749)	–	(34)	–
Short-term borrowings	26,564	7,826	(373)	–	–	3,429	37,446
Total liabilities	41,274	7,826	(300)	(14,749)	–	3,395	37,446

19. Deferred tax assets and liabilities

Recognised deferred tax assets and liabilities – Group

Deferred tax assets and liabilities are attributable to the following:

	Assets **2023 £'000**	Assets 2022 £'000	Liabilities **2023 £'000**	Liabilities 2022 £'000	Net **2023 £'000**	Net 2022 £'000
Property, plant and equipment	**–**	–	**5,384**	4,450	**5,384**	4,450
Rolled-over gain	**–**	–	**806**	806	**806**	806
Inventories	**(296)**	(255)	**–**	–	**(296)**	(255)
Derivatives financial instruments	**–**	(266)	**309**	–	**309**	(266)
Defined benefit pension scheme	**(664)**	(822)	**–**	–	**(664)**	(822)
Share option charges	**(565)**	(322)	**–**	–	**(565)**	(322)
Tax value of recognised losses carried forward	**(139)**	(155)	**–**	–	**(139)**	(155)
	(1,664)	(1,820)	**6,499**	5,256	**4,835**	3,436
Set off	**1,229**	1,410	**(1,229)**	(1,410)	**–**	–
Deferred tax (assets)/liabilities	**(435)**	(410)	**5,270**	3,846	**4,835**	3,436

Unrecognised deferred tax assets

The Group has tax losses carried forward in the USA of $1,100k (2022: $2,885k), which expire between 2023 and 2037 under prevailing tax legislation. In addition to this, the Group has further tax losses in the USA of $29,000k (2022: $27,256k), which are carried forward indefinitely. At year-end exchange rates, these tax losses translate to £22,814k (2022: £25,043k). Applying the enacted US corporation tax rate of 21% (2022: 21%), the Group has taken a prudent approach and recognised a deferred tax asset of £138k (2022: £138k) on such tax losses expected to be utilised in future periods.

The Group can potentially recover £296k (2022: £521k) of the deferred tax asset within twelve months of the reporting period. The remainder of the deferred tax asset will potentially be recovered more than twelve months after the reporting period.

The Group can potentially settle £309k (2022: none) of the deferred tax liability within twelve months of the reporting period. The remainder of the deferred tax liability will potentially be settled more than twelve months after the reporting period.

Notes
Continued

19. Deferred tax assets and liabilities (continued)
Movement in deferred tax

	Property, plant and equipment £'000	Rolled-over gain £'000	Inventories £'000	Derivative financial instruments £'000	Defined benefit pension scheme £'000	Share option charges £'000	Tax value of recognised losses carried forward £'000	Total £'000
Balance at 1 January 2022	3,810	806	(321)	(81)	(1,164)	(216)	(171)	2,663
Charged/(credited) to the income statement	640	–	66	–	196	(114)	16	804
Recognised in other comprehensive income and equity	–	–	–	(185)	146	8	–	(31)
Balance at 31 December 2022	4,450	806	(255)	(266)	(822)	(322)	(155)	3,436
Balance at 1 January 2023	**4,450**	**806**	**(255)**	**(266)**	**(822)**	**(322)**	**(155)**	**3,436**
Charged/(credited) to the income statement	**934**	**–**	**(41)**	**–**	**137**	**(238)**	**16**	**808**
Recognised in other comprehensive income and equity	**–**	**–**	**–**	**575**	**21**	**(5)**	**–**	**591**
Balance at 31 December 2023	**5,384**	**806**	**(296)**	**309**	**(664)**	**(565)**	**(139)**	**4,835**

Deferred tax assets and liabilities – Company
Deferred tax assets and liabilities are attributable to the following:

	Assets		Liabilities		Net	
	2023 £'000	2022 £'000	**2023 £'000**	2022 £'000	**2023 £'000**	2022 £'000
Property, plant and equipment	**–**	–	**5,384**	4,450	**5,384**	4,450
Rolled-over gain	**–**	–	**806**	806	**806**	806
Derivative financial instruments	**–**	(266)	**309**	–	**309**	(266)
Defined benefit pension scheme	**(664)**	(822)	**–**	–	**(664)**	(822)
Share option charges	**(565)**	(322)	**–**	–	**(565)**	(322)
	(1,229)	(1,410)	**6,499**	5,256	**5,270**	3,846
Set off	**1,229**	1,410	**(1,229)**	(1,410)	**–**	–
Deferred tax (assets)/liabilities	**–**	–	**5,270**	3,846	**5,270**	3,846

Movement in deferred tax

	Property, plant and equipment £'000	Rolled-over gain £'000	Derivative financial instruments £'000	Defined benefit pension scheme £'000	Share option charges £'000	Total £'000
Balance at 1 January 2022	3,810	806	(81)	(1,164)	(216)	3,155
Charged/(credited) to the income statement	640	–	–	196	(114)	722
Recognised in other comprehensive income and equity	–	–	(185)	146	8	(31)
Balance at 31 December 2022	4,450	806	(266)	(822)	(322)	3,846
Balance at 1 January 2023	**4,450**	**806**	**(266)**	**(822)**	**(322)**	**3,846**
Charged to the income statement	**934**	**–**	**–**	**137**	**(238)**	**833**
Recognised in other comprehensive income and equity	**–**	**–**	**575**	**21**	**(5)**	**591**
Balance at 31 December 2023	**5,384**	**806**	**309**	**(664)**	**(565)**	**5,270**

20. Issued share capital

Issued, allotted and fully paid ordinary shares of 5p each:

	Number of shares	Par value £'000	Share premium £'000	Total £'000
At 1 January 2022 and 31 December 2022	48,621,234	2,431	44,178	46,609
Share issue to Employee Benefit Trust	225,000	11	–	11
At 31 December 2023	**48,846,234**	**2,442**	**44,178**	**46,620**

The holders of ordinary shares are entitled to receive dividends as declared from time to time and are entitled, on a poll, to one vote per share at meetings of the Company.

Nature and purpose of other reserves

Capital redemption reserve

On the buy-back and cancellation of preference shares, an amount equal to the par value was transferred from retained earnings to the capital redemption reserve for capital maintenance purposes.

Translation reserve

Exchange differences arising on translation of the foreign controlled entities are recognised in other comprehensive income and accumulated in a separate reserve within equity. The cumulative amount is reclassified to the income statement when the net investment is disposed of.

Hedging reserve

The hedging reserve includes the cash flow hedge reserve and the costs of the hedging reserve (see note 21 for details). The cash flow hedge reserve is used to recognise the effective portion of gains or losses on derivatives that are designated and qualify as cash flow hedges. Amounts are subsequently reclassified to the income statement as appropriate.

21. Financial instruments and financial risk management

The Group's and Company's principal financial instruments include cash in hand and at bank and interest-bearing loans and borrowings, the main purpose of which is to provide finance for the Group's and Company's operations. Foreign exchange derivatives are used to help manage the Group's and Company's currency exposure. Per the Group's and Company's policy, no trading in financial instruments is undertaken.

The main risks arising from the Group's and Company's financial instruments are credit risk, interest rate risk, liquidity risk and foreign currency risk.

The Board reviews and agrees policies for managing each of these risks and they are summarised below. These policies have remained consistent throughout the year.

Credit risk

Credit risk is managed on a Group basis, except for credit risk relating to accounts receivable balances. Each local entity is responsible for managing and analysing the credit risk for each of their new customers before standard payment and delivery terms and conditions are offered. Credit risk arises from cash and cash equivalents and derivative financial instruments with banks and financial institutions, as well as credit exposures to customers, including outstanding receivables and committed transactions. A financial asset is considered in default when the counterparty fails to pay its contractual obligations. Financial assets are written off when there is no expectation of recovery.

Management has a credit policy in place and the exposure to credit risk is monitored on an ongoing basis. Credit evaluations are performed for customers offered credit over a certain amount. The Group and Company do not require collateral in respect of financial assets.

At the statement of financial position date there were no significant concentrations of credit risk. The maximum exposure to credit risk is represented by the carrying amount of each financial asset, including derivative financial instruments, in the statement of financial position.

Notes
Continued

21. Financial instruments and financial risk management (continued)
Credit quality of financial assets

	Group		Company	
Counterparties without external credit rating:	**2023 £'000**	2022 £'000	**2023 £'000**	2022 £'000
Existing customers with no defaults in the past	**28,545**	25,198	**19,374**	15,715
Existing customers with some defaults in the past, net of impairment allowance	**305**	605	**47**	325
	28,850	25,803	**19,421**	16,040

	Group		Company	
Cash at bank	**2023 £'000**	2022 £'000	**2023 £'000**	2022 £'000
Moody's P-1	**5,928**	10,195	**2,875**	7,288
Moody's P-3	**366**	399	**–**	–
	6,294	10,594	**2,875**	7,288

	Group		Company	
Derivative financial assets	**2023 £'000**	2022 £'000	**2023 £'000**	2022 £'000
Moody's P-1	**691**	486	**691**	486
Moody's P-2	**573**	–	**573**	–
	1,264	486	**1,264**	486

While cash and cash equivalents are subject to impairment review under IFRS 9 "Financial Instruments", the identified impairment loss was immaterial (2022: immaterial).

