Registered No. 03690830

LUXFER HOLDINGS PLC

Annual Report and Financial Statements

31 December, 2022

LUXFER HOLDINGS PLC ¦ Lumns Lane ¦ Manchester ¦ M27 8LN

Contents

Glossary of Terms

Unless the context in which we use the terms indicates otherwise, the following terms used in this report have the following meanings:

AGM	Annual General Meeting of the Company.
Articles	The Articles of Association of Luxfer Holdings PLC adopted by special resolution of the Company on 26 October 2011, effective from the date of the I.P.O. (and subsequently updated).
Companies Act	U.K. Companies Act 2006.
FPI	Foreign Private Issuer under the SEC registration rules.
GAAP	Generally Accepted Accounting Principles is an accounting standard adopted by the U.S. Securities and Exchange Commission.
Group	Luxfer Holdings PLC and its subsidiaries.
IFRS	International Accounting Standards in conformity with the requirements of Companies Act 2006
I.P.O.	The Initial Public Offering in the U.S. completed by Luxfer Holdings PLC on 9 October, 2012.
NYSE	New York Stock Exchange.
£0.50 Ordinary Shares	The Company's ordinary shares of £0.50 each.
SEC	Securities and Exchange Commission of the U.S.
Year	1 January, 2022, to 31 December, 2022.
LTIP	Long-Term Umbrella Incentive Plan.

STRATEGIC REPORT

Principal Activities and Review of the Business

Luxfer Holdings PLC ("Luxfer," "the Company," "we," "our") is a global industrial company innovating niche applications in materials engineering. Luxfer focuses on value creation by using its broad array of technical know-how and proprietary technologies to help create a safe, clean and energy efficient world. Luxfer's high-performance materials, components and high-pressure gas containment devices are used in defense, first response and healthcare, transportation and general industrial applications.

The principal activity of Luxfer Holdings PLC is that of the holding company for the Luxfer Group.

We focus primarily on product lines related to magnesium alloys, zirconium chemicals and carbon composites. We have a long history of innovation derived from our strong technical expertise, and we work closely with customers to apply solutions to their most demanding product needs. Our proprietary technologies and technical expertise, coupled with strong customer service and global presence, provide competitive advantages and have established us as leaders in the global markets we serve. We believe that we have leading positions in key product areas, including magnesium alloys and powders for aerospace, military, and commercial applications, zirconium chemicals for automotive catalytic converters and industrial catalysis, high-pressure composite cylinders for self-contained breathing apparatus, as well as transport and storage of compressed natural gas ("CNG") and hydrogen, and a wide variety of other uses.

We have a global presence, operating 13 manufacturing plants in the U.S., the U.K., Canada and China, one of which relates to discontinued operations, and we also have a joint venture in Japan. We employ approximately 1,400 people, including temporary staff, of which fewer than 50 support our discontinued operations.

Luxfer operates in two business segments - Elektron and Gas Cylinders:

Our **Elektron Segment** focuses on specialty materials based primarily on magnesium and zirconium. Our key product lines under the Elektron Segment includes:

- Advanced lightweight, corrosion-resistant and heat- and flame-resistant magnesium alloys for use in aerospace, healthcare and oil and gas applications.
- Magnesium powders used in countermeasure flares that protect aircrafts from heat-seeking missiles and also for heating pads for self-heating meals used by the military and emergency-relief agencies.
- High-performance zirconium-based materials and oxides used as catalysts and in the manufacture of advanced ceramics, consumer electronics, pharmaceuticals and many other performance products.
- Magnesium, copper, and zinc photo-engraving plates for graphic arts and luxury packaging.

Our **Gas Cylinders Segment** manufactures and markets specialized, highly-engineered cylinders using carbon composites and aluminum. Our key product lines under the Gas Cylinders Segment include:

- Carbon fiber composite cylinders for self-contained breathing apparatus (SCBA), used by firefighters and other emergency-responders. Our products are also used by scuba divers and personnel in potentially hazardous environments, such as mines.
- Carbon fiber composite cylinders for compressed natural gas (CNG) and hydrogen containment in alternative fuel (AF) vehicles.
- Cylinders used for the containment of oxygen and other medical gases used by patients, healthcare facilities and laboratories.

Strategy and Business Model

Over the past few years, we have worked to generate long-term shareholder value by simplifying the Company's structure, generating significant cost savings, and instilling a high-performance growth culture. We substantially simplified our operations through divesture of most of our aluminum operations. We also expanded our investor base, streamlined our financial reporting, and enhanced our corporate governance practices.

More recently, we began driving growth by focusing on our customers and rebuilding our new product pipeline. Our Elektron segment launched new UGR-E offerings in our MRE product line as well our MarathonMag photoengraving plates, and is now working to apply our expertise in zirconium and magnesium technology to new products in the aerospace, medical and electronics end markets. Our Gas Cylinders segment has developed a suite of cylinders and systems for the storage of alternative fuels such as Hydrogen and Compressed Natural Gas. With our focus on innovation, Luxfer has been maintaining strong relationships with our current customers and establish bonds with new customers.

In 2022, we announced our Profitable Growth Strategy, with Luxfer well positioned for value creation. We are benefiting from our positioning in attractive end markets, aligned with secular growth, especially in areas of Clean Energy, Light Weighting, and Safety, Health & Technology. As such, we outlined our decision to target adjusted earnings per share of $2.00 or more by 2025, demonstrating our confidence in the future earnings power of the Company. We aim to deliver this by addressing three key areas, those being continued profitable growth, recovery in margins, and management of legal and finance costs.

Our growth strategy is underpinned by the launch of the Luxfer Business System. This business model serves as a tool to realize the growth potential embedded in our business. The system places emphasis on serving the customer and profitable growth, and consists of the following key themes:

- Strategy Deployment
- Commercial Excellence
- Lean Operations
- Innovation
- Sustainability
- People Excellence

Having built a strong foundation, through portfolio simplification and cost transformation, Luxfer is now well positioned to take advantage of both organic and inorganic growth in future years.

Key Performance Indicators ("KPIs")

Luxfer used the following performance indicators to assess its development against its strategic and financial objectives in 2022.

Since 2018, KPIs were monitored under U.S. GAAP. and these reconciliations to non-GAAP measures can be found in our Form 10-K filed with the SEC on March 1, 2023.

All years have been restated for discontinued operations.

Operating performance		**2022**	2021	2020	2019	2018
Revenue	$m	**423.4**	374.1	324.8	373.4	401.9
Adjusted net income[1]	$m	**37.4**	36.2	28.9	40.9	48.0
Basic earnings per share	$	**1.00**	0.90	0.61	0.15	0.55
Adjusted diluted earnings per ordinary share	$	**1.36**	1.29	1.03	1.47	1.73
Adjusted EBITA[2]	$m	**50.2**	48.7	51.2	54.9	63.6
Adjusted EBITDA[3]	$m	**63.1**	63.4	53.9	67.1	79.6
Revenue per employee[4]	$'000s	**313**	285	256	279	285
Financial performance						
Net cash flow from operating activities	$m	**22.6**	30.6	56.9	10.2	57.3
Net debt to adjusted EBITDA[5]	times	**1.1**	0.8	1.0	1.2	0.8
Non-financial performance						
Number of work-related accidents causing lost days[6]	LTAs	**8**	15	8	5	18
ISO 14001 environmental management system certification[7]	%	**67.0**	65.9	69.2	86.4	92.1
Economic indicators						
Average U.S. dollar to GBP sterling exchange rate	$:£	**1.23**	1.38	1.28	1.28	1.33
Average Euro to GBP sterling exchange rate	€:£	**1.17**	1.17	1.13	1.12	1.13

1. A non-GAAP measure for net income after tax, excluding certain non-trading items. Reconciliation to GAAP measure is disclosed in our Form 10-K, filed with the SEC ('Securities and Exchange Commission of the U.S.') on March 1, 2023.
2. A non-GAAP measure for earnings before interest, tax and amortisation and other items. Reconciliation to GAAP measure is disclosed in Form 10-K filed with the SEC on March 1, 2023.
3. A non-GAAP measure for earnings before interest, tax, depreciation and amortisation and other items. Reconciliation to GAAP measure is disclosed in Form 10-K filed with the SEC on March 1, 2023.
4. Revenue per employee is defined as revenue from continuing operations divided by the average number of monthly employees for the year.
5. Net debt is defined as cash and cash equivalents less non-current bank and other loans.
6. Under regulations issued by the Occupational Safety & Health Administration of the U.S. Department of Labor, Lost Time Accidents ("LTAs") are defined as the number of work-related accidents resulting in an absence from the workplace for a minimum of one full work day.
7. Percentage of revenue originating from ISO14001-certified businesses.

Review of the Year Ended 31 December, 2022

Although we continued to face challenges in 2022 due to macro-economic conditions characterised by supply-chain disruption and inflationary cost pressures, we continued to invest in growth and lean manufacturing initiatives, as well as develop our culture and talent. This strategic progress reflects our focus on executing our strategy, which was designed to profitably grow the Luxfer business and increase returns to our shareholders. Further details on our strategy can be found on page 4 of the Strategic Report.

From 2016 to 2019, our top line growth averaged 5%, however due to COVID-19 in 2020, our revenue performance for 2020 showed a decline of 13%. In 2021, our revenue grew 15.2%, aided by the acquisition of Structural Composite Industries LLP ("SCI") as well as the recovery in volumes adversely impacted by COVID-19 in the prior year. The recovery in revenue continued into 2022 which increased by 13.2% as price increases helped to offset rising inflation and modest volume growth was achieved across both segments which was counteracted by FX translation headwinds caused by year-over-year USD strength. However, adjusted EBITDA decreased from 2021 by 0.5% to $63.1 million. We ended 2022 with a strong balance sheet, although our net debt increased to $68.3 million, and our net debt to adjusted EBITDA ratio increased to 1.1x compared to 0.8x at the end of 2021. We generated $14.3 million in free cash flow over the year, (2021: $21.5 million) using approximately $10 million in cash for restructuring activities. Net income from continuing operations for 2022 was $32.3 million compared to $24.8 million in 2021. We continued to return funds to shareholders in the form of regular dividends each quarter throughout 2022 and $11.1 million (2021: $6.4 million) in the form of share buybacks.

Translation Exchange Rates

The consolidated financial statements are presented in U.S. dollars, the reporting currency of the Group. The principal currencies used to translate the results of non-U.S. operations is GBP sterling. In 2022, GBP sterling fluctuations relative to the U.S. dollar resulted in net favorable movements when translating the operating results of U.K. operations into U.S. dollars.

Revenue

On an IFRS reported basis, revenue from operations was $423.4 million in 2022, an increase from $374.1 million in 2021. The reasons for revenue increase are discussed in detail by segment below.

Elektron Segment revenue in 2022 was $239.7 million million compared to $195.8 million in 2021. This 22.4% increase was largely due to the passing through of material cost-inflation. Furthermore, there was benefit in the year from:

- Increased sales of magnesium powders used in commercial and military applications;
- Improved sales of magnesium alloys, especially those used in the aerospace market; and
- Higher demand for our zirconium products, particularly in industrial applications.

These increases were partially offset by a decrease in sales of FRHs and chemical kits supplied by Luxfer Magtech. Net sales were also adversely impacted by $6.1 million of foreign exchange.

Gas Cylinders Segment revenue was higher at $183.7 million compared to $178.3 million in 2021, a 3.0% increase on the prior year. The result was primarily due to increased demand for composite cylinders used in aerospace, partially offset by $7.8 million of foreign exchange headwind and a reduction in CNG alternative fuel and SCBA cylinder sales. The segment has benefited from an incremental $7.1 million of sales in the year due to the acquisition of SCI at the end of the first quarter in 2021, which has positively impacted sales of cylinders in aerospace and alternative fuels.

Cost of Sales and Gross Profit

Gross profit of $107.1 million was flat year on year, 2021 ($107.1 million). The 3.3 percentage point decrease in gross profit as a percentage of sales in 2022 from 2021 was primarily the result of increased material and labor costs and other supply chain investments to overcome disruption, not fully covered by price increases, particularly in the Gas Cylinders Division.

Operating Profit

Operating profit of $45.8 million increased 16.8% from $39.2 million in 2021. While gross profit remained flat, operating profited was impacted by lower administration costs as a result of cost reduction measures implemented in the prior year, partially offset by higher distribution costs. As we continued the execution of certain business restructuring initiatives aimed at reducing our fixed cost structure and realigning our business in 2022, other operating expenses of $2.7 million were also reduced from $7.0 million in 2021. This largely consisted of an additional $1.7 million of costs in relation to the closure of Luxfer Gas Cylinders' French site and $0.2 million of costs which were incurred relating to one-time employee termination benefits in the Elektron division. There was also an additional $0.5 million recognized in relation to environmental clean-up costs.

Taxation

In 2022, we reported a tax charge of $6.6 million on profit before tax of $38.9 million, representing an effective tax rate of 17.0%. The charge of $6.6 million was made up of a current income tax credit of $1.2 million and a deferred income tax charge of $7.8 million. The 2022 effective tax rate was impacted due to prior year adjustments impacting the current year tax charge.

In 2021, we reported a tax charge of $8.4 million on profit before tax of $33.2 million, representing an effective tax rate of 25.3%. The tax charge was made up of a current income tax charge of $7.2 million and a deferred tax charge of $1.2 million. The 2021 effective tax rate was significantly impacted due to the effect of large non-deductible expenses linked to restructuring projects.

Net Income for the Year

Net income for the year from continuing operations was $32.3 million, compared to $24.8 million in 2021. The increase can mainly be attributed to the reduced other operating expenses as well as lowered administrative expenses coupled with a lower income tax expense of $6.6 million (2021: $8.4 million).

Cash Flow

In 2022, net cash flows from continuing operating activities decreased by $8.0 million to $22.6 million from $30.6 million in 2021. The Company has increased its working capital balances during the year, predominantly as a result of inventory build to counter disruption to the supply chain.

Net cash used in continuing investing activities increased to $5.6 million compared to $5.0 million in 2021. Capital expenditure in 2022 was $8.3 million, a $0.8 million decrease compared with $9.1 million in 2021. 2021 included additional spend as we delayed some projects in 2020 in response to COVID-19. We anticipate capital expenditures for 2023 to be approximately $15 million as we increase investment in order to grow the business. In May 2022, the Company also sold a previously held-for-sale building in the Elektron segment for $3.7 million. Consideration was paid in full upon sale. In addition, in October 2022, the Company agreed a final settlement of $1.0 million to the purchasers of the previously disposed aluminium gas cylinder business. The settlement was a reduction to the original consideration paid.

The Company had net cash outflows from financing activities of $8.8 million compared to $20.7 million in 2021. The main reason for the decrease was the $24.8 million drawdown in 2022 compared with a $6.4 million drawdown in 2021. Cash outflows in respect of dividend payments to holders of our ordinary shares were $14.2 million, an increase from $13.6 million in 2021. The Company also spent $11.1 million repurchasing approximately 700,000 shares in 2022, notably higher than the $6.4 million spent repurchasing approximately 300,000 shares in 2021.

Shareholder Equity and Borrowings

Shareholder equity as at December 31, 2022, was $197.9 million, compared to $199.0 million at December 31, 2021. The movement is primarily attributable to currency translation differences being offset by a favorable movement on the defined benefit pension plans as well as an increase in the repurchase of own shares. The Company had gross debt of $81.2 million and net debt of $68.3 million as at December 31, 2022. Invested capital, defined as total shareholder equity plus net debt, was $266.2 million as at December 31, 2022; this compares to an equivalent figure of $252.2 million in 2021.

Future Developments

Operating objectives and trends that we expect to impact Luxfer in 2023 include the following:

- Continuing high activity on revenue growth initiatives with particular focus on increasing volumes;
- Actions to ensure continuity of supply of critical materials and services while safeguarding margins;
- Execution of productivity improvements and increases in selling prices to mitigate and pass through current cost pressure;
- Further improvements in ESG standing through investment in new projects;
- Focus on recruiting, developing and maintaining talent, through our new leadership development programs, while driving a high-performance culture; and
- Continued emphasis on operating cash generation and maintaining strong working capital performance.

Essential Contracts or Arrangements

Apart from our financing agreements, we do not have any individual contracts or other arrangements that are fundamental to the ability of the business to operate effectively.

Principal Risks and Uncertainties

Internal Controls and Risk Management

Luxfer has a comprehensive, enterprise-wide risk management program designed to assess, monitor, and mitigate risks that arise in the course of business. Consistent with our leadership structure, management has the day-to-day responsibility for assessing and managing the Company's risk exposure, while the Board of Directors provides oversight in connection with those efforts.

In general, the Board oversees the management of risks in the operation of the Company's business; the implementation of its strategic plan; its acquisitions and divestitures; its capital structure, allocation and liquidity; its risk management controls; and its organizational structure. The Board fulfills its risk oversight function both directly and through delegation to the Board Committees. Each of our Board Committees has historically focused and continues to focus on specific risks within their respective areas of responsibility. The Board performs its risk oversight role in several ways. Board meetings regularly include strategic overviews by the Chief Executive Officer and Chief Financial Officer that describe the most significant issues and risks affecting the Company. Additionally, the Board is regularly provided with business updates from our business unit leaders, General Counsel, and other functional leaders. Reviewing and assessing any identified risks on a regular basis, the Board manages such risks in accordance with Luxfer's Enterprise Risk Management process.

As a global, multi-industrial company, Luxfer faces a range of risks, including general economic, credit and capital market conditions risks, regulatory risks, global climate change risk, and several other risks, which are fully listed and explained in our annual Form 10-K filed with the SEC.

Internal Financial Controls

During 2022, the internal audit function among other things, continued testing internal controls over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act.

As at December 31, 2022, the Executive Director in his capacity as Chief Executive Officer carried out an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures under the supervision and the participation of the Executive Leadership Team, responsible for the management of the internal controls. In accordance with the requirements of Section 404 of the Sarbanes-Oxley Act, and as included in the Form 10-K filed with the SEC, management conducted an evaluation of the effectiveness of internal control over financial reporting based on the Internal Control - Integrated Framework (the 2013 Framework) issued by the Committee of Sponsoring Organisations of the Treadway Commission. Based on this evaluation, management has concluded that internal control over financial reporting was effective as of December 31, 2022.

Treasury and Financial Risk

The Group operates a central treasury function that controls all borrowing facilities, investment of surplus funds and management of financial risks. The Group also has a number of financial risks. The management of these financial risks and mitigating actions are explained further in Note 28 of the Group consolidated financial statements.

We set out in the tables below our principal risks and uncertainties and how we seek to mitigate or eliminate them.

Area of Risk	Mitigating Activity
Dependency on certain key markets - The Group depends on certain end-markets, including automotive, self-contained breathing apparatus, aerospace and defence, medical and printing and paper. An economic downturn or regulatory changes in any of these end-markets could reduce sales. To the extent that any of these cyclical end markets are in decline, at a low point in their economic cycle, or subject to regulatory change, sales and margins on those sales may be adversely affected. It is possible that all or most of these end markets could be in decline at the same time (e.g., during an economic downturn such as that caused by the COVID-19 pandemic). Any significant reduction in sales could have a material adverse impact on our results of operations, financial position and cash flows.	The Group's diverse product portfolio reduces the risk of any one adverse external economic factor impacting across all of these end-markets; however, a range of external factors could impact across the majority or all of the Group's end-markets. To further mitigate this risk, the Group continues to invest in research and development and to innovate, working closely with its customers, to develop next generation products in these end markets.

Effect of external factors due to the global nature of our business - Our global presence exposes us to risks, including the potential for adverse changes in the local, social, political, financial or regulatory climate, difficulty in staffing and managing geographically diverse operations, and the costs of complying with a variety of laws and regulations. For example, the Russian invasion of Ukraine and ongoing military conflict which commenced on February 24, 2022, has resulted in massive displacement of the Ukrainian population and huge disruption to its economy. Wide ranging sanctions have been imposed on the Russian Federation by the international community, targeting individuals, banks, businesses, funds transfers and imports and exports and are expected to have a significant adverse impact on Russia's economy as well as on international businesses active in the region.	The Group's diverse product portfolio and geographic spread reduces the risk of any one external factor impacting across all end-markets. The Group also closely monitors geopolitical and global economic developments in its markets .
Competition - Markets for many of the Group's products are now increasingly global and highly competitive, especially in terms of quality, price and service. The Group could lose market share as a result of these competitive pressures, which could negatively impact profit margins. More generally, the Group may also face potential competition from manufacturers of products similar to the Group's aluminum and magnesium-based products using other materials, such as steel, plastics or composite materials.	The Group continues to invest in new and better products and aims to focus its resources in speciality markets that need high-performance products and a reliable partner.
Protection and development of intellectual property rights and changing industry requirements - As a result of the nature of the competition faced by the Group, its ability to remain profitable depends on its ability to protect intellectual property and to invest in research and development, which requires funding.	The Group seeks to protect its intellectual property through patents and by reducing the disclosure of commercially sensitive information. It also invests long-term in new products and manufacturing processes and maintains this investment through the business cycle.
Reliance on major customers - If the Group fails to maintain its relationships with its major customers, or fails to replace customers, or if there were reduced demand from such customers or for the products produced by such customers, it could reduce the Group's sales and have an adverse effect on the Group's financial position. The Group's top 10 customers accounted for, in aggregate, approximately 31% of Group revenue in 2022.	Long-term relationships with customers are especially important, and the Group's operations work closely with customers to ensure customer service is the best in the industry and aim to support our customers in their development of new products through our own product innovations and technical know-how.
Risks relating to interruption of operations - The Group's production facilities are located worldwide. Any of its facilities could suffer an interruption in production, either at separate times or at the same time, because of various unavoidable occurrences including major equipment failure. Although the Group carries insurance, the cover on certain catastrophic events or natural disasters, including earthquakes and certain other events, could be limited.	The Group performs routine maintenance on its production equipment on all its manufacturing sites. These maintenance programmes are carefully planned to keep all plants operating at a high level of efficiency, and to reduce the risk of breakdowns and failure of equipment. Health and Safety is also a major consideration in the operation of the Group manufacturing facilities and is carefully monitored. The Group carries comprehensive business interruption insurance.
Effect of international currency markets - Changes in foreign currency exchange rates or interest rates could cause sales to drop or costs to rise. The Group conducts a large proportion of its commercial transactions, purchases of raw materials and sales of goods in various countries and regions outside of the U.K., including the U.S., continental Europe and Asia. Changes in the relative values of currencies can decrease the profits of the Group's operations through both the translation of profits into USD or on import and export transactions.	The Group regularly enters into forward foreign currency exchange contracts to manage currency risks and monitors the effectiveness of such hedging activities..

Exposure to fluctuations in raw material - The Group is exposed to fluctuations in costs of the raw materials and utilities that are used to manufacture its products and can incur unexpected cost changes. The primary raw material used in the manufacturing of composite gas cylinders is carbon fibre,which is sensitive to fundamental supply and demand cost pressures. We have also experienced significant cost fluctuations in other raw material costs such as primary magnesium, zircon sand and rare earths. The Group's operations also buy and sell goods in regional markets that may be protected by tariff barriers. Changes in these tariffs could have an adverse impact on the profitability of the operations. The recovery in demand from the COVID-19 pandemic coupled with the geopolitical conflict in Ukraine, has had business impacts, including increased material cost inflation on key inputs, (such as magnesium, aluminum and carbon fibre), labor availability issues and energy and transport cost increases. Currently, our expectation is that the impact of material and energy cost inflation and labor and transport constraints will continue into 2023. While we aim to pass on cost increases to customers through increased price, there is no guarantee that we will be able to do so in all circumstances.	In the long-term the Group has sought to recover the cost of increased commodity and utility costs through price increases and surcharges. Increasingly, in recent years we have included in our sales agreements an ability to share cost increases with our customers, although certain long term customer contracts, primarily in Gas Cylinders prevent full cost pass through in some cases. . In the past several years and during 2022, we have made additional purchases of large stocks of magnesium alloys in an effort to delay the effect of potentially increased costs in the future. However, even though such purchases are not made for speculative purposes, there can be no assurance that costs will move as expected. Moreover, these strategic purchases increase our working capital needs, thus reducing our liquidity and cash flow. Accordingly, a substantial increase in raw material costs could have a material adverse effect on our results of operations, financial position and cash flows.
Product liability and regulatory risks - The Group is exposed to possible claims for personal injury, fatality or property damage that could result from a failure of a product manufactured by the Group, or of a third party integrating a Group product. Many factors beyond the Group's control could lead to liability claims, which may in turn lead to product legal claims or disruption in sales to customers. The Group could be required to pay a material amount if a claim is made against it that is not covered by insurance or otherwise subject to indemnification, or that exceeds the insurance coverage that the Group maintains. Moreover, the Group does not routinely carry insurance to cover the expense of product recalls, and litigation involving significant product recalls or product liability could have a materially adverse effect on the Group's financial position / performance.	The Group uses its operating and technical expertise to mitigate these risks, with a strong emphasis on high levels of product quality and rigorous testing, and by ensuring that products are designed to meet or exceed the regulatory design standards of the markets they serve. The Group has also obtained insurance coverage for most of these types of liabilities.
Environmental costs and liabilities - The Group may be exposed to substantial environmental costs and liabilities, including liabilities associated with divested assets and prior activities performed on sites before we acquired an interest in them. Our operations, including the production and delivery of our products, are subject to a broad range of environmental laws and regulations in each of the jurisdictions in which we operates. An increase in environmental costs and liabilities could have a materially adverse effect on the Group in any given year, which could negatively affect the Group's cash flows.	To mitigate this risk the Group seeks to operate best practice procedures in this area and is in the process of attaining the ISO 14001 qualification at all of its larger manufacturing sites. The bulk of the Group's known environmental issues are legacy problems that arose many years ago. Management have a programme in place to progressively improve and eliminate these historic issues.
Risks relating to the Group's retirement benefit plans - The Group operates defined benefit arrangements in the U.K and the U.S., although the U.S. plan was sold to an insurer post December 31, 2022. These are further explained in Note 30 of the Group consolidated financial statements. Their funding requirements are subject to fluctuations in investment markets and changes in the life expectancy of members. Increased regulatory burdens have also proved to be a significant risk, with taxes such as the U.K.'s Pension Protection Fund Levy, which cost £0.4 million in 2022 (£0.4 million in 2021). Regulations in this area can also constrain the level of debt incurred and restrict the Group's ability to pay dividends.	The Group and the Trustees of the plans closely monitor the financial performance of the Schemes, taking actuarial and investment advice as appropriate. These are long-term liabilities, and we have a programme in place to contribute cash to our defined benefit plans over a number of years based on affordability and varied according to our net earnings. Plans are funded and assets are invested in a combination of equities and fixed income securities.

Exposure to risks related to cybersecurity threats and incidents - In the conduct of its business, the Group collects, uses, transmits and stores data on information technology systems. This data includes confidential information belonging to us, our customers and other business partners, as well as personally identifiable information of individuals. We have experienced, and expect to continue to be subject to, cybersecurity threats and incidents, ranging from employee error or misuse to individual attempts to gain unauthorised access to information systems to sophisticated and targeted measures known as advanced persistent threats, none of which have materially affected the Group to date. We also rely in part on the reliability of certain tested third parties' cybersecurity measures, including firewalls, virus solutions and backup solutions. Cybersecurity incidents may result in business disruption, the misappropriation, corruption or loss of confidential information and critical data (ours or that of third parties), reputational damage, regulatory fines, litigation with third parties, diminution in the value of our investment in research and development, data privacy issues and increased cybersecurity protection and remediation costs. Future cybersecurity breaches or incidents or further increases in cybersecurity protection costs may have a materially adverse effect on our business, financial condition or results of operations.	The Group devotes significant resources to network security, data encryption and other measures to protect our systems and data from unauthorised access or misuse, including to meet certain information security standards that may be required by our customers, all of which increases cybersecurity protection costs. As these threats, and government and regulatory oversight of associated risks, continue to evolve, we may be required to expend additional resources to enhance or expand upon the security measures we currently maintain.
Our results of operations may be negatively impacted by the ensuing effects of the coronavirus disease pandemic, as well as the subsequent adverse impact on availability of key inputs and associated cost inflation- Activity in most of the end markets we serve improved throughout 2021 and continued to improve in 2022 following the global COVID-19 outbreak. The sharp recovery in demand across the global macro environment has resulted in supply chain challenges characterized by significant increases in material cost inflation on key inputs (including magnesium, aluminum and carbon fiber), labor availability issues and energy and transport cost increases. Currently, our expectation is that the impact of material and energy cost inflation and labor and transport constraints will continue into 2023. While we aim to pass on cost increases to customers through increased price, there is no guarantee that we will be able to do so in all circumstances, and failure to do so could have a material adverse impact on our results of operations, financial position and cash flows.	Despite the adverse macro trends, the Company has a strong balance sheet and access to an existing $100 million credit facility, of which only $31.9 million was drawn down at the end of the year following continued strong cash generation. Furthermore, as our net debt to adjusted EBITDA ratio has fallen to 0.7x at the end of 2022 (from 0.8x at the end of 2021), we have identified no issues in relation to financial covenants nor availability of funding for continued operations.
Impact of conflict in Ukraine - The Russian invasion of Ukraine and ongoing military conflict which commenced on February 24, 2022, has resulted in displacement of the Ukrainian population and disruption to the Ukrainian economy. Wide ranging sanctions have been imposed on the Russian Federation by the international community, targeting individuals, banks, businesses, funds transfers and imports and exports and are expected to have a significant adverse impact on Russia's economy as well as on international businesses active in the region.	Currently, we do not expect the impact on Luxfer from these developments to be significant. We hold no direct operations in the region, and our sales to Russia and Ukraine combined represent less than one percent of total revenue by destination. Furthermore, neither country is a critical supplier of our raw materials. While Russia is a major global exporter of magnesium, we are able to source the metal from various alternative locations, including China, Israel and Turkey. Historically, we also sourced magnesium domestically, however, due to the force majeure declared by U.S. Magnesium LLC, the only U.S. producer of magnesium, in 2021, we currently cannot source from the U.S.

Approval

The Strategic Report is set out on pages 3 to 13.

Signed on behalf of the Board by:

A Butcher
CHIEF EXECUTIVE OFFICER
April 20, 2023

GOVERNANCE

The Board of Directors

The Directors of the Company who were in office during fiscal year 2022 and up to the date of signing the financial statements were:

Name	*Age*	*Position*
Andy Butcher (1)	54	Executive Director and Chief Executive Officer
Alok Maskara (2)	52	Previous Executive Director and Chief Executive Officer
Patrick Mullen (3)	58	Non-Executive Director (Board Chair)
David F. Landless (4)	63	Former Non-Executive Director
Clive J. Snowdon	69	Non-Executive Director
Richard J. Hipple	70	Non-Executive Director
Lisa G. Trimberger	62	Non-Executive Director
Sylvia A. Stein (5)	57	Non-Executive Director

Notes:

1. Andy Butcher was appointed as Chief Executive Officer of the Company effective May 6, 2022.
2. Alok Maskara resigned as Chief Executive Officer of the Company effective May 6, 2022.
3. Patrick Mullen was appointed Board Chair effective March 11, 2022.
4. David F. Landless resigned from the Board effective June 8, 2022.
5. Sylvia A. Stein was appointed to the Board effective August 1, 2022.

The Company wishes to highlight the following Board transitions:

- Alok Maskara, who has served as Chief Executive Officer and a member of Luxfer's Board since May 2017, elected to leave the Company in pursuit of another opportunity. With unanimous approval from the Board, Andrew "Andy" Butcher was named Chief Executive Officer and a member of Luxfer's Board of Directors effective May 6, 2022.
- David Landless, who was elected to the Board in 2013 and served as Board Chair since 2019, announced his decision not to stand for re-election at the Company's 2022 Annual General Meeting of Shareholders. Mr. Landless' retirement is in accordance with the Company's Corporate Governance Guidelines, which advises retirement of Directors after nine years' service. Effective March 11, 2022, the Board appointed Mr. Mullen to succeed Mr. Landless as Board Chair.
- Sylvia Stein was appointed as Non-Executive Director in August 2022. Ms. Stein was identified as a new Director due to her years of in-house legal experience, Ms. Stein brings valuable insight to Luxfer's Board, including her involvement in developing and executing growth-driven business strategy and pragmatic risk management procedures.

In accordance with our Articles of Association, the number of Directors on the Board shall not be less than two and not more than ten. The Board, based on the recommendation of the Nominating and Governance Committee, propose that the following six nominees be elected at the Annual General Meeting ("AGM"), each of whom will hold office until the next AGM or until his or her successor shall have been appointed and qualified:

- Andy Butcher
- Patrick Mullen
- Clive Snowdon
- Richard Hipple
- Lisa Trimberger
- Sylvia Stein

All nominees are currently Directors of Luxfer Holdings PLC. All nominees were elected by shareholders at the 2022 Annual General Meeting with the exception of Sylvia Stein, who joined the Board on August 1, 2022, whom is standing for election for the first time.

Biographical information of the current members of our Board of Directors and former members who served on the Board during fiscal year 2022 is set forth below:

Patrick Mullen

Board Chair

Patrick Mullen was appointed a Non-Executive Director in September 2021 and serves as a member of the Nominating and Governance Committee and the Remuneration Committee. He was appointed Board Chair effective March 11, 2022.

Mr. Mullen served as the former President and CEO of Chicago Bridge & Iron Company ("CB&I"), an engineering, procurement, and construction company, until 2018. Prior to his 20 years at CB&I, he spent 12 years with Honeywell's UOP division, a supplier of petroleum refining, gas processing, and petrochemical production technology. From 2014 to 2019, Mr. Mullen served as a Director of Vectren Corporation, a domestic energy delivery company, and from 2017 to 2018, he served as a Director of CB&I. He has served on the boards of the National Safety Council and Chevron Lummus Global, a developer and licensor of refining hyrdroprocessing technologies and alternative source fuels. From 2014 to 2020, Mr. Mullen served as a member of the National Association of Corporate Directors and was a Board Leadership Fellow in 2019. Mr. Mullen earned his Bachelor of Science degree in Chemical Engineering from the University of Notre Dame and his Master of Business Administration degree from the Kellogg Graduate School of Management at Northwestern University.

Mr. Mullen's qualifications to be a member of our Board include his executive management and leadership experience and his extensive global industrial and engineering background. He also brings experience serving on the boards of other publicly traded companies.

David F. Landless

Former Non-Executive Director

David Landless was appointed a Non-Executive Director in March 2013. Mr. Landless served as Board Chair from May 2019 through March 11, 2022. In August 2021, Mr. Landless announced his decision not to stand re-election at the 2022 Annual General Meeting of Shareholders. He continued to act as a Non-Executive Director and a member of the Nominating and Governance Committee until the conclusion of the Annual General Meeting of Shareholders on June 8, 2022.

Mr. Landless started his career with Bowater Plc, a pulp, paper, and related products manufacturer, and Carrington Viyella Plc, a manufacturer of woven textiles. He joined the fiber and chemical manufacturer, Courtaulds Plc, in 1984. Mr. Landless was appointed Finance Director in several U.K. and U.S. divisions of Courtaulds Plc from 1989 to 1997 and the Finance Director of Courtaulds Coatings (Holdings) Limited from 1997 to 1999. In 1999, Mr. Landless was appointed Group Finance Director of Bodycote plc, the leading provider of heat treatment and specialist thermal processing services worldwide, and he held that position until he retired on January 1, 2017. He is a Non-Executive Director of Innospec, Inc., as well as Renold plc and European Metal Recycling Limited. He chairs the Audit Committees at Innospec and Renold. Mr. Landless is a Chartered Management Accountant. He graduated from the University of Manchester Institute of Science and Technology.

Mr. Landless' qualifications to be a member of our Board up to June 8, 2022 included his extensive experience in manufacturing and engineering businesses, particularly as Group Finance Director of a global industrial business that operates in similar markets as Luxfer. In addition, he had a strong understanding of financial controls and audit requirements. He also brought significant experience from serving on the boards of other publicly-traded companies in both the U.S. and the U.K.

Andrew ("Andy") Butcher

Chief Executive Officer and Executive Director

Andy Butcher was appointed Chief Executive Officer and Executive Director effective May 6, 2022.

Mr. Butcher served as President of Luxfer Gas Cylinders, Luxfer's largest business unit, since 2014. Mr. Butcher joined Luxfer in 1991 and held positions of increasing responsibility throughout his career with the Company. In 2002, he led the development of Luxfer's composite gas cylinders business, first as General Manager and then as Executive Vice President. Mr. Butcher currently serves as a Director and Executive Officer of various affiliates and subsidiaries of the Company. Mr. Butcher holds an M.A. degree in Engineering from Cambridge University and an M.B.A. from Keele University, both located in England.

Mr. Butcher's qualifications to be a member of our Board include his more than 30 years of experience with Luxfer, his value-enhancing growth and acquisition experience, his educational background, and his knowledge of advanced materials.

Alok Maskara

Previous Chief Executive Officer and Executive Director

Alok Maskara was named Chief Executive Officer designate of Luxfer and appointed to the Board of Directors on May 23, 2017. He became Luxfer's Chief Executive Officer on July 1, 2017. In March 2022, Mr. Maskara announced his decision to leave the Company in pursuit of another opportunity effective May 6, 2022.

During his tenure, Mr. Maskara led significant growth and transformation initiatives at the Company. He significantly reshaped Luxfer's Board of Directors by adding more U.S. public company experience and increased the Board's diversity. Additionally, Mr. Maskara changed the structure of the public listing and instituted new corporate governance policies, which enabled the Company to join the Russell 2000 index in 2019.

Mr. Maskara had over 25 years of leadership experience in multiple manufacturing and technology industries, including advanced materials, water and flow technologies, and electrical protection. Before joining Luxfer, he was a business segment President at Pentair Plc, a water solutions company, for eight years, where he led businesses of progressively larger sizes. During his time at Pentair, he delivered organic growth in mature industries, while also successfully completing multiple global acquisitions, divestitures, and joint ventures. Prior to Pentair, Mr. Maskara was with General Electric Corporation, an industrial manufacturing company, where he gained significant experience in Lean Manufacturing through his leadership of an executive corporate initiative group focused on Lean. He subsequently led a stand-alone business unit in the water industry, which was later sold to Pentair. Mr. Maskara also worked at McKinsey & Company, a management consultant firm, in both their Chicago and Amsterdam offices. While at McKinsey, he advised businesses on industrial turnarounds and driving growth through customer insights and segmentation.

Mr. Maskara's qualifications to be a member of our Board up to May 6, 2022 included his extensive leadership experience in global industrial manufacturing businesses, his value-enhancing growth and acquisition experience, his educational background, and his knowledge of advanced materials.

Clive J. Snowdon

Non-Executive Director

Clive Snowdon was appointed a Non-Executive Director in July 2016 and has served as Chair of the Nominating and Governance Committee since April 2020. He acts as a financial expert, as defined by NYSE listing rules, on the Audit Committee, which he joined in August 2016.

Mr. Snowdon served as Chairman of the Midlands Aerospace Alliance, an association supporting the aerospace industry across the Midlands region of England, from 2007 through 2016. He previously served as a Trustee of the Stratford Town Trust up until January 31, 2023 and is also the Aerospace Industry Advisor to Cooper Parry Corporate Finance, a corporate finance advisory. In May 2016, Mr. Snowdon stepped down from the Board of Hill & Smith Holdings PLC, an international group of companies operating within the infrastructure and galvanizing markets, where he had been a Senior Non-Executive Director since May 2007, Chair of the Remuneration Committee, and a member of the Audit and Nominating and Governance Committees.

In June 2011, Mr. Snowdon retired from Umeco PLC, a provider of advanced composite materials, after serving as Chief Executive since April 1997. Mr. Snowdon was also the Executive Chairman of Shimtech Industries Group Limited until the sale of the business in May 2015. From 1992 to 1997, Mr. Snowdon served as Managing Director of Burnfield PLC, after being promoted to that position from Finance Director. He has also held senior positions with Vickers plc, BTR plc, and Hawker Siddeley Group. Mr. Snowdon is a Chartered Accountant. He received his Bachelor of Arts degree in Economics from the University of Leeds.

Mr. Snowdon's qualification to be a member of our Board include his experience as a former Chief Executive of a U.K. public company, his strong understanding of U.K. PLC requirements, his significant experience in mergers and acquisitions, and his skill in interacting with investors.

Richard J. Hipple

Non-Executive Director

Richard Hipple was appointed a Non-Executive Director in November 2018, at which time he was also appointed the Chair of the Remuneration Committee and a member of the Audit Committee.

Mr. Hipple served as the Chairman and Chief Executive Officer of Materion Corporation, a producer of high-performance advanced engineered materials, from 2006 until his retirement in 2017, as well as President and Chief Operating Officer from 2005 to 2006. Prior to that, Mr. Hipple worked in the steel industry for twenty-six years in numerous capacities, including project engineering, strategic planning, supply chain management, operations, sales and marketing, and executive management. Mr. Hipple has served as a Director of KeyCorp (NYSE: KEY), a bank-based financial services company, since 2012 and is Chair of the Audit Committee and member of the Nominating and Corporate Governance Committee. Since 2017, he has also served as a Director of the Barnes Group (NYSE: B), a global industrial manufacturing company, and is a member of the Compensation and Management Development and Corporate Governance Committees. From 2007 through 2018, Mr. Hipple served on the Board of Ferro Corporation, a leading supplier of technology-based functional coatings and color solutions. Mr. Hipple is Chair Emeritus and a Trustee of the Cleveland Institute of Music and has served as a Director of the Greater Cleveland Partnership, as well as the Manufacturers Alliance for Productivity and Innovation. Mr. Hipple received his Bachelor of Engineering degree from Drexel University.

Mr. Hipple's qualifications to be a member of our Board include his extensive executive management and leadership experience with a global manufacturer of high-performance engineered materials, his experience in business development and strategic transformation, and his broad involvement in both domestic and international acquisitions. He also brings experience serving on the boards of other publicly traded companies.

Lisa G. Trimberger

Non-Executive Director

Lisa Trimberger has served as a Non-Executive Director since September 2019. Since April 2020, she has served as Chair of the Audit Committee, upon which she acts as a financial expert as defined by the NYSE listing rules. Ms. Trimberger has also served as a member of the Remuneration Committee since September 2019.

