**Image:** Bremont, Henley-on-Thames


# Strategic Report.


DICK LOVETT
CYLINDER CLUB
CARS & COFFEE

# Chairman's statement.

> It is a pleasure to welcome the SchahlLED team, which excels at rooting out discerning industrial customers willing to pay for high quality luminaires with the latest Thorlux energy saving and controls technology.

**Mike Allcock**
Chairman and Joint Chief Executive

**Financial year 2022/23 was to a large extent less turbulent than the previous few years, notwithstanding some special challenges to deal with upon occasion. It has been the intention of the Board to make no further acquisitions whilst the Group builds its cash reserves and fully integrates recent acquisitions, in order to formulate more efficient Group activities whilst not losing the ability for individual companies to be autonomous and flourish.**

Financial performance overall was strong, with significant organic revenue increases for most companies, primarily due to much improved material availability and the consequential fulfilment of the previous year's order backlog. All companies wrestled with inflationary effects on material and labour costs, and some were better able than others to adjust selling prices to maintain margins.

Group companies' service levels have returned to being good, and the order book and forecast situation is generally fine. Whilst material inflation is showing signs of slowing or even reversing, wage and salary inflation remains high.

The Annual Report and Accounts contains a more detailed appraisal of each company's individual achievements and challenges.

## Group results

Group revenue increased by 23% to £176.7m (an organic 11% increase excluding the SchahlLED and Zemper acquisitions) whilst operating profit increased by 13% to £27.8m. Operating profit before acquisition adjustments, removing the impact of amortisation of intangible assets established at purchase, grew 16% to £29.8m.

Revenue and operating profits were supported by the recent acquisitions of Zemper and SchahlLED. Last year's report included only nine months of Zemper's figures, with nine months of SchahlLED's figures included this year. Excluding Zemper and SchahlLED acquisition effects, for comparison's sake, like-for-like revenue increased by 11% to £159.1m and operating profit by 9% to £26.9m.

## General overview

The Group's stand-out performer this year was Thorlux Lighting, which benefitted from its ability to deliver its order backlog, which had previously been caused by component shortages, especially microchips and electronic components.

The Dutch operations made a wonderful contribution overall, although their recent growth trajectory took a bit of a breather this year, with the companies struggling to grow revenue, whilst Lightronics also saw its margins squeezed by inflationary pressures.

Portland Lighting's profit reduced significantly because the company lacked a typical large roll-out project for outdoor retail sign lighting and because business costs increased as the company built its product range and operations to diversify into road sign lighting – namely with the Portland Traffic division. This new division has developed well, won some successful small orders and will make a more significant contribution to 2023/24 figures.

TRT Lighting increased its profit but, at only a 3% profit-to-sales ratio, profit remains significantly below Group expectations and must improve. In recent months the TRT Board structure has been altered and strengthened, with a new operations director and new sales director, and the sales

Image: Hoppern Skole, Norway

team has been refreshed. TRT is also developing some interesting technical innovations to enhance its product portfolio. These changes have started well and will result in further improved performance in the current financial year.

The Group welcomed Zemper for its first full year – a year of getting to know each other better and a year for strategy and future planning. Zemper's facility in Spain is a credit to its founding family's professionalism. The company is very self-sufficient, with ownership of all its intellectual property, and with its own laboratory test facilities and state-of-the-art manufacturing equipment. In the year there were several exchange visits between Group company engineers and executives, and some significant technological projects are underway to harness Zemper's design, technical and manufacturing know-how. These projects will support the Group's electronic operations and its aspirations for premium connected technology in the emergency lighting sector.

Zemper's profit contribution to the Group in 2022/23 was marginally lower than forecast, with orders down in the first half year; however, various new products and marketing supported growth in the second half to recover the full year's numbers to be in line with the prior year's numbers. There was notable growth in both the French and Belgian markets – which, prior to Zemper's acquisition, were largely untapped by the Group – whilst the local Spanish market was tighter than in the previous year.

SchahlLED, since joining the Group this financial year, has continued to grow its customer base, primarily in the German market, for high technology SmartScan industrial luminaires. It is a pleasure to welcome the SchahlLED team, which excels at rooting out discerning industrial customers willing to pay for high quality luminaires with the latest Thorlux energy saving and controls technology. In the year, SchahlLED added nine months of revenue to the consolidated figures of £16.9m and operating profit of £2.3m before acquisition adjustments.

The Group's joint venture with Ratio Electric BV commenced with the opening of a UK operation close to the Group HQ in Redditch, headed by a young Thorlux design engineer. Investments in the year have already resulted in the UK operation's own sales and marketing team, a website, preliminary manufacturing capabilities, and a new pillar standalone-style twin 22kW electric vehicle (EV) charger – the Ratio io7 – available for sale by all Group companies. The charger, developed with common components from a Thorlux outdoor luminaire, is widely recognised as an innovative and stylish product; it is suitable for many applications but is mainly targeted at workplace charging, which matches the Group's core market of professional users. Availability of the new EV charging pillar has been limited due to production capacity restraints, but Ratio hopes to be able to better satisfy the Group's sales teams in coming months, who are chomping at the bit to get going. In the Netherlands, at the Ratio HQ, operations have been adjusting to the fast moving EV marketplace, and investments in smart charging technology and connectivity have dented returns.