Trade receivables are analysed as follows:

	Group		Company	
	2023 £'000	2022 £'000	**2023 £'000**	2022 £'000
Gross carrying amount	**29,097**	26,017	**19,432**	16,051
– due for less than 60 days	**27,539**	25,296	**18,155**	16,051
– due for more than 60 days	**1,558**	721	**1,277**	–
Expected loss rate				
– due for less than 60 days	**0.04%**	0.36%	**0.06%**	0.00%
– due for more than 60 days	**15.12%**	23.22%	**0.00%**	0.00%
Loss allowance	**247**	214	**11**	11
Trade receivables net of allowances	**28,850**	25,803	**19,421**	16,040

21. Financial instruments and financial risk management (continued)

Loss allowances analysed as follows:

	Group £'000	Company £'000
At 1 January 2022	95	11
Increase in loss allowance recognised in profit or loss during the year	144	11
Reversal of loss allowance on collection of dues	(25)	(11)
At 31 December 2022	214	11
At 1 January 2023	**214**	**11**
Increase in loss allowance recognised in profit or loss during the year	**128**	**11**
Reversal of loss allowance on collection of dues	**(95)**	**(11)**
At 31 December 2023	**247**	**11**

The normal terms of trade are between 30 and 90 days from the end of the month of invoice.

The credit quality of trade receivables that are neither past due nor impaired is assessed individually based on credit history and experience. In 2023 and 2022, the Group and Company insured a material portion of its trade receivable balances to mitigate credit risk. The uninsured exposure as at 31 December 2023 for the Group was £23,259k (2022: £17,572k) and for the Company was £13,829k (2022: £9,104k). The Group and the Company make provisions against trade receivables, such provisions being based on the debtor's prior credit history and knowledge of any adverse conditions affecting the debtor (e.g. receivership or liquidation). The Directors believe an adequate provision has been made for trade receivables at the year end. None of the amounts owed by Group undertakings are impaired.

Interest rate risk

The Group's and Company's interest rate risk arises from long-term borrowings and short-term borrowings. Borrowings issued at variable rates expose the Group and Company to cash flow interest rate risk. Borrowings issued at fixed rates expose the Group to fair value interest rate risk.

The Group and Company have strong cash generation from their operations and closely monitor borrowing levels to manage the interest rate risk.

The interest rate profile of the Group's and Company's borrowings at 31 December is shown below:

	2023			2022		
Group	**Effective interest rate %**	**Fixed rates £'000**	**Variable rates £'000**	Effective interest rate %	Fixed rates £'000	Variable rates £'000
Dollar short-term borrowings	**5.04%**	**–**	**21,241**	3.73%	–	21,603
Sterling short-term borrowings	**–**	**–**	**–**	–	–	–
Euro short-term borrowings	**4.63%**	**–**	**15,652**	2.21%	–	16,391
Dollar long-term borrowings	**–**	**–**	**–**	–	–	–
Total*		**–**	**36,893**		–	37,994

	2023			2022		
Company	**Effective interest rate %**	**Fixed rates £'000**	**Variable rates £'000**	Effective interest rate %	Fixed rates £'000	Variable rates £'000
Dollar short-term borrowings	**5.04%**	**–**	**21,241**	3.73%	–	21,603
Sterling short-term borrowings	**–**	**–**	**–**	–	–	–
Euro short-term borrowings	**4.63%**	**–**	**15,652**	2.21%	–	16,391
Dollar long-term borrowings	**–**	**–**	**–**	–	–	–
Total*		**–**	**36,893**		–	37,994

* The total amount of £36,893k is gross of an outstanding amount of £366k of loan origination fees paid upfront and being amortised over the period of the loan (2022: £37,994k is gross of £548k of loan origination fees).

The impact on post-tax profit of a 1% shift in the variable rate borrowings would be £299k (2022: £308k).

Notes
Continued

21. Financial instruments and financial risk management (continued)

Liquidity risk

Group Finance performs cash flow forecasting in the operating entities of the Group, which is then aggregated. Group Finance monitors rolling forecasts of the Group's liquidity requirements to ensure that it has sufficient cash to meet operational needs, while maintaining sufficient headroom on its undrawn committed borrowing facilities (note 18) at all times, so that the Group does not breach borrowing limits or covenants (where applicable) on any of its borrowing facilities. Such forecasting takes into consideration the Group's debt financing plans, covenant compliance, compliance with internal balance sheet ratio targets and any applicable external regulatory or legal requirements.

The following are the contractual maturities of financial liabilities, including estimated payments and excluding the effect of netting agreements:

	2023					2022				
Group	**Carrying amount £'000**	**Contractual cash flows £'000**	**1 year or less £'000**	**1 to 2 years £'000**	**More than 2 years £'000**	Carrying amount £'000	Contractual cash flows £'000	1 year or less £'000	1 to 2 years £'000	More than 2 years £'000
Non-derivative financial liabilities										
Interest-bearing loans and borrowings	**(36,527)**	**(36,893)**	**(36,893)**	**–**	**–**	(37,446)	(37,994)	(37,994)	–	–
Trade and other payables	**(8,761)**	**(8,761)**	**(8,761)**	**–**	**–**	(8,982)	(8,982)	(8,982)	–	–
Lease liabilities	**(1,334)**	**(1,832)**	**(770)**	**(1,032)**	**(30)**	(963)	(983)	(513)	(470)	–
Total non-derivative financial liabilities	**(46,622)**	**(47,486)**	**(46,424)**	**(1,032)**	**(30)**	(47,391)	(47,959)	(47,489)	(470)	–
Derivative financial liabilities	**(28)**	**(28)**	**(28)**	**–**	**–**	(1,550)	(1,550)	(1,550)	–	–

	2023					2022				
Company	**Carrying amount £'000**	**Contractual cash flows £'000**	**1 year or less £'000**	**1 to 2 years £'000**	**More than 2 years £'000**	Carrying amount £'000	Contractual cash flows £'000	1 year or less £'000	1 to 2 years £'000	More than 2 years £'000
Non-derivative financial liabilities										
Interest-bearing loans and borrowings	**(36,527)**	**(36,893)**	**(36,893)**	**–**	**–**	(37,446)	(37,994)	(37,994)	–	–
Trade and other payables	**(6,658)**	**(6,658)**	**(6,658)**	**–**	**–**	(6,821)	(6,821)	(6,821)	–	–
Lease liabilities	**(146)**	**(528)**	**(263)**	**(235)**	**(30)**	(346)	(299)	(228)	(71)	–
Total non-derivative financial liabilities	**(43,331)**	**(44,079)**	**(43,814)**	**(235)**	**(30)**	(44,613)	(45,114)	(45,043)	(71)	–
Derivative financial liabilities	**(28)**	**(28)**	**(28)**	**–**	**–**	(1,550)	(1,550)	(1,550)	–	–

Foreign currency risk

The Group and Company operate internationally and are exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the euro and US dollar. Foreign exchange risk arises from recognised assets and liabilities and future commercial transactions.

Foreign exchange risk is managed centrally by Group Finance and arises when future commercial transactions or recognised assets or liabilities are denominated in a currency that is not the Company's functional currency.

The Group's policy is to use forward currency contracts to cover approximately two-thirds of the estimated net cash foreign exchange trading exposure for the euro and US dollar for the next twelve months, as well as approximately 25% of the estimated net cash foreign exchange trading exposure for the following six months. The Group also hedges its exposure to foreign currency denominated assets, where possible, by offsetting them with same-currency liabilities, primarily through borrowing in the relevant currency. These foreign currency denominated assets, which are translated on a mark to market basis every month and with the resulting movement being taken to the income statement, include loans made by the Company to, and intercompany trading balances with, its overseas subsidiaries, the effect of which is cash neutral. They also include non-sterling accounts receivable, held on the Company's statement of financial position, which are impacted by foreign exchange movements between revenue recognition and cash receipt, the impact of which is mitigated through further hedging activities but remains exposed to the exact timing of cash receipts.

21. Financial instruments and financial risk management (continued)

The euro and US dollar rates used in preparing the financial statements are as follows:

	2023		2022	
	Average	**Closing**	Average	Closing
Euro/sterling	**1.150**	**1.150**	1.173	1.129
US dollar/sterling	**1.243**	**1.271**	1.238	1.204

In respect of other monetary assets and liabilities held in currencies other than the euro and the US dollar, the Group and the Company ensure that the net exposure is kept to a manageable level by buying or selling foreign currencies at spot rates, where necessary, to address short-term imbalances.

Where possible, the Group tries to hold the majority of its cash and cash equivalent balances in the local currency of the respective entity or, for borrowings, in a currency which provides an offset, albeit often partial, against monetary working capital net assets in that currency.