Ms. Trimberger retired as an Audit Partner of Deloitte & Touche LLP, a Big Four public accounting firm, in 2014 after spending thirty-one years with the firm. As a lead Client Service Partner, Ms. Trimberger audited and interacted with the management and boards of publicly-traded companies. She worked on significant transactions, as well as control and risk-assessment issues. Additionally, she was actively involved in the firm's quality review practice, serving as a Deputy Professional Practice Partner and Engagement Quality Control Review Partner. During her tenure with Deloitte, Ms. Trimberger also served as Co-Chair of the firm's Nominating Committee and was leader of the firm's National Women's Initiative for the development and retention of women professionals. Currently, Ms. Trimberger is a principal and owner of a private investment company, Mack Capital Investments LLC. She also serves as Trustee of the Board, Chair of the Audit Committee, and a member of the Nominating and Governance Committee of Corporate Office Properties Trust (NYSE:OFC), a real estate investment trust. Ms. Trimberger also serves as a Trustee on the Board of Trustees of EPR Properties (NYSE: EPR), a diversified experiential net lease real estate investment trust, where she is also a member of the Audit and Finance Committees.

Ms. Trimberger is a Certified Public Accountant and holds a Bachelor of Science degree in Accounting from St. Cloud State University. Ms. Trimberger is a member of the National Association of Corporate Directors ("NACD"), as well as the National Association of Real Estate Investment Trusts. She is an NACD Board Leadership Fellow and earned the CERT Certificate in Cybersecurity Oversight, as developed by NACD, Ridge Global, and Carnegie Mellon University's CERT division. Ms. Trimberger also completed the Women's Director Development Executive Program at J.L. Kellogg School of Management at Northwestern University.

Ms. Trimberger's qualifications to be a member of our Board include her experience as an Audit Partner in a big four accounting firm, as well as her significant experience as a financial expert in areas including financial and audit oversight, public board experience, corporate governance, and risk management.

Sylvia A. Stein

Non-Executive Director

Sylvia Stein was appointed Non-Executive Director effective August 1, 2022. She serves on the Nominating and Governance Committee and the Audit Committee.

Ms. Stein is the Vice President, General Counsel, Corporate Secretary, and Chief Compliance Officer of Modine Manufacturing Company (NYSE: MOD), a global provider of thermal management systems and components. Ms. Stein joined Modine in January 2018 as Vice President, General Counsel, and Corporate Secretary, and she was named Chief Compliance Officer in February 2020. In her current role, she leads the company's global legal, compliance, and intellectual property functions; provides strategic governance and legal advice to Modine's Board of Directors and business units; and serves as a key advisor to the company's CEO and executive management team. With more than twenty years of in-house legal experience, Ms. Stein brings valuable insight to Luxfer's Board, including her involvement in developing and executing growth-driven business strategy and pragmatic risk management procedures. Before joining Modine, Ms. Stein served as Associate General Counsel, Marketing & Regulatory, at Kraft Heinz Food Company (NASDAQ: KHC), a global food and beverage manufacturer, which she joined in 2001. Earlier in her career, Ms. Stein was a member of the complex commercial litigation practice at Latham & Watkins, LLP in Chicago, Illinois. Prior to that, she served as a federal judicial law clerk.

Ms. Stein holds a Bachelor's degree in Economics from Northwestern University and a Juris Doctor from the University of Michigan Law School. She presently serves on the Board of Directors and Governance Committee of Just the Beginning – A Pipeline Organization, a non-profit organization dedicated to developing interest in the law among young persons from underrepresented ethnic backgrounds, and is Vice President of the Board of the Westside Justice Center, a charitable organization providing legal aid to the Chicago community.

Ms. Stein's qualifications to be a member of our Board include her numerous years in-house legal experience, as well as her significant experience in developing and executing growth-driven business strategy and pragmatic risk management procedures.

Corporate Governance

Strong corporate governance practices serve the long-term interest of our stakeholders, strengthen the Board and management, and further enhance the public trust Luxfer has earned from operating with uncompromising ethics and integrity. Luxfer is fully committed to operating in a legal, ethical, and sustainable manner in all that we do.

Overview

Luxfer's corporate governance principles govern how we do business daily, enabling us to outperform and provide sustainable growth. They provide a framework that defines the roles, rights and responsibilities of various groups withing the Company. The Board has adopted a set of Corporate Governance Guidelines which provide the framework for the effective and ethical governance of the Company. These guidelines address matters such as the respective roles and responsibilities of the Board and Committees, director independence, conflicts of interest and membership criteria. The Corporate Governance Guidelines, the Company's Articles of Association (the "Articles"), Charters of the Board Committees, Reservation of Powers, and the Code of Ethics and Business Conduct, as well as national regulations such as the Companies Act of 2006 ("Companies Act") provide the structure for the governance of the Company.

The Company is incorporated in England and Wales and has a single listing of ordinary shares on the New York Stock Exchange ("NYSE"). Accordingly, our corporate governance is also informed by the relevant aspects of two regulatory regimes, the U.K. and the U.S. For example, as a company listed on the NYSE we are considered a "quoted company" for the purposes of the Companies Act. Therefore, we are required to comply with quoted companies' requirements such as the way we report on remuneration, which includes an annual advisory shareholder vote on director remuneration and a binding shareholder vote every three years. Luxfer is not listed on the London Stock Exchange. As such, we are not required to comply with the U.K. Corporate Governance Code. Nonetheless, we embrace aspects of this Code insofar as appropriate, relevant and practical to a company the size and status as Luxfer.

In July 2018, the Company informed the NYSE of its loss of Foreign Private Issuer (FPI) status and our intention to transition to a domestic issuer effective January 1, 2019. From this date, the Company has operated in full compliance with the requirements for domestic issuer pursuant to the Exchange Act of 1934, as amended and the NYSE's Manual. Through the increased transparency of financial information and higher corporate governance standards associated with domestic issuer status, we made it possible for Luxfer shares to be included in the Russell 2000 index. Inclusion in the index has attracted new, high-quality shareholders, while also allowing the orderly exit of some legacy debt holders. Additionally, we enhanced our Board of Directors which is now comprised of a greater range of tenure, diversity and public company experience, thus facilitating effective oversight and a better balance between historical experience and fresh perspectives.

We are also required to comply with certain provisions under the Sarbanes-Oxley Act, including Section 404(a), which requires that the management of public companies assess the effectiveness of the internal control of issuers for financial reporting. Such evaluation must be based on a suitable, recognized control framework such as that which was established in *Internal Control Integrated Framework* (2013) issued by the Committee of Sponsoring Organisations of the Treadway Commission (the "COSO Framework"). We have updated our framework for the evaluation of the effectiveness of our internal controls over financial reporting in accordance with the COSO Framework of 2013.

In developing corporate governance practices for the Group, the Directors have taken note of all the aforementioned regulatory requirements, including those required under the Companies Act, as well as reflecting best practice as the Directors consider appropriate.

Board Responsibilities and Leadership Structure

The Board has responsibility for the overall leadership of the Company, its long-term success and helping to develop and approve its strategic aims. The Directors have determined a schedule of matters reserved to the Board. Reserved matters are comprehensive and reviewed as the Board considers appropriate, normally once annually. A review was undertaken during the year, following a comprehensive review taking into consideration the transition to a domestic issuer. Matters reserved to the Board are set out in the Governance section of the Company's website.

The Board believes it is important to maintain the flexibility to choose the leadership structure that is best able to meet the needs of Luxfer and its shareholders, based on the circumstances that exist at the time and the qualifications of the available individuals. Due to the relatively small size of the Board, the Directors have determined it to be unnecessary to appoint a Senior Independent Director. Further, we currently do not have a policy requiring the positions of Board Chair and Chief Executive Officer to be held by different persons. However, these two positions have historically been separate, and are expected to remain separate. The Board believes this structure is advantageous. Specifically, separating the positions provides the appropriate balance between strategy and development and oversight of management, while also allowing the CEO to focus attention on driving business performance rather than Board governance. Additionally, this structure is consistent with corporate best practices, the Institutional Shareholder Services' recommendation, the views of Luxfer's shareholders, and the U.K. Corporate Governance Code.

In August 2021, David Landless, who has served as Board Chair since 2019, announced his decision not to stand for re-election at the 2022 Annual General Meeting of Shareholders. Mr. Landless' decision was made in accordance with the Company's Corporate Governance Guidelines, which recommends retirement of Directors after nine years' service. Following this announcement, the Board appointed Patrick Mullen to succeed Mr. Landless as Board Chair, effective March 11, 2022. Mr. Mullen is a Non-Executive Director and is considered independent under NYSE listing standards. Luxfer believes that Patrick Mullen's service as Board Chair is appropriate because of his extensive global industrial experience, history of serving on the boards of other public companies, and knowledge of the manufacturing and engineering industries in general. The responsibilities of the independent Board Chair include, among other things:

- Leading the Board, including the oversight and coordination of the Board's and its Committees' work;
- Serving as a liaison between the CEO, other members of senior management, the Non-Executive Directors, and the Committee Chairs;
- Presiding at all meetings of the Board, including executive sessions of the independent, Non-Executive Directors;
- Presiding at all meetings of the shareholders;
- Setting the Board's meeting agendas and ensuring there is sufficient time for discussion of all agenda items;
- Recommending to the Board agendas for shareholder meetings and providing guidance to the Board on positions the Board should take on issues to come before shareholder meetings;
- Participating in discussions with the Nominating and Governance Committee on matters related to Board and Committee organization, composition, membership terms, and meeting structure;
- Participating in discussions with the Nominating and Governance Committee and Remuneration Committee on matters related to the hiring, evaluation, and compensation of, and the succession planning for, the CEO, the Executive Officers, and Directors; and,
- Maintaining dialogue and canvassing opinions of the Non-Executive Directors in absence of the Executive Director.

Board and Committee Self-Assessments

Annual self-assessments and evaluation of Board performance helps ensure that the Board and its Committees function effectively and in the best interest of our shareholders. The Nominating and Governance Committee is Responsible for Directors and each Committee. The assessment process consists of a written evaluation comprising both quantitative scoring and narrative comments on a range of topics, including the composition and structure of the Board of Directors, the type and frequency of communications and the information provided to the Board and its Committees, the Board's effectiveness in carrying out its functions and responsibilities, the effectiveness of the Committee structure, Director's preparation and participation in the meetings, and the values and culture displayed by the Directors. With the assistance of the Company Secretary, the evaluation responses are compiled by the Chair of the Nominating and Governance Committee. The Nominating and Governance Committee Chair leads a discussion of the assessment results at the following Board meeting. In addition to this annual self-assessment, verbal assessments are conducted in independent executive sessions at the end of every Board and Committee meeting.

Board Education, Information and Support

Board education is an ongoing, year-round process, which begins a Director joins our Board. Within one (1) year of joining our Board, new Directors are provided with an orientation to our Company, including our business, strategy and governance. On an ongoing basis, Directors receive educational presentations on a variety of topics related to their responsibilities as Directors and the industries in which Luxfer operates. These presentations are provided by our senior management team and/or external advisors. In 2022, topics for Board education included Luxfer values and culture; anti-corruption and anti-bribery; anti-trust compliance; global insider dealing; pension regulation and strategy; share repurchase programs and trends; capital markets update; cybersecurity and privacy matters; ESG matters; and diversity and unconscious biases.

The Company Secretary and General Counsel as well as external counsel when appropriate and necessary, provide updates to the Board on legal and regulatory issues nature of which it and the individual Directors should be aware to refresh their skills and knowledge. There is a culture of information exchange on various matters of interest to the Group and its operations between Directors and senior managers to keep Directors abreast of relevant developments.

The Board receives both financial and operational information to assist it in carrying out its duties. The Chief Executive Officer and the Chief Financial Officer provide regular reports to the Board regarding relevant aspects of the business. These reports are further detailed at scheduled Board meetings as appropriate. Additional topics for review and discussion are added to these reports from time to time at the request of the Directors. In addition, specific items are scheduled into the Board agenda for report and review on a regular basis, such as health and safety and environmental matters and current topical issues. The Board evaluates this information and support procedures periodically to ensure that topics remain appropriate.

Board Meetings and Committees

The Board meets regularly during the year, holds special meetings, and acts by unanimous written consent, wherever circumstances require. In each regularly scheduled Board and committee meeting, the independent Directors also meet in executive session, without the Chief Executive Officer or other members of management present. *Directors are expected to attend all scheduled meetings of the Board of Directors, all meetings of the* Committee(s) on which they serve, and all shareholder meetings.

The Board has three standing committees comprised solely of Independent Directors: the Nominating and Governance Committee, the Remuneration Committee, and the Audit Committee. The Company Secretary distributes Board and Committee agendas and materials to the Board and Committees seven days before a scheduled meeting.

12 MEETINGS OF THE BOARD OF DIRECTORS IN 2022

3 - Meetings of the Nominating and Governance Committee	3 - Meetings of the Remuneration Committee	6 - Meetings of the Audit Committee	6 - Meetings of the Board

The Board held six regularly scheduled meetings in 2022, four of which occurred in-person and two of which occurred virtually via videoconference. Additionally, the Board held six special meetings in which matters such as Board and executive leadership succession planning and transitions were discussed. These six meetings occurred virtually via videoconference. All incumbent Directors attended 100% of the meetings of the Board and Committee(s) on which they served during 2022, and all Directors who served during fiscal year 2022 attended at least 93% of the meetings of the Board and committee(s) on which they served. All Directors then serving attended the 2022 Annual General Meeting of Shareholders.

Nominating and Governance Committee

Role: The Nominating and Governance Committee advises the Board on matters relating to corporate governance, Board structure, and Board composition. Responsibilities include, among other things, establishing criteria for Director candidates and identifying individuals for nomination to become Directors, including engaging advisors to assist in the search process where appropriate, and considering potential candidates recommended by shareholders; developing plans and making recommendations in relation to the organization, composition, membership terms, and meeting structure of the Board and its committees; overseeing and making recommendations regarding executive succession planning; administering the annual performance evaluation of the Board and its committees; overseeing Luxfer's corporate governance and compliance structure and practices; and overseeing and recommending to the Board changes to our Corporate Governance Guidelines, Committee Charters, and other governing instruments.

A full description of the Committee's role is set forth in the Nominating and Governance Committee Charter, available at https://www.luxfer.com/investors/governance/

Members: Clive Snowdon (Chair since April 2020), Patrick Mullen (effective January 2022), Sylvia A. Stein (effective August 2022), and David Landless (through June 2022).

The Board has affirmatively determined that all members of the Nominating and Governance Committee are independent in accordance with the NYSE listing standards and SEC regulations.

Remuneration Committee

Role: The Remuneration Committee sets and administers the policies that govern executive, director and senior management compensation. Responsibilities of the Remuneration Committee include, among other things, evaluating Executive Officer and senior management performance; establishing and administering executive compensation, including base salaries, annual cash incentives, and equity awards; reviewing and approving the Executive Compensation Discussion and Analysis included in the annual Proxy Statement; recommending actions regarding the Chief Executive Officer's compensation for approval by the Non-Executive Directors of our Board; approving individual compensation actions for all Executive Officers other than the CEO; and overseeing the Company's human capital practices as such practices related to the Company's broader ESG strategy.

A full description of the Committee's role is set forth in the Remuneration Committee Charter, available at https://www.luxfer.com/investors/governance/.

Members: Richard Hipple (Chair as of November 2018), Patrick Mullen (effective January 2022), and Lisa Trimberger (effective September 2019).

The Board has affirmatively determined that all members of the Remuneration Committee are independent in accordance with the NYSE listing standards and SEC regulations.

Report: The Director's Remuneration Report appears in the Remuneration Report on pages 42 to 64.

Audit Committee

Role: The Audit Committee oversees the Company's accounting, financial reporting, and internal control policies and procedures. Responsibilities of the Audit Committee include, among other things, overseeing financial reporting, controls, integrity of the Company's financial statements, and audit quality and performance; monitoring and overseeing the independence and performance of our independent auditor, with responsibility for the selection, evaluation, remuneration, and, if applicable, discharge of such independent auditors; approving, in advance, all of the audit and non-audit services provided to the Company by the independent auditor; facilitating open communication among our Board, senior management, internal audit, and the independent auditor; and overseeing our enterprise risk management and financial compliance programs.

A full description of the Committee's role is set forth in the Audit Committee Charter, available at https://www.luxfer.com/investors/governance/.

Members: Lisa Trimberger (Chair as of April 2020), Richard Hipple (effective November 2018), Clive Snowdon (effective August 2016), and Sylvia A. Stein (effective August 2022).

The Board has affirmatively determined that all members of the Audit Committee are independent in accordance with the NYSE listing standards and SEC regulations.

Financial Experts: The Board has determined that Lisa Trimberger, Richard Hipple, Clive Snowdon, and Sylvia A. Stein are financially literate under NYSE rules and listing standards. The Board has further determined that Lisa Trimberger and Clive Snowdon qualify as financial experts pursuant to SEC standards.

Report: The Directors are responsible for preparing the financial statements to satisfy U.K. law. This responsibility is explained further in the Statement of Directors' Responsibilities on page 65 and the Independent Auditors' Report on pages 66 to 72.

Meetings: Prior to the commencement of the financial year, the Committee establishes a schedule of meetings to coincide with key events in the Company's financial reporting and audit cycle to ensure that it has sufficient time to fulfil its responsibilities. Agendas and appropriate documentation are provided to the Committee by the Company Secretary. The Chief Financial Officer and the Chief Executive Officer may attend Committee meetings as required. The Chair of the Audit Committee consults with external auditors as necessary in preparation for Committee meetings and may invite the external auditor to attend a meeting of the Audit Committee if required.

The Audit Committee has adopted and implemented a 'Policy on the Provision of Audit and Non-Audit Services by Auditors' (the "Pre-approval Policy") to comply with auditor independence requirements contained in Rule 2-01 of Regulation S-X under the Exchange Act. The policy requires the Audit Committee to pre-approve all matters upon which the Company's external auditors are requested to advise (audit and non-audit work), including fees, subject to certain pre-approvals made annually by the Audit Committee. A pre-approved sum to be spent on audit and tax matters is delegated to the Chief Financial Officer and there is a procedure for approval of urgent items by the Chair between meetings. The policy also affirmatively prescribes the Company's external auditors from advising on certain matters.

Conflicts of Interest

Luxfer's Code of Ethics and Business Conduct and Corporate Governance Guidelines address conflicts of interest. As provided in the Code of Ethics and Business Conduct, a "conflict of interest" occurs when an individual's private interest (or the interest of a member of their family) interferes, or even appears to interfere, with the interests of Luxfer. A conflict of interest can arise when an employee, Officer, or Director (or a member of their family) takes actions or has interests that may make it difficult to perform their work for Luxfer objectively and effectively. Conflicts of interest also arise when an employee, Officer, or Director (or a member of their family) receives improper personal benefits as a result of his or her position in Luxfer. The Company periodically, but no less frequently than annually, solicits information from Directors and Executive Officers in order to monitor potential conflicts of interest. Directors and Executive Officers are expected to always be mindful of their fiduciary obligations to the Company, and they must seek determinations and prior authorizations or approval of potential conflicts of interest exclusively from (i) the Board Chair or Nominating and Governance Committee, as appropriate, in the case of Directors or (ii) Luxfer's General Counsel, or where a conflict arises, the Nominating and Governance Committee, in the case of Executive Officers.

In 2022, there were no conflicts of interest.

Related-Party Transactions

In addition to the standards set forth in our Corporate Governance Guidelines, Luxfer has established a Related-Party Transactions Policy. As defined in the Policy, a "Related Person" is any (i) person who is or was (since the beginning of the last fiscal year for which Luxfer has filed a Form 10-K and Proxy Statement, even if they do not presently serve in that role) an Executive Officer, Director, or nominee for election as a Director of Luxfer, (ii) person who is the beneficial owner of greater than 5% of Luxfer's outstanding ordinary shares, or (iii) Immediate Family Member of any of the foregoing. "Immediate Family Member" is defined as "any child, stepchild, parent, stepparent, spouse, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, sister-in-law, or any person (other than a tenant or employee) sharing the household of a person."

In accordance with the Related-Party Transactions Policy and consistent with Section 314.00 of the NYSE Listed Company Manual the Audit Committee must conduct a reasonable prior review of all "Related Party Transactions." A "Related Party Transaction" is any transaction, arrangement, or relationship, or any series of similar transactions, arrangements, or relationships, in which (i) the aggregate amount involved will or may be expected to exceed $120,000 in any fiscal year, (ii) Luxfer is a participant, and (iii) any Related Person has or will have a direct or indirect material interest, other than solely as a result of being a Director or trustee (or any similar position) or a less than 10% beneficial owner of another entity.

In considering whether to approve an Interested Transaction, the Audit Committee takes into account, among other factors it deems appropriate, whether the Related Party Transaction is on terms no less favorable than terms generally available to an unaffiliated third-party under the same or similar circumstances and the extent of the Related Person's interest in the arrangement.

In 2022, there were no related party transactions.

Security Ownership

Various Luxfer policies address security ownership, including the Insider Trading and Dealing Policy and the Stock Ownership Guidelines. Particularly, Luxfer's Insider Trading and Dealing Policy prohibits a number of transactions by "Covered Persons." "Covered Persons" include Directors, Executive Officers, and various Luxfer employees and consultants in corporate, finance, IT, and investor relations roles. Specifically, the Policy prohibits the following in relation to Company securities: short-term trading, short sales, options trading, trading on margin, and hedging. All Covered Persons – including family members of Covered Persons, members of a Covered Person's household, and entities controlled by Covered Persons – are expected to comply with the Insider Trading and Dealing Policy, as well as applicable securities laws and regulations.

Further, Luxfer has established Stock Ownership Guidelines, which apply to all Non-Executive Directors, Named Executive Officers, and any other key employees that the Remuneration Committee may identify from time to time in consultation with management. The Company's Articles of Association do not currently require Directors to hold a minimum number of shares in the Company in order to qualify for appointment to the Board of Directors; however, the Stock Ownership Guidelines provide the Company's expectations as to the minimum amount of share such persons should own in the Company. These minimum amounts are based on the total value of the shares owned by a person being equal to a certain multiple of such person's annual base salary or retainer fee. Additionally, the Stock Ownership Guidelines include share retention ratios to assist in a person's continuous progress toward their respective ownership guideline. Directors and Executive Officers are expected to achieve the minimum ownership guidelines within five years of the effective date of the Stock Ownership Guidelines or their appointment or election, whichever occurs later.

Anti-Bribery and Anti-Corruption

The Code of Ethics and Business Conduct requires compliance with all applicable anti-bribery laws, including the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act, and local laws where Luxfer conducts business. This requirement applies to Luxfer's Directors, Executive Officers, employees and those with whom Luxfer conducts its business. Luxfer has an established Anti-Corruption Policy, which sets for the Company's policies, principles, and procedures in relation to situations presenting corruption or bribery issues. Annual training is required for all members of our Board of Directors, senior management, and any non-production employees, and more thorough trainings are provided to employees in high-risk roles, including those in audit, sales, finance, marketing, legal, and export and import. Luxfer's General Counsel provides quarterly updates on all activities to the Audit Committee and Board as a whole.

Whistleblowing

We highly encourage reporting of any wrongdoing regarding corporate governance, financial reporting, human rights, or any concerns about business conduct brought forth in good faith. Luxfer operates an independent, anonymous whistleblowing hotline that is available 24/7 to our employees or anyone working in our supply chain. Luxfer's longstanding Whistleblowing Policy describes the procedures in place to ensure our due diligence in thoroughly investigating and remedying any reports through this avenue. The policy provides strong protections against retaliation for whistleblowers and anyone who cooperates in a Company investigation. The Audit Committee oversees the operation of the Whistleblowing Policy and receives a report from the Company Secretary at each meeting of the Audit Committee.

Relations With Shareholders

We believe that effective corporate governance includes year-round engagement with our shareholders, stakeholders, and any interested party. We regularly meet with our shareholders via telephone calls and virtual videoconference meetings, including both large and small investors, to discuss business strategy, performance, compensation philosophy, corporate governance, and environmental and social topics. In a typical year, Luxfer engages dozens of shareholders, including our largest shareholders two to three times per year. In 2022, we had meetings throughout the year through investor conferences, non-deal roadshows, and scheduled post-earnings follow up calls. To continuously improve our shareholder communication and outreach, we review the feedback we receive during these meetings with our Board of Directors. Our Directors, along with management, carefully consider and evaluate this information and modify the Company's approach to advance our shareholder engagement efforts.

Executive Leadership Team

The members of the Executive Leadership Team of Luxfer are responsible for the day-to-day management of the Company. The Executive Leadership Team meets regularly and at least once a month. These meetings are chaired by the Chief Executive Officer and consists of the Chief Financial Officer and senior management at group and segment levels. The Executive Leadership Team acts in an advisory capacity to the Chief Executive Officer and provides a forum where matters of interest or concern to the Group can be reviewed and discussed, strategy debated, policies developed and agreed, best practice discussed, and appropriate measures implemented. Said meetings also provide an opportunity for senior management to receive updates on progress in other areas of the Group outside their remit.

The following table lists the names and positions of the current members of the Executive Leadership Team as well as former members who served during fiscal year 2022.

Name	Age	Position
Andy Butcher [1]	54	Chief Executive Officer
Alok Maskara [2]	52	Former Chief Executive Officer
Stephen M.D. Webster [3]	51	Chief Financial Officer
Heather C. Harding [4]	54	Former Chief Financial Officer
Graham D. Wardlow	55	Managing Director, Luxfer MEL Technologies
Jeff C. Moorefield [5]	59	Vice President and General Manager, Luxfer Magtech
Mark A. Chivers [6]	53	Managing Director, Luxfer Superform
Peter N. Gibbons	52	Vice President and General Manager, Luxfer Graphic Arts
Megan E. Glise	30	General Counsel and Company Secretary
Mark Lawday [7]	43	Vice President and General Manager, Luxfer Gas Cylinders
Howard Mead [8]	38	Vice President and General Manager, Luxfer Gas Cylinders Composite

Notes:

1. Andy Butcher was appointed Chief Executive Officer and Executive Director effective May 6, 2022.
2. Alok Maskara elected to leave the Company effective May 6, 2022.
3. Stephen Webster was appointed Chief Financial Officer of the Company effective March 1, 2022.
4. Heather Harding retired from employment with the Company effective March 1, 2022.
5. Jeff Moorefield was appointed Vice President and General Manager of Luxfer Magtech Solutions effective April 1, 2022.
6. Mark Chivers continues to serve as a member of the ELT and Managing Director of Luxfer Superform. However, Luxfer Superform is considered as a discontinued operation as of December 31, 2020.
7. Mark Lawday was appointed Vice President & General Manager of Luxfer Gas Cylinders - Europe effective April 1, 2022. Mark became a member of Luxfer's Executive Leadership Team effective January 1, 2023.
8. Howard Mead was appointed Vice President & General Manager of Luxfer Gas Cylinders - Composite in May 2022. Howard became a member of Luxfer's Executive Leadership Team effective January 1, 2023.

Biographies of the current members of the Executive Leadership Team and those former members who served during fiscal year 2022 are set forth below:

Andy Butcher
Chief Executive Officer

Alok Maskara
Former Chief Executive Officer

Please refer to the main Board biographies on pages 15 to 18.

Stephen Webster
Chief Financial Officer
Stephen Webster was appointed Chief Financial Officer effective March 1, 2022. From September 2016 to March 2022, Mr. Webster served as Luxfer's Corporate Controller. Prior to joining Luxfer, Mr. Webster held various finance leadership roles at global businesses, serving as Head of Global Accounting at Seadrill Limited, an OSE-listed offshore drilling company, and ERP Business Integration Lead, IFRS Project Lead, and Financial Accounting Director at JT International, a global tobacco company. He has extensive experience in corporate financial management and external reporting under both US GAAP and IFRS. Mr. Webster is a Chartered Accountant and holds a degree in International Management and Modern Languages from the University of Bath.

Heather C. Harding
Former Chief Financial Officer
Heather Harding served as Luxfer's Chief Financial Officer from January 1, 2018 to March 1, 2022. As of her retirement from Luxfer on March 1, 2022, Ms. Harding is no longer an Executive Officer of the Company. From 2012 to 2017, Ms. Harding served as Vice President of Finance for Eaton Lighting, a business unit of Eaton Corporation, a power management company. Prior to that, she was Vice President of Finance for various operating units within Cooper Industries and Emerson Electric. Ms. Harding is a Certified Public Accountant and holds a Bachelor of Science degree in Accounting from Southern Illinois University at Carbondale.

Graham D. Wardlow
Managing Director of Luxfer MEL Technologies
Graham Wardlow was appointed Managing Director of Luxfer MEL Technologies (LMT) in October 2017, following the merger of Luxfer's MEL Chemicals and Magnesium Elektron Alloys businesses. The Magnesium Powder's business was subsequently incorporated into LMT in early 2022. Mr. Wardlow joined Magnesium Elektron in 1984 and undertook several technical and commercial roles before becoming Managing Director of the Magnesium Elektron Alloys business in 2008 and Divisional Managing Director of MEL Chemicals in May 2017. Mr. Wardlow holds a degree in Materials Engineering from Imperial College, University of London, as well as an M.B.A. from Keele University.

Jeff C. Moorefield
Vice President and General Manager of Luxfer Magtech
Jeff Moorefield was appointed Vice President and General Manager of Luxfer Magtech on April 1, 2022, at which time he also became an Executive Officer of the Company. Mr. Moorefield previously served as Luxfer's Vice President of Operations from March 2019 to March 2022. Before joining Luxfer, Mr. Moorefield served as Senior Vice President of Global Operations at Tennant Company, a provider of floor cleaning machines, products, and services. Prior to that, he served as Global Vice President of Operations for various business segments within Pentair Plc, a provider of water treatment solutions and sustainable applications. Mr. Moorefield holds a Bachelor of Science degree in Industrial Technology from Western Kentucky University.

Mark A. Chivers
Managing Director of Luxfer Superform
Mark Chivers has served as Managing Director of Luxfer Superform since April 2018. Mr. Chivers joined Luxfer in 2009 as Operations Director of Superform U.K., before moving to California in 2014 to become Vice President and General Manager of the U.S. facility. Before joining Luxfer, Mr. Chivers held Production and Operations Management and Vice President roles in the castings and tool making industry, particularly servicing the automotive sector. Mr. Chivers holds a Bachelor of Arts degree in Business Studies from Wolverhampton University.

Peter N. Gibbons
Vice President and General Manager of Luxfer Graphic Arts
Peter Gibbons was appointed Vice President and General Manager of Luxfer Graphic Arts in July 2019. From July 2017 to July 2019, Mr. Gibbons served as Director of IT and Sourcing. Upon his appointment as Director of IT and Sourcing, Mr. Gibbons became a member of the Executive Leadership Team. Mr. Gibbons joined Luxfer in 2004 as European Financial Controller of the Magnesium Elektron Alloys business. From 2013 to 2014, he served as Luxfer's Group Financial Controller, and from 2014 to 2017, Mr. Gibbons was the Divisional Finance Director of Luxfer's Magnesium Elektron Alloys business.

Megan E. Glise
General Counsel and Company Secretary
Megan Glise was appointed General Counsel and Company Secretary in September 2020. Ms. Glise joined Luxfer as U.S. Legal Counsel in July 2018 and was appointed Associate General Counsel in February 2019. In January 2020, she became a member of the Executive Leadership Team and an Executive Officer of the Company. Before joining Luxfer, Ms. Glise was an Associate Attorney at a Wisconsin-based law firm, where she focused her practice on corporate and transactional law. Ms. Glise received her Juris Doctorate from Marquette University Law School and holds a Bachelor of Arts degree in English and Criminology and Law Studies from Marquette University.

Mark Lawday
Vice President and General Manager, Luxfer Gas Cylinders
Mark Lawday was appointed Vice President & General Manager of Luxfer Gas Cylinders - Europe in April 2022 and became a member of Luxfer's Executive Leadership Team in January 2023. Mr. Lawday joined Luxfer in 2005 as Product Manager in Nottingham, United Kingdom, progressing through increasingly senior business development and sales roles in Europe and North America. He joined the Luxfer Gas Cylinders' North American Leadership Team in 2012 and subsequently the European Leadership Team in March 2017. Mr. Lawday holds a Master of Engineering degree as well a Doctorate in Materials Engineering from the University of Nottingham.

Howard Mead
Vice President and General Manager, Luxfer Gas Cylinders Composite
Howard Mead was appointed Vice President & General Manager of Luxfer Gas Cylinders - Composite in May 2022 and became a member of Luxfer's Executive Leadership Team in January 2023. After beginning his career at RSM UK, Mr. Mead joined Luxfer in 2011 as a Financial Accountant, before progressing through roles of increasing responsibility at Luxfer Gas Cylinders in areas that included business improvement and finance. Beginning September 2019, he served as Gas Cylinders' Global Vice President of Finance and a member of the Gas Cylinders' Leadership Team. Mr. Mead is a fellow of the Institute of Chartered Accountants in England and Wales and holds a Bachelor of Science degree in Mathematics from the University of Manchester as well as an M.B.A. from the Open University Business School.

Environment, Social and Governance ("ESG") Matters

In December, we published our 2022 Sustainability Report, a biennial report highlighting our ongoing efforts to drive sustainability in our operations. Building on our inaugural report published in 2020, the 2022 Sustainability Report includes (i) more granular environmental and social data through 2021; (ii) an update on our progress towards meeting our 2025 Environmental Goals; (iii) greater discussion on sustainability governance and climate-related risks; and (iv) insight into new and ongoing sustainability initiatives. We invite you to read the full report on our website at https://www.luxfer.com/environment-social-and-governance/.

Key features of Luxfer's sustainability efforts in 2022 include:

- Board's oversight of ESG matters, including strategic planning, risks, and opportunities, with regular updates from the CEO and senior management;
- Targeted investments in new projects and technology to reduce our carbon footprint and increase operational efficiencies;
- Biannual ESG scorecard reviews with the CEO, senior management, and environmental, health, and safety team members;
- Increased talent, investment, and resources for IT security;
- Expanded diversity, equity, and inclusion recruitment practices and increased diversity training;
- Demonstrated track record of safety performance; and
- Continued fostering a performance culture with high ethical standards that values integrity, accountability, and innovation, and which is designed to encourage individual growth and operational effectiveness.

Reflected below is a snapshot of our environmental performance through fiscal year 2022. We look forward to remaining transparent about our ESG progress and will provide a further update on our progress towards meeting our 2025 Environmental Goals in the next round of sustainability reporting anticipated in 2024.

Our Products

Many of our products already serve the growing need to safeguard the environment in the transportation sector. Our hydrogen fuel systems have been applied to a variety of vehicles in a series of world firsts including the first commercially produced hydrogen powered trucks, refuse trucks, boats and tractors. Luxfer also played a vital role in developing the U.K.'s first hydrogen-powered train. Beginning operation in 2020, the electric train was retrofitted to run using our G-Stor® H_2 hydrogen fuel system. We will continue developing partnerships in the transportation sector to make hydrogen-powered transportation a reality.

Similarly, our zirconium-based autocatalyst products help reduce automotive emissions. Driven by increasing legislation, we work with our customers to offer tailor-made solutions based on our Gasoline Particulate Filtration systems, Diesel Oxidation Catalysts, Diesel Particulate Filters, passive NO_x Absorbers and selective catalytic reduction systems. These systems reduce the amount of toxic gasses and pollutants contained in exhaust from traditional diesel and gasoline engines. Further, our unique magnesium alloys used in aerospace and automotive designs enable lighter and stronger models, which help maximize fuel efficiency, lower emissions, and increase performance through lightweight materials.

Our Facilities and Operations

Throughout 2021 and 2022, we invested in multiple energy- and emissions-reduction projects across our global facilities, such as LED lighting, upgrades to compressors and pumps, and the replacement of old equipment with energy-efficient models. In total, these projects saved over 4,700,000 kWh of electricity annually. The SF6 abatement project carried out at the Luxfer MEL Technologies plant in Manchester, U.K., which involved installing new technology in their magnesium operations, significantly contributed to the Company's ability to achieve its 2025 emissions reduction target ahead of schedule. This project alone reduced the Company's total emissions by approximately 36,000 metric tons of CO2e annually. Other projects carried out in 2022 to improve our environmental footprint include:

- Luxfer MEL Technologies in Flemington, NJ installed LED lighting equipped with motion sensors throughout the facility, reducing the sites energy consumption by approximately 243,000 kWh of electricity, or 172 metric tons of CO_2e emissions, annually.
- Luxfer Magtech in Cincinnati, OH upgraded 290 traditional lights to LED in October 2022, representing an annual emissions savings of approximately 127 metric tons annually.
- Luxfer Gas Cylinders in Riverside, CA worked to reduce electricity consumption by installing new high-efficiency pumps used to hydrotest their Type 3 SCBA cylinders, amounting to 41,040 kWh of electricity, or 17.8 metric tons of CO_2e emissions, annually.
- Through an audit of its water usage, Luxfer MEL Technologies in Tamaqua, PA located and repaired a large on-site leak which is estimated to save over 300,000 gallons of municipal freshwater annually.
- Luxfer Graphic Arts in Manchester, U.K. installed new energy-efficient technology to coat their copper engraving plates with laminate instead of traditional lacquer which increases the recyclability of the copper, reduces downstream disposal and operational costs, and by 2024, is expected to save approximately 265 kg of CO_2e.

ESG Controls and Oversight

While Luxfer's management team is responsible for developing the Company's strategy and managing day-to-day operations, the Board of Directors oversees the Company's direction, including governance-related policies and practices; our system of risk oversight and management; how we advance environmental sustainability and climate related challenges; health and safety; human rights; human capital management and corporate culture; and the manner in which we serve our customers and support our communities. We recognize that the long-term success of our Company requires continued focus on these evolving topics and a commitment to regularly evaluate and improve our performance in relation to them.

Our Environmental, Health, and Safety ("EHS") Management System is a crucial mechanism through which our ESG initiatives are put into action. Based on ISO 14001 standards, our EHS Management System is comprised of policies, procedures, and objectives focused on compliance, footprint reduction, and management of EHS performance. Luxfer's businesses track progress and perform self-audits in accordance with the EHS Management System with the goal of continually improving the safety of our products, enhancing environmental protection initiatives and preventing occupational illnesses and injuries.

In addition to internal controls, certain Luxfer businesses participate in compliance and knowledge-sharing forums with other companies in our industry. For example, our U.K. MEL Technologies business is subject to the European Union Regulation, Evaluation, Authorization and Restriction of Chemicals ("REACH") controls (incorporated into U.K. legislation following the U.K.'s exit from the European Union.), which aims to hold manufacturers and importers responsible for understanding and managing the environmental and health risks associated with the use of certain chemicals. Our MEL Technologies business participates as a member or lead member in REACH consortia, during which manufacturers and importers of like substances cooperate with one another and collect information, gather data, and register certain chemicals in fulfillment of REACH requirements. Participants work together to assess potential hazards and risks posed by these chemicals and how those risks can best be controlled.

Managing Energy Use

Energy is a major requirement for Luxfer's operations which involve melting and forming metals, changing the state of chemicals, and running heavy machinery. We are subject to a wide variety of regulations regarding energy usage in the U.K. and take every step necessary to ensure our compliance with those regulations. Our U.K. plants have signed up for the European-wide Energy Saving Opportunity Scheme, which mandates that all large organizations calculate the total energy use and perform energy audits across their businesses once every four years. Our U.K. operations are also registered with and regulated under the Carbon Reduction Commitment Energy Efficiency Scheme ("CRC"), designed to further mobilize companies to reduce CO_2 emissions by incentivizing energy efficiency. Further, all Luxfer U.K. operations participate in Climate Change Agreements, with the exception of our Gas Cylinders plant due to the nature of its cold-extrusion process.

Luxfer recognizes energy from fossil fuel resources are finite and that we have a duty to help conserve these resources. In addition to the environmental benefits and cost savings associated with reducing our energy consumption, reliance on electricity from the grid also represents a risk to our business operations. Extreme weather events and natural disasters, including those as a result of climate change, could compromise our operations and productivity. As such, we acknowledge that we would benefit from diversifying our energy supply. Currently, 100% of our electricity is purchased from the grid. However, investment in renewable energy aligns with our long-term sustainability strategy, reduces our risks, and will strengthen operational resilience in the face of extreme weather events and natural disasters. In the years leading up to 2025, we will strive to introduce renewable energy solutions to power our operations where possible.

In addition, we will continue reducing our energy consumption from the grid through other projects, such as those through our Reduced Energy Demand (RED) Program. In consultation with our energy partners, our RED Program helps us implement site-specific energy saving initiatives and projects throughout our operations. RED Projects begin with conducting an on-site energy audit to obtain a more granular analysis of the site's energy consumption. Our energy partner then provides proposals for technology and equipment upgrades that will reduce our energy consumption, each of which includes a detailed analysis of the financial, environmental, and safety impact of each project. Such proposals will include a renewable energy alternative that will be implemented if financially and practically feasible.

Greenhouse Gas Emissions

In 2022, we continued tracking energy and emissions data through our internal ESG Scorecard, which measures progress across a wide range of ESG key performance indicators. In addition to recording data, the ESG Scorecard is the mechanism through which we track performance against our 2025 Environmental Goals, which includes our commitment to reducing our absolute carbon dioxide equivalent ("CO_2e") emissions by 20% by 2025 using a 2019 baseline. Having finalized our full year 2022 emissions figures, we are pleased to have exceeded our 2025 emissions reduction goal ahead of schedule with a 29% decrease in our total absolute CO2e emissions in 2022 from our 2019 baseline. In addition to updates provided in annual reports and other sustainability-related publications, we plan to provide additional details on final full-year 2022 and 2023 emissions data, and an update on progress towards all our 2025 Environmental Goals, in a future sustainability report anticipated in 2024.

Each Luxfer site compiles greenhouse gas emission inventories by monitoring the following sources of emissions:

- Electricity (from utility bills);
- Natural Gas (from utility bills);
- Propane (used for fork-lift trucks, calculated based on the number of cylinders used multiplied by capacity);
- Cover gasses (used to prevent molten metal from oxidizing, calculated based on the number of cylinders used multiplied by capacity); and
- Any other greenhouse gasses used in the manufacturing process (from amount invoiced).

This data is then converted to metric tons of CO_2e emissions using standard conversion factors published by government agencies. Broadly speaking, the gasses that compile the bulk of our emissions have very similar CO_2e equivalency regardless of where they are sourced. For electricity, the CO_2e equivalency is dependent on the power stations that generate it. Accordingly, our U.S. and Canada facilities use standard CO_2e conversion factors published by the U.S. Environmental Protection Agency, and our U.K. facilities use CO_2e conversion factors published by the U.K. Government. Government-published conversion factors are updated each year according to the mix of power-generation facilities in use. Historically, the U.K. has been a heavy user of electricity generation, but it has transitioned away from coal-fired power and is increasingly adopting zero-emissions technologies, particularly off-shore wind power. Such transitions represent a lower CO_2e conversion factor year-on-year.