For many years some shareholders have questioned the rationale behind the Group holding large cash reserves. The Board chooses to maintain a large reserve as one never knows what is around the corner, as proven recently by the COVID lockdown. The Board remains prudent, with no plans to move away from this philosophy, and will not fund further growth unless it

# Chairman's statement. continued

can do so from cash reserves. Although reserves have reduced with recent acquisitions activity and with stock control complexities, even with future earn-out provisions and commitments the Board remains confident that the current £35.0m at the year end, which remains well above its desirable minimum target, will more than suffice.

There are targets around the Group to reduce stock – of components, in particular. The easing of the recent supply shortage situation has now inevitably created an overstock in most Group companies and elsewhere throughout the extensive supply chain. Stock levels are being actively managed, in particular to ensure agility in Group businesses and to reduce possible obsolescence. Whilst stock increased last year from £32.8m to £33.4m, the number reduced from an interim high of £37.9m and will fall further.

On the capital investment front, I am pleased to report that investment at Famostar has completed, with a new substantial factory/warehouse extension (£1.9m) setting up Famostar for growth for some years to come. The extension was almost entirely funded by savings from closing external rented accommodation that had been used for storing stock. The new facility has solar PV, in keeping with the Group's sustainability targets, the investment having an excellent payback period due to recent increases in energy costs.

At Zemper, the Group has invested in a new and dedicated injection moulding shop (£0.7m) next to the current electronics factory in Ciudad Real, moving plant from an older facility some distance away. Opened in July 2023, this new factory has already started to produce some critical parts for the Thorlux SmartScan wireless transmitter housing and has capacity to take on more if this idea of insourcing becomes attractive. The new plant has the capacity to increase Zemper's productivity by 50%, and having local production cuts costs and CO2 emissions. The factory also has its own solar PV array, which is particularly powerful, of course, in Spain. Finally, Zemper has purchased a new electronic production line to improve its capacity.

Sustainability is one of the key pillars for the Group, one that interests many of its shareholders and will continue to be a focus. All Group companies are now certified independently to ISO 14001, an international standard for providing a systematic framework for the continuous improvement of a company's environmental performance. Due to the Group's renowned carbon offsetting programme on its own land in Devauden, Wales, the Group is now independently certified as carbon neutral for Scope 1 and 2 emissions (those emissions produced by companies' own activities such as use of electricity, gas and diesel). To date, since the programme's inception in 2009, the Group has planted an amazing 179,412 trees and has now run out of land. Therefore, in July 2023, the Group purchased a further 195 acres of land, in Longtown, Hereford, which should satisfy its carbon offsetting plans for the next decade or more.

Beyond carbon offsetting, the Group continually looks to lower its carbon footprint; this is good news for the environment but also, in most cases, lowers Group operating costs. All companies within the Group have specific KPIs that focus on general carbon reduction objectives and increasingly move towards the circularity of products, the impacts of the materials selected, and reducing waste.

Early in September 2023 the Group showed its commitment to achieving net-zero, by signing a Science Based Targets initiative (SBTi) letter of commitment and therefore commencing the process.

The Group's own emissions data has been well accounted for many years as part of its carbon offsetting programme, but net-zero takes a large step forward by also measuring the impact of the Group's international supply chain and the impacts of the Group's products when installed and in use at customers' premises. The Group has been supported throughout the process by third party consultants, but nevertheless, to calculate the required emissions for all Group activities, upstream and downstream, has been an enormous task.

Now that emissions have been calculated, the SBTi commitment letter defines both the Group's near term (2030) targets and net-zero date. By 2030 the Group has set a target, relative to the baseline year 2020/21, to reduce Scope 1 and 2 emissions by 42%, and Scope 3 emissions by 51.6% per £m revenue. This will be done in a variety of ways but, in particular, by decarbonisation of Group resources and energy supplies – for example reducing gas use and switching to greener sources such as solar PV supplied electricity, using electric vehicles and making Group products even more efficient – together with increasing the use of SmartScan energy saving technology. The ultimate objective is to achieve net-zero, and the Group's target date is 2040 (ten years ahead of the UK Government's commitment); by this date the Group needs to have reduced its emissions by 90% (allowing for offsetting the remaining 10%). Watch this space.

To finish on a high, Thorlux is very proud to have successfully illuminated the famous Big Ben – or, more correctly, the Elizabeth Tower – in the City of London. Big Ben is one of the most photographed and most iconic buildings in the world. Thorlux developed special products between 2016 and 2022 which provide colour-tuneable illumination of all four clock

**Image:** The Croft, Stratford-upon-Avon


faces and the balconies above, a new Ayrton Light (a special lighthouse style lamp used to indicate when Parliament is sitting), illumination of the clock mechanism, the bells, including floodlighting the Big Ben bell itself, all internal rooms, and the 340 steps, and all emergency lighting. SmartScan features heavily in the controls for ancillary areas. The project has been kept secret until now, even during the 2023 New Year celebrations. This year's Annual Report and Accounts is therefore adorned with some iconic Thorlux installation photographs.