Recognised assets and liabilities

The table below shows non-derivative financial instruments of the Group and Company in currencies other than sterling:

Group – 2023	**Euro £'000**	**US dollar £'000**	**Other £'000**	**Total £'000**
Cash and cash equivalents	**1,551**	**1,999**	**926**	**4,476**
Trade receivables	**4,875**	**18,213**	**2,843**	**25,931**
Trade payables	**(2,271)**	**(1,294)**	**(314)**	**(3,879)**

Group – 2022	Euro £'000	US dollar £'000	Other £'000	Total £'000
Cash and cash equivalents	2,256	1,871	1,234	5,361
Trade receivables	4,598	12,777	1,289	18,664
Trade payables	(4,082)	(941)	(233)	(5,256)

Company – 2023	**Euro £'000**	**US dollar £'000**	**Other £'000**	**Total £'000**
Cash and cash equivalents	**432**	**761**	**45**	**1,238**
Trade receivables	**2,974**	**12,541**	**987**	**16,502**
Trade payables	**(2,224)**	**(808)**	**–**	**(3,032)**

Company – 2022	Euro £'000	US dollar £'000	Other £'000	Total £'000
Cash and cash equivalents	1,340	780	80	2,200
Trade receivables	3,293	7,202	145	10,640
Trade payables	(3,945)	(262)	(16)	(4,223)

Notes
Continued

21. Financial instruments and financial risk management (continued)

Forecast transactions

The Group and the Company classify their forward exchange contracts used to hedge forecast transactions as cash flow hedges. The fair value of such forward exchange contracts is shown in the table below:

31 December 2023	Level 1 £'000	Level 2 £'000	Level 3 £'000	Total £'000
Assets				
Forward exchange contracts	–	1,264	–	1,264
Total assets	–	1,264	–	1,264
Liabilities				
Forward exchange contracts	–	(28)	–	(28)
Total liabilities	–	(28)	–	(28)

31 December 2022	Level 1 £'000	Level 2 £'000	Level 3 £'000	Total £'000
Assets				
Forward exchange contracts	–	486	–	486
Total assets	–	486	–	486
Liabilities				
Forward exchange contracts	–	(1,550)	–	(1,550)
Total liabilities	–	(1,550)	–	(1,550)

The hedged highly probable forecast transactions denominated in foreign currency are expected to occur at various dates during the next twelve months. Gains and losses recognised in the hedging reserve in equity on forward foreign exchange contracts as of 31 December 2023 are recognised in the income statement in the period or periods during which the hedged forecast transaction affects the income statement. This is generally within twelve months of the end of the reporting period.

Hedge ineffectiveness

Hedge effectiveness is determined at the inception of the hedge relationship and through periodic prospective effectiveness assessments to ensure that an economic relationship exists between the hedged item and hedging instrument. In hedges of forward exchange contracts, ineffectiveness mainly arises if the timing of the forecast transaction changes from what was originally estimated. There was no ineffectiveness during 2023 or 2022 in relation to the forward exchange contracts.

Estimation of fair values

The following summarises the major methods and assumptions used in estimating fair values of financial instruments reflected in the table above.

They are classified according to the following fair value hierarchy:

- Level 1: quoted process (unadjusted) in active markets for identical assets or liabilities
- Level 2: inputs other than quoted process included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (derived from prices)
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

Derivative financial instruments are valued using Handelsbanken and NatWest mid-market rates (2022: Handelsbanken and NatWest mid-market rates) at the statement of financial position date.

The maturity profile of the forward contracts as at 31 December is as follows:

	2023				2022			
Group and Company:	**Foreign currency $'000**	**Contract value £'000**	**Transaction fair value £'000**	**Contract fair value £'000**	Foreign currency $'000	Contract value £'000	Transaction fair value £'000	Contract fair value £'000
Sell USD	**$67,700**	**54,366**	**53,129**	**1,236**	$47,900	38,563	39,628	(1,065)

21. Financial instruments and financial risk management (continued)

Sensitivity analysis

In managing currency risks, the Group and Company aim to reduce the impact of short-term fluctuations on their earnings. Over the longer term, however, changes in foreign exchange would have an impact on earnings.

In respect of retranslation of monetary items, at 31 December 2023, it is estimated that an increase of one percentage point in the value of sterling against the US dollar would decrease the Group's profit before tax by approximately £613k (2022: £418k) before forward exchange contracts and £151k (2022: £144k) after forward exchange contracts are included. The effect of an increase of one percentage point against the euro is considered marginal.

Financial instruments by category

	2023			2022		
Group	**Financial assets at amortised cost £'000**	**Derivatives used for hedging £'000**	**Financial liabilities at amortised cost £'000**	Financial assets at amortised cost £'000	Derivatives used for hedging £'000	Financial liabilities at amortised cost £'000
Trade and other receivables	**31,365**	**–**	**–**	27,670	–	–
Cash and cash equivalents	**6,294**	**–**	**–**	10,594	–	–
Derivative financial instruments – assets	**–**	**1,264**	**–**	–	486	–
– liabilities	**–**	**(28)**	**–**	–	(1,550)	–
Interest-bearing loans and borrowings	**–**	**–**	**(36,527)**	–	–	(37,446)
Trade and other payables	**–**	**–**	**(8,761)**	–	–	(8,982)
Lease liability	**–**	**–**	**(1,334)**	–	–	(963)

	2023			2022		
Company	**Financial assets at amortised cost £'000**	**Derivatives used for hedging £'000**	**Financial liabilities at amortised cost £'000**	Financial assets at amortised cost £'000	Derivatives used for hedging £'000	Financial liabilities at amortised cost £'000
Trade and other receivables	**60,569**	**–**	**–**	57,121	–	–
Cash and cash equivalents	**2,875**	**–**	**–**	7,288	–	–
Derivative financial instruments – assets	**–**	**1,264**	**–**	–	486	–
– liabilities	**–**	**(28)**	**–**	–	(1,550)	–
Interest-bearing loans and borrowings	**–**	**–**	**(36,527)**	–	–	(37,446)
Trade and other payables	**–**	**–**	**(6,658)**	–	–	(6,821)
Lease liability	**–**	**–**	**(147)**	–	–	(346)

Capital management

The Group's objectives when managing capital are to safeguard its ability to continue as a going concern, in order to provide returns for shareholders and benefits for other stakeholders, and to maintain an optimal capital structure to reduce the cost of capital. In order to maintain or adjust the capital structure, the Group can adjust the amount of dividends paid to shareholders, issue new shares or redeem existing ones or borrow funds from financial institutions.

The Group monitors capital on the basis of the following leverage ratio: net borrowings divided by EBITDA (as per bank facility agreement).

Loan covenants

Under the terms of its borrowing facilities, the Group is required to comply with the following financial covenants:

- the ratio of net borrowings on the last day of the relevant period to earnings before interest, tax, depreciation and amortisation, share of profit/(loss) from joint venture, equity-settled share-based payments and exceptional items (EBITDA) shall not exceed 3.50:1.00 (until 9 March 2022, 3.00:1.00, under the terms of the previous debt facility)
- the ratio of EBITDA to net finance charges in respect of the relevant period shall not be less than 4.00:1.00.

The Group has complied with its covenants throughout the financial year.

Net borrowings comprise current and non-current interest-bearing loans and borrowings of £36,527k (2022: £37,446k), as per note 18, and cash and cash equivalents of £6,294k (2022: £10,594k) as per note 16.

Notes
Continued

21. Financial instruments and financial risk management (continued)

	As at 31 December 2023 £'000	As at 31 December 2022 £'000
Net borrowings	**30,233**	26,852
EBITDA	**24,687**	22,985
Net borrowings/EBITDA	**1.22**	1.17
Net finance charges	**2,212**	1,682
EBITDA/Net finance charges	**11.16**	13.67

EBITDA comprises:

	Note	2023 £'000	2022 £'000
Profit for the year		**9,242**	10,006
Depreciation and amortisation	10,11,12	**8,217**	8,245
Finance costs	6	**2,349**	1,758
Share of profit from joint venture	9	**(54)**	(50)
Equity-settled share-based payments	24	**1,335**	809
Taxation	7	**3,598**	2,217
		24,687	22,985

Net finance charges comprise interest income of £191k and finance costs expensed of £2,403k as per note 6.

The Group's objective is to maintain leverage below the Board's appetite of 2.0. However, it is prepared to accept increases in this ratio at times of sizeable, capacity-related capital expenditure to support continued growth. Subject to short-term macroeconomic and geopolitical volatility, this is always expected to reduce quickly back below the Board's appetite, and to significantly lower levels, as capacity utilisation improves.

The bank covenant definition does not include the impact of IFRS 16 "Leases", which would have moved the ratio from 1.22 to 1.28.

The Group defines its return on capital as operating profit before exceptional items divided by the average sum of its equity, net debt and other non-current liabilities. This measure excludes acquired intangible assets and their amortisation costs. The Group also excludes significant capacity investments under construction until they enter production. In 2023, the return on capital was 10.3% (2022: 10.1%), mostly reflecting improved profitability in the year.