Each Luxfer location has a manager responsible for data collection, conversion to CO2e, and emissions reporting. This data is centrally collated at year end, along with other accounting information. Scope 1 emissions consist of all direct emissions from fuel combustion, natural gas, propane, and all other sources of direct emissions. Scope 2 emissions consist of all indirect emissions attributable to the Company through the consumption of purchased electricity, steam, heating, or cooling. Year-on-year figures are used to identify any anomalies, and similar sites are compared to one another to ensure consistency and understanding of this data. At present, we do not collect details of any Scope 3 emissions.

The Greenhouse Gas ("GHG") emissions statement below provides a summary of the Group GHG emissions for the year ended December 31, 2022 compared to 2021. We report on both Scope 1 and Scope 2 emissions sources:

Scope 1 Emissions: Direct emissions from sources owned or operated by the Group including natural gas, cover gasses (i.e., SF6) and other CO2 equivalent emissions.

Scope 2 Emissions: Indirect emissions attributable to the Group due to its consumption of electricity.

Greenhouse Gas Emission Statement

Baseline year	**Full year 2022**
Consolidation Approach	Operational control.
Boundary	Consolidated factories operated by us to manufacture Group products.
Emission factor data source	U.K. sites: Conversion factors published by the Carbon Trust. U.S. sites: Conversion factors published by the U.S. Environmental Protection Agency for the state in which the site is located. Sites in other countries have used their relevant countries conversion factor.
Intensity ratio	CO_2 equivalent tonnes per $1 million of sales value ($1mSV).
Group Metric - Sales value	**$423.4 million in** 2022 (2021: $374.1million)

Greenhouse Gas Emission Source

	2022		**2021**	
	(tCO_2e)[2]	**(tCO_2e/ $1mSV)[3]**	**(tCO_2e)[2]**	**(tCO_2e/ $1mSV)[3]**
Scope 1				
Fuel combustion (natural gas and other CO2 emissions) and operation of facilities	51,660	119.5	72,222	193.1
Scope 2				
Purchased electricity	20,226	46.8	31,431	84.0
Statutory total (Scope 1 & 2)[4]	**71,886**	**166.3**	**103,653**	**277.1**

1. 2022 absolute and intensity emissions include emissions and sales from our facility in Pomona, California acquired in mid-2021.
2. Metric tons of CO2 equivalent.
3. Third party sales were used to calculate emissions intensity.
4. Statutory carbon reporting disclosure required by the Companies Act 2006 (Strategic Report and Directors' Report) Regulations 2013.

In 2022, our total absolute emissions (i.e. total metric tons of CO2e) decreased by 30.6% compared to 2021. Absolute Scope 1 emissions decreased 28.5% and absolute Scope 2 emissions decreased 35.6% year-over-year. We attribute this decrease to various energy- and emissions-saving projects implemented in late 2021 and throughout 2022, which are described in greater detail below. These projects also impacted our total emissions intensity (i.e., CO2e emissions per $million in sales), which decreased by 40.0% in 2022 compared to 2021. Scope 1 emissions intensity decreased by 38.1% and Scope 2 emissions intensity decreased by 44.3% year-over-year. While emissions intensity are useful metrics to normalize our emissions, sales value is affected by exchange and inflation rate effects. Accordingly, it is important to note that the Company's efforts to pass through inflationary costs in 2022 has impacted our sales value and likewise impacted our emissions intensity metrics.

Industry Engagement

Our Segments are active members of relevant industry associations and standards bodies, both in Europe and North America, where they have a positive influence as members, officers, and technical advisors. They often participate in, and chair committees within, those associations on technical and other matters of interest or concern to their relevant industry, including standards, specifications and safety. These organizations include the International Magnesium Association, the Chemical Industry Association, the Zircon Industry Association, the Compressed Gas Association, the Metal Powder Producers Association, the British Standards Institute, the Canadian Standards Association, the American Society of Testing and Materials, and many others.

Responsible Business Ethics

We recognize that our ongoing responsibility to ethics and compliance helps us earn and retain the trust and business of our customers, employees, investors, and all other stakeholders, while fostering a transparent and honest culture that reflects our core values. Integral to our success is the commitment of our employees to uphold our values and conduct business in an honest and ethical manner. Through strong policies and regular compliance training, we actively identify and mitigate risks related to violations of Company policy, regulatory compliance, and laws. Our Corporate Governance Guidelines, Articles of Association, Charters of the Board Committee, Reservation of Powers, and our Code of Ethics and Business Conduct provide the framework of the Company and are available on our website. These key policies are reviewed, updated, and approved by the Board once annually.

Code of Ethics and Business Conduct: Luxfer's Code of Ethics and Business Conduct is designed to guide the behaviors and decision making of our Board of Directors, Executive Officers, employees, and anyone conducting business on Luxfer's behalf. It provides a guide to appropriate business conduct and prohibits unethical behavior, such as conflicts of interest, kickbacks or bribery, and mandates compliance with the laws of the countries in which we do business. Compliance with the Code is a condition of employment and doing business with Luxfer. The Board reviews and approves of the Code of Conduct once annually, incorporating any best practices and developments in corporate governance if applicable. All Luxfer employees are required to participate in annual training on the principles contained in the Code of Conduct.

Anti-Corruption and Anti-Bribery: Luxfer is committed to preventing corruption and bribery in all its forms. Our Anti-Corruption Policy requires compliance with all applicable anti-bribery laws, including the U.S. Foreign Corrupt Practices Act, the U.K. Bribery Act, and local laws where Luxfer conducts business. This requirement applies to all parties doing business for or with Luxfer. The Policy sets forth the Company's principles and procedures relating to situations presenting corruption or bribery issues. Anti-bribery and corruption training is required annually for all non-production employees, and more thorough trainings are provided to employees in high-risk roles such as sales, internal audit, finance, marketing, legal, and export/import.

Reporting Concerns: Luxfer encourages employees, former employees, candidates, and parties with whom Luxfer has a business relationship to report any behavior by or within Luxfer that is or is reasonably believed to be unethical, illegal, or contrary to Luxfer's Code of Ethics and Business Conduct. Luxfer highly encourages reporting of any wrongdoing regarding business ethics or human rights concerns through our whistleblowing hotline at +1-866-901-3295 or online at https://www.safecall.co.uk/report/. Operated by an independent third party, our whistleblowing hotline offers a means to anonymously report concerns 24/7 with multi-lingual support for reporters in over 170 languages.

Compliance Training and Education: *All Luxfer employees are required to participate in annual compliance* training on Luxfer's policies related to ethics, integrity, our Code of Ethics and Business Conduct, and other compliance topics. They are also required to provide written acknowledgement that they have read, understood, and agree to comply with each policy. Our compliance training utilizes a combination of in-person and online learning including leadership-sponsored staff meetings and site-level trainings. Our online compliance trainings are assigned to employees based on their role and area of responsibility within the Company, with a number of courses considered mandatory, including those related to ethics, compliance, and integrity. Examples of recent training modules include: (i) Global Business Ethics; (ii) Integrity in the Workplace; (iii) Global Conflicts of Interest; (iv) Insider Dealing; (v) Anti-Bribery & Corruption; (vi) Anti-Trust and Foreign Corrupt Practices Act; (vii) Promoting Diversity and Avoiding Discrimination; and (viii) Global Privacy and Information Security.

Human Rights and Labor Practices

Luxfer remains committed to upholding the fundamental rights of all workers throughout our operations and value chain. Our Human Rights and Labor Practices Policy embraces the key principles and protections set forth in various guiding international declarations, covenants and guidelines, including (i) UN Guiding Principles for Business and Human Rights; *(ii) International Bill of Rights (consisting of the Universal Declaration of Human* Rights, the International Covenant on Civil and Political Rights, and the International Covenant on Economic, Social, and Cultural Rights); (iii) OECD Guidelines for Multinational Enterprises; and (iv) ILO Declaration on Fundamental Principles and Rights at Work. Such protections include fair and humane treatment, protections against forced and child labor, fair wages, benefits and working hours, among others. Our Human Rights and Labor Practices Policy should be read together with Luxfer's Code of Ethics and Business Conduct; Equal Opportunity, Non-Discrimination, and Anti-Harassment Policy; and our Third Party Code of Conduct. The underlying principles described in these policies require compliance with applicable laws and respect for internationally recognized human rights in all global operations. All Policies apply to the entire Luxfer organization and those with whom we conduct business, including our partners, suppliers, and vendors.

Equal Opportunity, Non-Discrimination & Anti-Harassment

Luxfer is an equal opportunity employer. We take every precaution to ensure that no applicant or employee receives less favorable treatment on the grounds of any characteristic protected by law. We have a zero-tolerance approach to discrimination during any stages of employment including recruitment, job assignment, promotion, remuneration, training and benefits as set forth in our Equal Opportunity, Non-Discrimination & Anti-Harassment policy. In line with this Policy, we are committed to providing a work environment free of harassment, abusive behavior and unprofessional conduct based on any protected characteristics. Our policy applies to all persons involved in the operation of the Company and any employee including supervisors, managers, and any third-parties such as vendors, customers, independent contractors, unpaid interns and volunteers.

Training is key to promote equal opportunities and diversity. Our talent acquisition team and hiring managers undergo regular training to ensure that a diverse slate of candidates is considered for all job openings. We have developed recruitment practices to target diverse candidates including minorities, veterans and women. We also monitor our current workforce for diversity, age and gender demographics and use this information to further develop our employment and recruitment practices and enhance our inclusive work environment. All new and existing employees are required to undergo anti-harassment, non-discrimination and unconscious bias trainings on an annual basis.

Our People

Attracting and retaining talent remains a challenge in the post-COVID landscape. To succeed in today's competitive labor market, Luxfer takes a proactive approach to human capital management by pursuing several priorities that we believe are critical in recruiting, retaining, motivating, and developing top talent. Such priorities include: (i) ensuring occupational health and safety; (ii) providing opportunities for professional growth and development; (iii) promoting financial, physical, and emotional well-being; and (iv) maintaining diverse and inclusive workplaces.

Our Board of Directors and Executive Leadership Team play a key role in setting our human capital management strategy and driving accountability for meaningful progress. Informed by data, our human capital management initiatives are supported by local leadership, with significant functional oversight by our local human resource teams. All Luxfer facilities collect data on employee retention, talent acquisition, training, and safety. Metrics are recorded quarterly on our internal scorecard and are reported to executive management regularly.

Occupational Health and Safety

The occupational health and safety of employees is fundamental to delivering sustained economic performance. Luxfer has established well-defined health and safety policies and procedures, as well as ongoing employee training, as part of the Company's commitment to being an industry leader in safety. Gap analyses are regularly conducted and safety goals and objectives for all functional business units are developed. As part of the Company's enterprise-wide risk management system, these objectives are monitored, and performance related to them is regularly reviewed and discussed. Employees are encouraged to submit suggestions, ideas, and observations about safety hazards which are incorporated into a "safety moment" at the beginning of each meeting to increase awareness and reinforce positive safety behavior. Additional efforts include monthly safety meetings with employees, safety audits by management, safety audits by certain employees, and the inclusion of safety initiatives as a part of select employees' incentive plans.

The Company utilizes a mixture of leading and lagging indicators to assess the health and safety performance of its operations. Leading indicators include reporting and closure of all near miss events and safety concerns identified. Lagging indicators include the recordable Incident Frequency Rate ("IFR") and Lost Time Accidents ("LTAs") defined by the U.S. Occupational Safety and Health Administration ("OSHA"). IFR is the number of work-related injuries per 100 full-time workers during a one-year period. LTA is defined as the number of work-related accidents resulting in an absence from the workplace for a minimum of one full work day. Across all our facilities, Luxfer's IFR in 2022 was 1.592.62 (2021: 2.621.85). We had 8 LTA's in 2022 (2021: 15) and 0 work-related fatalities. These safety measures are integrated into the performance evaluations of our Executives to further incentivize improvement going into 2023. These metrics are also reported to the full Board on a quarterly basis.

Growth and Talent Development

Providing opportunities for professional growth and development is key to Luxfer's retention strategy. Luxfer maintains talent and succession planning processes, including regular review by the Executive Leadership Team and reports to the Board of Directors. We operate leadership and management development programs, which provide a consistent approach to the development to the Company's future leaders and managers. With a multi-faceted curriculum, these programs develop critical problem-solving, communication, management, and leadership skills. Luxfer also maintains training and development programs for employees at the workforce level, in addition to regular coaching and support from their supervisor and performance evaluations. To further support their career aspirations, employees can access Luxfer's online learning platform which offers over 180,000 courses, videos, and books designed to strengthen critical business, leadership, productivity, and computer software skills.

Employee Well-Being

Luxfer's workforce is one of our greatest sources of sustainable value. Our ability to deliver on our objectives and build lasting relationships with our customers depends on the capabilities, attraction, and retention of the talented individuals who come to work every day. As such, we continuously strive to offer competitive pay and benefits and maintain a work-life balance for our employees in order to foster job satisfaction and increase retention.

Fair Wages and Competitive Benefits: Luxfer offers competitive base pay and, depending on position, variable incentive pay associated with both individual and Company performance. Full-time employees and, in some cases, part-time employees who have met the minimum hours of service requirement are eligible to participate in various retirement savings plans, such as the Company's 401(k) defined contribution plan in the U.S. and various pension schemes available to U.K. employees. We also offer paid time off, group medical, dental, and vision plans, in addition to various life, disability and paid family and sick leave options, which vary by jurisdiction.

Employee Share Plans: Luxfer encourages participation in its U.S. Employee Stock Purchase Plan (ESPP) and U.K. Share Incentive Plan (SIP), which provide employees an opportunity to become Luxfer shareholders at a reduced price. Under the ESPP, U.S. employees can purchase Company stock at a 15% discount through payroll deductions. Under the SIP, U.K. employees can purchase company stock through payroll deductions and, in turn, the Company matches one free share per every two shares purchased.

Fitness and Wellness Programs: Luxfer is proud to offer several optional fitness and wellness programs and healthy living incentives to our employees. Our Employee Healthy Lifestyle Program is available to U.S. employees and offers partial reimbursement for certain gym and fitness center memberships, weight loss programs, and group exercise classes. U.S. employees are also eligible to participate in a smoking cessation program through which employees who complete a 90-day program are rewarded with lower insurance rates.

Emotional Well-Being: We support the social and emotional health of our employees by providing access to wellness clinics and funded mental health counseling services. As a part of Luxfer's group medical insurance plan, U.S. employees have convenient access to live video visits with a board-certified doctors or licensed therapists. Luxfer also offers access to the Employee Assistance Program, which connects employees and their families with credentialed counselors, free of charge, to provide a variety of work-life services and resources for family matters, including legal assistance, financial budgeting, and more.

Diverse and Supportive Workplace

The professional conduct of our employees furthers the Company's mission, promotes productivity, minimizes disputes, and enhances our reputation. As such, the Company is committed to creating and maintaining a diverse, global workforce that provides fair and equitable opportunities, thereby advancing Luxfer's innovation culture and customer first values. With continued focus on diversity and equity, Luxfer's diversity initiatives include, but are not limited to, practices and policies on recruitment and selection, including targeted sourcing of personnel from diverse backgrounds; compensation and benefits; professional development and training; advancement opportunities; and the ongoing development of a diverse and inclusive work environment. All Luxfer personnel are required to complete a variety of anti-harassment, non-discrimination, diversity, and unconscious bias trainings annually. Luxfer's talent acquisition teams and hiring managers undergo additional training to ensure that a diverse slate of candidates is considered for all job openings. Further, Luxfer monitors the composition of its current workforce for diversity, age, and gender demographics. This data is used to enhance employment and recruitment practices and is continually improved to ensure that a diverse and talented workforce is maintained.

Further information on employee policies, communication and engagement can be found in the Directors' Report on pages 38 to 41.

At December 31, 2022, the number of employees was as follows:

Employees *	2022 Male**	2021 Male**	2022 Female**	2021 Female**
Directors of Luxfer Holdings PLC	4	5	2	2
Senior Managers	37	34	8	10
Employees	1,117	926	291	404

*The Directors of Luxfer Holdings PLC include 5 independent Non-Executive Directors who are not employees of the Company.

** Includes numbers in relation to discontinued operations.

Customers and Suppliers

Recognizing our customers as a crucial source of our success, a core value of Luxfer is always putting the customer first. Our products are customizable and are tailored to suit the highly specific needs of each individual customer. We always strive to build and maintain long-term relationships with our customers based on mutual cooperation and the highest standards of quality and service. Working in close collaboration with one another, we work hard to find innovative solutions to suit their needs for advanced materials and products. Our focus is on demanding applications where our technical know-how and manufacturing expertise combine to deliver a superior product.

Luxfer has a complex global supply chain. We understand that such complexity comes with certain risks, which demands that we maintain a high level of due diligence and vigilance of the third parties and suppliers with whom we do business. To ensure that our suppliers conduct business with a high degree of integrity and in a socially and environmentally responsible manner, all third parties (including suppliers, distributors, contractors, agents, service providers, and customers) are expected to adhere to our Third Party Code of Conduct. Based on our own Code of Ethics and Business Conduct, the Third Party Code of Conduct applies to all third parties worldwide. Under the Code, third parties are expected to respect, acknowledge, uphold, and comply with the following key themes and extend these standards to their supply chains:

- Working conditions
- Employee health and safety
- Child labor, forced labor, and human trafficking
- Business ethics, anti-corruption and anti-bribery
- Data privacy
- Environmental responsibility
- Conflict-free mineral sourcing
- Product and service quality

As launched in late 2021, the establishment of new commercial contracts and the continuation of existing commercial arrangements with Luxfer require certain suppliers and distributors to sign and return an acknowledgment form as a means to verify compliance with the Third Party Code of Conduct. To ensure ongoing compliance, Luxfer requests that Third Party Representatives renew their signature on the form once every three years. Attestation rates are tracked quarterly by each Luxfer location on our internal ESG Scorecard, which is reviewed twice annually with the CEO and senior management. In 2023, we will continue to implement and refine internal processes to increase Third Party Representative attestation to Luxfer's Third Party Code of Conduct. We look forward to extending this requirement to 100% of our supply chain in the future.

Examinations of new and existing vendors are conducted regularly. We utilize several methods to ensure that our standards are met, including vendor risk assessments and audits. Through this approach, vendor assessments are conducted based on multiple factors (e.g., risk profile, engagement type and activity, and geography). These assessments evaluate the vendor's ability to meet both our internal and industry standards for quality, safety, reliability. Results are reviewed with local management upon completion. Pursuant to our Third Party Code of Conduct, Third Party Representatives are required to allow representatives from Luxfer and, if requested, Luxfer's customers full access to their production facilities, records, and workers for confidential interviews. We use appropriate due diligence procedures to vet our Third Party Representatives prior to entering into any business arrangements and reject those who do not fulfill our requirements or meet our standards.

Luxfer require that third parties complete and return an acknowledgement form as a means to verify compliance with the Third Party Code of Conduct. To ensure ongoing compliance, Luxfer requests that third parties renew their signature on the form once every three years.

To ensure our compliance with applicable laws, we conduct thorough examinations, supplier risk assessments, and both on- and off- site audits. We also require that third parties allow representatives from Luxfer and, if requested, Luxfer's customers, full access to their production facilities, worker records and employees for confidential interviews. We consistently ensure that we are using appropriate due diligence procedures to vet our suppliers prior to and during any engagements and we reject suppliers who do not fulfill our requirements. While we have multiple sourcing options in almost every area of the Group, our key suppliers are important to us, and we have chosen them for their combination of quality, delivery performance and value for money.

Section 172 statement

Luxfer's Board of Directors is responsible for overseeing the Company's long-term business strategy. Each year, management presents to the Board, and the Board discusses and approves detailed long-term strategic plans for the Company. In addition to the overall strategic plan for Luxfer, these discussions also include sessions on each business unit, portfolio management, growth and innovation, legal and compliance strategy and operations and supply chain transformation. The Board also oversees the Company's approach to ESG matters and the Company's governance related policies and practices; our system of risk oversight and management; and how we advance environmental sustainability, health and safety in our business and operations. The Directors take their responsibilities under Companies Act 2006 seriously and consider their responsibilities to stakeholders when making decisions for the Group. The responsibilities under Section 172 are underpinned by our values of customer first, innovation, accountability, personal development and teamwork.

Shareholder and public engagement are essential to maintaining our strong corporate governance practices. We value feedback and input from all our shareholders and respond to concerns identified during the engagement process. Engaging regularly with our global shareholders helps us gain valuable insights into the governance issues about which they care most. We seek a collaborative and mutually beneficial approach to issues of importance to shareholders that affect our business and to assure that our corporate governance practices remain industry-leading from their perspectives.

Further information regarding the role of the Board and how they have complied with the requirements of section 172 are included in the Corporate Governance statement on pages 19 to 24.

Directors' Report

The Directors of Luxfer Holdings PLC (the "Company") present their annual report together with the audited financial statements of the Group and the Company for the year ended December 31, 2022. This Directors' Report should be read together with, and incorporates, the Governance section on pages 19 to 24.

Results

The profit for the year, after taxation from continuing operations, amounted to $32.3 million (2021: $24.8 million); please see the Strategic report on pages 3 to 13 for more detail.

Dividends per Share

Quarterly interim dividends of $0.125 in February and $0.130 thereafter for each £0.50 ordinary share, equating to $14.2 million for the year, were paid in 2022, (2021: $13.6 million).

A further interim dividend was paid in February 2023 of $0.130 each £0.50 ordinary share totalling $3.6 million and a further dividend declared in March to be paid in May 2023 of $0.13 each £0.50 ordinary share totaling $3.6 million.

Directors

The Directors of the Company who were in office during the year and up to the date of signing the financial statements, and their details are set out in the Governance section on pages 14 to 18.

Capital Structure

In 2022, the Company purchased 711,572 ordinary shares for a total cost of $11.1 million with a nominal value of £0.3 million. 9,424 of these shares were utilized at $0.3 million, with the remaining 702,148 retained within Treasury shares.

As at December 31, 2022, the Company's issued share capital comprised of 28,944,000 ordinary shares of £0.50 each as set out in Note 20 to the financial statements.

Substantial shareholdings

The Company had been notified of the following interests amounting to 3% or more of its issued share capital as at the end of the financial year[1]:

Shareholder	Number of shares	Percent[2]
BlackRock Fund Advisors	2,518,080	9.3%
Nantahala Capital Management LLC	2,452,319	9.1%
Wellington Management Co. LLP	2,316,296	8.6%
Fidelity Management & Research Co. LLC	2,040,620	7.6%
Van Lanschot Kempen Investment Management NV	1,966,622	7.3%
Paradice Investment Management LLC	1,752,250	6.5%
William Blair Investment Management LLC	1,426,196	5.3%
Royce & Associates LP	1,062,916	3.9%
American Century Investment Management, Inc.	1,027,417	3.8%
AltraVue Capital LLC	897,480	3.3%

[1] Shareholdings are based on December 31, 2022.

[2] Percentage based on number of shares listed on the New York Stock Exchange.

Directors' Interests and Related Party Transactions

No Director had a material interest in, nor was any Director party to, any contract or arrangement to which the Company or any subsidiary is or was party to either during the year or at the end of the year, with the following exceptions: in the case of the Executive Director, his individual service contract and in the case of the Non-Executive Directors, their engagement letters, see Note 33 of the financial statements.

The interests of the Directors who held office at December 31, 2022, and those of their families, in the share capital of the Company, including share options are set out in the Remuneration Report on pages 42 to 64. All of the interests were beneficial. There has been no change in the interests of the directors between the balance sheet date and the date of approval of the financial statements.

Going Concern

The Directors have prepared cash flow forecasts for a period of at least 12 months from the date of the approval of these financial statements which indicate that, taking account of reasonably possible downsides, the Company will have sufficient funds, generated from operations and committed banking facilities, to meet its liabilities as they fall due for that period. When preparing the downside case, the Directors reduced forecast cashflows to a point where we would default on our banking covenants. In all scenarios there was significant headroom.

Demand from most end-markets the Company serves has continued to improve following the adverse impact of COVID-19 on volumes, notably in 2020. This sharp recovery in demand across the global macro environment has resulted in supply chain challenges characterized by significant increases in material cost inflation on key inputs (including magnesium, aluminum and carbon fiber), labor availability issues and energy and transport cost increases. Additionally, during 2022, the Company was faced with two critical suppliers of magnesium and zirconium respectively declaring force majeure, of which the former remains in place. The continuing conflict in Ukraine which has resulted in punitive sanctions against the Russian Federation has further exacerbated the availability and price of certain raw materials and energy supplies. In response to the supply chain disruption, the Company has been successful in securing alternative sources of supply for key material inputs affected by force majeure. Furthermore, in the majority of cases, the Company was able to pass through inflation to customers. Currently, the expectation is that the impact of material availability / inflation and energy cost inflation and labor and transport constraints will continue into 2023; that the Company will be able to source sufficient material to meet demand and that in the majority of cases the Company expects to be able to pass on cost increases. However the outlook remains highly uncertain with both the size and timing of future cost increases difficult to predict.

Despite the uncertainties discussed above, the Company is expected to generate positive cash from operations for a period of at least 12 months from the date of approval of these financial statements. In addition, there is sufficient headroom in our covenant compliance which would enable the Group to drawdown on the revolving credit facility and not impact the Group's ability to continue as a going concern.

Impact of conflict in Ukraine

The Russian invasion of Ukraine and ongoing military conflict which commenced on February 24, 2022, has resulted in massive displacement of the Ukrainian population and huge disruption to its economy. Wide ranging sanctions have been imposed on the Russian Federation by the international community, targeting individuals, banks, businesses, funds transfers and imports and exports and are expected to have a significant adverse impact on Russia's economy as well as on international businesses active in the region. The impact on the Company is not expected to directly impact the Company as there are no direct operations in the region, and sales to Russia and Ukraine combined typically represent less than one percent of total revenue by destination. Furthermore, neither country is a critical supplier of raw material needs, and while Russia is a major global exporter of magnesium, the Company is able to source the metal from various alternative locations, including China, Israel, Turkey and the United States.

Research and Development

During the year, the Company incurred $4.9 million (2021: $3.9 million) in research and development costs on new and improved products and processes. Once a project is reasonably certain to deliver a commercial product, certain aspects of the development costs are capitalised. The Company continues to maintain links in fields of research with both leading universities in various countries and outside agencies to support and supplement its own in-house expertise. The Company also continues to gain significant tax benefit from the U.K. Patent Box regime.

Future Developments

An indication of the future developments of the business of the Company can be found in the Strategic Report on page 8.

Disabled Employees

Where an employee has developed a disability whilst employed in his or her business that impacts on his or her ability to carry out a certain job effectively, the relevant business unit will make arrangements where possible to retrain that employee and continue his or her employment. Applicants for job vacancies who are disabled are given full and fair consideration, bearing in mind requirements of the particular job and the particular aptitude and abilities of the candidate.

Employee Involvement

Many employees are directly involved in the performance of the Group and segments through the use of various incentive schemes. These include bonus schemes and various share-related schemes, details of which can be found in the Environment, Social and Governance ("ESG") section of the Governance Report on page 28.

A combination of newsletters, regular line manager and team briefings, exchanges and consultations, at both Group and site level (as appropriate) are used to systematically communicate with employees and develop their awareness of matters that concern them, their business unit, segment, and the Group. As required, employees are consulted on matters that concern them in an appropriate manner and through appropriate channels.

The Group continues to offer training and development opportunities to employees at all levels and to all abilities, providing benefit to both the Group and the individual employee. Further details can be found in the ESG section of the Governance Report on page 28. We undertake a succession planning review periodically to ensure that we develop suitable candidates for critical leadership roles within the Group.

For senior management, we hold an annual management conference at the beginning of each year where strategy for each business segment and at the Group level is presented and discussed for the year. Workshops on subjects that will promote Group strategy will be held throughout the year. Meetings of employees who have the same or similar functions within the Group also meet periodically for training, to exchange best practices and convey Group policy.

Our Equal Opportunity, Non-Discrimination and Anti-Harassment Policy sets forth our employment practices throughout the Group in the treatment of applicants and Luxfer employees at all stages of employment.

Political Donations

The Company and its subsidiaries made no political donations in either 2022 or 2021.

Directors' Liabilities

The Company maintains liability insurance for Directors and Officers which provides appropriate coverage for any legal action brought against Directors. Throughout the year and at the date of approval of the financial statements, the Articles provides indemnification for the Directors against liability incurred in the proper conduct of the Company's business subject to the conditions set out in the Companies Act 2006.

Greenhouse Gas Emissions

A statement regarding the greenhouse gas emissions resulting from the Company's operations can be found on pages 30 to 32 of the Governance Report. The Company is continuing to develop its management information in respect of greenhouse gas emissions and other environmental factors, such that it is not currently possible to accurately report all required information, including energy consumption from processing metals, total UK and non-UK energy consumption by the group and Greenhouse Gas Emissions from office buildings.. However, the Company discloses a significant amount of environmental information in its Governance Report as referenced above. Further information can also be found in the Company's annual ESG report, available on the Company website. The next report will be available tin 2023.

Treasury and the Use of Financial Derivatives

Details of our financing and treasury policies, along with the management of treasury risks and use of financial derivatives can be found in Notes 28 and 29 to the consolidated financial statements.

Purchase of own shares

In 2022, the Company purchased 711,572 ordinary shares for a total cost of $11.1 million with a nominal value of £0.3 million. 9,424 of these shares were utilized at $0.3 million, with the remaining 702,148 retained within Treasury shares.

Financial Risks

Details of our principal risks and uncertainties can be found on pages 9 to 12 of the strategic report. The management of these financial risks and mitigating actions are explained further in Note 28 of the Group consolidated financial statements.

Directors' Statement as to Disclosure of Information to the Auditors

The Directors, who served as members of the Board at the time of approving this Directors' Report are listed on page 14. Having made inquiries of fellow Directors and of the Company's auditors, each of those Directors confirms that:

- To the best of their knowledge and belief there is no information relevant to the preparation of their report of which the Company's auditors are unaware; and
- All reasonably expected steps were taken to be aware of relevant audit information and to establish that the Company's auditors are aware of that information.

Statement of Directors' Responsibilities in respect of the Financial Statements

The Statement of Directors' Responsibilities in respect of the Financial Statements can be found on page 65 and forms part of this Report.

Independent Auditors

A written Resolution will be put to the Annual General Meeting of the Company to re-appoint PricewaterhouseCoopers LLP as the Company's Independent Auditors.

The financial statements on pages 73 to 138 were approved by the Board of Directors on April 20, 2023 and signed on their behalf by:

Andy Butcher

CHIEF EXECUTIVE OFFICER

April 20, 2023

DIRECTORS' REMUNERATION REPORT

Chair's Letter

Dear Shareholder,

As Chair of the Remuneration Committee, I present Luxfer's Directors' Remuneration Report for the year ended December 31, 2022. The Remuneration Report, starting on page 45, (i) contains the current Directors' Remuneration Policy, which was last approved at the 2021 Annual General Meeting of Shareholders on June 9, 2021 and (ii) sets out details of the remuneration paid to Luxfer's Directors in 2022 and decisions affecting Director remuneration in 2023.

2022 Performance

Demand from most end-markets we serve continued to improve following the adverse impact of COVID-19 on volumes. This recovery in demand across the global macro environment resulted in supply chain challenges, particularly significant increases in the cost of key inputs, material and labor availability issues, and a rise in transportation costs. Despite these challenges, Luxfer remained focused on our people; supporting our customers; and contributing to our communities through the supply of sustainable transportation solutions, life-saving medical and emergency response equipment, and advanced materials for use in general industrial applications. This ongoing focus led to solid sales growth, profitability, and operating cash flow, as Luxfer delivered improved financial performance in 2022. These results demonstrate that 2022 was another year of solid balance sheet strength. In accordance with our philosophy of "pay for performance," the 2022 remuneration outcomes presented in this Report are reflective of the Company's financial performance in fiscal year 2022.

2022 Remuneration Changes and Outcomes

Director remuneration is an important matter to Luxfer's Board of Directors, the Remuneration Committee, and our shareholders. Recognizing this importance, Luxfer's remuneration programs account for both short-term financial performance and long-term value creation. Specifically, the remuneration of Luxfer's Directors includes (i) fixed remuneration to compensate Directors appropriately in accordance with their responsibilities and dedication to the Company and (ii) long-term equity awards to strengthen the alignment between Director and shareholder interests through share ownership. As set forth in the Directors' Remuneration Policy, Luxfer's Director remuneration programs aim to:

- attract, retain, and motivate high-quality talent;
- align the achievement of strategic objectives with shareholders' interests and long-term value creation;
- appropriately and transparently compensate Directors for professional accountability;
- offer competitive and fair remuneration; and
- establish remuneration packages that provide an appropriate balance between short-term and long-term reward.

Executive Director Remuneration

During the year, Executive Director remuneration was comprised of the same elements as those in previous years, including base salary, benefits in kind, pension or 401(k) contributions, an annual cash bonus, and long-term equity awards. While these components did not change year-over-year, total Executive Director remuneration is dependent on the achievement of certain financial performance goals, which impact the cash bonus and long-term equity awards earned. As further detailed in this Report, the Remuneration Committee revised, in 2022, the methods by which earnings per share (EPS) and total shareholder return (TSR) are measured, affecting the long-term equity awards earned in the year.

Throughout fiscal year 2022, both Andy Butcher, our current Chief Executive Officer, and Alok Maskara, Luxfer's former Chief Executive Officer, served as Executive Directors, with Mr. Maskara's appointment terminating as of May 5, 2022 and Mr. Butcher's taking effect on May 6, 2022. While both Andy Butcher's and Alok Maskara's remuneration were comprised of the same elements, the remuneration paid to the Executive Directors in 2022 varied as a result of contractual arrangements associated with this CEO transition. While Mr. Maskara received a 2.9% increase to his base salary for the months worked in 2022, his 2022 cash bonus and equity awards were handled in accordance with the terms of his employment contract, under which his cash bonus was paid at

Target level and equity awards outstanding as of March 2022 were vested, with performance-based awards vesting at Target level and all further awards lapsing.

Upon his appointment as Chief Executive Officer and Executive Director, Andy Butcher received a 65% increase to his base salary. Consistent with the "pay for performance" principle, Mr Butcher's 2022 remuneration was comprised of 57% variable remuneration, while 43% of his remuneration was fixed, including base salary and benefits in kind. The variable remuneration includes an annual cash bonus and long-term equity awards. In 2022, the cash bonus was dependent on two financial performance goals: Management EBITA and Cash Conversion. The financial performance goals are measured against predetermined criteria, and the annual cash bonus is paid on a sliding scale basis, based on achievement of Threshold, Target, and Maximum levels. The annual cash bonus awarded to Mr Butcher was equivalent to 36% of his base salary, out of a maximum potential of 200%. The achievement of Management EBITA metric fell between Threshold and Budget, whereas the Cash Conversion metric fell below Threshold. Further details on the bonus arrangements and the bonus paid can be found in the *Single Figure, Executive Directors' Remuneration* section of the Remuneration Report on page 46.

As to equity awards earned in 2022, the EPS performance goals set for fiscal year 2021 were achieved. Accordingly, the Executive Directors' 2022 remuneration includes a 200% payout in relation to the EPS awards made in 2021. As the 2020 TSR measurement period ended December 31, 2022 and the Company was in the 3rd quartile of its peer group, the Executive Directors' 2022 remuneration also includes a 50% payout in relation to the 2020 TSR award. Further details on long-term equity awards are set out in the *Single Figure, Executive Directors' Remuneration* and the *Awards Granted During the Year sections* of the Remuneration Report, as well as the associated Notes.

Non-Executive Director Remuneration

Non-Executive Director remuneration is comprised of an annual retainer fee and long-term equity awards. The Remuneration Committee evaluated the Company's Non-Executive Director remuneration program and concluded that the structure was comparable to that of other similar companies and competitive in the marketplace. In 2022, Non-Executive Directors were awarded Restricted Stock Units ("RSUs") in an amount equal to 100% of the annual retainer fee. These RSUs vest on the day of the Company's 2023 Annual General Meeting of Shareholders, which is currently scheduled for June 7, 2023. Non-Executive Director retainer fees remained unchanged in 2022, being $115,000 for the Board Chair and $82,000 for all other Non-Executive Directors. Further details on Non-Executive Director remuneration can be found under the section headed *Non-Executive Directors' Remuneration* of the Remuneration Report.

Areas of Focus and Decisions Affecting 2023 Remuneration

As Director remuneration continues to be an important matter to our shareholders and the Company as a whole, it is anticipated that the Remuneration Committee will focus on the following areas in 2023:

- determining appropriate performance measures for the annual cash bonus incentive, including the introduction of additional financial performance measures and/or non-financial measures;
- examining opportunities to improve the long-term incentive framework, including changes to financial performance goals relative to performance-based share awards;
- conducting regular benchmarking studies with respect to Director remuneration; and
- reviewing the peer group used by the Company for benchmarking performance goals and Director remuneration as a whole.

A summary of the Chief Executive Officer's salary and incentive arrangements for the financial year 2023 can be found under the section headed *Implementation of the Remuneration Policy for the Year Ending December 31, 2023.*

Shareholder Engagement

As required by Sections 439 and 440 of the Companies Act 2006, Luxfer seeks shareholder approval of its annual Directors' Remuneration Report. Shareholder votes provide the Board with invaluable public accountability and shareholder feedback regarding the appropriateness of the Company's Remuneration Policy. The Directors' Remuneration Policy was last approved by our shareholders at the 2021 Annual General Meeting, where 99.76% of the votes cast were in favor of approving the Directors' Remuneration Policy. The Committee currently has no proposal to amend the Policy. The Company's Directors' Remuneration Policy can be found in the Governance section of our website at https://www.luxfer.com/investors/governance/board-committees/. Approval of the Directors' Remuneration Report will be proposed as an ordinary resolution, subject to a non-biding advisory vote by shareholders, at the Company's 2023 Annual General Meeting on June 7, 2023. I and the Remuneration Committee are always pleased to discuss our remuneration approach with Luxfer shareholders, and we welcome your feedback throughout the year. We look forward to receiving your support for the arrangements described in this Report at the upcoming AGM.

Richard J. Hipple

CHAIR OF THE REMUNERATION COMMITTEE

April 20, 2023

Directors' Remuneration Report

Remuneration Report

2022 Remuneration Report

(subject to advisory vote by the shareholders at the 2023 AGM)

This report has been compiled in accordance with the U.K. *'The Large and Medium-sized Companies and Groups (Accounts and Reports) (Amendments) Regulations 2013'.* As required by the Regulations, the report will be proposed for an advisory vote at the 2023 AGM. **The approved Remuneration Policy can be found in the Governance section of the Company's website at www.luxfer.com/governance/.**

The Remuneration Committee, its Activities and Responsibilities

The members of the Committee during the year are set out below.

Members of Committee during 2022		Meetings held during membership	Meetings attended
Richard Hipple	Member and Chair	3	3
Patrick Mullen	Member	3	3
Lisa Trimberger	Member	3	3

The Company Secretary acts as secretary to the Committee. The Chief Executive Officer and the Chief Financial Officer normally attend all the meetings, at least in part.

The Committee is responsible for determining and agreeing with the Board the framework on executive remuneration and its costs. **The Committee's written Terms of Reference can be accessed in the Governance section of the Company's website www.luxfer.com/governance/.**

During 2022, the Committee discussed the following matters:

March 2022

- Consideration as to whether, and to what extent, the Executive Directors' bonus targets for 2021 had been met;
- Determination of the Executive Director's annual bonus targets for 2022;
- Annual review of the Executive Director's and Company Secretary salaries;
- Setting of goals to be met by the Executive Directors and Senior Managers which if met would lead to the awarding of time-based share awards;
- Delegation of authority to Chief Executive Officer to make awards under the LTIP over a defined number of shares to junior and middle management in his sole discretion; and
- Review of of Executive and Non-Executive officer stock ownership guidelines.

September 2022

- Annual review of the Committee's Terms of Reference;
- Annual review of stock ownership guidelines;
- Remuneration committee annual agenda and calendar;
- 2022 Executive compensation forecast;
- Review of proposed 2023 Executive and Non-Executive Officer compensation; and
- Review of committee self-evaluation exercise.

Advisors to the Committee

The Committee has access to independent advice when it considers it requires such advice.

The Company engaged with Meridian Compensation Partners, LLC ("Meridian") to provide advisory and benchmarking surveys with regards to Director and Executive Officer remuneration and benchmarking peer companies. The cost of advice provided by Meridian during 2022 was $17,648 (2021: $2,835).

REMUNERATION RECEIVED BY THE DIRECTOR FOR THE YEAR ENDED DECEMBER 31, 2022
(Information within pages 46 to 54 have been audited. Information within pages 54 to 64 not subject to audit unless stated otherwise.)

Single Figure

The tables below set out an analysis of the Directors' total remuneration for 2022. Total remuneration reflects both the performance of the Company and the contribution made by the Director to the continued success of the Company during their period of tenure.

Executive Directors' Remuneration

Single Total Figure Table

U.S.$	Year	Salary(1)	Taxable Benefits (2)	Annual Bonus(3)	Long-Term Incentive Awards(4)	Other Share Awards(5)	Pensions Contributions (6)	Total
Andy Butcher	**2022**	**410,000**	**35,603**	**145,550**	**458,392**	**—**	**12,200**	**1,061,745**
Alok Maskara	**2022**	**306,667**	**22,268**	**306,667**	**1,030,232**	**—**	**76,667**	**1,742,501**
	2021	715,000	52,198	1,330,615	1,234,404	4,042	178,750	3,515,009

U.S.$	Year	Fixed pay	Variable pay	Total
Andy Butcher	**2022**	**457,803**	**603,942**	**1,061,745**
Alok Maskara	**2022**	**405,602**	**1,336,899**	**1,742,501**
	2021	945,948	2,569,061	3,515,009

The above table is compiled in accordance with the U.K. 'The Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008', as amended by 'The Large and Medium-sized Companies and Groups (Accounts and Reports) (Amendment) Regulations 2013'.

(1)**Salary**. Single Total Figure for Alok Maskara, reflects the 5 month period as Chief Executive Officer, from January 2022 to May, 2022, earning an annualised salary of $736,000. Single Total Figure for Andy Butcher, reflects the 8 month period as Chief Executive Officer, from May 2022 to December, 2022, earning an annualised salary of $615,000.

(2)**Taxable Benefits.** During the year an amount was paid to the directors in respect of expenses relating to car allowance, and medical and dental insurance. All payments made in respect of these allowances were determined and paid in U.S. dollars. The amounts reflect payments made during each Chief Executive's tenure.