## Personnel

I would like to thank all Group employees for their dedication and commitment throughout the financial year. I would also like to thank, again, David Taylor and Tony Cooper, who, as retiring directors, have spent a total of over 65 years serving the Group; I wish them a long and happy retirement.

## Dividend

Performance as a whole for the year to 30 June 2023 allows the Board to recommend an increased final dividend of 4.84p per share (2022: 4.61p), which gives a total for the year of 6.46p (2022: 6.15p excluding special dividend).

## Outlook

All Group companies are forecasting some sales growth and all are charged with keeping costs under control and a close eye on sales margins. The Board would like to see further improvements in profitability – especially at the lower performing companies in the Group, which need to step up and do their bit. As the Group becomes larger, costs of managing non-value-added activities become larger too; this means Group companies need to work harder to achieve a good return on sales.

The Group nowadays has excellent resilience to changing conditions, having a firm footprint in numerous geographical territories and across many market sectors.

As a whole, the outlook from the sales teams is positive. At the start of this new financial year, orders are slightly lower than in the same time period last year, and there is some evidence of projects slowing. Costs are under control and some margin improvements have been made, which will provide an improved return on sales. Revenues, however, are expected to see slower growth than in the recent few years.

**Mike Allcock**
Chairman and Joint Chief Executive

12 October 2023

# Marketplace.

**The Group services a diverse range of clients across a variety of different sectors. These sectors are targeted by our sales teams, sector specialists and product experts as well as dedicated company specialisms in areas such as lighting controls, emergency and outdoor lighting.**

**The product portfolio across the Group gives us the ability to deliver a complete project, from boiler room to board room and beyond.**

### UK +8%

- Increased business from target sectors
- Services revenue with improved gross contribution
- Street lighting sector improved, supplemented with smaller tunnel projects

### Netherlands +5%

- Growth in both the Lightronics and Famostar businesses
- Margin pressure at Lightronics continued but improved in the second half, similar operating profit at Famostar

### Germany +163%
(+34% ex SchahlLED acquisition)

- Continued growth in Germany driven by SmartScan and the addition of SchahlLED
- Margin pressure continued at Zemper driven by material and utility cost increases

### Rest of Europe +57%

- Revenue in line with expectations, improved levels in France via Zemper
- Scandinavian market continued to be positive

### Rest of World +21%

- Improved demand in Australia, difficulty with logistics continued
- Dampened demand in UAE

## Market Overview

FW Thorpe commenced the year with higher than usual order books and a backdrop of component shortages that had resulted in extended lead times for customers.

Normal service levels have resumed during the year with supply stabilising. Increased costs had been common in the prior year, these have now slowed, and we are starting to see some reversals in certain components and commodities. This has also allowed the Group to reduce stock holding in some areas, with further reductions expected in 2023/24.

There has been less focus on redesign this year, allowing our engineering teams to focus on product development. We continue to differentiate ourselves with product and system innovation, combined with our ability to service our markets through the life cycle of a project.

Across our domestic and international markets we face competition from listed multinationals as well as solid private businesses. Where information is available, we have seen improved financial performance of our main competitors perhaps buoyed by the ability to increase sales prices in the current economic climate.

Our continued investment in business development supports the ebbs and flows of demand across various sectors. We continually assess how to deploy our selling resource in order to target specific sectors and territories.

The product and technology portfolio continues to evolve, enabling us to compete across different sectors and geographies. We continue to focus on certain sectors, with renewed vigour around those that may have reduced in prior years.

### Market sectors

- Pharmaceutical
- Hospitality
- Display
- Housing
- Advertising
- Research & development
- Commercial
- Facilities
- Retail
- Education
- Industrial
- Infrastructure
- Healthcare
- Manufacturing

# Market-specific drivers . . .

## Increase in demand for technology

### What this means

- Evolution of controls technology – wireless
- Connectivity with the internet and other devices – the Internet of Things
- Ability to offer customers additional functionality by adding different sensor technology and presenting data
- The Group's shift to LED sales now representing over 90% of total revenue

### The opportunity

- Improves ability to hold specification business with our own controls offering
- Potential to supply retrofit projects with wireless controls where wired controls were cost prohibitive
- Offer solutions to provide additional data specific to the market sector

### How we are responding

- SmartScan continues to evolve since launching in 2016, the latest generation successfully launched
- Further development of the SmartScan platform, bringing other non-lighting devices into the web portal
- Occupancy profiling, air quality sensing, and the ability to change colour temperature are all features
- All new product developments are LED based
- Continual review of LED technology offerings to take advantage of the latest advances and ensure we are offering the best solutions to our customers

## Drive for energy efficiency and carbon reduction

### What this means

- Global emissions targets
- High energy costs in Europe

### The opportunity

- Increased demand for sustainable, energy efficient lighting solutions
- Demand for retrofit lighting solutions driving energy savings using both LED and wireless controls technology
- Ability to harvest data to satisfy ongoing reporting requirements

### How we are responding

- Continue to offer energy saving technology and the ability to report on energy usage with the SmartScan platform
- Financing options with partners to make solutions more affordable to customers to match the savings achieved
- Offering turnkey packages to customers to enable change
- Investment in electric vehicle charging products with Ratio