22. Commitments – Group

	Group		Company	
	2023 £'000	2022 £'000	**2023 £'000**	2022 £'000
Capital expenditure contracted for at the end of the reporting period but not yet incurred is as follows:				
Property, plant and equipment	**2,309**	1,470	**938**	1,214

23. Post-employment benefits

Defined benefit pension plans

The Company operates a UK registered trust-based pension scheme that provides defined benefits. In 2001, the Company closed the Defined Benefit Pension Scheme ("DB Scheme") to new members, while in 2005 the DB Scheme was closed to the future accrual of benefits, and all active members at that time transferred to a defined contribution scheme, substantially de-risking the Company's financial and accounting exposure to the DB Scheme's obligations. Following legal advice in 2017 that the closure had not been complete with respect to the breaking of linkage with future increases in salary, amendments were made in 2018 and the linkage duly broken.

Pension benefits are linked to the members' final pensionable salaries and service at their retirement (or date of leaving if earlier). The Trustees are responsible for running the DB Scheme in accordance with the DB Scheme's Trust Deed and Rules, which set out their powers. The Trustees of the DB Scheme are required to act in the best interests of the beneficiaries of the DB Scheme. There is a requirement that one-third of the Trustees are nominated by the members of the DB Scheme.

There are three categories of pension scheme members:

- deferred members with salary linkage: current employees of the Company who have not consented to the break in their salary link
- deferred members: former and current employees of the Company not yet in receipt of pension
- pensioner members: in receipt of pension.

The defined benefit obligation is valued by projecting the best estimate of future benefit outgoings (allowing for future salary increases for deferred members with salary linkage, revaluation to retirement for deferred members and annual pension increases for all members) and then discounting to the statement of financial position date. The majority of benefits receive increases in line with inflation (subject to a cap of no more than 5% p.a.). The valuation method is known as the Projected Unit Method. The approximate overall duration of the DB Scheme's defined benefit obligation as at 31 December 2023 was 13 years (2022: 14 years).

Future funding obligation

The Trustees are required to carry out an actuarial valuation every three years.

The last actuarial valuation of the DB Scheme was performed by the DB Scheme Actuary for the Trustees as at 5 April 2020. This valuation revealed a funding shortfall of £7.7 million.

In respect of the deficit in the DB Scheme as at 5 April 2020, the Company has agreed to pay £643,200 p.a. from 1 July 2021 for 5 years and 4 months. In addition, the Company will pay £216,000 p.a. to cover administration expenses, Payment Protection Fund levies and premiums for death in service lump sums associated with the Scheme. The Company therefore currently expects to pay £859,200 to the Scheme during the calendar year beginning 1 January 2024.

In line with the requirement to have a triennial valuation, a formal actuarial valuation is being carried out for the Trustees as at 5 April 2023 and, once finalised, the contributions may change.

Method and assumptions

The initial results of the valuation as at 5 April 2020 have been updated to 31 December 2023 by a qualified independent actuary.

The assumptions used were as follows:

	As at 31 December 2023	As at 31 December 2022
Discount rate	**4.60%**	4.80%
RPI inflation	**3.00%**	3.10%
CPI inflation	**2.70%**	2.70%
Salary increases	**2.70%**	2.70%
Pension increases		
– Post 88 guaranteed minimum pension	**2.30%**	2.30%
– Non guaranteed minimum pension	**3.00%**	3.10%
Revaluation of deferred pensions in excess of guaranteed minimum pension	**2.70%**	2.70%
Mortality (pre- and post-retirement)	**100% S3PMA_M/ 100% S3PFA_M CMI_2022_M/F 1.25% (yob)**	100% S3PMA_M/ 100% S3PFA_M CMI_2021_M/F 1.25% (yob)

Life expectancies (in years):

	Year ended 31 December 2023		Year ended 31 December 2022	
	Males	**Females**	Males	Females
For an individual aged 65 in 2023	**20.8**	**23.3**	21.3	23.8
At age 65 for an individual aged 45 in 2023	**22.1**	**24.8**	22.7	25.2

Notes
Continued

23. Post-employment benefits (continued)

Risks

Through the Scheme, the Company is exposed to a number of risks:

- Asset volatility: The Scheme's defined benefit obligation is calculated using a discount rate set with reference to corporate bond yields; however, the Scheme invests significantly in equities and other growth assets. These assets are expected to outperform corporate bonds in the long term, but are subject to increased volatility and risk in the short term.
- Changes in bond yields: A decrease in corporate bond yields would increase the Scheme's defined benefit obligation; however, this would be partially offset by an increase in the value of the Scheme's bond holdings.
- Inflation risk: A significant proportion of the Scheme's defined benefit obligation is linked to inflation, therefore higher inflation will result in a higher defined benefit obligation (subject to the appropriate caps in place). The majority of the Scheme's assets are either unaffected by inflation, or are only loosely correlated with inflation, therefore an increase in inflation would also increase the deficit.
- Life expectancy: If Scheme members live longer than expected, the Scheme's benefits will need to be paid for longer, increasing the Scheme's defined benefit obligation.

A High Court legal ruling in June 2023 (Virgin Media Limited v NTL Pension Trustees II Limited) decided that certain rule amendments were invalid if they were not accompanied by the correct actuarial confirmation. While the ruling only applied to the specific pension scheme in question, as for guaranteed minimum pension equalisation, if the ruling stands it will form part of case law and can therefore be expected to apply across other pension schemes. However, the ruling is subject to appeal in June, although it may take longer for the outcome of the appeal to be known and therefore any implications, as relevant, will be assessed in future.

The Trustees and Company manage risks in the Scheme through the following strategies:

- Diversification: Investments are well diversified, such that the failure of any single investment would not have a material impact on the overall level of assets.
- Investment strategy: The Trustees are required to review their investment strategy on a regular basis.
- Asset-liability matching (ALM): The Scheme invests in an ALM framework that aims to achieve long-term investment returns in line with the obligations under the Scheme. This is achieved through around 25% of assets being invested in Liability Driven Investment funds.

	Change in assumption	Change in defined benefit obligation
Discount rate	+0.5%/–0.5% p.a.	–6%/+6%
RPI inflation	+0.5%/–0.5% p.a.	+5%/–5%
Assumed life expectancy	+1 year	+3%

These calculations provide an approximate guide to the sensitivity of results and may not be as accurate as a full valuation carried out on these assumptions. Each assumption change is considered in isolation, which in practice is unlikely to occur, as changes in some of the assumptions are correlated.

The assets of the Scheme are invested as follows:

	Year ended 31 December 2023		Year ended 31 December 2022	
Asset class	**Market value £'000**	**% of total Scheme assets**	Market value £'000	% of total Scheme assets
Equities and other growth assets	**6,812**	**29%**	7,985	35%
Diversified Credit Funds	**9,352**	**39%**	5,745	25%
Liability Driven Investments	**6,798**	**28%**	8,156	36%
Cash	**185**	**1%**	226	1%
Other	**661**	**3%**	660	3%
Total	**23,808**	**100%**	22,772	100%
Actual return on assets over the year	**1,516**		(10,910)	

Note: All assets listed above have a quoted market price in an active market (except for the reserve for insured pensioners).

The amounts recognised in the statement of financial position are determined as follows:

	2023 £'000	2022 £'000
Market value of plan assets	**23,808**	22,772
Present value of defined benefit pension scheme obligation	**(26,464)**	(26,062)
Deficit – recognised as a liability in the statement of financial position	**(2,656)**	(3,290)

23. Post-employment benefits (continued)

The movement in the defined benefit obligation over the year is as follows:

	2023 £'000	2022 £'000
Value of defined benefit obligation at the start of the year	**26,062**	38,814
Interest cost	**1,219**	687
Benefits paid	**(1,339)**	(1,334)
Actuarial losses: experience differing from that assumed	**596**	1,360
Actuarial gains: changes in demographic assumptions	**(491)**	(25)
Actuarial losses/(gains): changes in financial assumptions	**417**	(13,440)
Value of defined benefit obligation at the end of the year	**26,464**	26,062

The movement in the value of the plan assets over the year is as follows:

	2023 £'000	2022 £'000
Market value of plan assets at the start of the year	**22,772**	34,157
Interest income	**1,082**	611
Actual return on plan assets	**434**	(11,521)
Employer contributions	**859**	859
Benefits paid	**(1,339)**	(1,334)
Market value of assets at the end of the year	**23,808**	22,772

The table below outlines where the Company's post-employment amounts and activity are included in the financial statements.

	2023 £'000	2022 £'000
Statement of financial position for:		
– Defined benefit pension scheme obligations	**(2,656)**	(3,290)
Income statement charge for:		
– Defined benefit pension interest cost	**(137)**	(76)
Actuarial (losses)/gains recognised in other comprehensive income for:		
– Defined benefit pension scheme	**(88)**	584

Other pension schemes

On 1 January 2006, a separate stakeholder scheme was set up for those employees who were originally in the closed Defined Benefit Pension Scheme. In addition to the above, the Company created two further stakeholder schemes for future joiners. The contributions paid by the Company in 2023 were £1,025k (2022: £954k).

For certain non-UK based employees of the Company, the Company makes contributions into individual schemes. The contributions paid by the Company in 2023 were £5k (2022: £5k).