(3)**Annual Bonus.** For the 2022 financial year, the annual bonus plan was based on the achievement of two financial performance goals, management EBITA (adjusted earnings before interest, taxation and amortisation) performance and the ratio of management EBITA to adjusted operating cash flow "Cash Conversion" (two of the key strategic performance indicators used by the Company to assess its development against its financial objectives during the year), measured against the annual budget.

Summary of the annual bonus potential as a percentage of base salary for the Executive Directors for 2022:

	Maximum Annual bonus (number of points available and % of salary)[1]	Sliding scale between threshold, target and stretch: Management EBITA[2]	Cash Conversion[3]	Bonus outcome 2022
Alok Maskara	200%	0.0% - 100.0%	0.0% - 100.0%	100%
Andy Butcher	200%	0.0% - 100.0%	0.0% - 100.0%	36%

[1]In 2022, Luxfer achieved levels of EBITA and cash conversion that resulted in a bonus opportunity of 36% out of 200% being assessed for Andy Butcher. Alok Maskara was paid a bonus of 100% out of 200% for the five months served in 2022.

[2]Management EBITA (earnings before interest, taxation and amortisation) is defined as operating income (as reported under U.S. GAAP) adjusted for equity income /(loss) of unconsolidated affiliates, qualifying restructuring charges, impairment charges, acquisition-related charges / credits, amortisation of finance costs, amortisation of acquired intangibles and share based compensation charges.

[3]Cash conversion is defined as the ratio of management EBITA to adjusted operating cash flow. Adjusted operating cash flow is reconciled from management EBITA by adding back depreciation, loss / (gain) on disposal of property, plant and equipment, changes in assets and liabilities, net of effects of business acquisitions, non-restructuring capital expenditures, equity income of unconsolidated affiliates and U.K. pension deficit funding contributions.

In 2022, the Company generated a management EBITA of $50.2 million, being in the range of between agreed threshold and budget levels and a cash conversion ratio of approximately 34%, being below the agreed threshold level.

The Board has considered whether to include in this report the targets which applied to the bonus arrangements for the Executive Directors in 2022 but has determined that these amounts are commercially sensitive.

[4]The Long-Term Incentive Awards. *The 2022 Single Figure:*

In 2022, 40% of the total target award communicated by the Remuneration Committee was in the form of time-based restricted stock units granted on March 14, 2022. The value of these awards for Alok Maskara was $546,900 based on the closing share price on the day of grant of $18.23 per share and deducting the nominal cost value of $1.00 each share. Throughout 2022, Alok Maskara has also accrued dividend awards on his restricted stock units, the value of these were $17,402.

For Andy Butcher, initially 40% of the total target award communicated by the Remuneration Committee was in the form of time-based restricted stock units granted on March 14, 2022. The value of these awards was $109,380 based on the closing share price on the day of grant of $18.23 per share and deducting the nominal cost value of $1.00 each share. To reflect his new role as Chief Executive Officer, further awards were granted to Andy Butcher on May 6, 2022. The value of these awards was $286,272 based on the closing share price on the day of grant of $14.91 per share and deducting the nominal cost value of $1.00 each share. The awards will vest in one-quarter increments on each of the first four annual anniversaries following grant. Throughout 2022, Andy Butcher has also accrued dividend awards on his restricted stock units, the value of these were $11,720.

In addition, the Remuneration Committee's performance targets for the year were based upon EPS targets and total shareholder return, as described in *Executive Director Awards Under the LTIP* on page 50. The levels achieved in 2022 resulting in the granting of time-based awards in 2023 were as follows:

	Number of Awards: Possible Awards	Awards to be made in 2023	% of possible awards made in 2022	Value of Awards $ [1]
Alok Maskara	45,090	30,060	50.0%	465,930
Andy Butcher	10,455	3,485	33.3%	51,020

(1) These awards were granted on March 14, 2023. The value of the awards in the above table has been calculated by using the closing share price of the Company at the date of grant ($15.64) and deducting the nominal cost value of $1.00 each share. The awards will vest in one-third increments on each of the three anniversaries following grant.

Alok Maskara was granted 30,060 awards, 50% of possible awards upon resignation in May 2022. The The value of these awards was $465,930 based on the closing share price on the day of grant of $15.50 per share and deducting the nominal cost value of $1.00 each share.

The LTIP share award disclosure in the Proxy Statement filed with the SEC (Form DEF 14A) for executive compensation for the year ended December 31, 2022 differs to the amount included in the *Single Total Figure Table,* as it is based upon the achievement of targeted Company performance for all performance-based awards communicated in the year. The value of the awards included in the Proxy Statement is in accordance with U.S. GAAP.

(5) **Other Share Awards.** In May 2017 Alok Maskara was granted share options in respect of his appointment to the role of Chief Executive Officer. These time-based awards and performance-based awards were outside the terms of reference of the LTIP but granted in accordance with the provisions of the Remuneration Policy. The number, and details of the terms, of the grants are set out in the table in *Outstanding Share Awards During 2022* and the accompanying notes, on pages 52 to 53.

(6) For details of pension arrangements see page 54.

Payments to Past Directors

There were no payments made to past Directors during the year.

Payments for Loss of Office

There were no payments made to Directors for loss of office during the year.

Non-Executive Directors' Remuneration

None of the Non-Executive Directors (including the Chair) received taxable benefits, annual bonus, long-term incentive awards (exceeding one year) or pension-related benefits during the year.

Single Total Figure Table

U.S.$(1)	Year	Base Fee(1)	Other Fees (Fees in the form of share awards)(2)	Total
Patrick Mullen	**2022**	**106,750**	**178,185**	**284,935**
	2021	27,333	—	**27,333**
David Landless	**2022**	**49,250**	**1,280**	**50,530**
	2021	115,000	111,693	**226,693**
Clive Snowdon	**2022**	**82,000**	**79,082**	**161,082**
	2021	82,000	79,643	**161,643**
Richard Hipple	**2022**	**82,000**	**79,082**	**161,082**
	2021	82,000	80,794	**162,794**
Allisha Elliott	**2022**	**—**	**—**	**—**
	2021	82,000	80,572	**162,572**
Lisa Trimberger	**2022**	**82,000**	**79,082**	**161,082**
	2021	82,000	80,200	**162,200**
Sylvia Stein	**2022**	**34,167**	**—**	**34,167**
	2021	—	—	—

Table compiled in accordance with the U.K. 'The Large and Medium-sized Companies and Groups (Accounts and Reports) Regulations 2008', as amended by 'The Large and Medium-sized Companies and Groups (Accounts and Reports) (Amendment) Regulations 2013'.

(1) Patrick Mullen was appointed Chair of the Board of Directors, effective March 11, 2022. His base fee in 2022 reflects the change in role from this date to December 31, 2022.

The Non-Executive Directors' fees of Clive Snowdon, Richard Hipple, Lisa Trimberger and Patrick Mullen are all determined in U.S. dollars.

The Non-Executive Director's fee of David Landless although determined in U.S. dollars, is paid in GBP sterling translated at the closing month-end exchange rate of each month prior to payment. Actual payments received by David Landless aggregated to £37,860 (2021: £83,470). The base fee for the first three months of 2022 and the full year of 2021 includes the supplementary fee for being Chair of the Board.

(2) *2022 Single figure:*

The value of the Other Fees in the Single Figure table is calculated as follows:

- An element of the fees received by the Chair and the other Non-Executive Directors are delivered as time-based restricted stock units ("RSUs"). The award value is a percentage of their Base Fee as provided in the Director Equity Incentive Plan ("EIP") less the issue price per share of $1.00. The value of the award is capped at up to 100% of base fees at the date of the award. Awards were made immediately after the 2022 AGM and vest immediately before the 2023 AGM. The number of RSUs was calculated using the closing share price on the NYSE ($16.46) the day before the award was made. The number of awards received by each Non-Executive Director is set out in *Awards Granted During the Year - Non-Executive Directors Under the Director Equity Incentive Plan (EIP)* on page 51.
- The RSU awards carry with them the right to receive accumulated dividends during the period of the award, in shares. The Other Fees amount includes the value of the dividends awarded in 2022 and vested immediately before the 2022 AGM or will vest immediately before the 2023 AGM. The value of the awards themselves were included in the Single Figure for 2022 as they were time-based awards (see below). The dividend shares were valued at the closing share price on the NYSE on the date of the dividends being awarded, being $18.38, $16.94, $14.56 and $14.80 respectively, less the issue price of $1.00. The number of dividend shares allocated, and their value were:

Non-Executive Director	Dividend shares allocated	Value of dividend less nominal cost of share $
Patrick Mullen	196	2,683
David Landless	77	1,280
Clive Snowdon	140	2,076
Richard Hipple	140	2,076
Allisha Elliott	—	—
Lisa Trimberger	140	2,076
Sylvia Stein	—	—

LUXFER SHARE INCENTIVE PROGRAMS

Luxfer has a number of share incentive plans designed to align the interests of its Directors, managers and employees with the interests of its shareholders. These plans help us remain competitive and act as retention tools.

The plan under which awards are granted to the Executive Directors on an ongoing basis is the Luxfer Holdings PLC Long-Term Umbrella Incentive Plan ("LTIP"). Awards, which are considered part of their fees, are made to the Non-Executive Directors under the Non-Executive Directors Equity Incentive Plan ("EIP"). In the U.S. the Company has established an Employee Share Purchase Plan ("ESPP") which is open to all U.S. employees and U.S. based Executive Directors.

LTIP: The LTIP was adopted for the I.P.O. in 2012. It is used to grant awards not only to the Executive Directors but also senior and junior managers in the Company. A variety of different awards can be granted under the LTIP. To date, it has been used to grant time-based nominal cost options to U.K. employees, performance-based nominal cost options and market value options to other senior U.K. employees and time-based and performance restricted stock units to the Executive Directors, U.S. managers and managers from other countries in which the Company operate. The maximum value of awards under the rules of the LTIP that can be granted to the Chief Executive Officer is defined in the Remuneration Policy.

EIP: Annual awards are made under the EIP to Non-Executive Directors as part of their fees. The value of the award is up to 100% of the base fee of a Non-Executive Director. These awards are made the day after the AGM of the Company in each year and vest the day before the following AGM. Annual awards are usually made as restricted stock units. They are paid out immediately on vesting, together with dividends which have been accumulated during the vesting period. New Non-Executive Directors cannot participate in the annual awards until they have served six months, however, the awards they would have earned from the date of appointment are added to the next annual award provided they are re-elected at the AGM.

Copies of the LTIP and EIP plans mentioned above are filed on the Company's file at the SEC.

AWARDS GRANTED DURING THE YEAR

Executive Directors Awards Under the LTIP

In 2022, the Remuneration Committee awarded long-term incentive compensation under the LTIP. As it does each year, the Remuneration Committee referenced benchmark data (including compensation surveys, Comparator Group information and other data provided by Meridian Compensation Partners LLC) in setting target U.S. dollar award levels for the Executive Director. In accordance with the Remuneration Policy the maximum share award opportunity available to the Executive Director (in any one year) at the time of communicating their award during 2022 was capped at 290% of their base salary, on achievement of stretch performance. Achievement of target performance would result in a share award opportunity capped equivalent to 180% of base salary being available and threshold performance at 125% of base salary.

Based on the target level of Alok Maskara and Andy Butcher's share awards available (capped at 180% of base salary), 40% of this award was granted in 2022 in the form of time-based restricted stock units, vesting evenly on the first four anniversaries of the award from grant date. This amounted to 30,000 and 25,200 time-based restricted stock units being awarded to Alok Maskara and Andy Butcher respectively. The remaining 60% of the target award allocation was split 40% available based on the delivery of a certain adjusted diluted EPS targets for the years ending December 31, 2022 and December 31, 2023 and 60% available on the delivery of certain total shareholder return targets. The total shareholder return target consists of a ranking of Company performance against a peer group of thirty companies for the last ninety days of the year ended December 31, 2021 against the last ninety days of the year ending December 31, 2024. Based on the relative level of shareholder return achieved, awards in relation total shareholder return would vest in March 2025. For the adjusted diluted EPS it is possible to achieve a threshold, target and stretch level of award grants, and for total shareholder return, payout based on the decile the Company is ranked.

The adjusted diluted EPS and relative total shareholder return performance, for 2022 will be subject to remeasurement up to and including the year ending December 31, 2023.

For 2021, the Remuneration Committee set performance targets consistent with that used in 2022 based upon the achievement of adjusted diluted EPS to be measured at threshold, target and stretch levels and the achievement of relative total shareholder return to be measured at threshold, target and stretch levels. The relative total shareholder return performance will be subject to remeasurement up to and including the year ending December 31, 2023. The reported EPS for 2021 was not achieved which resulted no awards being granted in 2022.

For 2020, the Remuneration Committee set performance targets consistent with that used in 2022 based upon the achievement of relative total shareholder return to be measured at threshold, target and stretch levels. The performance of the Company meant threshold level being achieved which resulted in Alok Maskara and Andy Butcher earning 50% of the available awards respectively. The number, and details of the terms, of the grants are set out in the table in *Outstanding Share Awards During 2022 and the accompanying notes*, on pages 52 to 53.

The Committee believe they set challenging targets to motivate the executive director and align the interests of the executive with those of shareholders. Achievement of stretch targets requires exceptional performance.

Non-Executive Directors under the Director EIP

The table below sets out the share award grants made to the Non-Executive Directors during the year in accordance with the Remuneration Policy.

Chair or Non-Executive Director	Date of Grant	Basis of Aggregate Awards Granted	Share Price at Date of Grant $	Type of Award	No. of Shares Granted (1)	Face Value of Award $	Issue Price per share & in Aggregate $	Vesting Date	% of Shares Granted That Vest
Patrick Mullen(1)	June 9, 2022	100% of annual fee for 2022 and 2021	16.46	Restricted Stock Unit	11,334	186,558	$1.00 each share	Day before 2023 AGM	On vesting date 100%
David Landless(2)	June 9, 2022	n/a	n/a	n/a	—	—	n/a	n/a	n/a
Clive Snowdon	June 9, 2022	100% of annual fee for 2022	16.46	Restricted Stock Unit	4,981	81,987	$1.00 each share	Day before 2023 AGM	On vesting date 100%
Richard Hipple	June 9, 2022	100% of annual fee for 2022	16.46	Restricted Stock Unit	4,981	81,987	$1.00 each share	Day before 2023 AGM	On vesting date 100%
Allisha Elliott(2)	June 9, 2022	n/a	n/a	n/a	—	—	n/a	n/a	n/a
Lisa Trimberger	June 9, 2022	100% of annual fee for 2022	16.46	Restricted Stock Unit	4,981	81,987	$1.00 each share	Day before 2023 AGM	On vesting date 100%
Sylvia Stein(1)	n/a	n/a	n/a	n/a	—	—	n/a	n/a	n/a

(1) New Non-Executive Directors cannot participate in the annual EIP awards until they have served six months; however, the awards they would have earned from the date of appointment are added to the next annual award.
(2) Outgoing Non-Executive Directors cannot participate in the annual EIP awards past their date of service.

OUTSTANDING SHARE AWARDS DURING 2022

Executive and Non-Executive Directors

Awards will be granted in 2023 in respect of 2022 Company financial performance to the Executive Director. Awards granted in 2022 in respect to 2021 Company financial performance to the Executive Director have been included in the table below.

	Awards				
Awards	Available Jan 1, 2022	Granted During Year	Settled During Year	Lapsed During Year	Available Dec 31, 2022
Andy Butcher					
LTIP 2019[2]	2,200	—	(1,100)	—	1,100
LTIP 2020[3]	5,805	—	(1,935)	—	3,870
LTIP 2021[4][5]	4,800	—	(1,200)	—	3,600
LTIP 2022[6][7][8]	—	13,740	(990)	—	12,750
LTIP 2022[1]	—	19,200	—	—	19,200
Totals	**12,805**	**32,940**	**(5,225)**	**—**	**40,520**
Alok Maskara					
LTIP 2019[2]	10,600	—	(5,300)	(5,300)	—
LTIP 2020[3]	25,050	—	(16,700)	(8,350)	—
LTIP 2021[4][5]	24,000	—	(12,000)	(12,000)	—
LTIP 2022[6][7][8]	—	68,340	(26,640)	(41,700)	—
Totals	**59,650**	**68,340**	**(60,640)**	**(67,350)**	**—**
Patrick Mullen					
EIP 2022[10]	—	11,334	—	—	11,334
David Landless					
EIP 2021[9]	4,980	—	(4,980)	—	—
Clive Snowdon					
EIP 2021[9]	3,551	—	(3,551)	—	—
EIP 2022[10]	—	4,981	—	—	4,981
Totals	**3,551**	**4,981**	**(3,551)**	**—**	**4,981**
Richard Hipple					
EIP 2021[9]	3,551	—	(3,551)	—	—
EIP 2022[10]	—	4,981	—	—	4,981
Totals	**3,551**	**4,981**	**(3,551)**	**—**	**4,981**
Allisha Elliott					
EIP 2021[9]	3,551	—	—	(3,551)	—
Lisa Trimberger					
EIP 2021[9]	3,551	—	(3,551)	—	—
EIP 2022[10]	—	4,981	—	—	4,981
Totals	**3,551**	**4,981**	**(3,551)**	**—**	**4,981**

Key to table:

Award	Award Scheme, Type & Grant	Grant Date	Exercise Price / Nominal Cost Each Award	Remaining Vesting/ Settlement Dates	Vesting Period
(1)	LTIP 2022 – Time-Based Restricted Stock Units (i)	May 6, '22	$1.00	Mar 14, 2023, 2024, 2025, 2026	To Mar 14, 2026
(2)	LTIP 2019 – Time-Based Restricted Stock Units (ii)	Mar 14, '19	$1.00	Mar 14, 2023	To Mar 14, 2023
(3)	LTIP 2020 – Time-Based Restricted Stock Units (iii)	Mar 13, '20	$1.00	Mar 13, 2023, 2024	To Mar 13, 2024
(4)	LTIP 2021 - Performance-Based - TSR targets (iv)	Mar 26, '21	$1.00	All vested	No longer applicable
(5)	LTIP 2021 – Time-Based Restricted Stock Units (v)	Mar 15, '21	$1.00	Mar 15, 2023, 2024, 2025	To Mar 15, 2025
(6)	LTIP 2022 - Performance-Based - TSR targets (vi)	Mar 14, '22	$1.00	Mar 14, 2023	To Mar 14, 2023
(7)	LTIP 2022 - Performance-Based - EPS targets (vii)	Mar 14, '22	$1.00	Mar 14, 2023, 2024, 2025	To Mar 14, 2025
(8)	LTIP 2022 – Time-Based Restricted Stock Units (viii)	Mar 14, '22	$1.00	Mar 14, 2023, 2024, 2025, 2026	To Mar 14, 2026
(9)	EIP 2021—Time-Based Restricted Stock Units (ix)	June 9, '21	$1.00	All vested	No longer applicable
(10)	EIP 2022—Time-Based Restricted Stock Units (ix)	June 8, '22	$1.00	Day before 2023 AGM	Day before 2023 AGM

(i) LTIP 2022: Time based awards granted on May 6, 2022 and include "holding period" and "claw back" provisions, to vest evenly over four years. Time-based restricted stock units accumulate additional restricted stock units when the Company pays a dividend. Shares underlying the total amount of restricted stock units are then issued when the restricted stock unit vests.

(ii) LTIP 2019: Time based awards granted on March 14, 2019 and include "holding period" and "claw back" provisions, to vest evenly over four years. Time-based restricted stock units accumulate additional restricted stock units when the Company pays a dividend. Shares underlying the total amount of restricted stock units are then issued when the restricted stock unit vests.

(iii) LTIP 2020: Time based awards granted on March 13, 2020 and include "holding period" and "claw back" provisions, to vest evenly over four years. Time-based restricted stock units accumulate additional restricted stock units when the Company pays a dividend. Shares underlying the total amount of restricted stock units are then issued when the restricted stock unit vests.

(iv) LTIP 2021: Awards made on attainment of 2020 TSR performance goals and include "holding period" and "claw back" provisions, to vest immediately upon grant.

(v) LTIP 2021: Time based awards granted on March 15, 2021 and include "holding period" and "claw back" provisions, to vest evenly over four years. Time-based restricted stock units accumulate additional restricted stock units when the Company pays a dividend. Shares underlying the total amount of restricted stock units are then issued when the restricted stock unit vests.

(vi) LTIP 2022: Awards made on attainment of 2021 TSR performance goals and include "holding period" and "claw back" provisions, to vest immediately upon grant.

(vii) LTIP 2022: Awards made on attainment of 2021 EPS performance goals and include "holding period" and "claw back" provisions, to vest immediately upon grant.

(viii) LTIP 2022: Time based awards granted on March 14, 2022 and include "holding period" and "claw back" provisions, to vest evenly over four years. Time-based restricted stock units accumulate additional restricted stock units when the Company pays a dividend. Shares underlying the total amount of restricted stock units are then issued when the restricted stock unit vests.

(ix) EIP 2021 and EIP 2022 annual awards are settled immediately on vesting, together with dividends which have been accumulated during the vesting period. The 2021 awards were settled in 2022 net of payroll taxes.

PENSION ARRANGEMENTS

Details of the payments made to the defined contribution arrangement and salary supplement during years 2022 and 2021 for the Executive Director are set forth in the tables below.

Directors' Remuneration and Benefits for the Year Ended December 31, 2022 and 2021

U.S.$

Executive Director	Year	Defined Benefit	Funded Defined Contribution[(1)]	Unfunded Defined Contribution	Cash Supplement	Total
Andy Butcher	**2022**	—	12,200	—	—	**12,200**
Alok Maskara	**2022**	—	7,625	—	69,042	**76,667**
	2021	—	21,000	—	157,750	**178,750**

(1) The Funded Defined Contribution relates to amounts paid in respect of a 401(k) matching program.

Implementation of the Remuneration Policy for the Year Ending December 31, 2023 (*Information from this section of page 54 through to page 64 is not subject to audit unless otherwise stated*)

Set out below is a summary of how the Directors Remuneration Policy will be applied during the year ending December 31, 2023.

Base Salary

U.S.D.$	2023	2022[(1)]	% increase[(1)]
Andy Butcher	628,800	615,000	2.2 %

(1) Represents annualized base salary. Andy Butcher was appointed Chief Executive Officer of the Company on March 23, 2022, with his appointment taking effect on May 6, 2022.

Pension and Retirement Arrangements

Luxfer's pension plans, the Luxfer Group Pension Plan and the Luxfer Group Supplementary Pension Plan ("Salaried Pension Plans"), were closed to new participants in 1998 but remained open for accrual of future benefits based on career-average salary until April 5, 2016. The Salaried Pension Plans are now frozen. Participants in the Salaried Pension Plans no longer earn additional credited service, and changes in salary for a participant are not considered in determining pension benefits. The Salaried Pension Plans were frozen consistent with contemporary benefit practices. Having previously been a UK employee of the Company, Mr. Butcher participated in the Salaried Pension Plans before they were closed to accrual of future benefits and, therefore, has credited service and an accrued benefit under the Salaried Pension Plans. Mr. Butcher does not receive a separate salary supplement in lieu of contributions to the Company's pension plans. Having relocated to the United States in 2004, Mr. Butcher participates in the Company's 401(k) Savings Plan, under which participants are eligible for a 100% match on up to 6% of eligible pay saved, subject to IRS-qualified plan compensation limits and highly compensated threshold limits. Eligible employees may not receive 401(k) benefits in excess of these limits.

Annual Bonus

In accordance with the Remuneration Policy, the maximum annual cash bonus for Andy Butcher, as Chief Executive Officer and the sole Executive Director, is capped at 200% of base salary, with the target cash bonus opportunity being equal to 100% of base salary. The annual bonus is awarded on achievement of specific financial measures and targets set by the Remuneration Committee. At the start of each year, the Remuneration Committee determines the cash bonus opportunity (as a percentage of base salary), selects the financial performance measures applicable to the cash bonus, and sets the respective Threshold, Target, and Maximum levels. The financial performance measures and levels are designed to align with the strategic goals of the Company.

In previous years, the Remuneration Committee set Adjusted EBITA (50%) and Cash Conversion (50%) as the financial measures applicable to the annual bonus. For 2023, the Remuneration Committee has selected the following financial measures applicable to the annual bonus: Adjusted EBITA (50% at Target), Cash Conversion (35% at Target), and Revenue (15% at Target).

The annual bonus is earned on a sliding scale basis, which commences only once the Threshold level has been achieved and rises through the Target level, up to a Maximum level.

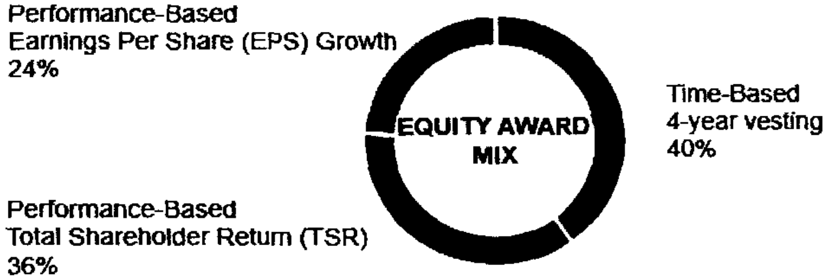
	Split; Sliding Scale between Threshold, Target and Maximum		
Annual Bonus Opportunity	**Management EBITA**	**Cash Conversion**	**Revenue**
Andy Butcher	0% - 100%	0% - 70%	0% - 30%

Long-Term Equity Awards

The Chief Executive Officer is eligible to receive equity awards granted pursuant to the Luxfer Holdings PLC Long-Term Umbrella Incentive Plan, as amended and restated on June 8, 2022 (the "LTIP"). The LTIP provides the Remuneration Committee the discretion to grant time-based or performance-based awards, including in the form of Restricted Stock Units ("RSUs") and stock options, and use and set a range of performance measures applicable to performance-based awards. These performance measures are to be appropriate and support the Company's long-term strategy at the time the award is made. Discretion over what type or combination of types of awards made is exercised by the Remuneration Committee based on what the Committee considers to be the market norm in the US and UK, as well as the circumstances in which the award is made.

On an annual basis, the Remuneration Committee sets a target equity award opportunity for the Chief Executive Officer, which is calculated as a percentage of the Chief Executive Officer's base salary. In accordance with the Remuneration Policy, the maximum value of awards that can be made to the Chief Executive Officer in any one year is capped at up to 300% of base salary, with the 2023 target award opportunity being 180% of base salary.

For 2023, the Remuneration Committee used the following forms of awards and performance measures in various combinations:



Forty percent of the target equity award is comprised of time-based RSUs, which vest in equal tranches commencing on the first anniversary of the grant date. With respect to the performance-based awards, the Committee has set a scorecard of financial measures to assess the Company's performance on Total Shareholder Return ("TSR") and adjusted diluted EPS growth. A greater weighting has been assigned to the attainment of the TSR target, which earns 60% of the performance awards available, compared to the EPS target which has a 40% weighting.

TSR performance will be measured by ranking the Company's TSR performance against companies within Luxfer's 8-digit GICS code for the last ninety days of the year ended December 31, 2023 against the last ninety days of the year ending December 31, 2025. Based on the relative level of shareholder return achieved, awards in relation to the TSR performance measure would be granted and immediately vest in March 2026.

Adjusted diluted EPS growth will be assessed by measuring the Company's adjusted diluted EPS performance over a three-year period, or from 2023 through 2025. The Company's adjusted diluted EPS is measured annually using the prior year's actual adjusted diluted EPS as the baseline. The payout percentage for each individual year is "banked," and the average annual growth percentage over the 3-year performance period, as compared to the Threshold, Target, and Maximum levels set by the Remuneration Committee, determines the final award amount.

Clawback of Variable Remuneration

The Company has established policies and procedures, which apply to all Directors and employees, in relation to the clawback of certain incentives and variable remuneration. The Chief Executive Officer's cash bonus and long-term equity awards are subject to clawback in accordance with the clawback policy set forth in the Directors' Remuneration Policy.

Non-Executive Directors

Summary of how the Directors' Remuneration Policy for the Non-Executive Directors will be applied during the year ending December 31, 2023.

The Board decides the approach to compensating the Non-Executive Directors. The Board agreed to freeze the base fees of the Non-Executive Directors for 2023, as shown below. The value of share awards as a percentage of base fee is to remain fixed at up to 100% of base fee under the EIP.

	2023 $ Base Fee	2022 $ Base Fee	% Increase Base Fee	Value of Share Awards % of Base Fee 2023	Value of Share Awards % of Base Fee 2022
Patrick Mullen[(1)]	**115,000**	106,750	8%	**Up to 100%**	**Up to 100%**
Clive Snowdon	**82,000**	82,000	—%	**Up to 100%**	**Up to 100%**
Richard Hipple	**82,000**	82,000	—%	**Up to 100%**	**Up to 100%**
Lisa Trimberger	**82,000**	82,000	—%	**Up to 100%**	**Up to 100%**
Sylvia Stein[(2)]	**82,000**	82,000	—%	**Up to 100%**	**Up to 100%**

[(1)]Patrick Mullen was appointed Chair of the Board of Directors, effective April 2022. The base fee in 2022 was increased effective April 2022, reflecting the appointment.

[(2)]Sylvia Stein did not receive her total base fee in 2022 as she only served as Director from August, 2022.

Directors' Interests in Shares in the Company (audited)

	Number of Ordinary Shares Held at Dec 31, 2022	Number of Ordinary Shares Held at Jan 1, 2022
Patrick Mullen (1)	7,450	—
Andy Butcher (2)	110,130	107,656
Clive Snowdon (3)	11,516	9,336
Richard Hipple (4)	16,070	10,894
Lisa Trimberger (5)	15,443	13,255
Sylvia Stein	—	—

(1) Patrick Mullen acquired 7,450 shares on the open market throughout 2022.

(2) Andy Butcher acquired 2,474 shares throughout 2022 as a result of the vesting of 5,472 time-based Restricted Stock Units. 5,225 Restricted Stock Units were awarded under the LTIP and, together with accrued dividends of 247 shares, fully vested in March, 2022 as detailed in the table titled *Outstanding Share Awards During 2022* on pages 52 and 53. Of those 5,472 shares, 2,998 shares were used as payment of exercise price or tax liability.

(3) Clive Snowdon acquired 2,180 shares throughout 2022 as a result of the vesting of 3,648 time-based Restricted Stock Units. 3,551 Restricted Stock Units were awarded in 2021 under the EIP and, together with an accrued dividend of 97 shares, fully vested on June 7, 2022. Of those 3,648 shares, 1,468 shares were used as payment of exercise price or tax liability. The shares identified as held by Clive Snowdon are held by a connected person. Further details on these awards can be found in the notes to Single Figure-Non-Executive Director's Remuneration on page 49.

(4) Richard Hipple acquired 2,176 shares throughout 2022 as a result of the vesting of 3,648 time-based Restricted Stock Units. 3,551 Restricted Stock Units were awarded in 2021 under the EIP and, together with an accrued dividend of 97 shares, fully vested on June 7, 2022. Of those 3,648 shares, 1,472 shares were used as payment of exercise price or tax liability. In December 2022, Richard Hipple purchased an additional 3,000 shares on market. Further details on these awards can be found in the notes to Single Figure-Non-Executive Directors' Remuneration on page 49.

(5) Lisa Trimberger acquired 2,188 shares throughout 2022 as a result of the vesting of 3,648 time-based Restricted Stock Units. 3,551 Restricted Stock Units were awarded in 2021 under the EIP and, together with an accrued dividend of 97 shares, fully vested on June 7, 2022. Of those 3,648 shares, 1,460 shares were used as payment of exercise price or tax liability. All of these shares are owned by a trust of which Lisa Trimberger is the sole beneficiary and her spouse is the trustee. Further details on these awards can be found in the notes to Single Figure-Non-Executive Director's Remuneration on page 49.

Executive Director Shareholding Requirements

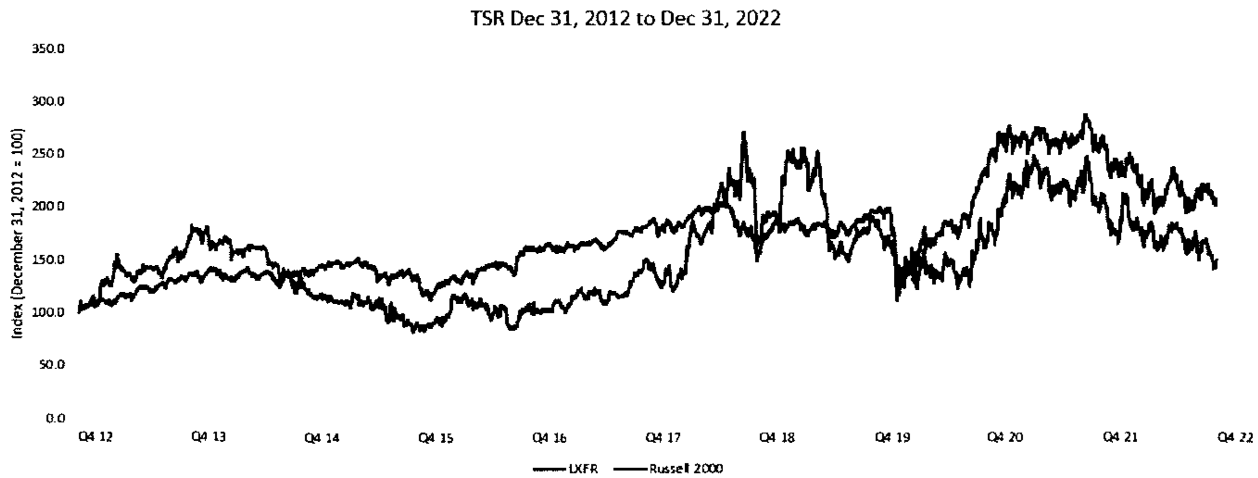
The Executive Director is required to hold and maintain ordinary shares equal in value to 150% of base salary. The Director is allowed a period of three years from date of appointment to acquire the holding. Executive Directors are required to obtain the Chair's permission before they or their connected persons can deal in the Company's shares providing an effective way of ensuring their shareholding requirements are maintained.

Total Directors' Shareholdings and Interests at 31 December 2022

	Shares Owned Beneficially	Restricted Stock Units Not Yet Vested (assuming will be settled in Shares not Cash)
Andy Butcher	110,130	40,520
Non-Executive		
Patrick Mullen	7,450	11,334
Clive Snowdon	11,516	4,981
Richard Hipple	16,070	4,981
Lisa Trimberger	15,443	4,981
Sylvia Stein	—	—

Performance Graph

U.K. legislation requires the Annual Remuneration Report to contain a line graph that shows the TSR over a ten-year period for both a holding of the Company's listed shares and a hypothetical comparator holding of shares representing a specified broad equity market index. We have used the Russell 2000 index as the most appropriate published index for comparison purposes. The graph shows the value of $100 vested in Luxfer in December 2012, and the reinvestment of dividends since that date, compared to $100 invested in the Russell 2000 on the same date, assuming the same reinvestment of dividends. The Russell 2000 was chosen as the index as it comprises companies that closely resemble Luxfer. The TSR is calculated in U.S. dollars.



History of Total Remuneration Figure for Chief Executive Officer

We have included the total remuneration figure for the Chief Executive Officer for a seven-year period as required by legislation.

U.S.$ Year ended December 31	**2016**	**2017** (2)	**2018**	**2019** (3)	**2020**	**2021**	**2022** (4)
Total remuneration	836,317	3,396,615	5,971,101	1,834,401	2,063,680	3,515,009	**2,804,246**
Annual bonus % (1)	— %	124 %	200 %	60 %	51 %	186 %	**63 %**
Share awards vesting % (1)	— %	37 %	84 %	584 %	146 %	264 %	**124 %**
% change in total remuneration	(18)%	306 %	76 %	(69)%	12 %	70 %	**(20)%**

The average increase in the CEO's total remuneration over the past seven years is a 51% increase, although this is heavily impacted by the 306% increase in 2017. The CAGR over the same period was a 74% increase.

(1) Percentage of salary.

(2) The 2017 figures include Brian Purves' remuneration for the first six months of 2017 and Alok Maskara's remuneration for the second six months of 2017.

(3) The 2019 share awards vesting figure of 584% (as a percentage of salary) includes the vesting of 120,000 performance-based EPS awards granted on hire. Excluding these awards, the adjusted share awards vesting figure would be 183%.

(4) The 2022 figures include Andy Butcher's remuneration as Chief Executive Officer for 8 months of 2022 and Alok Maskara's remuneration as Chief Executive Officer for 5 months of 2022.

History of Total Remuneration Figure for Chief Executive Officer

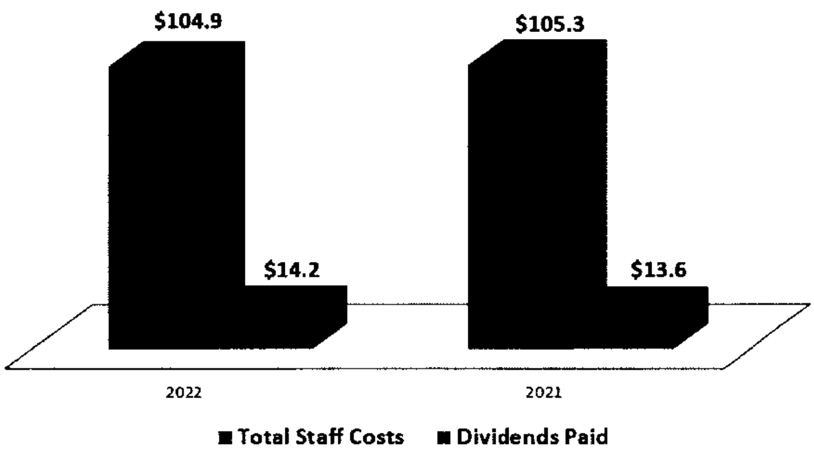
We have included the total remuneration figure for the Non-Executive Directors since 2019 as required by legislation.

U.S.$ Year ended December 31	2019	2020	2021	2022
Patrick Mullen				
Total remuneration	—	—	27,333	**284,935**
Share awards vesting % [1]	—	—	— %	**167 %**
% change in total remuneration	—	—	—	**942 %**
David Landless				
Total remuneration	158,964	175,462	226,693	**50,530**
Share awards vesting % [1]	54 %	53 %	97 %	**3 %**
% change in total remuneration	30 %	10 %	29 %	**(78)%**
Clive Snowdon				
Total remuneration	126,587	125,152	161,643	**161,082**
Share awards vesting % [1]	54 %	53 %	97 %	**96 %**
% change in total remuneration	2 %	(1)%	29 %	**— %**
Richard Hipple				
Total remuneration	82,000	190,563	162,794	**161,082**
Share awards vesting % [1]	— %	132 %	99 %	**96 %**
% change in total remuneration	—	132 %	(15)%	**(1)%**
Lisa Trimberger				
Total remuneration	27,333	157,063	162,200	**161,082**
Share awards vesting % [1]	— %	92 %	98 %	**96 %**
% change in total remuneration	—	475 %	3 %	**(1)%**
Sylivia Stein				
Total remuneration	—	—	—	**34,167**
Share awards vesting % [1]	—	—	—	**— %**
% change in total remuneration	—	—	—	—

Relative Importance of Spend on Pay

The following chart sets out the Group's actual spend on pay (for all employees) relative to dividends paid in the current and prior year.

Total Staff Costs vs Dividends Paid ($M)



(To assist with conformity and transparency we have used staff costs as set out in Note 7 to the Consolidated Financial Statements.)

Percentage Change in Chief Executive Officer's Remuneration

For 2022, we have selected U.S. employees as the most appropriate comparator as the Chief Executive Officer is based in the U.S. and the benefits structure is similar, consistent with the approach taken for 2021.

U.S.$	2022	2021	% change
Salary			
Chief Executive Officer	**716,667**	**715,000**	0.2 %
Employee average	**55,773**	**51,231**	8.9 %
Benefits			
Chief Executive Officer	**57,871**	**52,198**	10.9 %
Employee average	**10,742**	**10,589**	1.4 %
Annual Bonus			
Chief Executive Officer	**452,217**	**1,330,615**	(66.0)%
Employee average	**2,538**	**6,589**	(61.5)%

Pay Ratio

For 2022, we have selected U.S. employees as the most appropriate comparator as the Chief Executive Officer is based in the U.S. and the benefits structure is similar.

U.S.D.$

Year	Method	25th percentile pay / ratio	50th percentile pay / ratio	75th percentile pay / ratio
2022	A	47,158	69,053	80,878
		26.0 : 1	17.8: 1	15.2 : 1
2021	A	55,318	68,409	108,425
		37.9 : 1	30.7 : 1	19.3 : 1

The Company has selected method A for calculating the pay ratio, as the company has selected to use U.S. employees as the most appropriate comparator and gender pay gap reporting (used in method B and C) is not required in the U.S., method A was deemed the most appropriate, this is consistent with the approach taken for 2021. For the average U.S. person, salary was used throughout the year. When calculating the pay ratios, share-based compensation has been omitted as only senior managers are part of the LTIP scheme.

The individuals who represent the three quartiles are all full-time employees and are considered to be representative of the 25th, median and 75th percentile pay levels in the Group.

The pay ratios have decreased year on year, with the decrease predominantly a result of the decrease in the annual bonus awarded. The median pay for the U.S. employee has remained relatively flat.

Statement of voting at AGM

The Annual Remuneration Implementation Report and Remuneration Policy was put to an advisory vote at the 2022 AGM.

	Votes for (and percentage of votes cast)	Votes against (and percentage of votes cast)	Proportion of share capital voting
Annual Remuneration Implementation Report	23,442,783	1,007,807	92.09 %
	95.88 %	4.12 %	

The vote received in favour of the Remuneration Report was 95.88%, and the larger shareholders with whom the Directors liaise with from time to time did not make any negative comments in those conversations concerning Directors' pay and incentives.

Differences in Remuneration For Directors and Employees

The difference in remuneration for the Executive Director and other employees reflects differing levels of responsibility, seniority, and market norms in the jurisdictions in which they are employed. The key differences in remuneration are as follows:

- Bonus arrangements for senior, middle, and lower management are set at a lower percentage than the Executive Director but are broadly structured on the same basis to ensure commonality of objectives. There is greater emphasis on performance-related pay for management, and bonus opportunity for other employees may be lowered or not available, depending on jurisdiction.
- Benefits for employees take into account their position and the market norms of the jurisdiction in which they operate.
- Pension arrangements are offered where it is the norm in the jurisdiction of the employee. Where local regulation permits and where it is the market norm, higher contributions may be available for more senior management. The Company's primary pension plans are described in the Company's financial statements.
- Participation in the LTIP is limited to the Executive Director and a select number of senior officers and senior managers. At the discretion of the Committee, market value share awards or time-based share awards may be awarded to employees in recognition of outstanding performance and to encourage share ownership and retention. UK employees, if eligible, can participate in the UK Share Incentive Plan, as described above.