# Macroeconomic drivers . . .

## International economic conditions

### What this means

- Countries are now dealing with the impact of the conflict in Ukraine and the global energy crisis
- Pressure remains on global supply chains – raw material price pressure, component shortages
- Certain sectors could slow investment given recent interest rate raises and concerns over future economic growth

### The opportunity

- Higher energy costs are resulting in shorter payback periods for energy saving lighting projects
- Renewed focus on carbon saving investments with support from governments
- Potential to win market share or acquire competitors who struggle in these economic conditions

### How we are responding

- Ensure our businesses are not reliant on any one sector in particular
- Continue to develop innovative product solutions in al our businesses
- Target sectors where demand is stable or increasing
- Redirect selling resource as appropriate

## Globalisation

### What this means

- Responding to the demands of our traditional customers who are developing a global footprint
- Harmonisation of technology from the adoption of LED brings the threat of increased competition
- Resilience in the supply chain is being tested post-pandemic and with increased logistics costs

### The opportunity

- Chance to establish ourselves in new territories with established customers in the countries we currently supply into
- Sourcing opportunities – chance to review what is sourced from where. Considering not only price, quality, carbon footprint but the security of supply
- Potential for customers to reconsider sourcing strategies and buy "local"

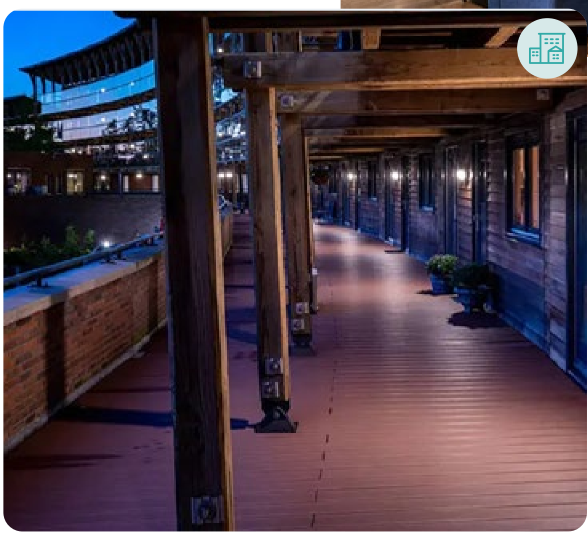
### How we are responding

- Working with global customers
- Continual development of the supply chain
- Potential to establish new offices in chosen locations to support both customer and supply chain development in the future

# Marketplace. continued

**36%**
of sales from
safety products (emergency lighting systems)

**96%**
of sales from
LED technology, energy saving controls and related services



## Market sectors

| | | |
|---|---|---|
| Pharmaceutical | Research & development | Industrial |
| Hospitality | Commercial | Infrastructure |
| Display | Facilities | Healthcare |
| Housing | Retail | Manufacturing |
| Advertising | Education | |

# Business model.

**Customers come to us for peace of mind. They want the correct technical solution, professional service, sustainability of products/services and the ability to provide support during a product's warrantable life and beyond.**

**Our business model is focused on the needs of customers and the marketplace, with a robust capital structure that underpins our ability to deliver sustainable growth, innovative products and excellent customer service.**

## The key resources we utilise . . .

**Design & innovation**
Continuous product development – products, software/controls, lighting design

**Talented people**
Continual development

**Manufacturing facilities**
UK – multiple sites,
Europe – Netherlands, Spain
Continual investment

**Financial & environmental sustainability**
Financial stability,
Carbon Offset Scheme

## The service offering we provide . . .

**Design & development**
Designing and developing products in line with customer specifications and sustainability requirements.

**£1.9m** (2022: £2.1m)
Group spend on capitalised R&D

**Manufacturing**
Manufacturing bespoke lighting systems and components.

**£0.8m** (2022: £0.4m)
Investment in solar at Group facilities

**Services**
Supporting customers throughout the products lifecycle.

**£8.6m** (2022: £4.5m)
Revenue from services

## Group operations . . .

**Specification**
renovations, new build, energy saving, compliance, technology adoption.

**Diversified product portfolio**
gives the ability to supply a complete project – "boiler room to board room"

**Cross-selling opportunities**
with other Group companies to offer a complete solution to a wide variety of sectors

**Sustainability leadership**
Group-wide initiatives and support in achieving sustainability targets.

**Image:** Berrows House, University of Worcester

## Solutions provided for our customers

## Value generated

We supply lighting systems, including the controls, and install them for our customers.

We then maintain the lighting system for its lifecycle and provide support.

### Solutions provided

- Energy efficiency
- Low maintenance
- Rapid installation
- Longevity of product
- Low total cost of ownership

Read more about **Our customers** on pages 28 to 31

| | Short term | Long term |
|---|---|---|
| Customers | Replacement of ageing technology with improved lighting systems | Innovative lighting that delivers cost savings and additional benefits, such as data capture and presentation |
| Shareholders | Opportunity to invest in a company that pays a progressive dividend and with a robust balance sheet | Sustainable profit growth drives future shareholder returns |
| Employees | Opportunity to work with an innovative market-leading company within the lighting industry | Continual development with a variety of Group companies in a number of different territories |
| Environment | Build on the work of many years, delivering energy saving products and continuing our carbon offset programme | Develop and implement our sustainability strategy as we drive towards net-zero |
| Communities | Employment opportunities and supporting local charities | Providing sustainable employment in the local areas where our businesses are located. |