For USA-based employees, Zotefoams Inc operates a 401(k) plan. The contributions paid by Zotefoams Inc in 2023 were £447k (2022: £333k).

Notes
Continued

24. Share-based payments

The Company has a share option scheme that entitles senior management personnel to purchase shares in the Company. Options are exercisable at a price equal to the lower of the mid-market price of the Company's shares the day before the option is granted or the average mid-market price for the three dealing days before the option is granted. The vesting period is three years. If the options remain unexercised after a period of ten years from the date of grant, the options will expire. Depending on the circumstances, options are normally forfeited if the employee leaves the Company before the options vest.

In 2007, the Company introduced a Long-Term Incentive Plan (LTIP) scheme for senior management personnel. Shares are awarded in the Company and vest after three years to the extent that performance conditions are met. Dependent on the circumstances, awards are normally forfeited if the employee leaves the Company before the award vests. A new LTIP scheme was introduced in 2017, which operates in a similar way to the LTIP scheme introduced in 2007. No new awards are made under the 2007 scheme. Depending on the circumstances, options are normally forfeited if the employee leaves the Company before the options vest.

In 2007, the Company introduced a Deferred Bonus Share Plan. Under the terms of this plan, executive bonuses with a value equivalent to over 40% of eligible salary were held as deferred shares for three years. In 2014, the Remuneration Committee amended the Deferred Bonus Share Plan for bonuses awarded since 2014, such that 25% of executive bonuses are held as deferred shares for three years with no minimum value. Depending on the circumstances, awards are normally forfeited if the employee leaves the Company before the award vests. A new Deferred Bonus Share Plan scheme was introduced in 2017, which operates in a similar way to the old Plan introduced in 2007, as amended in 2014. No new awards are made under the 2007 Plan. Depending on the circumstances, awards are normally forfeited if the employee leaves the Company before the award vests.

Details of the vesting conditions for the share, share option and LTIP awards are given in the Directors' Remuneration report on pages 90 to 103.

Movements in share options during the year are as follows:

The options outstanding at 31 December 2023 have an exercise price between 245.7p and 432.5p and a weighted contractual life of six years (2022: seven years).

There were no cancellations or modifications to the awards in 2023 or 2022.

The fair value received in return for share options granted is measured by reference to the fair value of share options granted using a Black-Scholes model. The contractual life of the option (ten years) is used as an input into this model. No allowance is made for early leavers.

	2023		2022	
	Number of share options	**Weighted average exercise price (p)**	Number of share options	Weighted average exercise price (p)
Outstanding at beginning of the year	**119,294**	**342**	101,926	364
Exercised during the year	**–**	**–**	–	–
Granted during the year	**8,121**	**394**	31,489	325
Forfeited during the year	**–**	**–**	(14,121)	464
Outstanding at the end of the year	**127,415**	**345**	119,294	342
Exercisable at the end of the year	**54,546**	**293**	54,546	293

Movements in LTIP awards during the year are as follows:

	2023		2022	
	Number of share options	**Weighted average exercise price (p)**	Number of share options	Weighted average exercise price (p)
Outstanding at beginning of the year	**1,007,958**	**–**	653,656	–
Exercised during the year	**(45,438)**	**–**	(38,819)	–
Granted during the year	**382,464**	**–**	484,520	–
Forfeited during the year	**(163,972)**	**–**	(91,399)	–
Outstanding at the end of the year	**1,181,012**	**–**	1,007,958	–
Exercisable at the end of the year	**–**	**–**	–	–

24. Share-based payments (continued)

Movement in Deferred Bonus Share Plan awards during the year are as follows:

	2023		2022	
	Number of share options	**Weighted average exercise price (p)**	Number of share options	Weighted average exercise price (p)
Outstanding at beginning of the year	**63,702**	**–**	91,079	–
Exercised during the year	**(38,639)**	**–**	(39,570)	–
Granted during the year	**52,447**	**–**	12,193	–
Forfeited during the year	**–**	**–**	–	–
Outstanding at the end of the year	**77,510**	**–**	63,702	–
Exercisable at the end of the year	**–**	**–**	–	–

Fair value of share options and assumptions

The expected volatility is based on historic volatility for a three-year period prior to the award.

	08-Apr-21	19-Apr-22	18-Apr-23
Share price (p)	415.0	325.0	394.0
Exercise price (p)	433.0	325.0	394.0
Expected volatility	40%	48%	39%
Option life	Three years	Three years	Three years
Expected dividends (p) (assumed to be increasing at 2.5% p.a.)	6.3	6.5	7.1
Risk-free interest rate (based on national government bonds)	2.00%	2.00%	3.75%
Fair value at grant date (p)	99.0	98.0	106.0

The Company's employee share option awards are granted under a service condition and a performance condition. There are no market conditions associated with the share options. The LTIP awards are granted under a service condition and a performance condition, part of which is a market condition. The Deferred Bonus Plan awards are granted under a service condition.

The amounts recognised in the income statement for equity-settled share-based payments are as follows:

	2023 £'000	2022 £'000
Within administrative expenses – share-based payment charge	**1,335**	809
– related National Insurance	**161**	140

Of the above, amounts relating to Directors of Zotefoams plc aggregate to £867k (2022: £532k).

Notes
Continued

25. Related parties
Directors
The Directors of the Company as at 31 December 2023 and their immediate relatives control approximately 1.27% (2022: 1.28%) of the voting shares of the Company. Details of Directors' pay and remuneration are given in the Directors' Remuneration report on pages 90 to 103. Executive Directors are considered to be the only key management personnel. Details of compensation paid to key management personnel are included in note 5.

Subsidiaries and joint venture
Details of the joint venture and subsidiaries of the Company are set out in notes 9 and 13. These companies are considered to be related parties.

The following material transactions were carried out with related parties:

	2023 £'000	2022 £'000
Sale of goods: subsidiaries of the Company	**4,434**	3,875
Sale of services: subsidiaries of the Company	**2,598**	2,537
Loans given (net of repayments): subsidiaries of the Company	**(708)**	(2,419)
Interest income: subsidiaries of the Company	**1,302**	657
Sale of goods: joint venture of the Company	**2,944**	3,444
Sale of service: joint venture of the Company	**368**	232
Total	**10,938**	8,326

Balances between the Company and its active subsidiaries and joint venture are as follows:

	Receivable from/(payable to)		Investment in	
	2023 £'000	2022 £'000	2023 £'000	2022 £'000
Zotefoams Inc	**12,669**	13,163	**–**	–
Azote Asia Limited	**1,000**	1,304	**–**	–
MuCell Extrusion LLC	**7,904**	6,511	**–**	–
Zotefoams International Limited	**15,487**	16,370	**30,822**	30,822
Zotefoams T-Fit Material Technology (Kunshan) Limited	**2,014**	3,438	**–**	–
Zotefoams Poland Sp. z o.o.	**1,190**	291	**–**	–
Zotefoams France SAS	**(73)**	(59)	**–**	–
T-Fit Insulation solutions India Private Limited	**–**	75	**–**	–

26. Accounting estimates and judgements for the Group and Company

In the application of the Group's accounting policies, which are described in note 2, the Directors are required to make judgements, estimates and assumptions about the carrying amounts of assets and liabilities which are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and other facts that are considered relevant. Actual amounts may differ from these estimates.

Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

Key sources of estimation uncertainty

The key assumptions concerning the future and other key sources of estimation uncertainty at the statement of financial position date that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are disclosed below.

i) Estimated impairment of goodwill and intangibles

The Group tests annually whether goodwill has suffered any impairment, in accordance with the accounting policy stated in note 2.11.

The determination of impairment in the carrying value of goodwill and intangible assets requires judgements to be made by Directors. These assets are assessed on an ongoing basis to determine whether circumstances exist that could lead to the conclusion that the carrying value of such assets is not supportable. In relation to the operational MuCell business that licenses technology and sells related technology, the Directors use a model that includes the use of this technology within ReZorce® mono-material barrier packaging. In relation to the ReZorce solution and given the stage of its development, the Directors consider different factors, such as the potential market size, the ability to penetrate this market, potential customer interest, development partnerships with potential customers and future delivery partners, current technological development status, Group funding availability and the Board's commitment to the project.

Based on the judgements and estimates above, the Directors have concluded that the opportunity and strategy supports the carrying value of the underlying intangible assets.

ii) Pension assumptions

The present value of the defined benefit pension obligations depends on a number of factors that are determined on an actuarial basis using a number of assumptions. Any changes in these assumptions will impact the carrying amount of pension obligations. The Company engages an independent actuary to perform the valuation and assist in determining appropriate assumptions at the end of each year. The valuation is prepared by an independent qualified actuary, but significant judgements are required in relation to the assumptions for pension increases, inflation, the discount rate applied, investment returns and member longevity, all of which underpin the valuations. Note 23 contains information about the assumptions relating to retirement benefit obligations.

iii) General provisions

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation. When the Group expects some or all of a provision to be reimbursed – for example, under an insurance contract – the reimbursement is recognised as a separate asset, but only when the reimbursement is virtually certain. The expense relating to a provision is presented in the statement of profit or loss net of any reimbursement.