The Committee commissions benchmarking studies of comparable companies and the pay of other senior executives when setting the Executive Director's pay. Consideration is also given to the pay and benefits that are available throughout Luxfer, such as cost-of-living increases. Such consideration defines a clear structure of pay and benefits layer-by-layer. The Committee does not consult with employees nor does it use internal comparison metrics when drafting the Remuneration Policy. However, the Committee is aware of average pay and benefit packages available within the Company. When setting the terms of awards for the Executive Director, The Committee also considers views expressed by institutional shareholder bodies.

Approach to Recruitment Remuneration

Executive Director. When setting a remuneration package for a new Executive Director, including internal promotions, the Committee will apply similar principles to those set out in the most recent approved Remuneration Policy for both short- and long-term incentives.

Non-Executive Directors. New Non-Executive Directors will be paid fees on the same basis as existing Non-Executive Directors. They will also participate in the Non-Executive Directors Incentive Plan under which the annual awards are non-discretionary. Awards can be made in the form of Options, Restricted Stock, or Restricted Stock Units at the discretion of the Board and based on the value of each type of award and the number of shares left in the Plan. The vesting period is determined at the discretion of the Committee.

Severance and Change-in-Control Benefits

Executive Director. The Company may terminate the Executive Director's contract without notice on the occurrence of certain events identified in their contract. Such termination would normally consist of conduct justifying dismissal such as gross misconduct. The Executive Director has the same employment rights as any other employee in the case of redundancy or if a relevant tribunal determines that their termination was unfair under English law.

Ordinary notice period is 12 months. The remuneration entitlement is payment in lieu of notice in the event of early termination. This may include base salary benefits and pension payable for the notice period. A bonus may be paid if the period for which pay in lieu of notice is made extends past the year-end, subject to targets being met.

If the Executive Director's employment is terminated in connection with a Change in Control (other than for Cause) and they do not receive an offer of employment for an equivalent position with a Successor, then the Executive Director will be entitled to receive a redundancy payment equal to two times their base salary. A bonus may be paid if the period for which pay in lieu of notice is made extends past the year-end, subject to targets being met.

Non-Executive Directors. Letters of Appointment for Non-Executive Directors and the Chair are not for a fixed term. The Chair and Non-Executive Directors do not have any employment rights. New appointees to the Board will generally be appointed on the same basis as the current Non-Executive Directors. Non-Executive Directors' Letters of Appointment are available for inspection at the registered office of the Company.

Ordinary notice period is 3 months, except if the Director fails to be re-elected at an AGM, then the contract terminates immediately without notice or compensation.

Policy on payment for Loss of Office

Contractual entitlements through the date of termination will be honored, and the Company will (i) pay any amounts it is required to pay in accordance with the Director's statutory employment or contractual rights and (ii) settle those rights. The Company will seek to apply the principles of mitigation to ensure that it is not paying more than is required. In the event of a compromise or severance agreement, the Committee may make payments it considers reasonable in settlement of potential legal claims, such as incidental and professional fees paid by a Director.

a. Bonus Payment. Generally, there is no entitlement to an annual bonus upon cessation of employment within the first half of the calendar year. The Committee may, at its discretion, make a retroactive payment on a pro-rated basis during the second half of the calendar year. After year-end but before completion of an audit, departing employees will be paid the actual bonus earned on the normal bonus payment date. Departing employees are not eligible for bonus payments if they breach any obligations in their employment contract, including the period of notice.

b. LTIP Provisions. For employees departing for any reason other than termination for cause , all unvested time-based awards will immediately lapse or be forfeited. All vested unexercised options and stock appreciation rights will lapse on the first anniversary date of departure. Performance based awards will vest on a pro-rated basis based on the performance results to the date of termination. The Committee has the discretion to accelerate vesting and exercise dates, waive conditions to vesting or exercise, or extend exercise periods after termination of employment. Discretion is typically used in such circumstances where Directors are retiring before the last vesting date or leaving employment through ill health or redundancy. In the case of termination for cause, all time-based awards, unvested performance-based awards, and unexercised options will immediately lapse or be forfeited on the date of termination.

Approval of Report

Richard Hipple, the Chair of the Committee, will attend the forthcoming AGM and will be available to answer any questions shareholders may have concerning the Directors' remuneration. This Remuneration Report will be submitted for approval by an advisory vote at the forthcoming AGM.

Signed on behalf of the Board by:

R J Hipple

CHAIR OF THE REMUNERATION COMMITTEE

April 20, 2023

For and on behalf of the Board

Statement of Directors' Responsibilities in Respect of the Financial Statements

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 financial statements in accordance with UK-adopted international accounting standards and the company financial statements in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, comprising FRS 101 "Reduced Disclosure Framework", and applicable law).

Under company law, directors must not approve the financial statements unless they are satisfied that they give a true and fair view of the state of affairs of the group and company and of the profit or loss of the group 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 for the group financial statements and United Kingdom Accounting Standards, comprising FRS 101 have been followed for the company financial statements, subject to any material departures disclosed and explained in the financial statements;
- make judgements and accounting estimates that are reasonable and prudent; and
- prepare the financial statements on the going concern basis unless it is inappropriate to presume that the 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 also 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 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

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

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

pwc

Independent auditors' report to the members of Luxfer Holdings PLC

Report on the audit of the financial statements

Opinion

In our opinion:

- Luxfer Holdings PLC's group financial statements and company financial statements (the "financial statements") give a true and fair view of the state of the group's and of the company's affairs as at 31 December 2022 and of the group's profit and the group's cash flows for the year then ended;
- the group financial statements have been properly prepared in accordance with UK-adopted international accounting standards as applied in accordance with the provisions of the Companies Act 2006;
- the company financial statements have been properly prepared in accordance with United Kingdom Generally Accepted Accounting Practice (United Kingdom Accounting Standards, including FRS 101 "Reduced Disclosure Framework", and applicable law); and
- the financial statements have been prepared in accordance with the requirements of the Companies Act 2006.

We have audited the financial statements, included within the Annual Report and Financial Statements (the "Annual Report"), which comprise: the consolidated and company balance sheets as at 31 December 2022; the consolidated income statement, the consolidated statement of comprehensive income, the consolidated cash flow statement, and the consolidated and company statements of changes in equity for the year then ended; and the notes to the financial statements, which include a description of the significant accounting policies.

Basis for opinion

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

Independence

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

Our audit approach

Overview

Audit scope

- We performed a full scope audit of three significant reporting units within the group, and additional procedures over selected financial statement line items in seven other trading and corporate reporting units.
- We also performed audit procedures over the consolidation adjustments for selected financial statement line items.
- The audit work performed represented 75% of consolidated revenue from continuing operations.

Key audit matters

- Valuation of pension benefit obligations (group and parent)

Materiality

- Overall group materiality: US$2,000,000 (2021: $2,000,000) based on 5% of profit on continuing operations before taxation, adjusted for other operating expenses.
- Overall company materiality: US$1,800,000 (2021: 1,800,000) based on 1% of total assets restricted to 90% of group materiality.
- Performance materiality: US$1,500,000 (2021: $1,500,000) (group) and US$1,350,000 (2021: $1,350,000) (company).

The scope of our audit

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements.

Key audit matters

Key audit matters are those matters that, in the auditors' professional judgement, were of most significance in the 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) identified by the auditors, 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, and any comments we make on the results of our procedures thereon, 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.

This is not a complete list of all risks identified by our audit.

The key audit matters below are consistent with last year.

Key audit matter	How our audit addressed the key audit matter
Valuation of pension benefit obligations (group and parent) As described in Notes 1 and 30 to the consolidated financial statements, and Note 45 of the Company financial statements, the group had pension benefit obligations of $255.3 million as of 31 December 2022. The pension benefit obligations principally relate to schemes operated in the United Kingdom and United States. The amounts in the consolidated financial statements related to the pension benefit obligations are determined from actuarial valuations.	We tested the effectiveness of controls relating to the assumptions used to determine the pension benefit obligations.
The valuation of the pension benefit obligations requires estimation in determining appropriate assumptions including: (i) discount rates; (ii) inflation rates; (iii) pension increases; and (iv) life expectancy. Differences in actual experience or changes in these assumptions can have a material impact on the determination of the liabilities in the group's pension schemes.	We checked the completeness, accuracy and relevance of the underlying data used in the valuation of the pension benefit obligations.
The pension benefit obligations, and the associated changes compared to the prior year balances, are significant in the context of the balance sheet and the results of the group. The significant judgments and assumptions made by management when determining the pension benefit obligations, resulted in a high degree of auditor judgment, subjectivity and effort to evaluate them, including the use of professionals with specialized skill and knowledge.	For the schemes operated in the United Kingdom and United States, and with the assistance of professionals with specialized skill and knowledge, our procedures also included (i) testing management's process for estimating the pension benefit obligations; (ii) evaluating the reasonableness of the assumptions used in calculating the pension benefit obligations, including the discount rates, inflation rates, pension increases, and life expectancy assumptions; and (iii) assessing the appropriateness of management's methodology in line with the requirements of IAS 19 - Employee Benefits.

How we tailored the audit scope

We tailored the scope of our audit to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole, taking into account the structure of the group and the company, the accounting processes and controls, and the industry in which they operate.

The group is split into two main reporting segments being Gas Cylinders and Elektron. These are further split into four operating segments being Luxfer Gas Cylinders, Luxfer MEL Technologies, Luxfer Graphic Arts and Luxfer Magtech. Discontinued operations are also presented, including the Luxfer Superform business unit only.

Each operating segment has multiple management reporting units in a range of different geographies and is structured mainly across Europe and North America. The financial statements are a consolidation of the group's management reporting units and its centralized functions.

The management reporting units vary in size and we identified three reporting units from across two countries which required an audit of their full financial information due to their individual size or risk characteristics. Additionally, we identified seven reporting units, including corporate reporting units, from across two countries which required an audit of specific financial statement line items to be performed. In total, these ten reporting units accounted for 75% of the group's consolidated revenue from continuing operations.The group engagement team performed the audit procedures across these reporting units.

The parent company's financial statements comprise one reporting unit which was subject to a full scope audit.

The impact of climate risk on our audit

As part of our audit we made enquiries of management to understand the extent of the potential impact of climate risk on the group's and company's financial statements, and we remained alert when performing our audit procedures for any indicators of the impact of climate risk. Our procedures did not identify any material impact as a result of climate risk on the group's and company's financial statements.

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:

	Financial statements - group	**Financial statements - company**
Overall materiality	US$2,000,000 (2021: $2,000,000).	US$1,800,000 (2021: $1,800,000).
How we determined it	5% of profit on continuing operations before taxation, adjusted for other operating expenses	1% of total assets restricted to 90% of group materiality
Rationale for benchmark applied	Based on the benchmarks used in the Annual Report, profit on continuing operations before taxation is the primary measure used by the shareholders in assessing the performance of the group, and is a generally accepted auditing benchmark. Other operating expenses were adjusted for as this provides us with a consistent year on year basis for determining materiality.	Total assets is appropriate as the entity is not profit oriented. The company holds investments in subsidiaries and therefore total assets is considered a generally accepted auditing benchmark.

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 from $294,000 to $1,800,000. Certain components were audited to a local statutory audit materiality that was also less than our overall group materiality.

We use performance materiality to reduce to an appropriately low level the probability that the aggregate of uncorrected and undetected misstatements exceeds overall materiality. Specifically, we use performance materiality in determining the scope of our audit and the nature and extent of our testing of account balances, classes of transactions and disclosures, for example in determining sample sizes. Our performance materiality was 75% (2021: 75%) of overall materiality, amounting to US$1,500,000 (2021: $1,500,000) for the group financial statements and US$1,350,000 (2021: $1,350,000) for the company financial statements.

In determining the performance materiality, we considered a number of factors - the history of misstatements, risk assessment and aggregation risk and the effectiveness of controls - and concluded that an amount in the middle of our normal range was appropriate.

We agreed with those charged with governance that we would report to them misstatements identified during our audit above $200,000 (group audit) (2021: $200,000) and $180,000 (company audit) (2021: $180,000) as well as misstatements below those amounts that, in our view, warranted reporting for qualitative reasons.

Conclusions relating to going concern

Our evaluation of the directors' assessment of the group's and the company's ability to continue to adopt the going concern basis of accounting included:

- evaluating and assessing the process by which the directors' future cash flow forecasts were prepared;
- reviewing the arithmetical accuracy of the directors' forecasts;
- evaluating and assessing the directors' key assumptions in the going concern assessment, over the period to June 2024, which included consideration of the likelihood of a change in the forecast that would be considered significant for the purposes of the directors' going concern assessment;
- obtaining the terms of the group's financing facility and the covenants in place in relation to this facility, and determining that the directors' forecast demonstrated compliance with all covenant conditions for at least 12 months from the date of the approval of the financial statements;
- gaining an understanding of the potential mitigating actions that the directors could implement to meet the requirements of the covenants; and
- reviewing the directors' disclosures in the financial statements.

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 and the company's ability to continue as a going concern for a period of at least twelve months from when the financial statements are authorised for issue.

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

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

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

Reporting on other information

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

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

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

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

Strategic report and Directors' Report

In our opinion, based on the work undertaken in the course of the audit, the information given in the Strategic report and Directors' Report for the year ended 31 December 2022 is consistent with the financial statements and has been prepared in *accordance with applicable legal requirements.*

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

Directors' Remuneration

In our opinion, the part of the Directors' Remuneration Report to be audited has been properly prepared in accordance with the Companies Act 2006.

Responsibilities for the financial statements and the audit

Responsibilities of the directors for the financial statements

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

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

Auditors' responsibilities for the audit of the financial statements

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

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

Based on our understanding of the group and industry, we identified that the principal risks of non-compliance with laws and regulations related to health and safety regulations, ISO standards and environmental legislation in the countries where the group has more significant operations, and we considered the extent to which non-compliance might have a material effect on the financial statements. We also considered those laws and regulations that have a direct impact on the financial statements such as local and international tax legislation and the Companies Act 2006. We evaluated management's incentives and opportunities for fraudulent manipulation of the financial statements (including the risk of override of controls), and determined that the principal risks were related to posting inappropriate journal entries to manipulate financial results, including relating to revenue recognition and adjusted earnings before interest, tax and amortisation, and management bias in accounting estimates. Audit procedures performed by the engagement team included:

- obtaining an understanding of the legal and regulatory framework applicable to the group and how the group is complying with that framework;
- discussions with management, the Audit Committee, general counsel and internal audit, including consideration of known or suspected instances of non-compliance with laws and regulations and fraud;
- reviewing minutes of meetings of those charged with governance;
- challenging assumptions and judgements made by management in their significant accounting estimates, including but not limited to the impairment of non-financial assets and assessment of pension obligations;
- reviewing internal audit reports;
- incorporating an element of unpredictability into our audit procedures; and
- identifying and testing journal entries, in particular any journal entries posted with unusual account combinations impacting financial results, revenue recognition and adjusted earnings before interest, tax and amortisation.

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

Our audit testing might include testing complete populations of certain transactions and balances, possibly using data auditing techniques. However, it typically involves selecting a limited number of items for testing, rather than testing complete populations. We will often seek to target particular items for testing based on their size or risk characteristics. In other cases, we will use audit sampling to enable us to draw a conclusion about the population from which the sample is selected.

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

Use of this report

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

Other required reporting

Companies Act 2006 exception reporting

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

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

We have no exceptions to report arising from this responsibility.

Gregory Briggs (Senior Statutory Auditor)
for and on behalf of PricewaterhouseCoopers LLP
Chartered Accountants and Statutory Auditors
Manchester
April 20, 2023

LUXFER HOLDINGS PLC
CONSOLIDATED INCOME STATEMENT
All amounts in millions, except share and per share data

	Note	2022 $M	2021 $M
REVENUE	2	**423.4**	374.1
Cost of sales		**(316.3)**	(267.0)
Gross profit		**107.1**	107.1
Distribution costs		**(11.3)**	(10.7)
Administrative expenses		**(47.3)**	(50.2)
Other operating expenses	6	**(2.7)**	(7.0)
OPERATING PROFIT	4	**45.8**	39.2
Finance costs	8	**(6.9)**	(6.0)
PROFIT ON OPERATIONS BEFORE TAXATION		**38.9**	33.2
Income tax expense	9	**(6.6)**	(8.4)
PROFIT FROM CONTINUING OPERATIONS		**32.3**	24.8
Net gain on disposition of discontinued operations	11	**—**	6.6
Net loss from discontinued operations	11	**(5.1)**	(6.6)
PROFIT FOR THE YEAR		**27.2**	24.8
Attributable to:			
Equity shareholders from continuing operations		**32.3**	24.8
Equity shareholders from discontinuing operations		**(5.1)**	—
		27.2	24.8
Earnings per share:		**$**	**$**
Basic from continuing operations		**1.18**	0.90
Basic from profit for the year		**1.00**	0.90
Diluted from continuing operations		**1.17**	0.88
Diluted from profit for the year		**0.99**	0.88
Weighted average number of ordinary shares outstanding:			
For basic earnings per share		**27,304,847**	27,698,691
Dilutive effect of potential common stock		**236,355**	**333,815**
For diluted earnings per share		**27,541,202**	28,032,506

LUXFER HOLDINGS PLC
CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

	Note	2022 $M	2021 $M
Net income for the year		**27.2**	24.8
Other comprehensive (loss) / income movements			
Items that may be reclassified to the consolidated income statement:			
Exchange differences on translation of foreign operations		**(15.2)**	(0.9)
Items that will not be reclassified to the consolidated income statement:			
Remeasurement of defined benefit retirement plans	30	**15.3**	48.8
Deferred income taxes on retirement benefits remeasurements	24	**(4.1)**	(9.8)
Retirement benefits changes		**11.2**	39.0
Total other comprehensive (loss) / income movements for the year		**(4.0)**	38.1
Total comprehensive income for the year		**23.2**	62.9
Attributed to:			
Total comprehensive income from continuing operations		**28.3**	**62.9**
Total comprehensive loss from discontinued operations		**(5.1)**	—
Equity shareholders		**23.2**	62.9

LUXFER HOLDINGS PLC
CONSOLIDATED BALANCE SHEET

	Note	December 31, 2022 $M	December 31, 2021 $M
ASSETS			
Non-current assets			
Property, plant and equipment	12	**77.7**	87.3
Right-of-use assets	26	**19.8**	12.6
Intangible assets	13	**67.7**	72.5
Investments	15	**0.4**	0.4
Deferred tax assets	24	**3.0**	7.1
Post employment benefit assets	30	**27.0**	14.5
		195.6	194.4
Current assets			
Inventories	16	**111.1**	90.4
Trade and other receivables	17	**67.8**	57.6
Cash and cash equivalents	19	**12.9**	6.4
Held-for-sale assets	18	**9.3**	8.6
Total current assets		**201.1**	163.0
TOTAL ASSETS		**396.7**	357.4
EQUITY AND LIABILITIES			
Capital and reserves			
Ordinary share capital	20	**26.5**	26.5
Deferred share capital	20	**—**	149.9
Share premium account	20	**231.3**	79.7
Treasury shares	20	**(20.4)**	(9.6)
Retained earnings		**371.5**	347.3
Own shares held by ESOP	20	**(1.0)**	(1.1)
Share based compensation reserve		**(11.2)**	(10.1)
Translation reserve		**(65.0)**	(49.8)
Merger reserve		**(333.8)**	(333.8)
		197.9	199.0
Non-current liabilities			
Bank and other loans	22	**56.2**	59.6
Post employment benefit liabilities	30	**1.6**	—
Lease liability	26	**18.2**	10.5
Deferred tax liabilities	24	**10.9**	2.7
Provisions	23	**2.5**	1.6
Trade and other payables	25	**0.2**	1.3
		89.6	75.7
Current liabilities			
Bank and other loans	22	**25.0**	—
Trade and other payables	25	**68.8**	63.8
Current tax liabilities		**2.0**	2.8
Lease liability	26	**4.7**	2.3
Provisions	23	**3.7**	12.3
Held-for-sale liabilities	18	**5.0**	1.5
		109.2	82.7
Total liabilities		**198.8**	158.4
TOTAL EQUITY AND LIABILITIES		**396.7**	357.4

THE FINANCIAL STATEMENTS ON PAGES 73 TO 138 WERE APPROVED BY THE BOARD ON APRIL 20, 2023 AND SIGNED ON ITS BEHALF:

Andy Butcher,
April 20, 2023
Company Registration no. 03690830

LUXFER HOLDINGS PLC
CONSOLIDATED CASH FLOW STATEMENT

The amounts below include both continuing and discontinued operations.

	Note	2022 $M	2021 $M
RECONCILIATION OF CASH FLOWS FROM OPERATING ACTIVITIES			
Net income for the year		27.2	24.8
Adjustments to reconcile net income for the year to net cash flows from continuing operating activities:			
Income taxes	9	6.6	8.4
Depreciation and amortization	4	13.6	15.7
Amortization of debt issue costs		0.5	0.8
Lease right-of-use asset depreciation	26	4.4	2.8
Lease right-of-use asset impairment		2.6	—
Share based compensation charges net of cash settlement		1.1	0.8
Net interest costs	8	4.8	4.1
IAS 19R retirement benefits finance charge	8	1.6	1.9
Loss on disposal of business	11	1.0	—
Changes in operating assets and liabilities:			
Increase in receivables		(27.8)	(14.8)
Increase in inventories		(25.0)	(15.3)
Increase in payables		20.0	23.7
Movement in retirement benefits obligations		(0.4)	(18.2)
Movement in provisions		(7.0)	1.2
Income taxes paid		(0.6)	(5.3)
NET CASH FLOWS FROM OPERATING ACTIVITIES - CONTINUING		22.6	30.6
Net cash flows from operating activities - discontinued		0.1	0.1
NET CASH FLOWS FROM OPERATING ACTIVITIES		22.7	30.7
CASH FLOWS FROM INVESTING ACTIVITIES			
Purchases of property, plant and equipment		(8.3)	(9.1)
Proceeds from sale of business		—	23.4
Receipts from sales of property, plant and equipment		3.7	—
Settlements from sale of businesses		(1.0)	—
Acquisition of business, net of cash acquired	10	—	(19.3)
NET CASH FLOWS USED IN INVESTING ACTIVITIES - CONTINUING		(5.6)	(5.0)
Net cash flows used in investing activities - discontinued		(0.1)	(0.1)
NET CASH FLOWS USED IN INVESTING ACTIVITIES		(5.7)	(5.1)
NET CASH FLOWS BEFORE FINANCING ACTIVITIES		17.0	25.6
CASH FLOWS FROM FINANCING ACTIVITIES			
Interest and similar finance costs paid on banking facilities		(1.5)	(0.7)
Interest paid on Loan Notes		(2.5)	(2.5)
Drawdown on banking facilities		24.8	6.4
Debt issue costs		—	(1.0)
Payments in respect of leases - Capital	26	(3.3)	(2.5)
Payments in respect of leases - Interest		(0.9)	(0.4)
Dividends paid	21	(14.2)	(13.6)
Deferred share buyback		(0.1)	—
Share buyback		(11.1)	(6.4)
NET CASH FLOWS USED IN FINANCING ACTIVITIES		(8.8)	(20.7)
NET INCREASE IN CASH AND CASH EQUIVALENTS		8.2	4.9
Net foreign exchange differences		(1.7)	—
Cash and cash equivalents at January 1		6.4	1.5
Cash and cash equivalents at December 31		12.9	6.4

LUXFER HOLDINGS PLC
CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

		Equity attributable to the equity shareholders of the parent							
		Ordinary share capital	Deferred share capital	Share premium account	Treasury shares	Retained earnings	Own shares held by ESOP	Other Reserves (1)	Total equity
	Note	$M	$M	$M	$M	$M	$M	$M	$M
At January 1, 2021		**26.6**	**149.9**	**77.1**	**(4.0)**	**297.1**	**(1.4)**	**(390.0)**	**155.3**
Net income for the year		$ —	$ —	$ —	$ —	$ 24.8	$ —	$ —	$ 24.8
Currency translation differences		$ —	$ —	$ —	$ —	$ —	$ —	$ (0.9)	$ (0.9)
Remeasurement of defined benefit retirement plans		$ —	$ —	$ —	$ —	$ 48.8	$ —	$ —	$ 48.8
Deferred income taxes on items taken to other comprehensive income	24	$ —	$ —	$ —	$ —	$ (9.8)	$ —	$ —	$ (9.8)
Total comprehensive income for the year		—	—	—	—	63.8	—	(0.9)	62.9
Equity dividends	21	$ —	$ —	$ —	$ —	$ (13.6)	$ —	$ —	$ (13.6)
Equity settled share based compensation charges		$ —	$ —	$ —	$ —	$ —	$ —	$ 2.8	$ 2.8
Utilization of treasury shares	20	$ —	$ —	$ (0.1)	$ 0.1	$ —	$ —	$ —	$ —
Utilization of shares from ESOP	20	$ —	$ —	$ 3.3	$ —	$ —	$ 0.3	$ (5.6)	$ (2.0)
Repurchase of own shares		$ —	$ —	$ —	$ (6.4)	$ —	$ —	$ —	$ (6.4)
Cancellation of ordinary shares		$ (0.1)	$ —	$ (0.6)	$ 0.7	$ —	$ —	$ —	$ —
Other changes in equity in the year		*(0.1)*	—	*2.6*	*(5.6)*	*(13.6)*	*0.3*	*(2.8)*	*(19.2)*
At December 31, 2021		26.5	149.9	79.7	(9.6)	347.3	(1.1)	(393.7)	199.0
Net income for the year		$ —	$ —	$ —	$ —	$ 27.2	$ —	$ —	$ 27.2
Currency translation differences		$ —	$ —	$ —	$ —	$ —	$ —	$ (15.2)	$ (15.2)
Remeasurement of defined benefit retirement plans		$ —	$ —	$ —	$ —	$ 15.3	$ —	$ —	$ 15.3
Deferred income taxes on items taken to other comprehensive income	24	$ —	$ —	$ —	$ —	$ (4.1)	$ —	$ —	$ (4.1)
Total comprehensive income for the year		—	—	—	—	38.4	—	(15.2)	23.2
Equity dividends	21	$ —	$ —	$ —	$ —	$ (14.2)	$ —	$ —	$ (14.2)
Equity settled share based compensation charges		$ —	$ —	$ —	$ —	$ —	$ —	$ 2.5	$ 2.5
Utilization of treasury shares	20	$ —	$ —	$ 0.1	$ 0.3	$ —	$ —	$ (0.8)	$ (0.4)
Utilization of shares from ESOP	20	$ —	$ —	$ 1.7	$ —	$ —	$ 0.1	$ (2.8)	$ (1.0)
Repurchase of own shares	20	$ —	$ —	$ —	$ (11.1)	$ —	$ —	$ —	$ (11.1)
Cancellation of deferred shares	20	$ —	$ (149.9)	$ 149.8	$ —	$ —	$ —	$ —	$ (0.1)
Other changes in equity in the year		—	(149.9)	151.6	(10.8)	(14.2)	0.1	(1.1)	(24.3)
At December 31, 2022		**26.5**	**—**	**231.3**	**(20.4)**	**371.5**	**(1.0)**	**(410.0)**	**197.9**

(1) Other reserves include, a translation reserve of $65.0 million deficit (2021: deficit of $49.8 million), a merger reserve of $333.8 million deficit (2021: $333.8 million deficit) and a share based compensation reserve of $11.2 million deficit (2021: $10.1 million deficit).

LUXFER HOLDINGS PLC

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

All amounts in millions, except share and per share data

1. Accounting policies

Basis of preparation and statement of compliance with IFRS

The consolidated financial statements have been prepared in accordance with UK-adopted international accounting standards in conformity with the requirements of the Companies Act 2006 as they apply to the consolidated financial statements of the Group for the year ended December 31, 2022. The consolidated financial statements have been prepared on a historical cost basis, except where IFRS requires or permits fair value measurement.

The financial statements of Luxfer Holdings PLC have been prepared in accordance with UK-adopted International Accounting Standards and with the requirements of the Companies Act 2006 as applicable to companies reporting under those standards.

The directors have a reasonable expectation that the Group has adequate resources to continue in operational existence for the foreseeable future. In assessing the appropriateness of adopting the going concern basis in the preparation of these financial statements, cash forecasts and projections have been prepared to June 2024. There is sufficient headroom in our covenant compliance which would enable the Group to drawdown on the RCF and not impact the Group's ability to continue as a going concern. Therefore the directors continue to apply the going concern basis for accounting in the preparation of the consolidated financial statements.

For the purpose of the accompanying consolidated financial statements, subsequent events have been evaluated through to April 20, 2023, which is the date the consolidated financial statements were authorized by the Board. The consolidated financial statements were issued on April 20, 2023.

Basis of consolidation

The consolidated financial statements comprise the financial statements of Luxfer Holdings PLC and its subsidiaries (the "Group") at December 31 each year. These financial statements present the Consolidated Income Statement, Consolidated Statement of Comprehensive Income, Consolidated Balance Sheet, Consolidated Cash Flow Statement and Consolidated Statement of Changes in Equity, for the year ending December 31, 2022, along with prior year comparatives for the year ending December 31, 2021. The financial statements of the subsidiaries are prepared for the same reporting year as the parent company, using consistent accounting policies. All inter-company balances and transactions, including unrealized profits arising from intra-group transactions, have been eliminated in full.

Subsidiaries are consolidated from the date on which control is transferred to the Group and cease to be consolidated from the date on which control is transferred out of the Group.

The accounting policies which follow, set out those polices which apply in preparing the consolidated financial statements for the years ended December 31, 2021 and December 31, 2022.

Parent Company Guarantee

In accordance with S479A of the Companies Act 2006, Luxfer Holdings PLC has provided a parent company guarantee for the below listed subsidiaries, meaning that for the year ended December 31, 2022, they are exempt from audit.

Parent Company Guarantee (continued)

Name of Company	Company registered number
Lumina Trustee Limited	6055812
Luxfer Gas Cylinders China Holdings Limited	5165622
Luxfer Group Limited	3944037
Luxfer Group 2000 Limited	4027006
Luxfer Group Services Limited	3981395
Luxfer Overseas Holdings Limited	3081726

Presentational and functional currency

The consolidated financial statements are presented in U.S. dollars and all values are rounded to the nearest $0.1 million except when otherwise indicated. The books of the Group's non-U.S. entities are converted to U.S. dollars at each reporting period date in accordance with the accounting policy below.

The functional currency of the holding company Luxfer Holdings PLC is USD. The functional currency of UK subsidiaries is GBP.

Business combinations and goodwill

Business combinations are accounted for using the acquisition method. The cost of an acquisition is measured as the aggregate of the consideration transferred, measured at acquisition date fair value, and the amount of any non-controlling interest in the acquiree. The choice of measurement of non-controlling interest, either at fair value or at the proportionate share of the acquiree's identifiable net assets, is determined on a transaction by transaction basis. Acquisition costs are expensed as incurred.

Goodwill is initially measured at cost, being the excess of the aggregate of the acquisition-date fair value of the consideration transferred and the amount recognized for the non-controlling interest over the net identifiable amounts of the assets acquired and the liabilities assumed in exchange for the business combination. 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 the Group's cash generating units that are expected to benefit from the combination. Goodwill is tested at least annually for impairment, or more frequently if events or changes in circumstances indicate that the asset is impaired.

Goodwill arising on acquisitions before the date of transition to IFRS has been retained at the previous U.K. GAAP amounts subject to being tested for impairment at that date and in subsequent years.

A bargain purchase is measured at cost being the excess of the net identifiable amounts of the assets acquired and the liabilities assumed in exchange for the business combination over the aggregate of the acquisition-date fair value of the consideration transferred and the amount recognized for the non-controlling interest. Any amount of a bargain purchase is recognized immediately as income.

Contingent consideration arising as a result of a business combination is recognized at fair value at the acquisition date. Subsequent changes in the fair value of contingent consideration classified as an asset or liability are accounted for in accordance with the relevant IFRS standards.

Other intangible assets

Other intangible assets excluding development costs, are measured initially at purchase cost, or where acquired in a business combination at fair value, and are amortized on a straight-line basis over their estimated useful lives as shown in the table below.

Research expenditure is expensed as incurred. Internal development expenditure is charged as administrative costs to the consolidated income statement in the year it is incurred unless it meets the recognition criteria of IAS 38 "Intangible Assets". Where the recognition criteria are met, intangible assets are capitalized and amortized over their estimated useful economic lives from product launch, as shown in the table below. Intangible assets relating to products in development are subject to impairment testing at each balance sheet date or earlier upon indication of impairment.

Other intangible assets (continued)

Trading and technology related	14 – 25 years
Customer related	15 - 25 years
Development costs	5 – 10 years
Software	4 – 7 years

Amortisation expense is recognised within administrative expenses in the income statement.

The carrying values are reviewed for impairment when events or changes in circumstances indicate that the carrying value may not be recoverable. Reviews are made annually of the estimated remaining lives and residual values of the patents and trademarks.

Revenue

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer. The majority of the Company's contracts have a single performance obligation, as the promise to transfer the individual goods or services is not separately identifiable from other promises in the contracts and, therefore, not distinct. There is no variable consideration or obligations for returns, refunds, or other related obligations in the Company's contracts.

Payment terms and conditions vary by contract type and may include a requirement of payment in advance. In general, our payment terms are 30 to 60 days. In instances where the timing of revenue recognition differs from the timing of invoicing, the Company has determined its contracts do not include a significant financing component.

The Company's revenue is primarily derived from the following sources and are recognized when or as the Company satisfies a performance obligation by transferring a good or service to a customer:

Product revenues
We recognize revenue when it is realised or realisable and has been earned. Revenue is recognised when the following are met: (i) persuasive evidence of an arrangement exists; (ii) shipment or delivery has occurred (depending on the terms of the sale), which is when the transfer of product or control occurs; (iii) our price to the buyer is fixed or determinable; and (iv) the ability to collect is reasonably assured. Transaction prices are determined depending on terms agreed with customers, revenue is recognized in line with the amount invoiced to customers.

Property, plant and equipment

Property, plant and equipment is stated at cost less accumulated depreciation and any impairment in value. Depreciation is initially calculated on a straight-line basis over the estimated useful life of the particular asset. As a result of the complexity of our manufacturing process, there is a wide range of plant and equipment in operation. The rate of annual charge is summarized as follows:

Freehold buildings	3% – 10%
Leasehold land and buildings	The lesser of life of lease or freehold rate
Plant and equipment	4% – 30%
Including:	
Heavy production equipment (including casting, rolling, extrusion and press equipment)	4% – 6%
Chemical production plant and robotics	10% – 15%
Other production machinery	10% – 20%
Furniture, fittings, storage and equipment	10% – 30%

Freehold land and Capital Work in Progress are not depreciated.

Property, plant and equipment (continued)

Reviews are made annually of the estimated remaining lives and residual values of individual productive assets, taking account of commercial and technological obsolescence as well as normal wear and tear.

For any individual asset the carrying value is reviewed for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. If any such indication exists and where the carrying value exceeds the estimated recoverable amount, the asset is written-down to its recoverable amount. The recoverable amount of property, plant and equipment is the greater of the fair value less costs of disposal and the value in use. In assessing the value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash-generating unit to which the asset belongs. Impairment losses are recognized in the consolidated income statement as part of the profit or loss on operations before taxation.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on derecognition of the asset (calculated as the difference between the net disposal proceeds and the carrying value of the item) is included in the consolidated income statement in the year the item is derecognised.

Maintenance costs in relation to an item of property, plant and equipment are expensed as incurred.

Inventories

Inventories are stated at the lower of cost and net realizable value. Raw materials are valued on a first-in, first-out basis. Strategic purchases of inventories in order to secure supply and reduce the impact of price volatility on the cost of inventories are valued on an average cost basis. Work in progress and finished goods costs comprise direct materials and, where applicable, direct labor costs, an apportionment of production overheads and any other costs that have been incurred in bringing the inventories to their present location and condition. Net realizable value represents the estimated selling price less all estimated costs of completion and costs to be incurred in selling and distribution. Inventories are reviewed on a regular basis, and we will make allowance for excess or obsolete inventories and write-down to net realizable value based primarily on committed sales prices and our estimates of expected and future product demand and related pricing.

Held-for-sale assets / liabilities

In accordance with IFRS 5, assets and liabilities held-for-sale are written down to their fair value less costs to sell. These are measured at the lower of their carrying value and fair value less costs to sell except for assets such as deferred tax assets and assets arising from employee benefits and classified as held-for-sale on the face of the consolidated balance sheet. Impairments recognized on the assets and liabilities will be taken to the income statement and presented within other operating expenses.

If an asset or liability is no longer available for sale, then they will be reclassified within their relevant asset or liability financial statement line and held at amortized cost.

Foreign currencies

Transactions in currencies other than an operation's functional currency are initially recorded in the functional currency at the rate of exchange prevailing on the dates of transactions. At each balance sheet date, the foreign currency monetary assets and liabilities are translated into the functional currency at the rates prevailing on the balance sheet date.

All differences are taken to the consolidated income statement with the exception of differences on foreign currency borrowings that provide a hedge against a net investment in a foreign entity. These are taken directly to equity until the disposal of the net investment, at which time they are recognized in the consolidated income statement. Tax charges and credits attributable to exchange differences on those borrowings are also dealt with in equity.

On consolidation, the assets and liabilities of the Group's foreign operations are translated at exchange rates prevailing on the balance sheet date. Income and expense items are translated at the average exchange rates for the period. Exchange differences that arise, if any, are classified as equity and transferred to the Group's translation reserve. Such translation differences are recognized in the consolidated income statement in the period in which the operation is disposed or partially disposed.

Income taxes

Current income taxes

Current income tax assets and liabilities for the current period are measured at the amount expected to be recovered from or paid to the taxation authorities. The tax rates and tax laws used to compute the amount are those that are enacted, or substantively enacted, at the reporting date in the countries where the Group operates and generates taxable income.

Current income taxes relating to items recognized directly in equity is recognized in equity and not in the consolidated income statement. Management periodically evaluates positions taken in the tax returns with respect to situations in which applicable tax regulations are subject to interpretation and establishes provisions where appropriate.

Deferred income taxes

Deferred income taxes are the future income taxes expected to be payable or recoverable on differences between the carrying values of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit, and are accounted for using the balance sheet liability method. Deferred income tax liabilities are generally recognized for all taxable temporary differences. Deferred income tax assets are recognized to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilized. Such assets and liabilities are not recognized if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the tax profit nor the accounting profit.

Deferred income tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries, investments in associates, and interests in joint ventures, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

The carrying value of a deferred income tax asset is reviewed at each balance sheet date and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred income taxes are calculated at the tax rate that is expected to apply in the period when the liability is settled or the asset is realized based on tax rates and tax laws that have been enacted or substantively enacted at the balance sheet date. Deferred income taxes are charged or credited to the consolidated income statement, except when it relates to items charged or credited directly to equity, in which case the deferred income taxes are also dealt with in equity.

Leases

The Group leases various buildings, equipment and vehicles. Rental contracts are typically made for fixed periods of 12 months to 10 years, but may have extension options. Contracts may contain both lease and non-lease components. The Group allocates the consideration in the contract to the lease and non-lease components based on their relative stand-alone prices. 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 other than the security interests in the leased assets that are held by the lessor. Leased assets may not be used as security for borrowing purposes.

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 payment that are based on an index or a rate, initially measured using the index or rate as at the commencement date
- amounts expected to be payable by the group under residual value guarantees
- the exercise price of a purchase option if the group is reasonably certain to exercise that option, and
- payments of penalties for terminating the lease, if the lease term reflects the group exercising that option.

Leases (continued)

Lease payments to be made under reasonably certain extension options are also included in the measurement of the liability. The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, which is generally the case for leases in the Group, the lessee's incremental borrowing rate is used, being the rate that the individual lessee would have to pay to borrow the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment with similar terms, security and conditions.

The group is exposed to potential future increases in variable lease payments based on an index or rate, which are not included in the lease liability until they take effect. When adjustments to lease payments based on an index or rate take effect, the lease liability is reassessed and adjusted against the right-of-use asset. Lease payments are allocated between principal and finance cost.

Right-of-use assets are measured at cost comprising the following:

- the amount of the initial measurement of lease liability
- any lease payments made at or before the commencement date less any lease incentives received
- any initial direct costs, and
- restoration costs.

Right-of-use assets are generally depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis. If the Group is reasonably certain to exercise a purchase option, the right-of-use asset is depreciated over the underlying asset's useful life. Payments associated with short-term leases of equipment and vehicles and all leases of low-value assets are recognized on a straight-line basis as an expense in profit or loss. Short-term leases are leases with a lease term of 12 months or less. Low-value assets comprise IT equipment and small items of office furniture.

Retirement benefits costs

In respect of defined benefit plans, obligations are measured at the present value whilst plan assets are recorded at fair value. The cost of providing benefits is determined using the Projected Unit Credit Method, with actuarial valuations being carried out at each balance sheet date.

The charge to the consolidated income statement is based on an actuarial calculation of the Group's portion of the annual expected costs of the benefit plans and the net interest cost, which is calculated by applying the discount rate to the net defined benefit obligation, taking into account contributions and benefits paid. Re-measurements are recognized in the statement of comprehensive income.

When a settlement or curtailment occurs the obligation and related plan assets are remeasured using current actuarial assumptions and the resultant gain or loss recognized in the consolidated income statement in the period in which the settlement or curtailment occurs. At December 31, 2022 the UK pension plan was in a surplus position and the U.S plan was in a deficit position.. Management have assessed that it is appropriate to recognise the UK surplus in line the requirements of IFRIC 14 and IAS 19.

Payments to defined contribution plans are charged as an expense as they fall due.

Provisions

Provisions are recognised when the Group has a present obligation as a result of a past event, it is probable that a transfer of resources will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

Earnings per share

Basic earnings per share are computed by dividing net income for the period by the weighted-average number of ordinary shares outstanding, net of Treasury shares and shares held in ESOP. Diluted earnings per share are computed by dividing net income for the period by the weighted average number of ordinary shares outstanding and the dilutive ordinary share equivalents.

Share based compensation

The cost of equity settled transactions is recognised, based upon the fair value at grant date, together with a corresponding increase in the share based compensation reserve in equity, over the period in which the performance or service conditions are fulfilled. The cumulative expense recognized for equity settled transactions at each reporting date until the vesting date reflects the extent to which the vesting period has expired and the Group's best estimate of the number of equity instruments that will ultimately vest. The consolidated income statement expense or credit for a period represents the movement in cumulative expense recognized at the beginning and end of that period.