# Strategy.

**Our products are sold throughout the world. The Group management team is passionate about developing the business for the benefit of the shareholders, employees and customers. With the energy and ability of our staff we look forward to the future with enthusiasm. Our aim is to create shareholder value through market leadership in the design, manufacture and supply of professional lighting systems.**

**Our focus is for long-term growth and stability, achieved through the following priorities:**

## Overview of strategy

- Strategy was designed to build on the values that have been at the core of the company since its inception. FW Thorpe has been built on product innovation – design and product development is fundamental.
- The Group is product led. This enables us to maintain competitive advantage with marketing-leading products, utilising technology to retain and attract new customers.
- Sustainable growth is key to our stakeholders – targeting new customers in existing or new territories, using our product portfolio to drive into new sectors.
- Control of the manufacturing processes is of utmost importance – key processes are kept in-house with targeted investment in new machinery as required.
- Family principles and how we treat our people is fundamental to our success. The Group prides itself on the development of people from within the organisation, providing training and experience as well as maintaining our core values.

### 1 Focus on high quality products and good leadership in technology

Customers continually require new and innovative ways in which to reduce the operating costs of their lighting installations. There is also the requirement to reduce their environmental impacts.

#### Progress to date

- Continued enhancement of features for the SmartScan wireless system
- Shared product development between certain companies within the Group
- Electric vehicle charging and road safety products now to be marketed by a number of Group companies

#### Future opportunities

- Further development of SmartScan
- Continuous research and development
- Targeted acquisition

#### Associated risks C

- Product acceptance
- Initial product introduction

#### Strategy in action

See more on pages 48 to 51

### 2 Continue to grow the customer base for Group companies

With the continued investment in the product portfolio and the broad range of sectors we can service, the focus will be on expanding our customer base in new markets and territories.

#### Progress to date

- Targeted approach in the Netherlands and France with Thorlux industrial product and controls portfolio
- Introduce Famostar product portfolio to territories where the Group has a presence
- Introduce Zemper product portfolio to territories where the Group has a presence

#### Future opportunities

- Consider further sales offices overseas
- Potential business development investment
- Investment in sales personnel in the UK and Europe
- Targeted acquisition

#### Associated risks A C D J

- Short-term cost increase without immediate return
- Prolonged time required to establish FW Thorpe brands

#### Strategy in action

See more on pages 32 to 33

## Risk key

- (A) Adverse economic conditions
- (B) Changes in government legislation or policy
- (C) Competitive environment
- (D) Price changes
- (E) Business continuity
- (F) Credit risk
- (G) Movements in currency exchange
- (H) Cyber security
- (I) Exit from the European Union
- (J) Impact of Ukraine conflict on domestic and global economies
- (K) Sustainability & climate-related risk

## 3 Focus on manufacturing excellence

Along with continued product development, the need to innovate the production process is essential.

### Progress to date

- Famostar facility extension project successfully completed
- Completed solar investment at Thorlux
- Expanded injection moulding facility at Zemper Spain to support the manufacture of select components for the Group

### Future opportunities

- Continued development of manufacturing facilities and processes for Ratio EV products in the UK at the Target Park facility
- Continual investment in facilities and processes across the Group

### Associated risks C E

- Reduced productivity while changes are implemented
- Learning curve on introduction of new products and processes

### Strategy in action

See more on pages 34 to 35

## 4 Continue to develop high quality people

One of our main sources of competitive advantage, it is imperative we continually develop and retain talent within the business.

### Progress to date

- Apprentice scheme continues
- Investment in management training
- Training and development

### Future opportunities

- Continued investment in training and personnel development
- Inter-company collaboration teams to develop a broader understanding of the whole business

### Associated risks C I

- Ability to retain staff in competitive local job markets
- Potential loss of UK personnel from the EU