If the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, when appropriate, the risks specific to the liability. When discounting is used, the increase in the provision due to the passage of time is recognised as a finance cost.

iv) Leases estimating the incremental borrowing rate

The Group cannot readily determine the interest rate implicit in the lease, therefore it uses its incremental borrowing rate (IBR) to measure lease liabilities. The IBR is the rate of interest that the Group would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment. The IBR therefore reflects what the Group "would have to pay", which requires estimation when no observable rates are available (such as for subsidiaries that do not enter into financing transactions) or when they need to be adjusted to reflect the terms and conditions of the lease (for example, when leases are not in the subsidiary's functional currency). The Group estimates the IBR using observable inputs (such as market interest rates) when available and is required to make certain entity-specific estimates (such as the subsidiary's stand-alone credit rating).

v) Share-based payments

Estimating fair value for share-based payment transactions requires determination of the most appropriate valuation model, which depends on the terms and conditions of the grant. This estimate also requires determination of the most appropriate inputs to the valuation model, including the expected life of the share option or appreciation right, volatility and dividend yield, and making assumptions about them. The Group uses the Black-Scholes model to estimate the fair value of instruments. The Black-Scholes formula has been adjusted to take account of certain characteristics of share options, such as the probability of vesting and meeting the performance conditions of LTIPs. The assumptions and models used for estimating fair value for share-based payment transactions are disclosed in note 24.

Key judgements

i) Unrecognised deferred tax assets

At year-end exchange rates, the Group has tax losses carried forward of £24,095k in the USA, while tax losses of £657k have been recognised on the statement of financial position. Based on projections, the Group expects to use all these carried forward tax losses; however, management has taken a prudent approach based on historical performance by the entities in this tax jurisdiction and recognised a lower figure. If the Group makes two consecutive years of profit in the USA, further consideration will be given to recognising a deferred tax asset.

27. Events after the reporting period

There are no events after the reporting period affecting these financial statements.

Five-year trading summary

	2023 £m	2022 £m	2021 £m	2020 £m	2019 £m
Group revenue	**127.0**	127.4	100.8	82.7	80.9
Operating profit (excluding exceptional item)	**15.1**	13.9	8.1	9.1	9.1
Profit before tax (excluding exceptional item)	**12.8**	12.2	7.0	8.3	8.8
Profit before tax	**12.8**	12.2	7.0	8.3	9.8
Profit after tax	**9.2**	10.0	4.4	7.2	8.2
Capital expenditure (including intangibles)	**8.5**	7.0	7.0	12.7	24.4
Cash generated from operations	**12.1**	23.0	12.2	13.0	11.8
Basic earnings per share excluding exceptional item (p)	**19.00**	20.61	9.01	14.87	14.91
Basic earnings per share (p)	**19.00**	20.61	9.01	14.87	17.10
Dividends per ordinary share (p)	**7.18**	6.80	6.50	6.30	2.03

Notice of the 2024 Annual General Meeting

THIS DOCUMENT IS IMPORTANT AND REQUIRES YOUR IMMEDIATE ATTENTION

If you are in any doubt as to the action you should take, it is recommended to seek your own financial advice from your stockbroker, bank manager, solicitor, accountant or other independent adviser authorised under the Financial Services and Markets Act 2000 if you are resident in the UK or, if you reside elsewhere, another appropriately authorised financial adviser.

If you have sold or otherwise transferred your shares in Zotefoams plc, you should forward this document and other documents enclosed as soon as possible either to the purchaser or transferee or to the person who arranged the sale or transfer so they can pass these documents to the person who now holds the shares.

ZOTEFOAMS PLC
Notice of Annual General Meeting

Zotefoams plc considers it vital to engage with investors and other stakeholders through the most appropriate channels. Shareholders' views are important and we want to ensure that they are given as much information as possible in good time to enable them to participate in the decision-making process.

Zotefoams intends to hold its AGM in person. Any changes to the AGM arrangements will be published on our website www.zotefoams.com/investors/ and announced through the London Stock Exchange. Please monitor the website for any announcements and updates.

A presentation open to all existing and potential shareholders will be given after the AGM on 22 May 2024 at 11.30am on the Investor Meet Company platform: www.investormeetcompany.com/register-investor. Investors who already follow Zotefoams plc on the Investor Meet Company platform will be invited automatically.

Notice is hereby given that the Annual General Meeting (AGM) of Zotefoams plc (the "Company") will be held at the registered office of the Company, **675 Mitcham Road, Croydon, CR9 3AL, on 22 May 2024 at 10.00 am** for the following purposes.

Ordinary business

1. To receive the Annual Report of the Company for the year ended 31 December 2023.
2. To approve the Annual Statement by the Chair of the Remuneration Committee and the Annual Report on Remuneration for the year ended 31 December 2023 set out on pages 90 to 103 of the Annual Report.
3. To declare a final dividend for the year ended 31 December 2023 of 4.90 pence per ordinary share, such dividend to be payable on 3 June 2024 to shareholders on the register of members of the Company at the close of business on 3 May 2024.
4. To re-elect L Drummond as a Director.
5. To elect R M Cox as a Director.
6. To re-elect G C McGrath as a Director.
7. To re-elect J D Carling as a Director.
8. To re-elect D G Robertson as a Director.
9. To elect M S Swift as a Director.
10. To re-elect C A Wall as a Director.
11. That PKF Littlejohn LLP be and is hereby re-appointed as Auditor of the Company to hold office from the conclusion of the AGM until the conclusion of the next general meeting at which accounts are laid before the Company.
12. To authorise the Audit Committee to determine the Auditor's remuneration.

Special business

To consider and, if thought fit, to pass the following resolutions, of which resolution 13 will be proposed as an ordinary resolution and resolutions 14, 15, 16 and 17 will be proposed as special resolutions.

13. That, in substitution for any equivalent authorities and powers granted to the Directors prior to the passing of this resolution, the Directors be, and are generally and unconditionally, authorised pursuant to Section 551 of the Companies Act 2006 (the "Act"):

    (a) to exercise all powers of the Company to allot shares in the Company and grant rights to subscribe for or to convert any security into shares of the Company (such shares, and rights to subscribe for or to convert any security into shares of the Company, being "relevant securities") up to an aggregate nominal amount of £814,103 (such amount to be reduced by the nominal amount of any allotments or grants made under paragraph (b) below in excess of £814,103); and further

    (b) to allot equity securities (as defined in Section 560 of the Act) up to an aggregate nominal amount of £1,628,207 (such amount to be reduced by the nominal amount of any allotments or grants made under paragraph (a) above) in connection with an offer by way of rights issue:

        (i) in favour of holders of ordinary shares in the capital of the Company, where the equity securities respectively attributable to the interests of all such holders are proportionate (as nearly as practicable) to the respective number of ordinary shares in the capital of the Company held by them; and

        (ii) to holders of any other equity securities as required by the rights of those securities or as the Directors otherwise consider necessary;

        but subject to such exclusions or other arrangements as the Directors may deem necessary or expedient to deal with treasury shares, fractional entitlements or legal, regulatory or practical problems arising under the laws or requirements of any overseas territory or by virtue of shares being represented by depository receipts or the requirements of any regulatory body or stock exchange or any other matter whatsoever;

    (c) provided that, unless previously revoked, varied or extended, this authority shall expire on the earlier of 30 June 2025 and the conclusion of the next AGM of the Company, except that the Company may at any time before such expiry make an offer or agreement which would or might require relevant securities to be allotted after such expiry and the Directors may allot relevant securities in pursuance of such an offer or agreement as if this authority had not expired.

14. That, if resolution 13 is passed, the Directors be authorised to allot equity securities (as defined in Section 560 of the Act) for cash under the authority given by that resolution and/or to sell ordinary shares held by the Company as treasury shares for cash as if Section 561 of the Act did not apply to any such allotment or sale, such authority to be limited:

    (a) in favour of holders of ordinary shares in the capital of the Company, where the equity securities respectively attributable to the interests of all such holders are proportionate (as nearly as practicable) to the respective number of ordinary shares in the capital of the Company held by them; and

    (b) to the allotment of equity securities or sale of treasury shares (otherwise than under paragraph (a) above) up to a nominal amount of £122,115;

    such authority to expire at the conclusion of the next AGM of the Company (or, if earlier, on 30 June 2025) but, in each case, prior to its expiry the Company may make offers, and enter into agreements, which would, or might, require equity securities to be allotted (and treasury shares to be sold) after the authority expires and the Directors may allot equity securities (and sell treasury shares) under any such offer or agreement as if the authority had not expired.