Separate disclosure of expenses or income

Certain items of expense or income are presented separately within other operating expenses, on the face of the Consolidated Income Statement, based on management's judgment that they need to be disclosed by virtue of their size, nature or incidence in order to provide a proper understanding of our results of operations and financial condition. Such items of expense or income incurred during a period are disclosed under identifiable headings in the Consolidated Income Statement and further explained in Note 6 to the consolidated financial statements. Examples of such items include but are not limited to:

- Restructuring of the activities of the Group and reversals of any provisions for the costs of restructuring;
- write-downs to net realisable value or of property, plant and equipment to recoverable amount, as well as reversals of such write-downs;
- disposals of items of property, plant and equipment;
- disposals of investments and subsidiaries;
- discontinued operations;
- litigation settlements; and
- other material reversals of provisions.

The nature of the items of expense or income is considered to determine whether the item should be presented as part of operating profit or loss or as other expenses or income. Management believes that the use of separate disclosures, such as this provides additional useful information on underlying trends to shareholders.

Cash and cash equivalents

Cash and cash equivalents in the balance sheet comprise cash at bank and in hand, short-term deposits with an original maturity date of three months or less, readily convertible to a known amount of cash and subject to an insignificant risk of changes in value. For the purpose of the consolidated cash flow statement, cash and cash equivalents consist of cash and cash equivalents as defined above, but net of bank overdrafts.

Trade and other receivables

Trade receivables are recognized initially at the amount of consideration that is unconditional. The Group holds the trade receivables with the objective of collecting the contractual cash flows, and so it measures them subsequently at amortized cost using the effective interest method.

The Group applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables and contract assets.

To measure the expected credit losses, trade receivables and contract assets have been grouped based on shared credit risk characteristics and the days past due.

The expected loss rates are based on the payment profiles of sales over a period of 36 months before December 31, 2022 and the corresponding historical credit losses experienced within this period. The historical loss rates are adjusted to reflect current and forward looking information on macroeconomic factors affecting the ability of the customers to settle the receivables.

Trade receivables and contract assets are written off where there is no reasonable expectation of recovery.

The maximum exposure at the end of the reporting period is the carrying amount of these receivables.

Bank and other loans

Bank and other loans are recorded at the fair value of the proceeds received net of directly attributable transaction costs. Issue costs relating to revolving credit facilities are charged to the consolidated income statement over the estimated life of the facility on a periodic basis and are added to the carrying value of the facility. Issue costs relating to fixed term loans are charged to the consolidated income statement using the effective interest method and are added to the carrying value of the fixed term loan.

Bank and other loan interest

Finance costs related to bank and other loans are charged to the income statement when incurred.

Trade payables

Trade payables are not interest bearing and are stated at their nominal value.

Derivative financial instruments

The Group uses derivative financial instruments such as foreign currency contracts to hedge its risks associated with foreign currency fluctuations. Such derivative financial instruments are stated at fair value. Gains and losses arising from derivative financial instruments are recognized directly in the consolidated income statement.

Financial liabilities and equity instruments

Financial liabilities and equity instruments issued by the Group are recorded at the proceeds received, net of direct issue costs.

Financial liabilities and equity instruments are all instruments that are issued by the Group as a means of raising finance, including shares, loan notes, debentures, debt instruments and options and warrants that give the holder the right to subscribe for or obtain financial liabilities and equity instruments.

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. All equity instruments are included in shareholders' funds. Other instruments are classified as financial liabilities if they contain a contractual obligation to transfer economic benefits.

Critical accounting judgments and key sources of estimation uncertainty

The key assumptions concerning the future, and other key sources of estimation uncertainty at the balance sheet date, that have a significant risk of causing a material adjustment to the carrying values of assets and liabilities within the next financial year, are discussed below. The judgments used by management in the application of the Group's accounting policies in respect of these key areas of estimation are considered to be the most significant. The below policies include both elements of judgments and estimates.

Pensions

The present value of future obligations of pensions are determined from actuarial valuations. Inherent in these valuations are assumptions, including: (i) discount rates; (ii) inflation rates; (iii) pension increases; and (iv) life expectancy. These assumptions are determined in association with qualified actuaries. Due to the long-term nature of these plans, such estimates are subject to significant uncertainty. The net pension assets at December 31, 2022 are $25.4 million (2021: $14.5 million). Further details are given in Note 30.

(i) Discount rate

The discount rate used represents the annualised yield based on a cash flow matched methodology with reference to an AA corporate bond spot curve and having regard to the duration of the Plan's liabilities. This yield produced a weighted-average discount rate for our U.K. plans of 4.80% in 2022, 1.90% in 2021 and 1.40% in 2020. The discount rate on our U.S. plans was 5.10% in 2022, 2.70% in 2021 and 2.30% in 2020. There are no known or anticipated changes in our discount rate assumption that will impact our pension expense in 2023. To indicate the sensitivity of results to this assumption, a 0.1% per annum increase in the discount rate for our U.K. plans would reduce the value of the liabilities and therefore increase the pension surplus by approximately $2.4 million and increase the projected 2023 income statement credit by approximately $0.1 million.

(ii) Inflation rate

In September 2019, the UK Statistics Authority announced plans to reform the RPI inflation index. On November 25, 2020, the government and UK Statistics Authority confirmed these plans to reform the RPI index to bring it into line with the CPIH index from 2030, with no compensation for the holders of index-linked gilts. Inflation measured by the CPIH is consistently significantly lower than that measured by RPI, and therefore, these plans imply a significant expected reduction in RPI inflation from 2030 onwards. As a result we have taken a stepped approach and used different inflation rates pre and post 2030. To indicate the sensitivity of results to the CPI assumption, a 0.1% per annum decrease in all CPI-linked assumptions, (including pension increases) for our U.K. plan, would reduce the value of the liabilities and therefore increase the pension surplus at December 31, 2022 by approximately $2.4 million and increase the projected 2023 income statement credit by approximately $0.1 million.

(iii) Pension increases

The pension increase assumptions have been set with reference to the corresponding CPI inflation assumption and take account of the caps and floors applicable to the various components of pension indexation. Life expectancy The life expectancies of male and female members aged 65 on 31 December 2022 are assumed to be 21.2 and 23.0 years, respectively, with the life expectancies of male and female members aged 65 on 31 December 2042 assumed to be 22.5 and 24.5 years, respectively. To indicate the sensitivity of results to the life expectancy assumption, a one year increase in assumed life expectancy on the U.K. plan could increase the value of the liabilities and therefore decrease the pension surplus at December 31, 2022 by approximately $7.2 million.

Loss contingencies

Accruals are recorded for various contingencies, including legal proceedings, self-insurance and other claims that arise in the normal course of business. The accruals are based on judgment, the probability of losses and, where applicable, the consideration of opinions of internal and/or external legal counsel and actuarial determined estimates. Additionally, we record receivables from third party insurers when recovery has been determined to be virtually certain. Our critical judgment revolves around the recognition of litigation and environmental liabilities in relation to the closure of our French site. We have recognized a loss contingency of $3.3 million, for which we have engaged with external experts to assist with the valuation of these liabilities. The highest end of the range deemed by experts is $3.9m.

Goodwill and other identifiable intangible assets

Business combinations are accounted for using the purchase method. The cost of an acquisition is measured as the aggregate of the consideration transferred, measured at acquisition date fair value, and the amount of any non-controlling interest in the acquiree. The measurement of non-controlling interest is at fair value and is determined on a transaction by transaction basis. Acquisition costs are expensed as incurred.

Goodwill represents the excess of the cost of acquired businesses over the net of the fair value of identifiable tangible net assets, identifiable intangible assets purchased, and liabilities assumed.

Goodwill is reviewed for impairment at least annually by assessing the recoverable amount of each cash-generating unit, or group of cash generating units, to which the goodwill relates. For all other non-financial assets (including other intangible assets, property, plant and equipment, right of use assets and investment property) the Group performs impairment testing where there are indicators of impairment.

The recoverable amount is the higher of fair value less costs of disposal, and value in use. When the recoverable amount is less than the carrying amount, an impairment loss is recognised immediately in the Group income statement.

Management completed a quantitative goodwill impairment evaluation on the last day of the third quarter of 2020. In line with IAS36, this is deemed appropriate given:

1. the assets and liabilities making up the unit have not changed significantly since the most recent recoverable amount calculation;
2. the most recent recoverable amount calculation resulted in an amount that exceeded the carrying amount of the unit by a substantial margin; and
3. based on an analysis of events that have occurred and circumstances that have changed since the most recent recoverable amount calculation, the likelihood that a current recoverable amount determination would be less than the current carrying amount of the unit is remote.

The value in use of each CGU was determined by management using a discounted cash flow analysis. Projecting discounted future cash flows required management to make significant estimates including: (i) future revenue growth rates including the perpetual growth rate; (ii) anticipated operating margins; and (iii) the discount rates applied to the estimated future cash flows. These assumptions are determined over a three year long-term planning period. The three year growth rates for revenues and operating profits margins vary for each CGU being evaluated. Revenues and operating profit margins beyond 2022 were projected to grow at a perpetual growth rate of 1.8%. A reasonable change in these estimates would not have resulted in an impairment.

The recoverable amount is the higher of fair value less costs of disposal and value in use. The value in use of each CGU was determined by management using a discounted cash flow analysis. Projecting discounted future cash flows required management to make significant estimates including: (i) future revenue growth rates including the perpetual growth rate; (ii) anticipated operating margins; and (iii) the discount rates applied to the estimated future cash flows.

Going concern

The Directors have prepared cash flow forecasts for a period of at least 12 months from the date of the approval of these financial statements which indicate that, taking account of reasonably possible downsides, the Company will have sufficient funds, generated from operations and committed banking facilities, to meet its liabilities as they fall due for that period. When preparing the downside case, the Directors reduced forecast cashflows to a point where we would default on our banking covenants. In all scenarios there was significant headroom.

Demand from most end-markets the Company serves has continued to improve following the adverse impact of COVID-19 on volumes, notably in 2020. This sharp recovery in demand across the global macro environment has resulted in supply chain challenges characterized by significant increases in material cost inflation on key inputs (including magnesium, aluminum and carbon fiber), labor availability issues and energy and transport cost increases. Additionally, during 2022, the Company was faced with two critical suppliers of magnesium and zirconium respectively declaring force majeure, of which the former remains in place. The continuing conflict in Ukraine which has resulted in punitive sanctions against the Russian Federation has further exacerbated the availability and price of certain raw materials and energy supplies. In response to the supply chain disruption, the Company has been successful in securing alternative sources of supply for key material inputs affected by force majeure. Furthermore, in the majority of cases, the Company was able to pass through inflation to customers. Currently, the expectation is that the impact of material availability / inflation and energy cost inflation and labor and transport constraints will continue into 2023; that the Company will be able to source sufficient material to meet demand and that in the majority of cases the Company expects to be able to pass on cost increases. However the outlook remains highly uncertain with both the size and timing of future cost increases difficult to predict.

Despite the uncertainties discussed above, the Company is expected to generate positive cash from operations for a period of at least 12 months from the date of approval of these financial statements. In addition, there is sufficient headroom in our covenant compliance which would enable the Group to drawdown on the revolving credit facility and not impact the Group's ability to continue as a going concern.

Impact of conflict in Ukraine

The Russian invasion of Ukraine and ongoing military conflict which commenced on February 24, 2022, has resulted in massive displacement of the Ukrainian population and huge disruption to its economy. Wide ranging sanctions have been imposed on the Russian Federation by the international community, targeting individuals, banks, businesses, funds transfers and imports and exports and are expected to have a significant adverse impact on Russia's economy as well as on international businesses active in the region. The impact on the Company is not expected to be significant as there are no direct operations in the region, and sales to Russia and Ukraine combined typically represent less than one percent of total revenue by destination. Furthermore, neither country is a critical supplier of raw material needs, and while Russia is a major global exporter of magnesium, the Company is able to source the metal from various alternative locations, including China, Israel, Turkey and the United States.

Changes in accounting policies

The accounting policies adopted are consistent with those of the previous financial year.

New standards and amendments to standards not applied

The IASB has issued the following significant amendments to standards with a mandatory effective date on or after January 1, 2022:

International Financial Reporting Standards		Mandatory effective date
IAS 1	Presentation of financial statements (amendments)	No earlier than January 1, 2024
IAS 12	Income Taxes	No earlier than January 1, 2023
IAS 16	Property, Plant and Equipment (amendments)	No earlier than January 1, 2022
IFRS 3	Business combination (amendments)	No earlier than January 1, 2022
IAS 37	Onerous Contracts (amendments)	No earlier than January 1, 2022

The directors do not expect that the adoption of the standards listed above will have a material impact on the consolidated financial statements of the Group in future periods.

2. Revenue

Disaggregated revenue disclosures for the fiscal years ended December 31, 2022 and December 31, 2021 are presented below.

	Net sales by end-market					
	2022			2021		
	$M	$M	$M	$M	$M	$M
	Gas Cylinders	Elektron	Total	Gas Cylinders	Elektron	Total
General industrial	**34.0**	**121.5**	**155.5**	33.4	95.8	129.2
Transportation	**77.8**	**55.1**	**132.9**	71.2	45.8	117.0
Defense, First Response & Healthcare	**71.9**	**63.1**	**135.0**	73.7	54.2	127.9
	183.7	**239.7**	**423.4**	178.3	195.8	374.1

	Net sales by geographic destination			
	2022		2021	
	$M	Percent	$M	Percent
United States	**243.2**	***57.4 %***	207.8	*55.6 %*
U.K.	**20.7**	***4.9 %***	24.4	*6.6 %*
Germany	**19.2**	***4.5 %***	17.7	*4.7 %*
Italy	**11.4**	***2.7 %***	11.0	*2.9 %*
France	**8.5**	***2.0 %***	12.5	*3.3 %*
Top five countries	303.0	*71.5 %*	273.4	*73.1 %*
Rest of Europe	**28.0**	***6.6 %***	25.8	*6.9 %*
Asia Pacific	**68.0**	***16.1 %***	53.7	*14.3 %*
Other [(1)]	**24.4**	***5.8 %***	21.2	*5.7 %*
	423.4	*100 %*	374.1	*100 %*

[(1)] Other represents Africa, Brazil, Canada, Mexico and Other Americas

The Company's performance obligations are satisfied at a point in time. With the classification of our Superform business as discontinued operations, none of the Company's continuing revenue is satisfied over time. As a result, the Company's contract receivables, contract assets and contract liabilities at December 31, 2022 and December 31, 2021, are disclosed within current assets and liabilities held-for-sale.

3. Segmental Information

We classify our operations into two core business segments, Gas Cylinders and Elektron, based primarily on shared economic characteristics for the nature of the products and services; the nature of the production processes; the type or class of customer for their products and services; the methods used to distribute their products or provide their services; and the nature of the regulatory environment. The Company has four identified business units, which aggregate into the two reportable segments. Luxfer Gas Cylinders forms the Gas Cylinders segment, and Luxfer MEL Technologies, Luxfer Magtech and Luxfer Graphic Arts aggregate into the Elektron segment. The Superform business unit used to aggregate into the Gas Cylinders segment but is now recognized within discontinued operations. A summary of the operations of the segments is provided below:

Gas Cylinders segment

Our Gas Cylinders segment manufactures and markets specialized highly-engineered cylinders, using composites and aluminum alloys, including pressurized cylinders for use in various applications including self-contained breathing apparatus (SCBA) for firefighters, containment of oxygen and other medical gases for healthcare, alternative fuel vehicles, and general industrial applications.

Elektronsegment

Our Elektron segment focuses on specialty materials based primarily on magnesium and zirconium, with key product lines including advanced lightweight magnesium alloys with a variety of uses across a variety of industries; magnesium powders for use in countermeasure flares, as well as heater meals; photo-engraving plates for graphic arts; and high-performance zirconium-based materials and oxides used as catalysts and in the manufacture of advances ceramics, fiber-optic fuel cells, and many other performance products.

Other

Other, as used below, primarily represents unallocated corporate expense and includes non-service related defined benefit pension cost / credit.

Management monitors the operating results of its reportable segments separately for the purpose of making decisions about resource allocation and performance assessment. Segment performance is evaluated by the chief operating decision maker, the CEO, who is responsible for allocating resources and assessing performance of the operating segments, using adjusted EBITA[1] and adjusted EBITDA, which is defined as segment income, and is based on operating income adjusted for share-based compensation charges; loss on disposal of property, plant and equipment; restructuring charges; acquisitions and disposals costs; other charges, and depreciation and amortization.

Unallocated assets and liabilities include those which are held on behalf of the Company and cannot be allocated to a segment, such as taxation, investments, cash, retirement benefits obligations, bank and other loans and holding company assets and liabilities.

Financial information by reportable segment for the years ended December 31 is included in the following summary:

	Net Sales		**Adjusted EBITDA[2]**	
In millions	**2022**	**2021**	**2022**	**2021**
Gas Cylinders segment	**$ 183.7**	$ 178.3	**$ 12.8**	$ 22.7
Elektron segment	**239.7**	195.8	**50.3**	40.7
Consolidated	**$ 423.4**	$ 374.1	**$ 63.1**	$ 63.4

	Depreciation and amortization		**Other operating expenses**	
In millions	**2022**	**2021**	**2022**	**2021**
Gas Cylinders segment	**$ 4.8**	$ 5.7	**$ 2.0**	$ 5.7
Elektron segment	**8.8**	10.0	**0.7**	1.3
Consolidated	**$ 13.6**	$ 15.7	**$ 2.7**	$ 7.0

3. Segmental Information (continued)

In millions	Capital expenditure	
	2022	2021
Gas Cylinders segment	$ 1.2	$ 0.9
Elektron segment	7.4	7.9
Discontinued operations	$ —	$ 0.1
Consolidated	$ 8.6	$ 8.9

In millions	Total assets		Total liabilities	
	2022	2021	2022	2021
Gas Cylinders segment	$ 128.5	$ 114.6	$ 47.3	$ 51.6
Elektron segment	213.6	203.4	49.2	36.0
Unallocated	46.5	34.5	97.3	69.2
Discontinued operations	$ 8.1	$ 4.9	$ 5.0	$ 1.6
Consolidated	$ 396.7	$ 357.4	$ 198.8	$ 158.4

In millions	Non-current assets	
	2022	2021
United States	$ 110.1	$ 105.6
United Kingdom	76.7	77.8
Rest of Europe	1.0	1.0
Canada	7.3	10.0
Asia Pacific	$ 0.5	$ —
	$ 195.6	$ 194.4

[1] *Adjusted EBITA is adjusted EBITDA less depreciation and loss on disposal of property, plant and equipment.*

[2] 2022 and 2021 adjusted EBITDA is calculated on a US GAAP basis, our primary GAAP. A reconciliation can be found in our FORM 10-K filed with the SEC on March 1, 2023.

4. Operating profit

Operating profit for continuing activities is stated after charging:

	2022 $M	2021 $M
Research and development expenditure charged to the consolidated income statement	4.9	3.9
Depreciation of property, plant and equipment (Note 12)	12.6	14.3
Right-of-use asset depreciation (Note 26)	4.4	2.8
Amortization of intangible assets (Note 13)	1.0	1.4
Other operating expenses (Note 6)	2.7	7.0
Net foreign exchange gains	2.0	0.5
Staff costs (Note 7)	103.3	103.4
Cost of inventories recognized as expense (Note 16)	197.1	159.1

5. Fees payable to auditors

The total remuneration of the Group's auditors, PricewaterhouseCoopers LLP and other member firms of PricewaterhouseCoopers International Limited, for services provided to the Group during the years ended December 31, 2022 and December 31, 2021 is analyzed below.

	2022 $M	2021 $M
Fees payable to auditors for the audit of the consolidated financial statements and its subsidiaries	1.5	1.6

Fees paid for non-audit services were less than $0.1 million in both 2022 and 2021.

The audit fee for the company financial statements of Luxfer Holdings PLC was $0.1 million (2021: $0.1 million).

6. Other operating expenses

	2022 $M	2021 $M
(a) Restructuring and other expense		
Charged to operating profit:		
Rationalization of operations	**1.9**	5.1
Environmental remediation costs	**0.5**	0.4
	2.4	5.5
(b) Net loss on acquisitions and disposals		
Charged to operating profit:		
Merger and acquisition costs	**0.3**	1.5

Rationalization of operations

During 2022 and 2021 we continued execution of certain business restructuring initiatives aimed at reducing our fixed cost structure and realigning our business.

In 2022, there was an additional $1.7 million of costs in relation to the closure of Luxfer Gas Cylinders' French site, which was largely legal and professional fees. In addition, $0.2 million of costs were incurred relating to one-time employee termination benefits, in the Elektron division, in relation to the consolidation of production facilities in the Magnesium Powders operations.

In 2021, there was $3.4 million of costs in relation to the closure of Luxfer Gas Cylinders' French site, which includes an additional $1.0 million charge for environmental remediation and $2.4 million employee litigation claims, with the remaining largely legal and professional fees. A further $0.3 million of miscellaneous project costs were incurred in the Gas Cylinders Segment during 2021. There was also $0.9 million of one-time employee termination costs in the Elektron division, largely in relation to the divestiture of our small Luxfer Magtech production facility in Ontario, Canada.

Environmental remediation costs

In 2022 and 2021, the Company recognized $0.5 million and $0.4 million respectively, in other charges on the consolidated income statement relating environmental clean-up costs resulting from historical business activity.

Net loss on acquisitions and disposals

In March 2021, the Company completed the acquisition of the Structural Composites Industries LLC ("SCI") business of Worthington Industries, Inc., based in Pomona, California, for $19.3 million cash consideration. The fair value of assets and liabilities acquired were equal to the cash consideration paid.

Acquisition-related costs of $0.3 million and $1.5 million in 2022 and 2021 respectively, represent transitional costs and professional fees incurred in relation to the above SCI acquisition.

7. Staff Costs

Staff costs from continuing operations were as follows:

	2022 $M	2021 $M
Wages and salaries	**90.0**	90.3
Social security costs	**6.6**	6.7
Retirement benefits costs	**4.2**	3.6
IAS 19 Retirement benefits finance charge	**1.6**	1.9
Share based compensation charges (Note 32)	**2.5**	2.8
	104.9	105.3

The average number of employees from continuing operations during the year was made up as follows:

	2022 No.	2021 No.
Production and distribution	**1,125**	1,106
Sales and administration	**188**	174
Research and development	**39**	31
	1,352	1,311

The compensation of the members of our Board of Directors (each, a "director") was:

	2022 $M	2021 $M
Remuneration (short-term benefits)	**1.8**	2.6
Social security costs	**0.1**	0.2
Post-retirement benefits	**0.1**	0.2
Total short-term and post-retirement benefits	**2.0**	3.0

In 2022, compensation of key management personnel for the period they served on the Executive Leadership Team, (including directors) was $6.9 million (2021: $7.7 million) in total which includes; $2.8 million (2021: $5 million) for short-term employee benefits, $3.8 million (2021: $2.2 million) for long-term incentive plans and $0.2 million (2021: $0.3 million) for post-employment benefits. Social security costs were incurred of $0.1 million (2021: $0.2 million).

Details of the share awards granted are included in the Remuneration Report in Outstanding Share Awards During 2022, are on pages 52 to 53 of the Remuneration Report.

Further details of directors' remuneration are included in the Remuneration Report on pages 42 to 64. The Remuneration Report includes information in relation to the highest paid Director.

During 2022, two directors (2021: one director) were members of the Group's U.S. registered defined contribution plan.

Directors' interests and related party transactions

No directors had a material interest in, nor were they a party to, any contract or arrangement to which the parent company, Luxfer Holdings PLC (the "Company") or any of its subsidiaries is or was party to either during the year or at the end of the year, with the following exceptions: in the case of the executive director his individual service contract and the Luxfer Holdings PLC Long-Term Umbrella Incentive Plan; in the case of the non-executive directors their engagement letters or the contract for services under which their services as a director of the Company are provided; in the case of the executive director and the chairman, the Luxfer Holdings PLC Non-Executive Directors Equity Incentive Plan. Information regarding the share options exercised during the year is included within the Remuneration Report. See Note 33 for related party transactions.

8. Finance costs

Finance costs from continuing operations was as follows:

	2022 $M	2021 $M
Bank and other loan interest payable	**3.9**	3.2
Amortization of issue costs	**0.5**	0.5
Lease interest payable	**0.9**	0.4
IAS 19R retirement benefits finance charge	**1.6**	1.9
Total finance costs	**6.9**	6.0

9. Income tax expense

(a) Analysis of taxation charge for the year

	2022 $M	2021 $M
Current income taxes:		
U.K. corporation tax	**0.3**	2.4
Adjustments in respect of previous years	**(3.9)**	(0.4)
	(3.6)	2.0
Non-U.K. tax	**5.1**	4.7
Adjustments in respect of previous years	**(2.7)**	0.5
Total current tax (credit) / charge	**(1.2)**	7.2
Deferred income taxes:		
Origination and reversal of temporary differences	**4.2**	1.5
Adjustments in respect of previous years	**3.6**	(0.3)
Total deferred income taxes charge	**7.8**	1.2
Tax charge on profit on operations	**6.6**	8.4

The income tax charges relate to continuing activities.

(b) Factors affecting the taxation charge for the year

The tax assessed for the year differs (2021: differs) from the standard rate of 19% (2021: 19%) for corporation tax in the U.K.

The differences are explained below:

	2022 $M	2021 $M
Profit on operations before taxation	**38.9**	33.2
Profit on operations at 2022 standard rate of corporation tax in the U.K. of 19% (2021: 19%)	**7.4**	6.3
Effects of:		
Non-deductible expenses	**0.7**	1.9
Movement in unprovided deferred income taxes	**0.6**	(0.6)
Foreign tax rate differences	**1.5**	0.5
Effect of changes in tax rates	**(0.1)**	(0.1)
Adjustment in respect of previous years	**(3.0)**	(0.2)
Other	**(0.5)**	0.6
Tax expense	**6.6**	8.4

9. Income tax expense (continued)

(c) Factors that may affect future taxation charge

At December 31, 2022, the Company had carried forward tax losses and tax credits of $74.8 million (U.K.: $15.6 million, non-U.K.: $59.2 million). Carried forward tax losses and tax credits for 2021 were $106.3 million (U.K.: $43.0 million, non-U.K.: $63.3 million). To the extent that these losses are not already recognized as deferred income taxes assets and are available to offset against future taxable profits, it is expected that the future effective tax rate would be below the standard rate in the country where the profits are offset. A valuation allowance of $16.5 million (2021: $18.0 million) exists for deferred tax benefits related to the tax loss and tax credit carry forwards and other benefits that may not be realized. The apportionment of the valuation allowance between the U.K. and non-U.K. jurisdictions is U.K.: $3.5 million, non-U.K.: $13.0 million (2021: U.K.: $4.1 million, non-U.K.: $13.9 million). The non-U.K. valuation allowances relates to tax losses in France and Germany.

Of the carried forward tax losses and tax credits as at December 31, 2022, $11.9 million expire between 2023 and 2033, and $62.9 million are available for indefinite carry-forward.

In March 2021 an increase in the U.K. corporation tax rate from 19% to 25% was announced, effective from April 1, 2023. Deferred tax liabilities and assets which are expected to unwind after April 1, 2023 have been valued at 25%. Gains and losses arising from revaluation have been recognized in the consolidated income statement.

10. Acquisitions and disposals

In March 2021, the Company completed the acquisition of the Structural Composites Industries LLC ("SCI") business of Worthington Industries, Inc., based in Pomona, California, for $19.3 million cash consideration. The fair value of assets and liabilities acquired were equal to the cash consideration paid.

Acquisition-related costs of $0.3 million and $1.5 million in 2022 and 2021 respectively, represent transitional costs and professional fees incurred in relation to the above SCI acquisition.

In 2021, the Company recognized a net gain on disposition of $6.6 million, consisting of a $7.1 million gain on our U.S. aluminum business, sold in March 2021, partially offset by a $0.5 million loss on our Superform U.K. business sold in September 2021.

11. Discontinued Operations

Our Superform aluminum superplastic forming business, which operated from sites in the U.S. and the U.K, and our U.S. aluminum gas cylinder business were historically included in the Gas Cylinders Segment. As a result of our decision to exit non-strategic aluminum product lines in 2020, we have reflected the results of operations of these businesses as discontinued operations in the Consolidated Statements of Income for all periods presented. We expect our Superform U.S. business to be sold within the next twelve months.

Our U.S. aluminum gas cylinder business was sold in March 2021 for $20.2 million, net of working capital adjustments. The Company recognized a gain on disposition, net of tax, of $7.1 million.

In September 2021, our Superform U.K. business was sold for $4.0 million, net of working capital adjustments. The Company recognized a loss on disposition, net of tax, of $0.5 million.

In 2022, the Company recognized impairment and disposal-related costs of $2.6 million and $2.0 million respectively, in relation to the previous dispositions which occurred in 2021.

The assets and liabilities of the above businesses have been presented within Current assets held-for-sale and Current liabilities held-for-sale in the Consolidated Balance Sheets at December 31, 2022, and December 31, 2021. In 2021, Company recognized a $1.5 million impairment charge relating to plant and equipment held in our Superform U.S. business reflecting updated expectations of fair market value.

Results of discontinued operations were as follows:

	2022 $M	2021 $M
REVENUE	**7.7**	20.9
Cost of Sales	**(6.9)**	(21.8)
Gross profit	**0.8**	(0.9)
Distribution costs	**(0.2)**	(0.5)
Administrative expenses	**(0.7)**	(2.5)
Acquisition and disposal costs	**(2.0)**	—
Other operating expenses	**(2.9)**	(2.5)
OPERATING PROFIT	**(5.0)**	(6.4)
Net finance costs	**—**	(0.1)
LOSS ON DISCONTINUED OPERATIONS BEFORE TAX	**(5.0)**	(6.5)
Income tax	**(0.1)**	(0.1)
NET LOSS FROM DISCONTINUED OPERATIONS	**(5.1)**	(6.6)

The discontinued cash flow statement is presented below:	2022 $M	2021 $M
Cash flow from operating activities	**$ 0.1**	$ 0.1
Cash flow from investing activities	**(0.1)**	(0.1)
Cash flow from financing activities	**—**	—
Net change in cash and cash equivalents	**$ —**	$ —

Depreciation of $0.1m (2021: $0.7m) and impairments of $2.6m (2021: $1.5m) were incurred in respect of discontinued operations. There were no other significant non-cash items relating to discontinued operations.

12. Property, plant and equipment

	Freehold $M	Long leasehold $M	Short leasehold $M	Plant and equipment $M	Capital Work in Progress $M	Total $M
Cost:						
At January 1, 2021	45.0	9.4	10.8	253.2	7.7	**326.1**
Additions	—	—	—	0.6	8.3	**8.9**
Business combinations	—	—	—	7.8	—	**7.8**
Disposals	—	—	(0.7)	(1.3)	—	**(2.0)**
Transfers	0.2	0.1	0.4	7.0	(7.7)	—
Exchange difference	(0.4)	(0.1)	—	(3.0)	(0.1)	**(3.6)**
At December 31, 2021	44.8	9.4	10.5	264.3	8.2	**337.2**
Additions	—	—	—	1.2	7.4	**8.6**
Disposals	—	—	—	(1.0)	—	**(1.0)**
Transfers - Held for sale	(4.3)	—	—	—	—	**(4.3)**
Transfers	1.1	—	—	4.1	(5.2)	—
Exchange difference	(1.6)	(0.9)	(0.1)	(15.5)	(0.7)	**(18.8)**
At December 31, 2022	40.0	8.5	10.4	253.1	9.7	**321.7**
Accumulated depreciation and impairment:						
At January 1, 2021	29.8	6.1	7.0	197.7	—	**240.6**
Provided during the year	1.3	0.5	0.5	12.0	—	**14.3**
Disposals	—	—	—	(1.9)	—	**(1.9)**
Exchange difference	(0.3)	(0.1)	—	(2.7)	—	**(3.1)**
At December 31, 2021	30.8	6.5	7.5	205.1	—	**249.9**
Provided during the year	1.2	0.4	0.4	10.6	—	**12.6**
Impairment	—	—	—	—		—
Disposals	—	—	—	(0.8)	—	**(0.8)**
Transfers - Held for sale	(3.1)	—	—	—	—	**(3.1)**
Transfers	—	—	—	—		—
Exchange difference	(1.1)	(0.6)	—	(12.9)	—	**(14.6)**
At December 31, 2022	27.8	6.3	7.9	202.0	—	**244.0**
Net book values:						
At December 31, 2022	12.2	2.2	2.5	51.1	9.7	**77.7**
At December 31, 2021	14.0	2.9	3.0	59.2	8.2	**87.3**
At January 1, 2021	15.2	3.3	3.8	55.5	7.7	**85.5**

13. Intangible assets

	Goodwill $M	Customer related $M	Technology and trading related $M	Development costs $M	Software $M	Total $M
Cost:						
At January 1, 2021	79.9	13.4	8.8	4.0	2.1	**108.2**
Additions	—	1.8	—	—	—	**1.8**
Disposals	—	—	—	—	(0.3)	**(0.3)**
Exchange difference	(0.5)	—	(0.1)	—	—	**(0.6)**
At December 31, 2021	79.4	15.2	8.7	4.0	1.8	**109.1**
Exchange difference	(5.1)	—	(0.8)	—	(0.2)	**(6.1)**
At December 31, 2022	74.3	15.2	7.9	4.0	1.6	**103.0**
Accumulated amortization and impairment:						
At January 1, 2021	21.0	5.1	4.2	3.8	1.7	**35.8**
Provided during the year	—	0.5	0.4	0.2	0.3	**1.4**
Disposals	—	—	—	—	(0.3)	**(0.3)**
Exchange difference	(0.1)	—	(0.1)	—	(0.1)	**(0.3)**
At December 31, 2021	20.9	5.6	4.5	4.0	1.6	**36.6**
Provided during the year	—	0.5	0.3	—	0.2	**1.0**
Exchange difference	(1.8)	—	(0.3)	—	(0.2)	**(2.3)**
At December 31, 2022	19.1	6.1	4.5	4.0	1.6	**35.3**
Net book values:						
At December 31, 2022	55.2	9.1	3.4	—	—	**67.7**
At December 31, 2021	58.5	9.6	4.2	—	0.2	**72.5**
At December 31, 2020	58.9	8.3	4.6	0.2	0.4	**72.4**

Customer related intangibles include customer relationships, order backlogs and non-compete agreements. Technology and trading related intangibles include technology, patents, trade names and trademarks.

On March 15, 2021 the Company completed the acquisition of the Structural Composites Industries LLC ('SCI') business of Worthington Industries, Inc., based in Pomona, California. As part of the acquisition $1.8m of customer relationships were acquired. We have assessed the customer relationships to had a useful economic life remaining of 15 years at acquisition, amortization is charged on a straight line basis.

14. Impairment of goodwill

Goodwill acquired in a business combination is allocated, at acquisition, to the cash-generating units (CGUs) that are expected to benefit from the business combination. The five identified CGUs (Luxfer Gas Cylinders, Luxfer Superform, Luxfer MEL Technologies, Luxfer Magtech and Luxfer Graphic Arts) represent the lowest level within the Group at which goodwill is monitored for internal management reporting purposes. The five CGUs are aggregated to form the Group's two defined reportable segments: Gas Cylinders Segment and Elektron Segment. Luxfer Superform forms part of the discontinued operations disclosure. The table below summarizes the carrying value of goodwill by segment:

	Gas Cylinders Segment $M	Elektron Segment $M	Total $M
At January 1, 2021	19.8	39.1	**58.9**
Exchange difference	(0.2)	(0.2)	**(0.4)**
At December 31, 2021	19.6	38.9	**58.5**
Exchange difference	(2.1)	(1.2)	**(3.3)**
At December 31, 2022	17.5	37.7	**55.2**

The Gas Cylinders Segment goodwill of $17.5 million (2021: $19.6 million) relates wholly to the goodwill attributable to our Luxfer Gas Cylinders operations. The Elektron Segment goodwill of $37.7 million (2021: $38.9 million) included goodwill attributable to our Luxfer MEL Technologies operations of $27.8 million (2021: $5.4 million) and goodwill attributable to our Luxfer Magtech operations of $9.9 million (2021: $33.5 million); no goodwill is allocated to Luxfer Graphic Arts.

During 2022, management reviewed the reporting structure and as a result a strategic decision was taken for a portion of the Luxfer Magtech CGU to be integrated into Luxfer MEL Technologies. As a result, in accordance with IAS 36, $23.6 million of Luxfer Magtech's goodwill was transferred to Luxfer MEL Technologies, representing the fair allocation of elements transferring to Luxfer MEL Technologies from Luxfer Magtech, therefore facilitating tracking of goodwill and subsequent impairment testing.

Goodwill is assessed at least annually for impairment and is tested for impairment more frequently if events or changes in circumstances indicate that the asset might be impaired.

In 2022, we have assessed for indicators of impairment and we have identified that no significant events have occurred since the value in use model prepared for the purpose of the 31 December 2020 annual report. As a result, the conclusions reached, whereby significant headroom above carrying amount was identified, remain appropriate. Therefore, in line with IAS 36, paragraph 99, A full value in use assessment has not been re-performed in 2022.

15. Investments

Shares in joint ventures

	$M
At January 1, 2021	0.5
Exchange difference	(0.1)
At December 31, 2021	0.4
Exchange difference	—
At December 31, 2022	0.4

Investment in joint ventures and associates

At December 31, 2022, the Group had the following joint venture which affects the profit of the Group. The Group's joint venture has share capital which consists solely of ordinary shares and are indirectly held, and the country of incorporation or registration is also their principal place of operation.

15. Investments (continued)

Name of company	Country of incorporation	Holding	Proportion of voting rights and shares held	Classification	Nature of business
Nikkei-MEL Company Limited	Japan	Ordinary shares	50.0 %	Joint venture	Distribution

The above ownership percentage remains consistent with 2021.

The share of results of all joint ventures and associates in 2022 and 2021 was less than $100k, with no items recognised in other comprehensive income in 2022 or 2021.

The Group has looked in detail at the ownership agreements of its joint ventures and associates in order to determine the level of control that it has. The Group has determined that it has joint control of its joint ventures mainly based upon the number of members on each company board of directors and their associated voting rights.

Related party transactions with joint ventures and associates have been disclosed in Note 33 to the Group's consolidated financial statements.

16. Inventories

	December 31, 2022 $M	December 31, 2021 $M
Raw materials and consumables	**42.7**	39.2
Work in progress	**44.0**	26.7
Finished goods and goods for resale	**24.4**	24.5
	111.1	90.4

Inventories above are disclosed net of any provisions for obsolete and excess inventories. The provision against obsolete and excess inventories at December 31, 2022 was $8.3 million (2021: $8.5 million). The cost of inventories recognized as an expense in continuing operations during the year was $197.1 million (2021: $159.1 million). The cost of inventories written-off during 2022 was $0.2 million (2021: $0.6 million).

17. Trade and other receivables

	December 31, 2022 $M	December 31, 2021 $M
Current Assets		
Trade receivables	56.5	45.8
Other receivables	4.0	2.3
Prepayments and accrued income	6.6	8.4
Derivative financial instruments	0.7	0.1
Deferred consideration	—	1.0
	67.8	57.6

The directors consider that the carrying value of trade receivables approximates to their fair value.

Trade receivables are non-interest bearing and are generally on 30-90 day terms. Trade receivables above are disclosed net of any provisions for doubtful receivables of $0.6 million due to credit risk. The following table provides information about the exposure to credit risk and expected credit losses for trade receivables as at December 31, 2022 based on aging profile:

Trade receivables and amounts owed by joint ventures and associates	*Default rate* [(1)] %	Gross carrying amount $M	Lifetime expected credit loss $M
Current (not past due)	— %	43.9	—
1-30 days past due	— %	8.9	—
31-60 days past due	— %	1.6	—
61-90 days past due	1.5 %	1.8	—
91-120 days past due	15.0 %	0.4	0.1
> 120 days past due	100.0 %	0.5	0.5
		57.1	0.6

[(1)] Default rate is applied to uninsured trade receivables.

At December 31, 2022, trade receivables with a nominal value of $0.6 million (2021: $0.7 million) were impaired and fully provided for. Movements in the impairment of trade receivables were as follows:

	2022 $M	2021 $M
At January 1	0.7	0.5
Charge in the year	0.1	0.4
Recoveries for expected credit losses	(0.2)	(0.1)
Exchange difference	—	(0.1)
At December 31	0.6	0.7

18. Held-for-sale assets and liabilities

In 2020, the Group classified its Superform aluminum superplastic forming business operating from sites in the U.S. and the U.K, and its U.S. aluminum gas cylinder business as assets and liabilities held-for-sale in accordance with IFRS 5 - *Discontinued Operations*. During 2021, our U.S. aluminum gas cylinder business and our Superform U.K. business were sold, we expect our Superform U.S. business to be sold within the next twelve months. The criteria required by IFRS 5 continues to be met and therefore the Superform business continues to be classified as held-for-sale.

Also included within assets held-for-sale in 2022 are land and buildings valued at $1.2 million, and $3.7 million in 2021, within our Elektron Segment.

The respective assets and liabilities of the above disposal groups have been reclassified as held-for-sale within other current assets and other current liabilities per the table below.

Reclassified to held-for-sale assets and liabilities	December 31, 2022 $M	December 31, 2021 $M
Property, plant and equipment	**1.2**	3.7
Right-of-use assets	**2.7**	—
Inventories	**2.7**	2.8
Trade and other receivables	**2.7**	2.1
Held-for-sale assets	**9.3**	**8.6**
Reclassified to held-for-sale liabilities		
Trade and other payables	**2.0**	0.8
Lease liability	**3.0**	0.3
Other liabilities	**—**	0.4
Held-for-sale liabilities	**5.0**	**1.5**

As a result of items reclassified to held-for-sale, there has been no reclassification of items from other comprehensive income to the consolidated income statement.

19. Cash and cash equivalents

	December 31, 2022 $M	December 31, 2021 $M
Cash at bank and in hand	12.9	6.4

Included within the cash at bank and in hand balance is $0.3 million (2021: $0.2 million) cash held in escrow, as restricted cash.