### Strategy in action

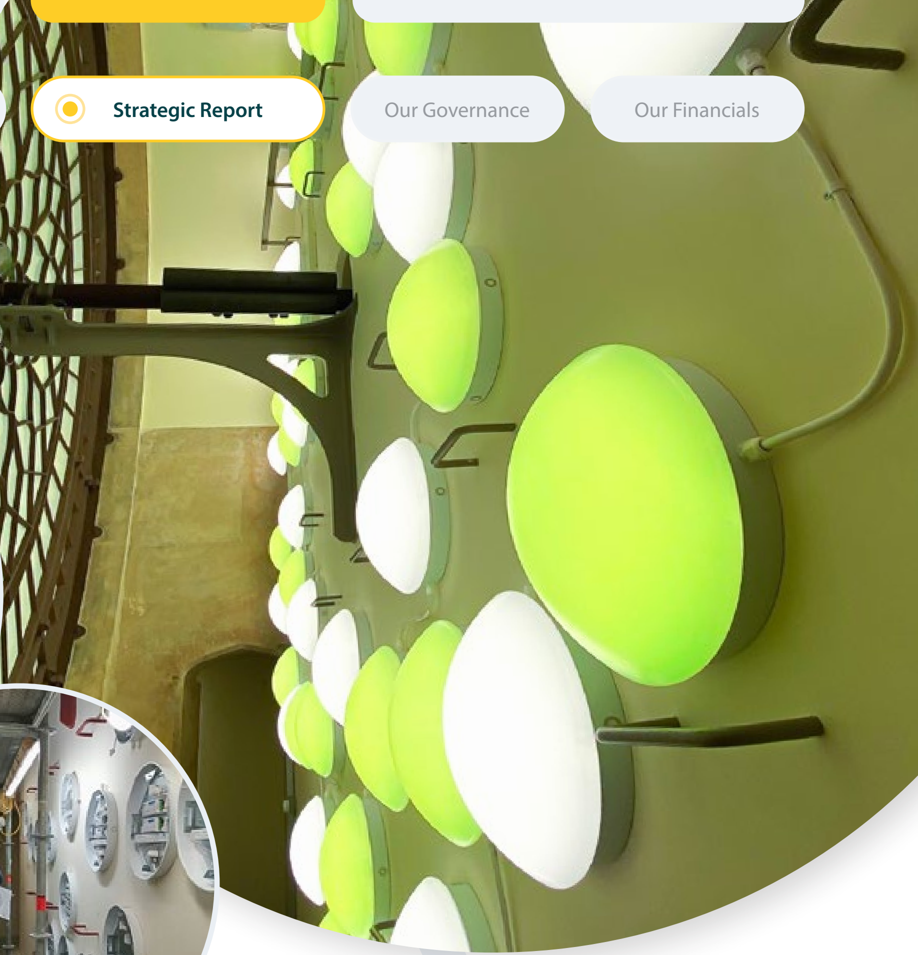
See more on page 63

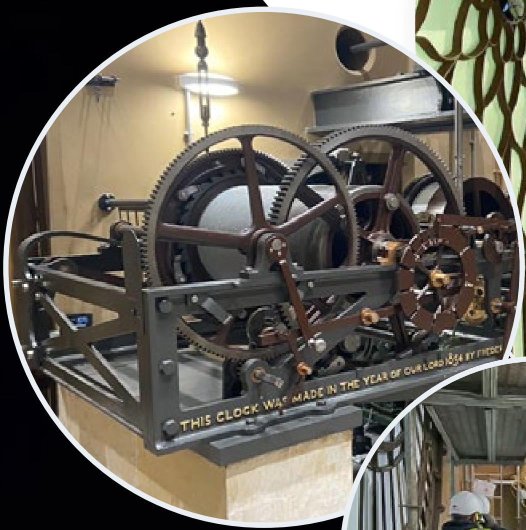
STRATEGY IN ACTION

# Thorlux illuminates London landmark.

**The Elizabeth Tower, better known as Big Ben, is one of the most instantly recognisable landmarks in the world. Standing at 96 metres (316 feet) high, the famous clock tower overlooks the River Thames at the north of the Palace of Westminster.**

The tower is topped with the Ayrton Light, which was installed in 1885 and is a lantern-like structure which serves as an illuminating beacon. It is thought that Queen Victoria requested to see from Buckingham Palace when members of either the Commons or the Lords were sitting after dark. Initially the Ayrton Light was powered by gas jets and was then converted to electricity in 1903.






Thorlux is proud to have been involved with the five-year programme of essential renovations to conserve the tower, supplying luminaires and wireless lighting controls. In 2016, building services consulting engineers S I Sealy approached Thorlux to support them with the engineering and development of new lighting to the rooms and service areas of the tower, as well as bespoke fixtures for the clock faces and Ayrton Light.

SmartScan wireless controls were utilised in the rooms of the tower: wall-mounted switches provide wireless commands to the luminaires, resulting in less cabling and therefore less damage to the historic building fabric.

## Clock face figures

**228** Luminaires

**55,000** Individual LED chips

**60%** Energy saving

## Illuminating the Great Clock faces

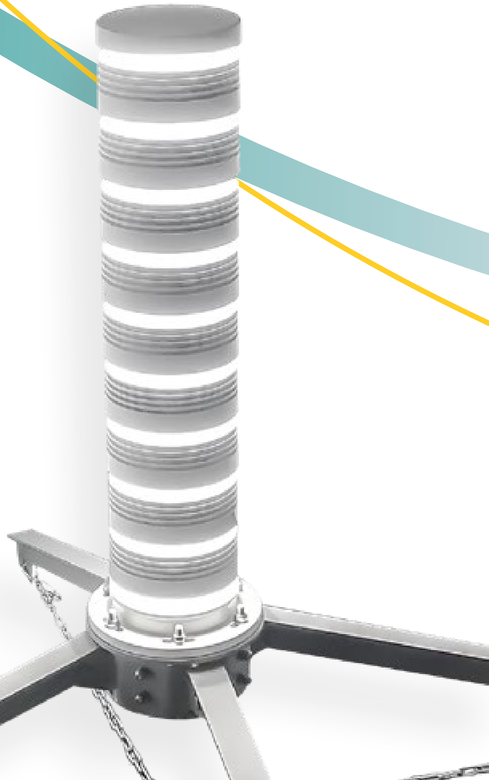
Surveys were first carried out to validate the existing lighting provision before Thorlux worked with S I Sealy to develop a solution that met the specification.