Notice of the 2024 Annual General Meeting
Continued

15. That, if resolution 13 is passed, the Directors be authorised in addition to any authority granted under resolution 14 to allot equity securities (as defined in Section 560 of the Act) for cash under the authority given by that resolution and/or to sell ordinary shares held by the Company as treasury shares for cash as if Section 561 of the Act did not apply to any such allotment or sale, such authority to be:
    (a) limited to the allotment of equity securities or sale of treasury shares up to a nominal amount of £122,115; and
    (b) used only for the purposes of financing (or refinancing, if the authority is to be used within six months after the original transaction) a transaction which the Directors determine to be an acquisition or other capital investment of a kind contemplated by the Statement of Principles on Disapplying Pre-Emption Rights most recently published by the Pre-Emption Group prior to the date of this notice;

    such authority to expire at the conclusion of the next AGM of the Company (or, if earlier, on 30 June 2025) but, in each case, prior to its expiry the Company may make offers, and enter into agreements, which would, or might, require equity securities to be allotted (and treasury shares to be sold) after the authority expires and the Directors may allot equity securities (and sell treasury shares) under any such offer or agreement as if the authority had not expired.
16. That the Company be and is hereby unconditionally and generally authorised for the purposes of Section 701 of the Act to make market purchases (within the meaning of Section 693(4) of the Act) of its ordinary shares of 5 pence each ("ordinary shares") provided that:
    (a) the maximum number of ordinary shares authorised to be purchased is 4,884,623, representing approximately 10% of the issued ordinary share capital as at 4 April 2024;
    (b) the minimum price which may be paid for any such ordinary share is 5 pence;
    (c) the maximum price which may be paid for an ordinary share shall be an amount equal to 105% of the average middle market quotations for an ordinary share as derived from the London Stock Exchange Daily Official List for the five business days immediately preceding the day on which the ordinary share is contracted to be purchased; and
    (d) this authority shall, unless previously renewed, revoked or varied, expire on the earlier of 30 June 2025 and the conclusion of the next AGM, but the Company may enter into a contract for the purchase of ordinary shares before the expiry of this authority which would or might be completed (wholly or partly) after its expiry.
17. That a general meeting other than an Annual General Meeting may be called on not less than 14 clear days' notice.

Dated: 5 April 2024
By order of the Board

Registered Office:
675 Mitcham Road
Croydon
CR9 3AL

L Harratt
Company Secretary

The following notes are subject to any applicable social distancing measures prohibiting physical attendance of the AGM by a Member or Proxy.

(i) Pursuant to Part 13 of the Companies Act 2006 and to Regulation 41 of the Uncertificated Securities Regulations 2001 (as amended), only those members registered in the register of members of the Company at the close of business on 20 May 2024 (or if the AGM is adjourned, 48 hours before the time fixed for the adjourned AGM) shall be entitled to attend and vote at the AGM in respect of the number of shares registered in their name at that time. In each case, changes to the register of members after such time shall be disregarded in determining the rights of any person to attend or vote at the AGM.

(ii) If you wish to attend the AGM in person, please bring some form of identification (such as driver's licence or bankcard) and present this to the Company's reception desk on arrival.

(iii) A member who is entitled to attend, speak and vote at the AGM may appoint a proxy to attend, speak and vote instead of him or her. A member may appoint more than one proxy, provided each proxy is appointed to exercise rights attached to different shares (so a member must have more than one share to be able to appoint more than one proxy). A proxy need not be a member of the Company but must attend the AGM in order to represent you. A proxy must vote in accordance with any instructions given by the member by whom the proxy is appointed. Appointing a proxy will not prevent a member from attending in person and voting at the AGM (although voting in person at the AGM will terminate the proxy appointment). A proxy form is enclosed or has been sent to you separately. The notes to the proxy form include instructions on how to appoint the Chair of the AGM or another person as a proxy. You can only appoint a proxy using the procedures set out in these notes and in the notes to the proxy form.

(iv) To be valid, a proxy form, and the original or duly certified copy of the power of attorney or other authority (if any) under which it is signed or authenticated, should reach the Company's registrars, Computershare Investor Services plc, The Pavilions, Bridgwater Road, Bristol BS99 6ZY, by no later than 10.00 am on 20 May 2024.

(v) CREST members who wish to appoint a proxy or proxies through the CREST electronic proxy appointment service may do so for the meeting and any adjournment(s) thereof by using the procedures described in the CREST Manual. CREST personal members or other CREST sponsored members, and those CREST members who have appointed a voting service provider(s), should refer to their CREST sponsor or voting service provider(s), who will be able to take the appropriate action on their behalf.

    In order for a proxy appointment or instruction made using the CREST service to be valid, the appropriate CREST message (a CREST Proxy Instruction) must be properly authenticated in accordance with Euroclear UK & Ireland Limited's specifications and must contain the information required for such instruction, as described in the CREST Manual (available via www.euroclear.com/CREST). The message, regardless of whether it constitutes the appointment of a proxy or is an amendment to the instruction given to a previously appointed proxy must, in order to be valid, be transmitted so as to be received by the issuer's agent (ID 3RA50) by the latest time(s) for receipt of proxy appointments specified in Note 3 above. For this purpose, the time of receipt will be taken to be the time (as determined by the time stamp applied to the message by the CREST Application Host) from which the issuer's agent is able to retrieve the message by enquiry to CREST in the manner prescribed by CREST. After this time, any change of instructions to proxies appointed through CREST should be communicated to the appointee through other means.

    CREST members and, where applicable, their CREST sponsors or voting service providers should note that Euroclear UK & Ireland Limited does not make available special procedures in CREST for any particular messages. Normal system timings and limitations will therefore apply in relation to the input of CREST Proxy Instructions. It is the responsibility of the CREST member concerned to take (or, if the CREST member is a CREST personal member or sponsored member or has appointed a voting service provider(s), to procure his or her CREST sponsor or voting service provider(s) take) such action as shall be necessary to ensure that a message is transmitted by means of the CREST system by any particular time. In this connection, CREST members and, where applicable, their CREST sponsors or voting service providers are referred, in particular, to those sections of the CREST Manual concerning practical limitations of the CREST system and timings (www.euroclear.com/CREST).

The Company may treat as invalid a CREST Proxy Instruction in the circumstances set out in Regulation 35(5)(a) of the Uncertificated Securities Regulations 2001 (as amended).

(vi) In the case of joint holders of shares, the vote of the first named in the register of members who tenders a vote, whether in person or by proxy, shall be accepted to the exclusion of the votes of other joint holders.

(vii) The following information is available at www.zotefoams.com: (1) the matters set out in this notice of AGM; (2) the total numbers of shares in the Company, and shares in each class, in respect of which members are entitled to exercise voting rights at the AGM; (3) the totals of the voting rights that members are entitled to exercise at the AGM, in respect of the shares of each class; and (4) members' statements, members' resolutions and members' matters of business received by the Company after the first date on which notice of the AGM was given.

(viii) If you are a person who has been nominated by a member to enjoy information rights in accordance with Section 146 of the Companies Act 2006, notes (iii) to (v) above do not apply to you (as the rights described in these notes can only be exercised by members of the Company) but you may have a right under an agreement between you and the member by whom you were nominated to be appointed or to have someone else appointed, as a proxy for the meeting. If you have no such right or do not wish to exercise it, you may have a right under such an agreement to give instructions to the member as to the exercise of voting rights.

(ix) A member that is a company, or other organisation not having a physical presence, cannot attend in person but can appoint someone to represent it. This can be done in one of two ways: either by the appointment of a proxy (described in notes (iii) to (v) above) or of a corporate representative. Members considering the appointment of a corporate representative should check their own legal position, the Company's Articles of Association and the relevant provision of the Companies Act 2006.

(x) Members attending the AGM have the right to ask, and, subject to the provisions of the Companies Act 2006, the Company must cause to be answered, any questions relating to the business being dealt with at the AGM.

(xi) As at the close of business on 4 April 2024 (being the latest practicable date before publication of this notice), the Company's issued share capital comprised 48,846,234 ordinary shares of 5 pence each. Each ordinary share carries the right to one vote at a general meeting of the Company. No ordinary shares were held in treasury and accordingly the total number of voting rights in the Company as at the close of business on 4 April 2024 is 48,846,234.

(xii) Shareholders should note that it is possible that, pursuant to requests made by shareholders of the Company under Section 527 of the Companies Act 2006, the Company may be required to publish on a website a statement setting out any matter relating to: (1) the audit of the Company's accounts (including the auditor's report and the conduct of the audit) that are to be laid before the AGM; or (2) any circumstance connected with the Auditor of the Company ceasing to hold office since the previous meeting at which annual accounts and reports were laid in accordance with Section 437 of the Companies Act 2006. The Company may not require the shareholders requesting any such website publication to pay its expenses in complying with Section 527 or 528 of the Companies Act 2006. Where the Company is required to place a statement on a website under Section 527 of the Companies Act 2006, it must forward the statement to the Company's Auditor not later than the time when it makes the statement available on the website. The business which may be dealt with at the AGM includes any statement that the Company has been required, under Section 527 of the Companies Act 2006, to publish on a website.

(xiii) Copies of the Executive Directors' service contracts with the Company and any of its subsidiary undertakings, deeds of indemnity in favour of the Directors and letters of appointment of the Non-Executive Directors are available for inspection at the registered office of the Company during the usual business hours on any weekday (Saturday, Sunday or public holidays excluded) from the date of this notice until the conclusion of the AGM.