20. Share capital

(a) *Ordinary share capital*

	December 31, 2022 No.	December 31, 2021 No.	December 31, 2022 $M	December 31, 2021 $M
Authorized:				
Ordinary shares of £0.50 each	**40,000,000**	40,000,000	**35.7** (1)	35.7 (1)
Deferred ordinary shares of £0.0001 each	—	761,835,318,444	— (1)	149.9 (1)
	40,000,000	761,875,318,444	**35.7** (1)	185.6 (1)
Allotted, called up and fully paid:				
Ordinary shares of £0.50 each	**28,944,000**	28,944,000	**26.5** (1)	26.5 (1)
Deferred ordinary shares of £0.0001 each	—	761,835,318,444	— (1)	149.9 (1)
	28,944,000	761,864,262,444	**26.5** (1)	176.4 (1)

(1) The Group's ordinary and deferred share capital are shown in U.S. dollars at the exchange rate prevailing at the month end spot rate at the time of the share capital being issued.

The rights of the shares are as follows:

Ordinary shares of £0.50 each

The ordinary shares carry no entitlement to an automatic dividend but rank pari passu in respect of any dividend declared and paid. The ordinary shares were allotted and issued to satisfy share awards which vested under the Group's share award and share incentive plans.

At December 31, 2022, there were 26,934,973 (2021: 27,529,824) ordinary shares of Luxfer Holdings PLC listed on the New York Stock Exchange (NYSE).

Deferred ordinary shares of £0.0001 each

In July 2022 the Company made a payment of $0.1 million to cancel the entirety of deferred shares held, resulting in $149.8 million being reallocated to additional paid-in capital to reflect the capital reduction in deferred shares.

20. Share capital (continued)

*(b) **Share premium account***

	$M
At January 1, 2021	77.1
Cancellation of treasury shares	(0.1)
Utilisation of ESOP shares	3.3
Cancellation of ordinary shares	(0.6)
At December 31, 2021	**79.7**
Utilisation of treasury shares	0.1
Utilisation of ESOP shares	1.7
Cancellation of deferred shares	149.8
At December 31, 2022	**231.3**

The share premium account is used to record the excess of proceeds over nominal value on the issue of shares. Share issue costs directly related to the issue of shares are deducted from share premium.

*(c) **Treasury shares***

	$M
At January 1, 2021	**(4.0)**
Purchase of own shares	(6.4)
Cancellation of treasury shares	0.7
Utilisation of treasury shares	0.1
At December 31, 2021	**(9.6)**
Utilisation of treasury shares	0.3
Purchase of own shares	(11.1)
At December 31, 2022	**(20.4)**

In 2022, the Company purchased 711,572 ordinary shares for a total cost of $11.1 million with a nominal value of £0.3 million. 9,424 of these shares were utilized at $0.3 million, with the remaining 702,148 retained within Treasury shares.

In June 2021, the Board announced a share buy-back program. As a result, in 2021, the Company purchased 297,678 total shares for $6.4 million. Of the 297,678 shares repurchased in the year, 56,000 at $0.7 million have been cancelled. 16,395 shares were utilized at $0.1 million, with the remaining 225,283 retained within Treasury shares.

At December 31, 2022, there were 1,277,766 (2021: 575,618) treasury shares held at a cost of $20.4 million (2021: $9.6 million).

*(d) **Own shares held by ESOP***

	$M
At January 1, 2021	**(1.4)**
Utilisation of ESOP shares	0.3
At December 31, 2021	**(1.1)**
Utilisation of ESOP shares	0.1
At December 31, 2022	**(1.0)**

At December 31, 2022, there were 721,261 ordinary shares of £0.50 each (2021: 838,558 ordinary shares of £0.50 each) held by The Luxfer Group Employee Share Ownership Plan (the "ESOP").

21. Dividends paid and proposed

	2022 $M	2021 $M
Dividends declared and paid during the year:		
Interim dividend paid February 4, 2021 ($0.125 per ordinary share)	—	3.4
Interim dividend paid May 5, 2021 ($0.125 per ordinary share)	—	3.4
Interim dividend paid August 4, 2021 ($0.125 per ordinary share)	—	3.4
Interim dividend paid November 3, 2021 ($0.125 per ordinary share)	—	3.4
Interim dividend paid February 2, 2022 ($0.125 per ordinary share)	3.4	—
Interim dividend paid May 4, 2022 ($0.130 per ordinary share)	3.6	—
Interim dividend paid August 3, 2022 ($0.130 per ordinary share)	3.6	—
Interim dividend paid November 2, 2022 ($0.130 per ordinary share)	3.6	—
	14.2	13.6

	2022 $M	2021 $M
Dividends declared and paid after December 31 (not recognized as a liability at December 31):		
Interim dividend paid February 2, 2022: ($0.125 per ordinary share)	—	3.4
Interim dividend paid February 1, 2023: ($0.130 per ordinary share)	3.6	—
	3.6	3.4

22. Bank and other loans

	December 31, 2022 $M	December 31, 2021 $M
Loan Notes due 2023—gross	25.0	25.0
Unamortized finance costs	—	—
Loan Notes due 2023—net	25.0	25.0
Loan Notes due 2026—gross	25.0	25.0
Unamortized finance costs	(0.2)	(0.3)
Loan Notes due 2026—net	24.8	24.7
Revolving credit facility—gross	31.9	10.8
Unamortized finance costs	(0.5)	(0.9)
Revolving credit facility—net	31.4	9.9
	81.2	59.6
Included in current liabilities	25.0	—
Included in non-current liabilities	56.2	59.6
	81.2	59.6

In October 2021, the Company completed a refinancing of its existing Revolving Credit Facility, ("RCF"), extending its tenure to October 2026, while providing increased flexibility to incur additional indebtedness outside of this agreement if required and reducing the covenant burden.

At December 31, 2022 $100 million of committed debt facilities in the form of a multi-currency (GBP sterling, U.S. dollars or euros) RCF was available to the Company. In addition, a $50 million uncommitted facility was available through an accordion increase clause. On January 3, 2023, the accordion increase clause was partially triggered increasing the RCF to $125 million with a corresponding reduction in the uncommitted accordion capacity to $25 million.

22. Bank and other loans (continued)

The RCF bears interest equal to an applicable margin, based upon the Company's leverage, plus either EURIBOR, in the case of amounts drawn in euros, or SONIA (Sterling Overnight Index Average), in the case of amounts drawn in GBP sterling, or SOFR (Secured Overnight Financing Rate) in the case of amounts drawn in U.S. dollars. The weighted-average interest rate on the RCF was 3.80% and 1.70% in 2022 and 2021, respectively.

23. Provisions

	Rationalization and redundancy	Employee benefits	Environmental provisions	Total
	$M	$M	$M	$M
At January 1, 2021	**10.9**	**1.0**	**1.1**	**13.0**
Charged to consolidated income statement	*5.1*	*0.6*	*0.4*	***6.1***
Translation	(1.0)	—	—	**(1.0)**
Cash payments	(3.5)	—	(0.7)	**(4.2)**
At December 31, 2021	**11.5**	**1.6**	**0.8**	**13.9**
Charged / (credited) to consolidated income statement	1.9	(0.4)	0.5	**2.0**
Cash payments	(9.0)	—	—	**(9.0)**
Translation	(0.7)	—	—	**(0.7)**
At December 31, 2022	**3.7**	**1.2**	**1.3**	**6.2**
At December 31, 2022				
Included in current liabilities	3.7	—	—	**3.7**
Included in non-current liabilities	—	1.2	1.3	**2.5**
	3.7	**1.2**	**1.3**	**6.2**
At December 31, 2021				
Included in current liabilities	11.5	—	0.8	**12.3**
Included in non-current liabilities	—	1.6	—	**1.6**
	11.5	**1.6**	**0.8**	**13.9**

Rationalization and redundancy
At December 31, 2022, the Group had $3.7 million of provisions relating to redundancy and the rationalization of its operations (2021: $11.5 million).

Employee benefits
At December 31, 2022, the Group had $1.2 million of employee benefit liabilities (in addition to retirement benefits), as calculated on an actuarial basis, relating to a provision for workers' compensation in the U.S. (2021: $1.6 million).

Environmental provisions
At December 31, 2022, the Group had environmental provisions totaling $1.3 million relating to environmental clean-up costs (2021: $0.8 million).

24. Deferred income taxes

	Accelerated tax depreciation	Other temporary differences	Tax losses	Retirement benefit obligations	Total
	$M	$M	$M	$M	$M
At January 1, 2021	**(1.8)**	**1.8**	**6.5**	**9.9**	**16.4**
(Charged) / credited to consolidated income statement	(1.0)	(0.3)	3.9	(3.8)	**(1.2)**
Charged to other comprehensive income	—	—	—	(9.8)	**(9.8)**
Transfer from liabilities held for sale	(0.9)	—	—	—	**(0.9)**
Exchange difference	—	(0.1)	(0.1)	0.1	**(0.1)**
At December 31, 2021	(3.7)	1.4	10.3	(3.6)	4.4
(Charged) / credited to consolidated income statement	(0.6)	(3.0)	(7.8)	3.6	**(7.8)**
Charged to other comprehensive income	—	—	—	(4.1)	**(4.1)**
Exchange difference	—	0.1	(0.1)	(0.4)	**(0.4)**
At December 31, 2022	(4.3)	(1.5)	2.4	(4.5)	(7.9)

The amount of deferred income taxes accounted for in the Group balance sheet, after the offset of balances within countries for financial reporting purposes, comprised the following deferred income tax assets and liabilities:

	December 31, 2022	December 31, 2021
	$M	$M
Deferred income tax liabilities	**(10.9)**	(2.7)
Deferred income tax assets	3.0	7.1
Net deferred income tax (liabilities) / assets	(7.9)	4.4

In March 2021 an increase in the U.K. corporation tax rate from 19% to 25% was announced, effective from April 1, 2023. Deferred tax liabilities and assets which are expected to unwind after April 1, 2023 have been valued at 25%. Gains and losses arising from revaluation have been recognized in the consolidated income statement.

25. Trade and other payables

	December 31, 2022	December 31, 2021
	$M	$M
Non-current Liabilities		
Accruals and deferred income	0.2	1.3
	0.2	1.3
Current Liabilities		
Trade payables	**38.1**	30.8
Other taxation and social security	0.3	1.1
Accruals and deferred income	**30.0**	31.6
Interest payable	0.4	0.3
	68.8	63.8

The directors consider that the carrying value of trade payables approximates to their fair value.

26. Leases

Right-of-use assets

	Land and buildings $M	Motor vehicles $M	Equipment $M	Total $M
Cost:				
At January 1, 2021	**11.9**	**0.1**	**2.2**	**14.2**
Additions	*4.0*	—	*0.1*	**4.1**
Transfer to held-for-sale	2.6	—	—	**2.6**
At December 31, 2021	18.5	0.1	2.3	**20.9**
Additions	14.0	—	0.2	**14.2**
At December 31, 2022	32.5	0.1	2.5	**35.1**
Accumulated depreciation:				
At January 1, 2021	4.1	0.1	0.8	**5.0**
Charge for the year	2.5	—	0.3	**2.8**
Impairment	—	—	—	—
Transfer to held-for-sale	0.5	—	—	**0.5**
At December 31, 2021	7.1	0.1	1.1	**8.3**
Charge for the year	4.1	—	*0.3*	**4.4**
Impairment	2.6	—	—	**2.6**
At December 31, 2022	13.8	0.1	1.4	**15.3**
Net book values:				
At December 31, 2022	**18.7**	—	**1.1**	**19.8**
At December 31, 2021	**11.4**	—	**1.2**	**12.6**

Lease liability

	December 31, 2022 $M	December 31, 2021 $M
The present value of lease liabilities is as follows:		
Within 12 months	$ 4.7	2.3
1 - 5 years	13.5	6.5
> 5 years	4.7	4.0
Total	**$ 22.9**	12.8

The total cash outflow for leases in 2022 was $4.2 million (2021: $2.9 million) and total expense was $4.2 million (2021: $3.4 million).

Supplemental balance sheet information

	December 31, 2022	December 31, 2021
Weighted average remaining lease terms (years)	12.0	17.2
Weighted average discount rate	4.48 %	4.38 %

27. Commitments and contingencies

Capital commitments

At December 31, 2022, the Group had capital expenditure commitments of $1.4 million (2021: $1.5 million) for the acquisition of new plant and equipment.

Committed banking facilities

At December 31, 2022, the Company had committed banking facilities of $100.0 million with an additional $50.0 million of uncommitted facilities through an accordion provision. Of these committed facilities, $31.9 million was drawn at December 31, 2022.

The Company had a separate (uncommitted) facility for letters of credit, which at December 31, 2022, was $2.2 million. $1.8 million of this was utilized at December 31, 2022.

The Company also had a separate (uncommitted) bonding facility for bank guarantees; denominated in GBP sterling totaling £0.5 million ($0.6 million) and £0.1 million ($0.2 million) was utilized at December 31, 2022.

The Company has a separate overdraft facility of $4.0 million, of which none was drawn at December 31, 2022.

Additionally, the Company has various uncommitted transitional banking and foreign exchange lines available for day-to-day operational purposes.

At December 31, 2021 the Company had committed banking facilities of $100.0 million with an additional $50.0 million of uncommitted facilities through an accordion provision. Of the committed facilities, $10.8 million was drawn at December 31, 2021.

The Company had a separate (uncommitted) facility for letters of credit, which at December 31, 2021, was $1.5 million. $0.9 million of this was utilized at December 31, 2021.

The Company also had a separate (uncommitted) bonding facility for bank guarantees; denominated in GBP sterling totaling £0.6 million ($0.9 million) and £0.1 million ($0.2 million) was utilized at December 31, 2021.

The Company has a separate overdraft facility of $4.0 million, of which none was drawn at December 31, 2021.

Additionally, the Company has various uncommitted transitional banking and foreign exchange lines available for day-to-day operational purposes.

Contingencies

In November 2018, an alleged explosion occurred at a third-party waste disposal and treatment site in Grand View, Idaho, reportedly causing property damage, personal injury, and one fatality. We contracted with a service company for removal and disposal of certain waste resulting from the magnesium powder manufacturing operations at the Reade facility in Manchester, New Jersey. We believe this service company, in turn, contracted with the third-party disposal company, at whose facility the explosion occurred, for treatment and disposal of the waste. In November 2020, we were named as a defendant in three lawsuits in relation to the incident – one by the third-party disposal company, one by the estate of the decedent, and one by an injured employee of the third-party disposal company. We believe that we are not liable for the incident, have asserted such, and continue to fully defend the Company against these lawsuits. Therefore, we do not currently expect any eventual outcome in these matters to have a material impact on the Company's financial position or results of operations.

28. Financial risk management objectives and policies

The Group's financial instruments comprise bank and other loans, senior loan notes, derivatives and trade payables. Other than derivatives, the main purpose of these financial instruments is to raise finance for the Group's operations. The Group also has various financial assets such as trade receivables and cash and cash equivalents, which arise directly from its operations.

It is not the Group's policy or business activity to trade in derivatives. They are only used to hedge underlying risks occurring as part of the Group's normal operating activities.

28. Financial risk management objectives and policies (continued)

The main risks arising from the Group's financial instruments are cash flow interest rate risk, liquidity risk, foreign currency translation and transaction risk, aluminum price risk and credit risk on trade receivables.

The Group regularly enters into forward currency contracts to manage currency risks and when considered suitable will use other financial derivatives to manage commodity and interest rate risks.

Interest rate risk

As of December 31, 2022, the Group had both fixed rate and variable rate debt outstanding. As a result of this exposure, the Group have in the past hedged interest payable under its floating rate indebtedness based on a combination of forward rate agreements, interest rate caps and swaps. There were no fixed or variable rate interest hedge agreements in place as of December 31, 2022, and December 31, 2021.

The Group has exposure to variable interest rates when it draws down on the revolving credit facilities. As a result of this exposure, the Group may decide to hedge interest payable based on a combination of forward rate agreements, interest rate caps and swaps. It has also used fixed rate debt within its financing structure to mitigate volatility in interest rate movements.

The Group has fixed rate exposure on $50.0 million debt (2021: $50.0 million) and variable rate exposure on $31.9 million debt (2021: $10.8 million). Based on an increase in the variable rate of 100 basis points, on the current variable rate debt levels, this would lead to an increase in the Group's finance costs of $0.3 million.

Liquidity risk

To understand and monitor cash flows, the Group uses a combination of a short-term rolling six week cash forecast, based on expected daily liquidity requirements and longer term monthly rolling forecasts, covering forecast periods of between 6 and 18 months forward. The Group also prepares, at least annually, a longer-term strategic cash forecast. Together this system of control is used to ensure the Group can fund its ongoing operations, including working capital, capital expenditure and interest payments and to ensure that bank covenant targets will be met. Short and medium term changes in liquidity needs are funded from the Group's revolving bank facility, as disclosed in Note 22, which provides the ability to draw down and repay funds on a daily basis. In monitoring liquidity requirements and planning its working capital and capital expenditure programs, the Group aims to maintain a sufficiently prudent level of headroom against its banking facilities and forecast covenant position as protection against any unexpected or sudden market shocks.

The Group also uses forecasts to manage the compliance with any associated covenant tests in relation to the Group's financing arrangements. The Group is subject to maintaining net debt to adjusted EBITDA levels of below three times, adjusted EBITDA to net interest above four times, and a number of other debt service tests which include adjusted EBITDA, taxation, capital expenditure and pension payments.

The Group has been in compliance with the covenants under the Loan Notes due 2023 and 2026 and the banking facilities throughout all of the quarterly measurement dates.

The maturity of the Group's liabilities is also monitored to ensure sufficient funds remain available to meet liabilities as they fall due. The table below summarizes the maturity profile of the Group's financial liabilities at December 31, based on contractual payments.

	December 31, 2022				December 31, 2021			
	Within 12 months	1-5 years	> 5 years	Total	Within 12 months	1-5 years	> 5 years	Total
	$M	$M	$M	$M	$M	$M	$M	$M
Loan Notes due 2023	25.0	—	—	25.0	—	25.0	—	25.0
Loan Notes due 2026	—	25.0	—	25.0	—	25.0	—	25.0
Revolving credit facility	—	31.9	—	31.9	—	10.8	—	10.8
Lease liability	4.7	13.5	4.7	22.9	2.4	6.4	4.0	12.8
Trade payables	38.1	—	—	38.1	30.8	—	—	30.8
Accruals and deferred income	30.0	0.2	—	30.2	32.4	1.3	—	33.7
Interest payable	0.4	—	—	0.4	0.3	—	—	0.3
	98.2	70.6	4.7	173.5	65.9	68.5	4.0	138.4

28. Financial risk management objectives and policies (continued)

The table below summarizes the maturity profile of the Group's financial liabilities at December 31, based on contractual undiscounted payments. Interest rates on the Group's variable rate debt have been based on a forward curve.

	December 31, 2022 $M	December 31, 2021 $M
Undiscounted contractual maturity of financial liabilities:		
Amounts payable:		
Within 12 months	**102.9**	68.9
1-5 years	**81.5**	77.3
> 5 years	**9.4**	8.7
	193.8	154.9
Less: future finance charges	**(20.3)**	(16.6)
	173.5	138.3

Capital risk management

The capital structure of the Group consists of shareholders' equity, debt and cash and cash equivalents. For the foreseeable future, the Board will maintain a capital structure that supports the Group's strategic objectives through:

- Managing funding and liquidity;
- Optimizing shareholder return; and
- Maintaining a strong, investment-grade credit rating

The Group monitors its adjusted EBITDA, for continuing activities to net debt ratio, adjusted net income and adjusted diluted earnings per share in its primary GAAP, that being US GAAP. These KPIs and reconciliations to GAAP measures can be found in our Form 10-K, filed with the SEC on March 1, 2023.

External net debt reconciliation

	Cash at bank and in hand $M	Bank and other loans $M	Finance costs $M	Total $M
Net debt at January 1, 2021	(1.5)	54.1	(1.0)	51.6
Cash flows	(4.9)	6.4	—	1.5
Other non-cash movements	—	—	(0.2)	(0.2)
Net debt at December 31, 2021	(6.4)	60.5	(1.2)	52.9
Cash flows	(8.2)	24.8	—	16.6
Other non-cash movements	1.7	(3.4)	0.5	(1.2)
Net debt at December 31, 2022	**(12.9)**	**81.9**	**(0.7)**	**68.3**

Credit risk

The Group only provides trade credit to creditworthy third parties. Credit checks are performed on new and existing customers along with monitoring payment histories of customers. Outstanding receivables from customers are closely monitored to ensure they are paid when due, with both outstanding overdue days and total days of sales outstanding reported as a business unit key performance measure. At December 31, 2022, the Group has a provision for bad and doubtful debtors of $0.6 million (2021: $0.7 million) and $0.1 million (2021: $0.4 million) has been charged to the consolidated income statement in relation to bad debts recognised in 2022.

The Group also monitors the spread of its customer base with the objective of trying to minimize exposure at a Group and segment level to any one customer. The top 10 customers in 2022 represented 31% (2021: 32%) of total revenue. There were no customers in 2022 or 2021 that represented over 10% of total revenue.

28. Financial risk management objectives and policies (continued)

Exchange rate risks

The largest risk is from our operations in the U.K., which in 2022 generated sales revenue of $176.0 million (2021: $161.3m). Fluctuations in exchange rates, particularly between the U.S. dollar and GBP sterling (which has been subject to significant fluctuations), can have a material effect on our consolidated income statement and consolidated balance sheet. In 2022, movements in the average U.S. dollar exchange rate had a negative impact on revenue of $15.6 million; in 2021, movements in the average U.S. dollar exchange rate had a positive impact on revenue of $9.5 million. Changes in translation exchange rates decreased net assets by $13.2 million in 2022, compared to an decrease of $0.8 million in 2021.

Based on the 2022 level of revenue and income, a weakening in GBP sterling leading to a £0.05 increase in the USD/GBP sterling exchange rate would result in a decrease of $8.7 million in revenue and a decrease of $1.0 million in operating net income.

Commodity price risks

The Group is exposed to commodity price risks in relation to the purchases of raw materials.

There is no financial market to hedge magnesium, zirconium raw materials or carbon fiber, and prices for these raw materials have been volatile in recent years, with substantial increases in the second half of 2021 and throughout 2022. To help mitigate these risks, the Group have a number of fixed-price supply contracts for a portion of these raw materials, which limits the exposure to price volatility over a calendar year. However, the Group remain exposed over time to rising prices in these markets, and therefore rely on the ability to pass on any major price increases to customers in order to maintain levels of profitability especially for carbon fiber wrapped composite cylinders, zirconium, and magnesium-based products. The Group have also in the last few years, when it was felt to be appropriate, made additional physical purchases of magnesium and some rare *earth chemicals to delay the impact of higher prices, but this has had a cash flow impact on occasion, thereby* leading to greater utilization of revolving credit bank facilities.

Primary aluminum is a global commodity, with its principal trading market on the LME. In the normal course of business, the Group are exposed to aluminum price volatility to the extent that the costs of aluminum purchases are more closely related to the LME price than the sales prices of certain of our products. The Gas Cylinders Segment will buy various aluminum alloys, in log, sheet, or tube form, and the contractual price will usually include a LME-linked base price plus a premium for a particular type of alloy, as well as the cost of casting, rolling or extruding. The price of high-grade aluminum, which is actively traded on the LME, has fluctuated significantly in recent years, trading at approximately $1,700 per tonne at the start of 2020, to over $3,000 at the start of 2022.

29. Financial instruments

The following disclosures relating to financial instruments have been prepared on a basis which excludes short-term debtors and creditors which have resulted from the Group's operating activities.

(a) Financial instruments of the Group

The financial instruments of the Group other than short-term debtors and creditors and non-current derivative financial instruments were as follows:

Financial instruments - measured at amortized cost	Book value December 31, 2022 $M	Fair value December 31, 2022 $M	Book value December 31, 2021 $M	Fair value December 31, 2021 $M
Financial assets:				
Cash at bank and in hand	**12.9**	**12.9**	6.4	6.4
Financial liabilities[(1)]:				
Loan Notes due 2023[(2)]	**25.0**	**25.0**	25.0	25.0
Loan Notes due 2026[(2)]	**25.0**	**25.0**	25.0	25.0
Revolving credit facility	**31.9**	**31.9**	10.8	10.8

(1) *The financial instruments included in financial liabilities are shown gross of unamortised finance costs.*

(2) The fair value of these financial instruments is calculated by discounting the future cash flows, including interest payments due.

29. Financial instruments (continued)

All financial assets mature within one year. The maturity of the financial liabilities is disclosed in Note 28.

At December 31, 2022, the amount drawn in bank and other loans was $81.9 million (2021: $60.8 million), of which $65.0 million was denominated in U.S. dollars (2021: $50.0 million) with the remainder being denominated in GBP sterling.

Derivative financial instruments - measured at fair value through profit or loss	Book value December 31, 2022 $M	Fair value December 31, 2022 $M	Book value December 31, 2021 $M	Fair value December 31, 2021 $M
Held to hedge purchases and sales by trading businesses:				
Forward foreign currency exchange rate contracts	**0.3**	**0.3**	0.1	0.1

The fair value calculations were performed on the following basis:

Cash at bank and in hand / overdrafts

The carrying value approximates to the fair value as a result of the short-term maturity of the instruments.

Bank loans

At December 31, 2022, bank and other loans of $81.9 million (2021: $60.8 million) were outstanding. At December 31, 2022, bank and other loans are shown net of issue costs of $0.7 million (2021: $1.2 million) and these issue costs are to be amortised to the expected maturity of the facilities. At December 31, 2022, $31.9 million (2021: $10.8 million) of the total $81.9 million (2021: $60.8 million) bank and other loans was variable interest rate debt and subject to floating interest rate risk, with the remainder being fixed rate debt.

Forward foreign currency exchange rate contracts

The fair value of these contracts was calculated by determining what the Group would be expected to receive or pay on termination of each individual contract by comparison to present market prices.

Fair value hierarchy

At December 31, 2022 and December 31, 2021, the Group used the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique:

Level 1: quoted (unadjusted) prices in active markets for identical assets or liabilities.

Level 2: other techniques for which all inputs which have a significant effect on the recorded fair value are observable, either directly or indirectly.

Level 3: techniques which use inputs which have a significant effect on the recorded fair value that are not based on observable market data.

	December 31, 2022 $M	Level 1 $M	Level 2 $M	Level 3 $M
Net derivative financial (assets) / liabilities at fair value through profit or loss:				
Forward foreign currency exchange rate contracts	**0.3**	—	0.3	—
Interest bearing loans and borrowings:				
Loan Notes due 2023	**25.0**	—	25.0	—
Loan Notes due 2026	**25.0**	—	25.0	—
Revolving credit facility	**31.9**	—	31.9	—

29. Financial instruments (continued)

	December 31, 2021 $M	Level 1 $M	Level 2 $M	Level 3 $M
Net derivative financial assets at fair value through profit or loss:				
Forward foreign currency exchange rate contracts	**0.1**	—	0.1	—
Interest bearing loans and borrowings:				
Loan Notes due 2023	**25.0**	—	25.0	—
Loan Notes due 2026	**25.0**	—	25.0	—
Revolving credit facility	**10.8**	—	10.8	—

During the year ended December 31, 2022, there were no transfers between Level 1, Level 2 and Level 3 fair value measurements.

(b) Financial instruments of the Group

Interest rate risk profile on financial assets

This table shows the Group's financial assets at December 31, which are cash and cash equivalents. These assets are all subject to floating interest rate risk.

Cash by currency:	December 31, 2022 $M	December 31, 2021 $M
U.S. dollar	**(1.2)**	(1.6)
GBP sterling	**11.3**	5.3
Euro	**0.2**	0.1
Chinese renminbi	**1.6**	1.2
Canadian dollar	**1.0**	1.4
	12.9	6.4

The Group earns interest on cash balances through either deposit accounts or placing funds on money markets at short-term fixed rates. In all cases, with the exception of the restricted cash, interest earned is at approximately SONIA rates during the year.

Interest rate risk profile on financial liabilities

The following table sets out the carrying value, by original maturity, of the Group's financial instruments that were exposed to both fixed and variable interest rate risk. The carrying values include interest payments to be made and interest rates on the Group's variable rate debt have been based on a forward curve.

29. Financial instruments (continued)

	December 31, 2022				December 31, 2021			
	Within 12 months	1-5 years	> 5 years	Total	Within 12 months	1-5 years	> 5 years	Total
	$M	$M	$M	$M	$M	$M	$M	$M
Floating interest rate risk:								
Revolving credit facility (including interest payments)	—	31.9	—	**31.9**	—	10.9	—	**10.9**
Fixed interest rate risk:								
Loan Notes due 2023 (including interest payments)	25.6	—	—	**25.6**	1.2	26.8	—	**28.0**
Loan Notes due 2026 (including interest payments)	1.3	28.1	—	**29.4**	1.3	5.0	25.6	**31.9**
	26.9	60.0	—	86.9	2.5	42.7	25.6	70.8

Hedging activities

Forward foreign currency exchange contracts

The Group utilizes forward foreign currency exchange contracts to hedge significant future transactions and cash flows to manage its exchange rate exposures. The contracts purchased are primarily denominated in GBP sterling, U.S. dollars, Euros and Australian dollars. The Group is also exposed to a number of other currencies like Japanese yen and Canadian dollars with hedges against these on a more ad hoc basis, when exposures are more significant.

At December 31, 2022 and 2021, the Group held various forward foreign currency exchange contracts designated as hedges in respect of forward sales for U.S. dollars, euros, Canadian dollars and Japanese yen for the receipt of GBP sterling or euros. The Company also held forward foreign currency exchange contracts designated as hedges in respect of forward purchases for U.S. dollars, euros, Canadian dollars, Australian dollars and Chinese yuan by the sale of GBP sterling. The contract totals in GBP sterling and euros, range of maturity dates and range of exchange rates are disclosed below, with the value denominated in GBP sterling, given that it is the currency the majority of the contracts are held in.

	December 31, 2022		
Sales hedges	**U.S. dollars**	**Euros**	**Canadian Dollars**
Contract totals/£m	13.4	12.8	0.1
Maturity dates	01/23 to 03/23	01/23 to 03/23	01/23
Exchange rates	$1.1207 to $1.2083	€1.1234 to €1.1468	$1.6320

29. Financial instruments (continued)

Purchase hedges	U.S. dollars	Euros	Canadian dollars	Australian dollars	Chinese yuan
Contract totals/£m	9.2	2.6	9.5	1.0	1.6
Maturity dates	01/23 to 04/23	01/23 to 04/23	01/23	01/23	01/23 to 03/23
Exchange rates	$1.1040 to $1.2084	€1.1437 to €1.2240	$1.6796 to $1.6239	$1.7787	¥8.3906 to ¥8.4126

December 31, 2021

Sales hedges	U.S. dollars	Euros	Japanese Yen
Contract totals/£m	5.0	9.8	0.1
Maturity dates	01/22 to 03/22	01/22 to 03/22	01/22 to 03/22
Exchange rates	$1.3455 to $1.3788	€1.1697 to €1.1906	¥155.2443 to ¥156.6793

Purchase hedges	U.S. dollars	Euros	Canadian dollars	Australian dollars	Chinese yuan
Contract totals/£m	4.5	3.5	7.5	0.9	1.5
Maturity dates	01/22 to 04/22	01/22 to 02/22	01/22	01/22	03/22
Exchange rates	$1.3451 to $1.3781	€1.1812 to €1.1662	$1.7172 to $1.6762	$1.8598	¥8.6126

Foreign currency translation risk disclosures

Exchange gains and losses arising on the translation of the Group's non-U.S. assets and liabilities are classified as equity and transferred to the Group's translation reserve. In 2022, a loss of $15.2 million (2021: loss of $0.9 million) was recognized in translation reserves.

(c) Undrawn committed facilities

At December 31, 2022, the Company had committed banking facilities of $100.0 million with an additional $50.0 million of uncommitted facilities through an accordion provision. Of these committed facilities, $31.9 million was drawn at December 31, 2022.

At December 31, 2021 the Company had committed banking facilities of $100.0 million with an additional $50.0 million of uncommitted facilities through an accordion provision. Of the committed facilities, $10.8 million was drawn at December 31, 2021.

30. Retirement Benefits

The Group has defined benefit pension plans in the U.K., the U.S. and France. The levels of funding are determined by periodic actuarial valuations. The assets of the plans are generally held in separate trustee-administered funds. The Group also operates defined contribution plans in the U.K., the U.S., Australia and Canada.

Remeasurements are recognized in full in the period in which they occur. The liability recognized in the consolidated balance sheet represents the present value of the defined benefit obligation, as reduced by the fair value of plan assets. The cost of providing benefits is determined using the Projected Unit Credit Method.

The principal defined benefit pension plan in the Group is the U.K. Luxfer Group Pension Plan ("the Plan"), which closed to new members in 1998, new employees then being eligible for a defined contribution plan. With effect from April 2004, the Plan changed from a final salary to a career average revalued earnings benefit scale. In August 2005, a plan specific earnings cap of £60,000 per annum subject to inflation increases was introduced, the figure had risen to £76,000 in 2015. In October 2007, the rate of the future accrual for pension was reduced and a longevity adjustment was introduced to mitigate against the risk of further unexpected increases in life expectancies. In 2015, following a consultation with the Trustees and members, it was agreed the Plan would close to future accrual of benefits effective from April 5, 2016 and for the purpose of increasing pensions in payment, to use the Consumer Prices Index ("CPI") as the reference index in place of the Retail Prices Index ("RPI") where applicable. The remaining active members, numbering approximately 160, were transferred into a defined contribution plan. The weighted average duration of the expected benefit payments from the Plan is around 16 years. The pension cost of the Plan is assessed in accordance with the advice of an independent firm of professionally qualified actuaries, Lane Clark & Peacock LLP. The Plan is registered with HMRC for tax purposes, operates separately from the Group and is managed by an independent set of Trustees. The Plan operates under U.K. trust law and the trust is a separate legal entity from the Group. The Plan is governed by an independent board of Trustees, composed of two member nominated Trustees and four company appointed Trustees.

The Trustees are required by law to act in the best interests of scheme members and are responsible for setting certain policies (e.g. investment funding) together with the Company. A one-off cash contribution was paid in December 2021 of £9.6 million in addition to the £4.1 million annual payment. While there is an expectation that no further contributions will be required until at least after the next valuation in 2024, there is no guarantee that this will be the case. The Trustees can request additional contributions, and the U.K. Pensions Regulator (TPR) has the power to order further funding in the current three-year window should increasingly stringent regulation require it

The Group's other arrangements are less significant than the Luxfer Group Pension Plan, the largest being the BA Holdings, Inc. Pension Plan in the U.S. In December 2005, this plan was closed to further benefit accrual with members being offered contributions to that Company's 401(k) plan. At January 1, 2016, the U.S. pension plans (BA Holdings, Inc. Pension Plan and Luxfer Hourly Pension Plan) merged into one plan.

The total charge to the Group's consolidated income statement for 2022 for retirement benefits was a cost of $5.1 *million (2021: cost of* $5.4 *million).*

The movement in the pension surplus is shown below:

	2022 $M	2021 $M
Net retirement benefit (surplus) / obligation at January 1	**(14.5)**	50.8
Charged / (credited) to the consolidated income statement:		
Curtailment credit	**0.5**	—
Net interest on net surplus	**(0.2)**	0.6
Administrative costs	**1.1**	1.2
Cash contributions	**(0.4)**	(18.2)
Credited to the consolidated statement of comprehensive income	**(15.3)**	(48.8)
Exchange difference	**3.4**	(0.1)
Net retirement benefit surplus at December 31	**(25.4)**	(14.5)

30. Retirement Benefits (continued)

The financial assumptions used in the calculations were:

	Projected Unit Credit Valuation			
	U.K.		Non-U.K.	
	2022	2021	2022	2021
	%	%	%	%
Discount rate	**4.80**	1.90	**5.10**	2.70
Inflation related assumptions:				
Pre-2030				
Retail Price Inflation	**3.20**	3.30	**n/a**	n/a
Consumer Price Inflation	**2.10**	2.20	**n/a**	n/a
Pension increases—pre 6 April 1997	**1.90**	2.00	**n/a**	n/a
—1997 - 2005	**2.10**	2.20	**n/a**	n/a
—post 5 April 2005	**1.70**	1.80	**n/a**	n/a
Post-2030				
Retail Price Inflation	**3.20**	3.30	**n/a**	n/a
Consumer Price Inflation	**3.10**	3.20	**n/a**	n/a
Pension increases—pre 6 April 1997	**2.40**	2.50	**n/a**	n/a
—1997 - 2005	**3.00**	3.10	**n/a**	n/a
—post 5 April 2005	**2.20**	2.20	**n/a**	n/a

Other principal actuarial assumptions:	2022 Years	2021 Years
Life expectancy of male / female in the U.K. aged 65 at accounting date	**21.2 / 23.0**	21.1 / 22.9
Life expectancy of male / female in the U.K. aged 65 at 20 years after accounting date	**22.5 / 24.5**	22.4 / 24.4

Investment strategies

For the principal defined benefit plan in the Group and the U.K., the Luxfer Group Pension Plan, the assets are invested in a diversified range of asset classes and include matching assets (comprising fixed interest and index linked bonds and swaps) and growth assets (comprising all other assets). The Trustees have formulated a de-risking strategy to help control the short term risks of volatility associated with holding growth assets. The Trustees also monitor the cost of a buy-in to secure pensioner liabilities with an insurance company to ensure they and the Company are able to act if such an opportunity arises. Other options to progressively reduce the scale of the liabilities are discussed between the Trustees and the Company.

Risk exposures

The Group is at risk of adverse experience relating to the defined benefit plans.

The plans hold a high proportion of assets in equity and other growth investments, with the intention of growing the value of assets relative to liabilities. The Group is at risk if the value of liabilities grows at a faster rate than the plans assets, or if there is a significant fall in the value of these assets not matched by a fall in the value of liabilities. If these events occurred, this would be expected to lead to an increase in the Group's future cash contributions.

Special events

In 2021, the Company decided to terminate its U.S. Pension Plan. The process is expected to complete within 12 to 18 months, including final funding requirements and administrative cost payments. In accordance with IAS19, the proposed buy-out has no impact on the valuation of the liability at the 2021 year-end.

30. Retirement Benefits (continued)

The amounts recognized in the consolidated income statement in respect of the pension plans were as follows:

	2022 U.K. $M	2022 Non-U.K. $M	2022 Total $M	2021 U.K. $M	2021 Non-U.K. $M	2021 Total $M
In respect of defined benefit plans:						
Current service cost	—	—	—	—	—	—
Net interest on net liability	(0.2)	—	(0.2)	0.5	0.1	0.6
Administrative expenses	0.6	0.5	1.1	0.8	0.4	1.2
Past service cost	—	—	—	—	—	—
Losses / (gains) on curtailments and settlements	—	0.5	0.5	—	—	—
Total charge for defined benefit plans	0.4	1.0	1.4	1.3	0.5	1.8
In respect of defined contribution plans:						
Total charge for defined contribution plans	2.0	1.7	3.7	2.1	1.5	3.6
Total charge for pension plans	2.4	2.7	5.1	3.4	2.0	5.4

Of the total charge for the year, charges of $3.7 million and $1.1 million (2021: $3.6 million and $1.2 million) have been included in cost of sales and administrative costs, respectively and a charge of $(0.2) million. (2021: $0.6 *million) has been included in finance costs.*

For the year, the amount of gain recognized in the Consolidated Statement of Comprehensive Income is $15.3m (2021: ($48.8m).

The actual return of the plans assets was a loss of $80.5 million (2021: gain of $22 million).

The value of the plans assets and liabilities were:

	2022 U.K. $M	2022 Non-U.K. $M	2022 Total $M	2021 U.K. $M	2021 Non-U.K. $M	2021 Total $M
Assets in active markets:						
Equities and growth funds	78.3	—	78.3	149.9	—	149.9
Government bonds	65.7	—	65.7	64.6	—	64.6
Corporate bonds	106.1	27.5	133.6	147.5	46.6	194.1
Cash	2.5	0.6	3.1	14.6	0.2	14.8
Total market value of assets	252.6	28.1	280.7	376.6	46.8	423.4
Present value of plan liabilities	(225.6)	(29.7)	(255.3)	(363.0)	(45.9)	(408.9)
Surplus / (deficit) in the plans	27.0	(1.6)	25.4	13.6	0.9	14.5
Related deferred income tax (liability) / asset	(4.9)	0.4	(4.5)	(3.4)	(0.2)	(3.6)
Net pension asset / (liability)	22.1	(1.2)	20.9	10.2	0.7	10.9

The plans do not invest directly in property occupied by the Group or in financial securities issued by the Group.

The scheme rules provides the Group with an right to a refund of surplus assets assuming the full settlement of plan liabilities in the event of a plan wind-up. Based on these rights, any net surplus in the UK scheme is recognised in full.

30. Retirement Benefits (continued)

Analysis of movement in the present value of the defined benefit obligations:

	2022 U.K. $M	2022 Non-U.K. $M	2022 Total $M	2021 U.K. $M	2021 Non-U.K. $M	2021 Total $M
At January 1	**363.0**	**45.9**	**408.9**	404.0	50.7	454.7
Interest on obligation	**6.2**	**1.3**	**7.5**	5.6	1.1	6.7
Actuarial (gains) / losses on financial assumptions	**(104.2)**	**(10.3)**	**(114.5)**	(12.4)	(2.5)	(14.9)
Actuarial gains on demographic assumptions	**—**	—	—	(14.3)	(0.2)	(14.5)
Actuarial gains on plan experience	**10.5**	**0.5**	**11.0**	(2.6)	(0.9)	(3.5)
Exchange difference	**(37.1)**	—	**(37.1)**	(3.9)	—	(3.9)
Benefits paid	**(12.8)**	**(2.4)**	**(15.2)**	(13.4)	(2.3)	(15.7)
Past service cost	**—**	—	**—**	—	—	—
Curtailment credit	**—**	**(5.3)**	**(5.3)**	—	—	—
At December 31	225.6	29.7	255.3	363.0	45.9	408.9

The sensitivities regarding the principal assumptions used to measure the present value of the defined benefit obligations are set out below:

Assumption	**Change in assumption**	**Impact on total defined benefit obligations**
Discount rate	Increase/decrease by 0.1%	Decrease/increase by 10%
CPI inflation (and related increases)	Increase/decrease by 0.1%	Increase/decrease by 8%
Post retirement mortality	Increase by 1 year	Increase by 3%

The sensitivities have been calculated to show the movement in the total defined benefit obligation in isolation, assuming no other changes in market conditions at the accounting date. In practice, for example, a change in discount rate is likely to be associated with a movement in the value of the invested assets held by the plans.