Site trials were undertaken to prove the solution, which involved replacing 12 of the existing luminaires in the south clock face with prototypes of the new LED fixtures. The trials were a huge success and proved that the LED solution would make no difference to the appearance of the clock faces, which are enjoyed by visitors from all over the world.

The final design was developed and supplied, with the four clock faces being illuminated by 228 luminaires and over 55,000 individual LED chips. All this was achieved whilst also providing a 60% energy saving.

> **I think it is fair to say that Thorlux has provided a fantastic service, carrying out various different iterations of the clock face lighting and Ayrton light designs until the aesthetics were approved by the client. Their contribution began at the outset of the project, working directly with the team to develop the light fitting designs, and being involved in fine tuning of the lighting controls of the clock face to match the original gaslight colour."**

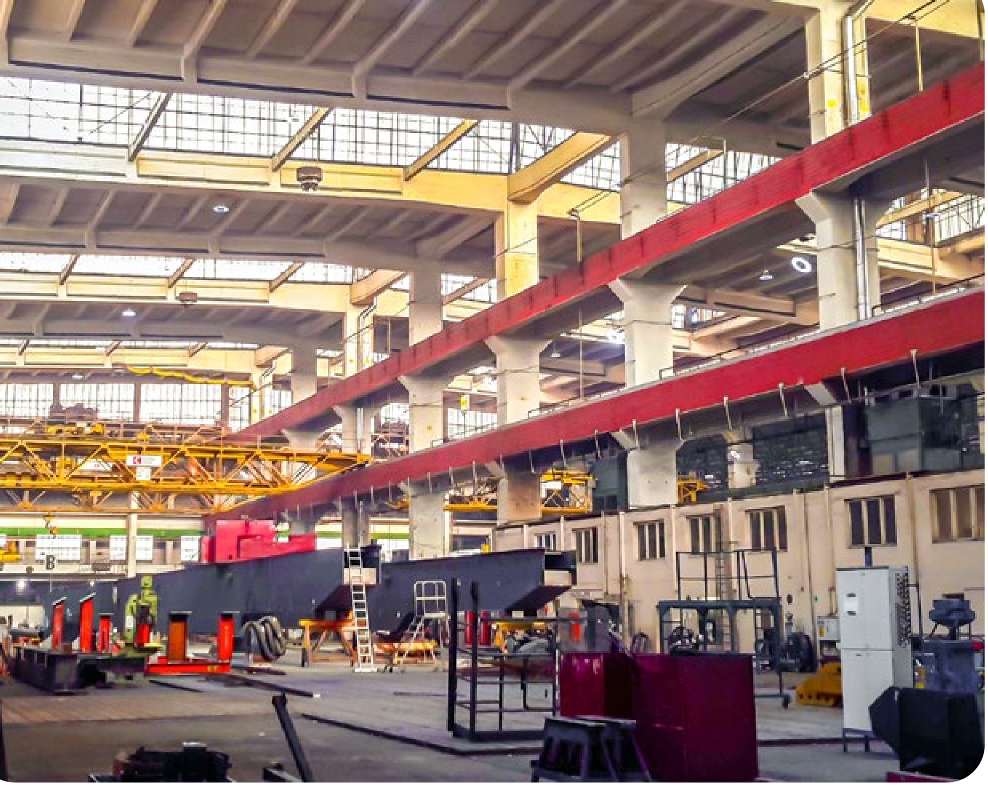
**Patrick Busby**
Head of Building Services (South)
for Sir Robert McAlpine Ltd



## Upgrading the Ayrton Light

**The challenge was to provide a solution in keeping with the history of the structure while modernising the light and reducing its environmental impact.**

Thorlux developed a bespoke fixture using energy-saving LED technology with highly efficient lenses to control and distribute the light, providing an intense downward beam of light through 360 degrees. The optics are a modern-day equivalent of the original Fresnel lenses used to control and distribute the light. A series of 'light rings' stacked on top of each other provide the visual effect required in a compact size to fit inside the lantern structure. The modern optics also significantly reduce the amount of upward light. A prototype was produced and a site trial was conducted to validate the principle and observe the effects. Different locations throughout the city were used as test sites for viewing and evaluation purposes. The final solution was then designed and engineered with a bespoke mounting bracket to utilise existing fixing points within the structure.



STRATEGY IN ACTION

INTELLIGENT LIGHTING
SCHAHL LED

## Company profile...

**In September 2022, FW Thorpe acquired 80% of the share capital of SchahlLED Lighting, solidifying its business in Germany and providing further growth opportunities.**

- SchahlLED is a leading turnkey provider of intelligent LED lighting systems for industrial and logistics applications in the DACH region (Germany, Austria and Switzerland)
- The company's roots date back to 2006, when it was established through a spin-off from Richard Schahl GmbH & Co KG, a German distributor of speciality lamps.
- In 2019, financial investor Active Capital Company acquired a majority stake in SchahlLED to support the company in its strategic growth plan.
- SchahlLED has since successfully enlarged its sales network through organic growth and two add-on acquisitions of betterLeds in North Germany and LED Technics in West Germany.
- The company conceptualises projects, delivers the lighting systems, oversees installation and assists in software integration and data analysis.
- SchahlLED and Thorlux have worked together since 2019, distributing SmartScan products primarily into the German market.