Explanatory notes to the resolutions

Ordinary business

Resolution 1 – Receiving the Annual Report

Shareholders will be asked to receive the Company's Annual Report for the financial year ended 31 December 2023, as required by law.

Resolution 2 – Directors' Remuneration report

Resolution 2 seeks shareholder approval of the Directors' Remuneration report for the year ended 31 December 2023 which can be found on pages 90 to 103 of the Annual Report. The Company's External Auditor, PKF Littlejohn LLP, has audited those parts of the Directors' Remuneration report that are required to be audited and its report may be found on pages 108 to 112 of the Annual Report.

The shareholders approved the current Directors' Remuneration Policy at the AGM held on 24 May 2023 and it became effective immediately. As there have been no changes to the Directors' Remuneration Policy, there is no need to seek further approval of it at this year's AGM. The current intention is to submit the Directors' Remuneration Policy for shareholder approval at the AGM scheduled for 2026, unless, in the interim, there are specific changes that require shareholder approval. The Directors' Remuneration Policy may be found in the 2022 Annual Report on pages 91 to 99.

Resolution 3 – Declaration of dividend

This resolution concerns the Company's final dividend payment. The Directors are recommending a final dividend of 4.90 pence per ordinary share in respect of the year ended 31 December 2023 which, if approved, will be payable on 3 June 2024 to the shareholders on the register of members on 3 May 2024.

Resolutions 4 to 10 – Re-election of Director

The Company's Articles of Association require each Director of the Company to retire from office at each Annual General Meeting of the Company and, if they are willing, to offer themselves for re-appointment by the shareholders. Biographies for the Directors are set out on pages 78 to 79 of the Annual Report for the year ended 31 December 2023. With the Chair having undertaken performance reviews of the Directors, and the Non-Executive Directors having undertaken a performance review of the Chair, the Board is satisfied that each Director continues to be effective and demonstrates commitment to the role and recommends that each Director should be elected or re-elected.

Resolutions 11 and 12 – Re-appointment of Auditor and its remuneration

Resolution 11 concerns the re-appointment of PKF Littlejohn LLP as the Company's Auditor, to hold office until the conclusion of the Company's next general meeting where accounts are laid. Resolution 12 authorises the Audit Committee to determine the Auditor's remuneration.

Notice of the 2024 Annual General Meeting
Continued

Special business

Resolution 13 – Power to allot shares

This resolution grants the Directors authority to allot shares in the capital of the Company and other relevant securities up to an aggregate nominal value of £814,103, representing approximately one-third of the nominal value of the issued ordinary share capital of the Company as at 4 April 2024, being the latest practicable date before publication of this notice. In addition, in accordance with the latest institutional guidelines issued by the Investment Association, paragraph (b) of resolution 13 grants the Directors authority to allot further equity securities up to an aggregate nominal value of £1,628,207 representing approximately two-thirds of the nominal value of the issued ordinary share capital of the Company as at 4 April 2024, being the latest practicable date before publication of this notice. This additional authority may only be applied to fully pre-emptive rights issues.

The intention of the authority granted pursuant to paragraph (b) of resolution 13 is to preserve maximum flexibility and if the Directors do exercise this authority, they intend to follow best practice as regards its use.

The Company does not currently hold any shares as treasury shares within the meaning of Section 724 of the Companies Act 2006 ("Treasury Shares").

The Directors consider it desirable that the specified amount of authorised but unissued share capital is available for issue so that they can more readily take advantage of possible opportunities, which may include the allotment of shares to the Employee Benefit Trust for the purpose of fulfilling future potential awards.

Unless revoked, varied or extended, this authority will expire at the conclusion of the next AGM of the Company or 30 June 2025, whichever is the earlier.

Resolutions 14 and 15 – Authority to allot shares disregarding pre-emption rights

These resolutions authorise the Directors in certain circumstances to allot equity securities for cash other than in accordance with the statutory pre-emption rights (which require a company to offer all allotments for cash first to existing shareholders in proportion to their holdings). Resolution 14 authorises the Directors to issue shares either where the allotment takes place in connection with a rights issue or the allotment is limited to a maximum nominal amount of £122,115, representing approximately 5% of the nominal value of the issued ordinary share capital of the Company as at 4 April 2024, being the latest practicable date before publication of this notice. Resolution 15 authorises the Directors to issue a further 5% of the issued ordinary share capital of the Company, but only to be used to raise finance for an acquisition or a specified capital investment (within the meaning given in the Pre-Emption Group's Statement of Principles) which is announced contemporaneously with the allotment, or which has taken place in the preceding six-month period and is disclosed in the announcement of the allotment.

Unless revoked, varied or extended, these authorities will expire at the conclusion of the next AGM of the Company or 30 June 2025, whichever is the earlier.

The Directors consider that the powers proposed to be granted by these resolutions are necessary to retain flexibility, although they do not have any intention at the present time of exercising them. In accordance with the Pre-Emption Group's Statement of Principles, the Directors confirm that they do not intend to issue more than 7.5% of the issued ordinary share capital of the Company on a non-pre-emptive basis in any rolling three-year period without prior consultation with shareholders.

Resolution 16 – Authority to purchase shares (market purchases)

This resolution authorises the Board to make market purchases of up to 4,884,623 ordinary shares (representing approximately 10% of the Company's issued ordinary shares as at 4 April 2024, being the latest practicable date before publication of this notice). Shares so purchased may be cancelled or held as treasury shares. The authority will expire at the end of the next AGM of the Company or 30 June 2025, whichever is the earlier. The Directors intend to seek renewal of this authority at subsequent AGMs.

The minimum price that can be paid for an ordinary share is 5 pence, being the nominal value of an ordinary share. The maximum price that can be paid is 5% over the average of the middle market prices for an ordinary share, derived from the Daily Official List of the London Stock Exchange, for the five business days immediately before the day on which the share is contracted to be purchased.

The Directors intend to exercise this right only when, in light of the market conditions prevailing at the time and taking into account all relevant factors (for example, the effect on earnings per share), they believe that such purchases are in the best interests of the Company and shareholders in general and will result in an increase in earnings per ordinary share. The overall position of the Company will be taken into account before deciding upon this course of action. The decision as to whether any such shares bought back will be cancelled or held in treasury will be made by the Directors on the same basis at the time of the purchase.

As at 4 April 2024, being the latest practicable date before publication of this notice, there were outstanding awards under the Company's long-term incentive schemes (excluding the Share Incentive Plan) in respect of 1,232,974 ordinary shares in the capital of the Company representing 2.5% of the Company's issued ordinary share capital. If the authority to purchase the Company's ordinary shares were exercised in full, such awards would represent 2.8% of the Company's issued ordinary share capital.

Resolution 17 – Notice period for general meetings

Under the Companies Act 2006, a listed company must give at least 21 days' notice of its general meetings. However, the Act enables general meetings (other than AGMs) to be held on shorter notice of not less than 14 days, provided the shareholders have given their consent at the previous AGM or a general meeting held since the last AGM. Resolution 17 seeks such approval similar to the resolution that was passed last year. The approval will be effective until the Company's next AGM, when it is intended that a similar resolution will be proposed. The Directors will always endeavour to give as much notice as possible of general meetings, but would like to have the flexibility to call a general meeting on the shorter permitted notice period for time-sensitive matters that are clearly in the shareholders' interests and otherwise for non-routine business, where merited, in the interests of shareholders as a whole. If the authority is used, the Company will offer the ability, as required by the Companies Act 2006, to vote electronically.

Recommendation

The Directors consider that the proposals being put to the shareholders at the AGM are in the best interests of the Company and of the shareholders as a whole. Accordingly, the Directors recommend that you vote in favour of the resolutions set out in the Notice of the AGM, as they intend to do in respect of their own beneficial holdings of ordinary shares.

Company information

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PKF Littlejohn LLP
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Bankers
Handelsbanken plc
3 Thomas More Square
London E1W 1WY

National Westminster Bank plc
Turnpike House, 123 High Street
Crawley RH10 1DD

Solicitors
Osborne Clarke LLP
One London Wall
London EC2Y 5EB

Collyer Bristow LLP
140 Brompton Road
London SW3 1HY

Registrars
Computershare Investor
Services plc
The Pavilions
Bridgwater Road
Bristol BS13 8AE
www.computershare.com

Financial calendar

AGM	22 May 2024
Payment of final dividend	3 June 2024 to shareholders on the register at the close of business on 3 May 2024
Payment of interim dividend	October 2024
Announcement of 2024 results	March 2025

Website
The Company has a website (www.zotefoams.com) which provides information on the business and products.

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MuCell® is a registered trademark of Trexel Inc.

Registrars
Enquiries concerning the holding of ordinary shares in the Company should be addressed to the registrars who should also be notified of any changes in a holder's address.

The registrars are: Computershare Investor Services plc, The Pavilions, Bridgwater Road, Bristol BS13 8AE.

Telephone: 0370 707 1424

www.investorcentre.co.uk/contactus

Notes

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www.fsc.org
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