Analysis of movement in the present value of the fair value of plan assets:

	2022 U.K. $M	2022 Non-U.K. $M	2022 Total $M	2021 U.K. $M	2021 Non-U.K. $M	2021 Total $M
At January 1	**376.6**	**46.8**	**423.4**	358.9	45.0	403.9
Interest on plan assets	**6.3**	**1.2**	**7.5**	5.1	1.0	6.1
Actuarial gains	**(76.8)**	**(11.2)**	**(88.0)**	12.4	3.5	15.9
Exchange difference	**(40.5)**	—	**(40.5)**	(3.8)	—	(3.8)
Contributions from employer	**0.4**	—	**0.4**	18.2	—	18.2
Administrative expenses	**(0.6)**	**(0.5)**	**(1.1)**	(0.8)	(0.4)	(1.2)
Benefits paid	**(12.8)**	**(2.4)**	**(15.2)**	(13.4)	(2.3)	(15.7)
Curtailment settlement	—	**(5.8)**	**(5.8)**	—	—	—
At December 31	**252.6**	**28.1**	**280.7**	**376.6**	**46.8**	**423.4**

The estimated amount of employer contributions expected to be paid to the defined benefit pension plans for the year ending December 31, 2023 is $0.4 million (2022: $0.4 million actual employer contributions) reflecting the PPF levy contribution required.

31. The Luxfer Group Employee Share Ownership Plan

The trust

In 1997, the Group established an employee benefit trust ("the ESOP") with independent Trustees, to purchase and hold shares in the Group in trust to be used to satisfy options granted to eligible senior employees under the Group's share plans established from time to time.

The ESOP was established with the benefit of a gift equivalent to the set up and running costs. Purchase monies and costs required by the ESOP Trustees to purchase shares for and under the provisions of the trust are provided by way of an interest free loan from a Group subsidiary. The loan is repayable, in normal circumstances, out of monies received from senior employees when they exercise options granted to them over shares. Surplus shares are held by the ESOP Trustees to satisfy future option awards. The ESOP Trustees have waived their right to receive dividends on shares held in trust. The Remuneration Committee is charged with determining which senior employees are to be granted options and in what number subject to the relevant plan rules.

The current plan

The current share option plan, implemented by the Group in February 2007 is The Luxfer Holdings Executive Share Option Plan ("the Plan"), which consists of two parts. Part A of the Plan is approved by HM Revenue & Customs and Part B is unapproved. Options can be exercised at any time up to the tenth anniversary of their grant subject to the rules of the relevant part of the Plan. As a result of the I.P.O. all leaver restrictions over the shares were released. There are no other performance criteria attached to the options.

Movements in the year

The movement in the number of shares held by the Trustees of the ESOP and the number of share options held over those shares are shown below:

	Number of shares held by ESOP Trustees	
	£0.0001 deferred shares	**£0.50 ordinary shares**
At January 1, 2022	15,977,968,688	838,558
Shares utilized during the year	—	(117,297)
Shares sold from the ESOP during the year	(15,977,968,688)	—
At December 31, 2022	—	**721,261**

At December 31, 2022, the loan outstanding from the ESOP was $0.5 million (2021: $0.5 million).

The market value of each £0.50 ordinary share held by the ESOP at December 31, 2022 was $13.72 (2021: $19.31).

32. Share based compensation

Luxfer Holdings PLC Long-Term Umbrella Incentive Plan and Luxfer Holdings PLC Non-Executive Directors Equity Incentive Plan

As an important retention tool and to align the long-term financial interests of our management with those of our shareholders, the Company adopted the Luxfer Holdings PLC Long-Term Umbrella Incentive Plan (the "LTIP") for the Company's senior employees and the Luxfer Holdings PLC Non-Executive Directors Equity Incentive Plan (the "Director EIP") for the Non-Executive Directors.

The equity or equity-related awards under the LTIP and the Director EIP are based on the ordinary shares of the Company. The Remuneration Committee administers the LTIP and has the power to determine to whom the awards will be granted, the amount, type and other terms. Awards granted under the LTIP generally vest one-quarter each year over a four-year period, subject to continuous employment and certain other conditions, with the exercise period expiring six years after grant date. Awards granted under the Director EIP are non-discretionary, are purely time-based and vest over one year, with settlement occurring immediately on vesting.

32. Share based compensation (continued)

Share option and restricted stock awards

In March 2022, a combined 176,000 of Restricted Stock Units and Options over ordinary shares were granted under the LTIP, which were all time-based awards vesting over a period between three and four years and expiring two years later. Also, in March 2022, a combined 19,000 awards were granted based on the achievement of total shareholder return targets from the period January 1, 2019, to December 31, 2021. The awards vest over two years. In May 2022, 19,000 additional awards were granted under the LTIP, which were all time-based awards vesting over four years and an additional 15,000 awards were granted under the LTIP, which vested immediately. In June 2022, a combined 26,000 Restricted Stock Units and Options over ordinary shares were granted under the Director EIP, which were all time-based awards that would fully vest one year later.

In March 2021, a combined 110,000 of Restricted Stock Units and Options over ordinary shares were granted under the LTIP, which were all time-based awards vesting over four years and expiring two years later. Also, in March 2021, a combined 45,000 awards were granted based on the achievement of total shareholder return targets from the period January 1, 2018, to December 31, 2020. The awards vest over two years. In June 2021, a combined 19,000 Restricted Stock Units and Options over ordinary shares were granted under the Director EIP, which were all time-based awards that would fully vest one year later.

In March 2020, a combined 132,900 of Restricted Stock Units and Options over ordinary shares were granted under the LTIP, which were all time-based awards vesting over four years and expiring two years later. In May 2020, a combined 2,000 of Restricted Stock Units and Options over ordinary shares were granted under the LTIP, which were all time-based awards vesting over four years and expiring two years later. In June 2020, a combined 27,280 of Restricted Stock Units and Options over ordinary shares were granted under the Director EIP, which were all time-based awards that would fully vest one year later. In September 2020, a combined 3,892 of Restricted Stock Units and Options over ordinary shares were granted under the LTIP, which were all time-based awards vesting over four years and expiring two years later.

Total share-based compensation expense for 2022 and 2021 was as follows:

	2022 $M	2021 $M
Share based compensation charges	2.5	2.8

There were no cancellations or modifications to the awards in 2022 or 2021.

The actual tax benefit realized for the tax deductions from option exercises totaled $0.8 million and $1.1 million in 2022 and 2021 respectively.

The following table illustrates the number of, and movements in, share options during the year, with each option relating to 1 ordinary share:

	2022 Number	2022 Weighted average exercise price	2021 Number	2021 Weighted average exercise price
At January 1	297,487	$0.99	412,804	$0.87
Granted during the year	270,015	$1.00	174,264	$1.00
Exercised during the year	(173,017)	$0.89	(271,851)	$0.77
Accrued dividend awards	8,829	$1.00	7,898	$0.95
Lapsed during the year	(119,046)	$0.91	(25,628)	$0.92
At December 31	**284,268**	**$0.99**	297,487	$0.99
Options exercisable at December 31,	9,862	$1.00	13,874	$0.84
Options expected to vest as of December 31,	270,055	$1.00	269,432	$1.00

32. Share based compensation (continued)

The weighted average fair value of options granted in 2022 and 2021 was estimated to be $16.24 and $20.56, respectively. The total intrinsic value of options that were exercised during 2022 and 2021 was $3.0 million and $5.8 million, respectively. At December 31, 2022, the total unrecognized compensation cost related to share options was $3.1 million (2021: $2.8 million). This cost is expected to be recognized over a weighted average period of 2.7 years (2021: 1.9 years).

The following table illustrates the assumptions used in deriving the fair value of share options during the year:

	2022	2021
Dividend yield (%)	**2.75 - 3.41**	2.27
Expected volatility range (%)	**36.11 - 49.43**	42.80 - 59.03
Risk-free interest rate (%)	**1.28 - 2.99**	0.04 - 0.24
Expected life of share options range (years)	**0.50 - 4.00**	0.50 - 4.00
Forfeiture rate (%)	**5.00**	5.00
Weighted average exercise price ($)	**$1.00**	$1.00
Model used	**Black-Scholes & Monte-Carlo**	Black-Scholes & Monte-Carlo

The expected life of the share options is based on historical data and current expectations and is not necessarily indicative of exercise patterns that may occur. The expected volatility reflects the assumption that the historical volatility over a period similar to the life of the options is indicative of future trends, which may not necessarily be the actual outcome.

Employee share incentive plans

The Group operates an all-employee share incentive plan in its U.K. and U.S. operations and will look to implement plans in other geographic regions.

33. Related party transactions

Joint venture in which the Company is a venturer

During 2022, the Group maintained its 50% investment in the equity of the joint venture, Nikkei-MEL Company Limited. During 2022, the Elektron segment made $0.6 million of sales to the joint venture (2021: $0.8 million). At December 31, 2022, the gross and net amounts receivable from the joint venture amounted to $0.1 million (2021: $0.1 million).

Transactions with other related parties

At December 31, 2022, the directors and key management comprising the members of the Executive Leadership Team, owned 233,724 £0.50 ordinary shares (2021: 500,237 £0.50 ordinary shares) and held awards over a further 231,668 £0.50 ordinary shares (2021: 299,021 £0.50 ordinary shares).

During the years ended December 31, 2022 and 2021, share options held by members of the Executive Leadership Team were exercised; information relating to these exercises is disclosed in the Remuneration Report on pages 42 to 64.

Other than the transactions with the joint ventures, associates and key management personnel disclosed above, no other related party transactions have been identified.

34. Post Balance Sheet Events

The Company was notified that Néos International Limited, including its subsidiaries Néos Technologies Limited and Néos Superform Limited (collectively, "Néos") – the purchaser of our Superform U.K. business – filed for administration, a form of bankruptcy protection in the U.K., on or about February 22, 2023. Pursuant to the terms of the sale, Luxfer assigned and underlet (as defined and in accordance with the Landlord & Tenant (Covenants) Act 1995) certain building leases to Néos, recognizing a right of use asset and lease liability in the financial statements. Post year-end, the Company also received a Notice of Default from one Landlord, with respect to Néos' non-payment of amounts owed under certain of the assigned leases in 2022. As a result of this information, and in accordance with IAS 10 and IAS 36, we have fully impaired the right of use asset, $2.6 million, and recognized this through discontinued operations in the consolidated statements of income in 2022, see notes 26. Leases and 11. Discontinued operations.

On February 28, 2023 the Company agreed to the full buyout of the U.S. pension plan with an insurer. Assets held in the pension plan, plus an additional employer contribution of $2.3 million, have been used to fund the buyout which was completed in early 2023.

COMPANY BALANCE SHEET

All amounts in millions

	Note	At December 31, *2022* $M	At December 31, *2021* $M
ASSETS			
Non-current assets			
Investments	37	**371.2**	368.7
Deferred income taxes	38	**—**	—
Retirement benefits	45	**27.0**	13.7
		398.2	382.4
Current assets			
Trade and other receivables	39	**6.3**	17.5
Total assets		**404.5**	399.9
EQUITY AND LIABILITIES			
Capital and reserves			
Ordinary share capital	41	**26.5**	26.5
Deferred share capital	41	**—**	149.9
Share premium account	41	**231.3**	79.7
Treasury shares	41	**(20.4)**	(9.6)
Retained earnings		**195.9**	168.1
Translation reserve		**(23.1)**	(23.1)
Own shares held by ESOP	41	***(1.0)***	*(1.1)*
Share based compensation reserve		**(9.9)**	(8.8)
Capital and reserves attributable to the Company's equity shareholders		**399.3**	381.6
Total equity		**399.3**	381.6
Non-current liabilities			
Retirement benefits	45	**—**	—
Deferred income taxes	38	**5.1**	—
Total non-current liabilities		**5.1**	0.0
Current liabilities			
Trade and other payables	42	**0.1**	18.3
Total liabilities		**5.2**	18.3
TOTAL EQUITY AND LIABILITIES		**404.5**	399.9

The Group has taken advantage of the exemption provided under Section 408 of the Companies Act 2006 not to *present Luxfer Holding PLC's Company income statement. Net profit / (loss) for the year was* $34.0 *million* (2021: ($2.4) million)

THE FINANCIAL STATEMENTS ON PAGES 125 TO 138 WERE APPROVED BY THE BOARD ON APRIL 20, 2023 AND SIGNED ON ITS BEHALF:

Andy Butcher,
April 20, 2023

Company Registration no. 03690830

COMPANY STATEMENT OF CHANGES IN EQUITY

All amounts in millions

		Equity attributable to the equity shareholders of the parent								
	Note	Ordinary share capital $M	Deferred share capital $M	Share premium account $M	Treasury shares $M	Retained earnings $M	Translation reserve $M	Own shares held by ESOP $M	Share based compensation reserve $M	Total equity $M
At January 1, 2021		26.6	149.9	77.1	(4.0)	150.0	(23.1)	(1.4)	(6.0)	369.1
Net loss for the year		—	—	—	—	(2.4)	—	—	—	(2.4)
Remeasurement of defined benefit retirement plan		—	—	—	—	42.0	—	—	—	42.0
Deferred income taxes on items taken to other comprehensive income		—	—	—	—	(7.9)	—	—	—	(7.9)
Translation reserve		—	—	—	—	—	—	—	—	—
Total comprehensive income for the year		—	—	—	—	31.7	—	—	—	31.7
Equity dividends paid		—	—	—	—	(13.6)	—	—	—	(13.6)
Equity settled share based compensation charges		—	—	—	—	—	—	—	2.8	2.8
Utilization of treasury shares	41	—	—	(0.1)	0.1	—	—	—	—	—
Utilization of ESOP shares	41	—	—	3.3	—	—		0.3	(5.6)	(2.0)
Repurchase of ordinary shares		—	—	—	(6.4)	—		—	—	(6.4)
Cancellation of ordinary shares		(0.1)	—	(0.6)	0.7	—		—	—	—
Other changes in equity in the year		(0.1)	—	2.6	(5.6)	(13.6)	—	0.3	(2.8)	(19.2)
At December 31, 2021		26.5	149.9	79.7	(9.6)	168.1	(23.1)	(1.1)	(8.8)	381.6
Net profit for the year		—	—	—	—	34.0	—	—	—	34.0
Remeasurement of defined benefit retirement plan		—	—	—	—	13.3	—	—	—	13.3
Deferred income taxes on items taken to other comprehensive income		—	—	—	—	(5.3)	—	—	—	(5.3)
Total comprehensive income for the year		—	—	—	—	42.0	—	—	—	42.0
Equity dividends paid		—	—	—	—	(14.2)	—	—	—	(14.2)
Equity settled share based compensation charges		—	—	—	—	—	—	—	2.5	2.5
Utilization of treasury shares		—	—	0.1	0.3	—	—	—	(0.8)	(0.4)
Utilization of ESOP shares	41	—	—	1.7	—	—	—	0.1	(2.8)	(1.0)
Repurchase of ordinary shares		—	—	—	(11.1)	—	—	—	—	(11.1)
Cancellation of deferred shares		—	(149.9)	149.8	—	—	—	—	—	(0.1)
Other changes in equity in the year		—	(149.9)	151.6	(10.8)	(14.2)	—	0.1	(1.1)	(24.3)
At December 31, 2022		26.5	0.0	231.3	(20.4)	195.9	(23.1)	(1.0)	(9.9)	399.3

35. Significant accounting policies

Authorization of financial statements

The Company financial statements for the year ended December 31, 2022 were authorized for issue by the Board of Directors on April 20, 2023 and the balance sheet was signed on the Board's behalf by A. Butcher. Luxfer Holdings PLC is a company incorporated and domiciled in England and Wales.

Basis of preparation

These financial statements were prepared in accordance with The Companies Act 2006 as applicable to companies using Financial Reporting Standard 101 'Reduced Disclosure Framework' ("FRS 101").

The accounting policies set out in this note to the financial statements have been applied in preparing these financial statements and comparative information.

FRS 101 sets out a reduced disclosure framework for a 'qualifying entity' as defined in the standard which addresses the financial reporting requirements and disclosure exemptions in the individual financial statements of qualifying entities that otherwise apply the recognition, measurement and disclosure requirements of International accounting standards in conformity with the requirements of the Companies Act 2006.

The Company is a qualifying entity for the purposes of FRS 101. The accounting policies set out in this note to the financial statements have been consistently applied in preparing these financial statements and comparative information from 1 January 2020.

The key disclosure exemptions adopted by the Company in accordance with FRS 101 are as follows:

- Paragraphs 45(b) and 46 to 52 of IFRS 2, 'Share-based payment' (details of the number and weighted average exercise prices of share options, and how the fair value of goods or services received was determined).
- IFRS 7, 'Financial Instruments: Disclosures'.
- Paragraphs 91 to 99 of IFRS 13, 'Fair value measurement' (disclosure of valuation techniques and inputs used for fair value measurement of assets and liabilities).
- The requirements of the second sentence of paragraph 110 and paragraphs 113(a), 114, 115, 118, 119(a) to (c), 120 to 127 and 129 of IFRS 15, 'Revenue from Contracts with Customers'.
- Paragraph 38 of IAS 1, 'Presentation of financial statements' comparative information requirements in respect of:
  - Paragraph 79(a)(iv) of IAS 1;
  - paragraph 73(e) of IAS 16, 'Property, plant and equipment'; and
  - paragraph 118(e) of IAS 38, 'Intangible assets' (reconciliations between the carrying amount at the beginning and end of the period).
- The following paragraphs of IAS 1, 'Presentation of financial statements':
  - 10(d), (statement of cash flows);
  - 16 (statement of compliance with all IFRSs);
  - 38B-D (additional comparative information);
  - 111 (cash flow statement information); and
  - 134-136 (capital management disclosures).
- IAS 7, 'Statement of cash flows'.
- Paragraph 30 and 31 of IAS 8, 'Accounting policies, changes in accounting estimates and errors' (requirement for the disclosure of information when an entity has not applied a new IFRS that has been issued but is not yet effective).
- Paragraph 17 of IAS 24, 'Related party disclosures' (key management compensation).
- The requirements in IAS 24, 'Related party disclosures' to disclose related party transactions entered into between two or more members of a group.

The Company financial statements have been prepared on a historical cost basis, except where IFRS requires or permits fair value measurement. From January 1, 2021, the Company changed its functional currency from GBP to USD to give a more accurate representation of the Company's financial performance. The financial statements for the year ending 31 December 2022 are presented in USD, however financial statements for periods preceding 01 January 2021 were presented in GBP. The Balance Sheet, Cash Flow Statement, Statement of Changes in Equity and supporting notes have been restated from GBP to USD at the year end exchange rate, or average exchange rate where appropriate, to allow comparison between periods.

The directors have a reasonable expectation that the Company has adequate resources to continue in operational existence for the foreseeable future. In assessing the appropriateness of adopting the going concern basis in the preparation of these financial statements, cash forecasts and projections have been prepared to June 2024. Throughout the forecasted period, there is sufficient headroom in our covenant compliance which would enable the Group to drawdown on the RCF and therefore not impact the Company's ability to continue as a going concern. Therefore the directors continue to apply the going concern basis for accounting in the preparation of the Company financial statements.

Investments

Investments in subsidiary undertakings are stated at cost less, where appropriate, provisions for impairment.

Loans to subsidiary undertakings and joint ventures are initially recorded at fair value; they are then subsequently carried at amortised cost. The loans are interest bearing.

The Company grants share-based payments to the employees of subsidiary companies. Each period, the fair value of the employee services received by the subsidiary as a capital contribution from the Company is reflected as an addition to investments.

The Company has applied IFRS 9 and the expected credit loss model when valuing its loans to investments.

Other accounting policies

As applicable, the accounting policies of the Company follow those of the Group set out in Note 1 to the consolidated financial statements. The critical accounting judgments and key sources of estimation uncertainty applicable for the Company financial statements are pensions, set out in Note 1 to the consolidated financial statements and impairment of non-financial assets.

Impairment of non-financial assets

The value of the non-financial assets is determined by management and was reviewed for indicators of impairment under IAS36. Indicators of impairment reviewed include whether: (i) market value declines, (ii) negative changes in technology, markets, economy, or laws, (iii) increases in market interest rates, (iv) net assets of the company higher than market capitalisation, (v) worse economic performance than expected, (iv) carry amount being higher than the carrying amount of the investee's assets. This list is not an exhaustive list.

36. Directors' interests

Disclosure of individual directors' remuneration, share interests, share options, long-term incentive schemes, pension contributions and pension entitlements required by the Companies Act 2006 are shown within the Remuneration Report on pages 42 to 64 and form part of these financial statements.

37. Investments

	Investments in subsidiary undertakings	Loans to subsidiary undertakings	Capital contributions	Total
	$M	$M	$M	$M
Cost and net book value:				
At January 1, 2021	297.7	51.4	16.8	365.9
Additions	—	—	2.8	2.8
At December 31, 2021	**297.7**	**51.4**	**19.6**	**368.7**
Additions	—	—	2.5	2.5
At December 31, 2022	**297.7**	**51.4**	**22.1**	**371.2**

Details of the investments in which the Group or the Company holds share capital at December 31, 2022, are as follows:

Name of company	Country of incorporation	Holding	Proportion of voting rights and shares held	Nature of business
BA Holdings, Inc.*	U.S. [3]	Common stock	100%	Holding company
Luxfer Group Services Limited *	England and Wales[2]	Ordinary shares	100%	Property Services
Lumina Trustee Limited [1]	England and Wales[2]	Ordinary shares	100%	Trustee company
Luxfer Australia Pty Limited *	Australia[6]	Ordinary shares	100%	Distribution
Luxfer Gas Cylinders Limited *	England and Wales[2]	Ordinary shares	100%	Engineering
Luxfer Gas Cylinders China Holdings Limited *	England and Wales[2]	Ordinary shares	100%	Holding company
Luxfer Gas Cylinders (Shanghai) Co., Limited *	Republic of China[7]	Ordinary shares	100%	Manufacturing
Luxfer Group Limited	England and Wales[2]	Ordinary shares	100%	Holding company
Luxfer Group 2000 Limited	England and Wales[2]	Ordinary shares	100%	Holding company
Luxfer Group UK Pension Trustee Limited*	England and Wales[2]	Ordinary shares	100%	Non trading
Luxfer, Inc.*	U.S. [3]	Common stock	100%	Engineering
Luxfer Overseas Holdings Limited *	England and Wales[2]	Ordinary shares	100%	Holding company
Magnesium Elektron Limited *	England and Wales[2]	Ordinary shares	100%	Manufacturing
MEL Chemicals, Inc.*	U.S.[8]	Common stock	100%	Manufacturing
Structural Composites Industries LLC *#	U.S.[14]	Common stock	100%	Manufacturing
Magnesium Elektron North America, Inc. *	U.S.[5]	Common stock	100%	Manufacturing
Niagara Metallurgical Products Limited *	Canada[9]	Common stock	100%	Manufacturing
Reade Manufacturing, Inc.*	U.S.[5]	Common stock	100%	Manufacturing
Luxfer Gas Cylinders S.A.S. *	France[4]	Ordinary shares	100%	Engineering
Luxfer Canada Limited *	Canada[10]	Common stock	100%	Engineering
Luxfer Germany GmbH *	Germany[11]	Ordinary shares	100%	Engineering
Luxfer Magtech Inc.*	U.S.[5]	Common stock	100%	Manufacturing
GTM Technologies, LLC *	U.S.[12]	Capital Interest	100%	Engineering

Name of company	Country of incorporation	Holding	Proportion of voting rights and shares held	Nature of business
Other Investments				
Nikkei-MEL Company Limited *	Japan[13]	Ordinary shares	50%	Distribution

All shareholdings stated are valid for both 2022 and 2021 except where indicated.

37. Investments (continued)

Subsidiary undertakings are all held directly by the Company unless indicated.
[*] Held by a subsidiary undertaking.
[#] Registered in 2021
[1] Acts as bare trustee in connection with the 2007 share capital reorganisation.
[2] Registered address: Lumns Lane, Manchester, M27 8LN, England.
[3] Registered address: 1679 S. Dupont Hwy, Ste 100, Dover, DE 199091, U.S.
[4] Registered address: 7 Rue de l'Industrie, 63360 Gerzat, France.
[5] Registered address: The Corporation Trust Company, Corporate Trust Center, 1209 Orange Street, Wilmington, DE 19801, U.S.
[6] Registered address: Unit 4, 171-175 Newton Road, Wetherill Park, NSW 2164, Australia.
[7] Registered address: No. 123, Lane 150, Pingbei Road, Minghang District, Shanghai, PRC 201109, China.
[8] Registered address: c/o CT Corporation, 830 Bear Tavern Road, Trenton, NJ 08628, U.S.
[9] Registered address: David Toswell of Blake, Cassels & Graydon LLP, 1114 Harvest Drive, Pickering, ON, L1X 1B6, Canada.
[10] Registered address: (Torys) 525-8th Avenue S.W, 46th Floor, Eighth Avenue Place East, Calgary, Alberta, T2P 1G1, Canada.
[11] Registered address: Am Alten Stadtpark 37, 44791 Bochum, Germany.
[12] Registered address: Corporation Service Comp., 2711 Centerville Road, Suite 400, Wilmington, County of New Castle, DE 19808, USA
[13] Registered address: NYK Tennoz Building, 2-20 Higashi-Shinagawa 2-chome, Shinagawa-ku, Tokyo, 140-8628, Japan
[14] Registered address: 336 Enterprise Pl, Pomona, CA 91768, United States

During 2021 the Group acquired Structural Composites Industries LLC, this was directly acquired by Luxfer, Inc, acquiring 100% of the common stock.

38. Deferred income taxes

	Tax losses and other timing differences $M	Retirement benefit obligations $M	Total $M
At January 1, 2021	3.8	8.9	**12.7**
Charged to income statement	(0.4)	(4.4)	**(4.8)**
Charged to other comprehensive income	—	(7.9)	**(7.9)**
At December 31, 2021	3.4	(3.4)	**0.0**
(Charged) / credited to income statement	(2.1)	2.3	**0.2**
Charged to other comprehensive income	—	(4.2)	**(4.2)**
Transfer of Group relief to Group undertaking	(1.1)	—	**(1.1)**
At December 31, 2022	**0.2**	**(5.3)**	**(5.1)**

At the balance sheet date, the Company has no unrecognised deferred income tax assets relating to losses (2021: nil). A deferred tax asset of $0.2 million (2021: $3.4 million) has been recognised in relation to timing differences and losses, to the extent that it is deemed probable that sufficient taxable profit will be available against which the losses may be utilized. A deferred tax liability of $5.3 million (2021: $3.4 million) has been recognised in respect of the pension plan surplus.

39. Trade and other receivables

	December 31, 2022 $M	December 31, 2021 $M
Amounts owed by Group undertakings	**6.3**	17.5
	6.3	17.5

The amounts owed by Group undertakings are interest bearing, unsecured and repayable on demand.

40. Cash and cash equivalents

Cash is swept into a concentration account held within a subsidiary undertaking. Cash at bank and in hand earns interest at floating rates based on daily bank deposit rates. The directors consider that the carrying value of cash and cash equivalents approximates to their fair value.

41. Share capital and Reserves

(a) Ordinary share capital

	December 31, 2022	December 31, 2021	December 31, 2022	December 31, 2021
	No.	No.	$M	$M
Authorized:				
Ordinary shares of £0.50 each	**40,000,000**	40,000,000	**35.7**	35.7
Deferred ordinary shares of £0.0001 each	**—**	761,835,318,444	**—**	149.9
	40,000,000	761,875,318,444	**35.7**	185.6
Allotted, called up and fully paid:				
Ordinary shares of £0.50 each	**28,944,000**	28,944,000	**26.5**	26.5
Deferred ordinary shares of £0.0001 each	**—**	761,835,318,444	**—**	149.9
	28,944,000	761,864,262,444	**26.5**	176.4

The rights of the shares are as follows:

Ordinary shares of £0.50 each

The ordinary shares carry no entitlement to an automatic dividend but rank *pari passu* in respect of any dividend declared and paid. The ordinary shares were allotted and issued to satisfy share awards which vested under the Company's share award and share incentive plans.

Deferred ordinary shares of £0.0001 each

In July 2022 the Company made a payment of $0.1 million to cancel the entirety of deferred shares held, $149.8 million was reallocated to share premium to reflect the capital reduction in deferred shares.

(b) Share premium account

	$M
At January 1, 2021	77.1
Utilisation of treasury shares	(0.1)
Utilisation of ESOP shares	3.3
Cancellation of ordinary shares	(0.6)
At December 31, 2021	79.7
Utilisation of treasury shares	0.1
Utilisation of ESOP shares	1.7
Cancellation of deferred shares	149.8
At December 31, 2022	**231.3**

The share premium account is used to record the excess of proceeds over nominal value on the issue of shares. Share issue costs directly related to the issue of shares are deducted from share premium.

41. Share capital and Reserves (continued)

(c) Treasury shares

	$M
January 1, 2021 and December 31, 2021	(9.6)
Purchase of treasury shares	(11.1)
Utilisation of treasury shares	0.3
At December 31, 2022	(20.4)

In 2022, the Company purchased 711,572 ordinary shares for a total cost of $11.1 million. 9,424 of these shares were utilized at $0.3 million, with the remaining 702,148 retained within Treasury shares.

In June 2021, the Board announced a share buy-back program. As a result, in 2021 the Company purchased 297,678 total shares for $6.4 million. Of the 297,678 shares repurchased in the year, 56,000 at $0.7 million have been cancelled. 16,395 shares were utilised at $0.1 million, with the remaining 225,283 retained within Treasury shares.

At December 31, 2022, there were 1,277,766 (2021: 575,618) treasury shares held at a cost of $20.4 million (2021: $9.6 million).

(d) Own shares held by ESOP

	$M
At January 1, 2021	(1.4)
Utilization of ESOP shares	0.3
At December 31, 2021	(1.1)
Utilisation of ESOP shares	0.1
At December 31, 2022	(1.0)

At December 31, 2022, there were 721,261 ordinary shares of £0.50 each (2021: 838,558 ordinary shares of £0.50 each) held by The Luxfer Group Employee Share Ownership Plan.

42. Trade and other payables

	December 31, 2022 $M	December 31, 2021 $M
Amounts owed to Group undertakings	0.1	18.3

The amounts owed to Group undertakings were unsecured, repayable on demand and no interest was charged.

43. Financial instruments

The following disclosures relating to financial instruments have been prepared on a basis which excludes short-term debtors and creditors which have resulted from the Company's operating activities.

(a) Financial instruments of the Company

The financial instruments of the Company other than short-term debtors and creditors were as follows:

Financial instruments[1]:	Book value December 31, 2022 $M	Fair value December 31, 2022 $M	Book value December 31, 2021 $M	Fair value December 31, 2021 $M
Financial assets:				
Loans to subsidiary undertakings	51.4	51.4	51.4	51.4

(1) The financial instruments are shown gross of unamortized finance costs. The fair value of these financial instruments is calculated by discounting the future cash flows, including interest payments due.

43. Financial instruments (continued)

Loans to subsidiary undertakings bear interest of between 7.5% and 8%, payable on a quarterly basis. Loans are repayable on demand, however there is currently no intention to seek repayment of these loan The maturity of the financial liabilities is disclosed in Note 28 in the consolidated financial statements.

The fair value calculations were performed on the following basis:

Loans to subsidiary undertakings

The carrying value approximates to the fair value.

(b) Interest rate risks

Interest rate risk profile on financial assets

As the Company holds no cash or external loans at December 31, 2022, the interest rate risk is negligible.

(c) Undrawn committed facilities

At December 31, 2022, the Group had committed banking facilities of $100.0 million with an additional $50.0 million of uncommitted facilities through an accordion provision. Of these committed facilities, $31.9 million was drawn at December 31, 2022 by subsidiary undertakings.

At December 31, 2021, the Group had committed banking facilities of $100.0 million with an additional $50.0 million of uncommitted facilities through an accordion provision. Of the committed facilities, $10.8 million was drawn at December 31, 2021 by subsidiary undertakings.

44. Financial risk management objectives and policies

The Company's financial instruments comprise other loans and cash and cash equivalents. The main risks arising from the Company's financial instruments are cash flow interest rate risk, foreign currency translation risk, credit risk and capital risk management.

Foreign currency translation risk

The Company is exposed to translation risk only on the defined benefit pension plan, which is measured in GBP and translated to USD. As the functional currency of the Company changed to USD from January 1, 2021, there is minimal translation risk on other transactions.

Credit risk

The Company is exposed to credit risk on the loans which have been provided to subsidiary undertakings. The total exposure regarding these loans is $51.4 million. The Company is also exposed to credit risk on the trade receivables owed from subsidiary undertakings, the total exposure is $6.3 million.

Capital risk management

The capital structure of the Company consists of shareholders' equity, debt and cash and cash equivalents. For the foreseeable future, the Board will maintain a capital structure for the Company that supports the Group's strategic objectives through:

- Managing funding and liquidity; and
- Maintaining a strong, investment-grade credit rating.

44. Financial risk management objectives and policies (continued)

External net debt reconciliation

	Cash at bank and in hand	Bank and other loans	Finance costs in other debtors	Total
	$M	$M	$M	$M
Net debt at January 1, 2021	—	—	(0.7)	(0.7)
Other non-cash movements	—	—	0.7	0.7
Net debt at December 31, 2021	—	—	—	—
Other non-cash movements	—	—	—	—
Net debt at December 31, 2022	—	—	—	—

45. Retirement benefits

The Company is a member of the Luxfer Group Pension Plan ("the Plan"), a defined benefit scheme in the U.K. The levels of funding are determined by periodic actuarial valuations. The assets of the Plan are generally held in separate trustee administered funds.

Remeasurements are recognised in full in the period in which they occur. The amount recognised in the balance sheet represents the present value of the defined benefit obligation, as reduced by the fair value of plan assets. The cost of providing benefits is determined using the Projected Unit Credit Method. In the year an asset ceiling was applied to limit the impact of the surplus on the scheme.

The full amounts relating to the Plan have been included in the Company statement of financial position. This is because there is no allocation of the values between the various subsidiary companies. The Directors consider the sponsor to be the ultimate parent company in the Group.

The Plan closed to new members in 1998, new employees then being eligible for a defined contribution plan. With effect from April 2004, the Plan changed from a final salary to a career average revalued earnings benefit scale. In August 2005, a plan specific earnings cap of £60,000 per annum subject to inflation increases was introduced, the figure has risen to £76,000 in 2015. In October 2007, the rate of the future accrual for pension was reduced and a longevity adjustment was introduced to mitigate against the risk of further unexpected increases in life expectancies. In 2015, following a consultation with the trustees and members, it was agreed the Plan would close to future accrual of benefits effective from April 5, 2016 and for the purpose of increasing pensions in payment, to use the Consumer Prices Index ("CPI") as the reference index in place of the Retail Prices Index ("RPI") where applicable. The weighted average duration of the expected benefit payments from the plan is around 18 years. The pension cost of the Plan is assessed in accordance with the advice of an independent firm of professionally qualified actuaries, Lane Clark & Peacock LLP. The Plan is registered with HMRC for tax purposes, operates separately from the Company and is managed by an independent set of trustees. The Plan operates under UK trust law and the trust is a separate legal entity from the Company. The Plan is governed by a Board of Trustees, composed of two member nominated Trustees and four company appointed Trustees.

The total charge to the Company's income statement for 2022 for retirement benefits was $0.4 million (2021: charge of $1.4 million).

45. Retirement benefits (continued)

The movement in the pension liabilities is shown below:

	2022 $M	2021 $M
Net retirement benefit (surplus) / obligation at January 1	(13.7)	45.1
(Credited) / charged to the income statement		
Net interest on net surplus	(0.2)	0.6
Administrative costs	0.6	0.8
Past service cost	—	—
Cash contributions	(0.4)	(18.2)
Credited to the consolidated statement of comprehensive income	(16.7)	(41.7)
Exchange difference	3.4	(0.3)
Net retirement benefit surplus at December 31	(27.0)	(13.7)

The financial assumptions used in the calculations were:

	2022 %	2021 %
Discount rate	4.80	1.90
Inflation related assumptions:		
Pre-2030		
Retail Price Inflation	3.20	3.30
Consumer Price Inflation	2.10	2.20
Pension increases—pre 6 April 1997	1.90	2.00
—1997 - 2005	2.10	2.20
—post 5 April 2005	1.70	1.80
Post-2030		
Retail Price Inflation	3.20	3.30
Consumer Price Inflation	3.10	3.20
Pension increases—pre 6 April 1997	2.40	2.50
—1997 - 2005	3.00	3.10
—post 5 April 2005	2.20	2.20

Other principal actuarial assumptions:	2022 Years	2021 Years
Life expectancy of male in the U.K. aged 65 at accounting date	21.2	21.1
Life expectancy of male in the U.K. aged 65 at 20 years after accounting date	22.5	22.4

Investment strategies

For the Plan, the assets are invested in a diversified range of asset classes and include matching assets (comprising fixed interest and index linked bonds and swaps) and growth assets (comprising all other assets). The Trustees have formulated a de-risking strategy to help control the short term risks of volatility associated with holding growth assets. The Trustees also monitor the cost of a buy-in to secure pensioner liabilities with an insurance company to ensure they are able to act if such an opportunity arises. Other options to progressively reduce the scale of the liabilities are discussed between the Trustees and the Company.

Risk exposures

The Company is at risk of adverse experience relating to the defined benefit plan.

The Plan holds a high proportion of assets in equity and other growth investments, with the intention of growing the value of assets relative to liabilities. The Company is at risk if the value of liabilities grows at a faster rate than the plan assets, or if there is a significant fall in the value of these assets not matched by a fall in the value of liabilities. If these events occurred, this would be expected to lead to an increase in the Company's future cash contributions.

45. Retirement benefits (continued)

The amounts recognised in the income statement in respect of the pension plan were as follows:

	2022 $M	2021 $M
In respect of defined benefit plan:		
Net interest on net liability	**(0.2)**	0.6
Administrative expenses	**0.6**	0.8
Past service cost	**—**	—
Total charge for defined benefit plan	**0.4**	1.4

For the year, the amount recognised in the Statement of Comprehensive Income is $13.3 million (2021: 42 million).

The actual return on the plan assets was a loss of $70.5 million (2021: gain of $17.5 million).

The value of the plan assets and liabilities were:

	2022 $M	2021 $M
Assets in active markets:		
Equities and growth funds	**78.3**	149.9
Government bonds	**65.7**	64.6
Corporate bonds	**106.0**	147.5
Cash	**2.5**	14.6
Total market value of assets	**252.5**	376.6
Present value of plan liabilities	**(225.5)**	(362.9)
Surplus in the scheme	**27.0**	13.7
Related deferred income tax liabilities	**(5.3)**	(3.4)
Net pension asset	**21.7**	10.3

The Plan does not invest directly in property occupied by the Company or in financial securities issued by the Company.

The scheme rules provides the Company with an right to a refund of surplus assets assuming the full settlement of plan liabilities in the event of a plan wind-up.Based on these rights, any net surplus in the UK scheme is recognised in full.

Analysis of movement in the present value of the defined benefit obligations:

	2022 $M	2021 $M
At January 1	**362.9**	404.0
Service cost	**—**	—
Interest on obligation	**6.2**	5.6
Actuarial gains	**(93.7)**	(29.3)
Exchange difference	**(37.1)**	(4.0)
Benefits paid	**(12.8)**	(13.4)
At December 31	**225.5**	362.9

45. Retirement benefits (continued)

The sensitivities regarding the principal assumptions used to measure the present value of the defined benefit obligations are set out below:

Assumption	Change in assumption	Impact on total defined benefit obligations
Discount rate	Increase/decrease by 0.1%	Decrease/increase by 1%
CPI inflation (and related increases)	Increase/decrease by 0.1%	Increase/decrease by 1%
Post retirement mortality	Increase by 1 year	Increase by 4%

The sensitivities have been calculated to show the movement in the total defined benefit obligation in isolation, assuming no other changes in market conditions at the accounting date. In practice, for example, a change in discount rate is likely to be associated with a movement in the value of the invested assets held by the Plan.

Analysis of movement in the present value of the fair value of plan assets:

	2022 $M	2021 $M
At January 1	**376.6**	358.9
Interest on plan assets	**6.3**	5.1
Actual return on plan assets	**(76.8)**	12.4
Contributions from employers	**0.4**	18.2
Administrative expenses	**(0.6)**	(0.8)
Exchange differences	**(40.5)**	(3.8)
Benefits paid	**(12.8)**	(13.4)
At December 31	**252.6**	376.6

The estimated amount of employer contributions expected to be paid to the defined benefit pension plans for the year ending December 31, 2023 is $0.4 million (2022: $0.4 million actual employer contributions) reflecting the PPF levy contribution required.

46. Related party transactions

During 2022, the Company has made the following transactions and has the following outstanding balances at December 31, 2022 with related parties:

	Income	Expenditure	Balances outstanding		
Name of related party	Interest $M	Management recharges $M	Investments $M	Trade and other receivables $M	Trade and other payables $M
Luxfer Group Limited	0.1	(0.6)	—	6.1	—
BA Holdings, Inc.	0.8	—	10.0	0.2	—
Luxfer Magtech Inc.	3.3	—	41.4	0.8	—

Of the balances outstanding held within investments, these balances are all interest bearing and are based on market rates of interest.

46. Related party transactions (continued)

During 2021, the Company has made the following transactions and has the following outstanding balances at December 31, 2021 with related parties:

	Income	Expenditure	Balances outstanding		
Name of related party	Interest $M	Management recharges $M	Investments $M	Trade and other receivables $M	Trade and other payables $M
Luxfer Group Limited	0.4	(0.7)	—	17.2	—
BA Holdings, Inc.	0.8	—	10.0	0.1	—
Luxfer Magtech Inc.	3.3	—	41.4	0.2	—

In addition to the transactions above, share based compensation recharges have been made to Luxfer, Inc., Luxfer Gas Cylinders Limited, Luxfer Group Limited, BA Holdings, Inc., Magnesium Elektron Limited, Magnesium Elektron North America Inc, MEL Chemicals Inc, and Luxfer Magtech Inc. for $0.2 million, $0.2 million, $0.4 million, $0.7 million, $0.6 million, $0.2 million, $0.1 million and $0.1 million respectively (2021: Luxfer, Inc., Luxfer Gas Cylinders Limited, Luxfer Group Limited, BA Holdings, Inc., Magnesium Elektron Limited, Magnesium Elektron North America Inc, MEL Chemicals Inc and Luxfer Magtech Inc. for $0.4 million, $0.2 million, $0.6 million, $0.8 million, $0.5 million, $0.1million, $0.1 million and $0.1 million respectively). These amounts are recognised as capital contributions in the year.

Other than the transactions mentioned above, no other related party transactions have been identified.

47. Post balance sheet events

No post balance sheet events were identified which impact the financial statements.