**50yrs+**
Lighting experience

**700+**
Projects completed

**80,000+**
Intelligent LED luminaires installed

# Locations and sales network...

- SchahlLED is headquartered in Unterschleißheim/Munich.
- In addition to its headquarter, the company has installed two sales hubs in the North (Weyhe/Bremen) and West (Cologne) of Germany.
- SchahlLED has a sales network of six internal salespeople and 19 external sales partners.
- It is active throughout the DACH region, Poland and Czechia.


# History...

**1964**
Foundation of Richard Schahl GmbH & Co. KG

Distribution of special lamps for photography, film and television

**1999**
Formation of LED segment with acquisition of LED team of Elite Inc, a LED distributor

First German distributor of high-performance LED technology

**2006**
Formation of SchahlLED GmbH & Co. KG via a spin-off of the LED components and luminaires business

**2012**
Start of intelligent LED technology sales

**2013-2017**
Innovations: IPL-series corrosion resistant luminaires, SLL-series IP65 linear luminaires, the slimline-series, LED hall luminaires (SLH-series)

**2019**
Key supplier relationship established with Thorlux Lighting

**2019-2020**
Launch of strategic road map

Addition of management and sales capacities

Market launch of Thorlux technology

**2021**
Acquisition of betterLeds

Acquisition of LED Technics

Addition of attractive lightline product range

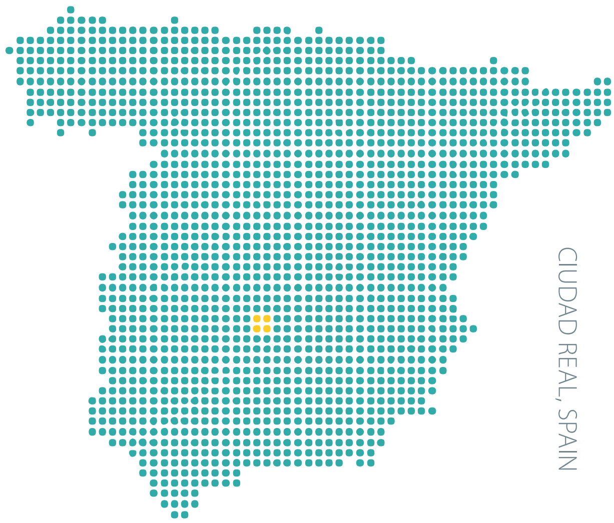
**2022**
FW Thorpe acquires 80% of the share capital of SchahlLED Lighting


**830m²**
Newly built factory

**Two**
Additional cutting-edge machines

**50%**
Increased production capacity

**120.5kW**
Photovoltaic system




STRATEGY IN ACTION

# Zemper injection moulding factory.

**To address the challenges faced by several Group companies in sourcing plastic moulded components externally, a strategic decision was taken to leverage the expertise and production facilities of Zemper. However, Zemper's plant in Almagro had insufficient production capacity and space to meet the increased demand.**

The most viable solution was to construct a new factory adjacent to Zemper's main facility in Ciudad Real, to produce all Zemper's plastic components. As well as providing the necessary space to manufacture plastic components for other Group companies, this approach also eliminated the need for daily transportation of components from Almagro to Ciudad Real.

The newly built 830m² factory now accommodates six machines, including two cutting-edge automated production machines and CNC machining capabilities for efficient mould production. Plastic production capacity has increased by 50%, which is a significant improvement.

In line with a commitment to sustainable practices, a noteworthy addition to the new factory is the installation of a 120.5kW photovoltaic system on its roof. This renewable energy infrastructure further reinforces the company's efforts to reduce its carbon footprint and operate in an environmentally responsible manner.


STRATEGY IN ACTION

# New warehouse facility for Famostar.

**Famostar recently unveiled its state-of-the-art warehouse facility in the Netherlands. With the previous warehouse operating at maximum capacity, the company had resorted to utilising off-site storage facilities. The newly constructed building offers an additional 1,076m² of space, eliminating the need for external storage and streamlining the movement of goods within the company's operations.**

The design of the new warehouse prioritises energy efficiency. Natural light floods the interior space through large windows, reducing the reliance on artificial lighting. In addition, on the roof, 266 photovoltaic panels are projected to generate approximately 110,000kWh of energy per year, resulting in a significant reduction of 52 tonnes of $CO_2e$ emissions.

**266** photovoltaic panels to generate 110,000kWh of energy per year

**38%** increase in space

**1,076m²** additional space

# Key performance indicators.

**The following key performance indicators are considered to be the most appropriate for measuring how successful the Group has been in meeting its strategic objectives.**

## Financial…

### Revenue (£m)

**+23%**

| | Revenue (£m) |
|---|---|
| 2023 | 176.7 |
| 2022 | 143.7 |
| 2021 | 117.9 |
| 2020 | 113.3 |
| 2019 | 110.6 |

Performance in 2023

- Another year of growth, building on 2022 performance
- Revenue growth across the Group, driven by Thorlux
- Addition of SchahlLED, nine months of results included

### Operating profit (£m)

**+13%**

| | Operating profit (£m) |
|---|---|
| 2023 | 27.8 |
| 2022 | 24.7 |
| 2021 | 19.2[1] |
| 2020 | 16.3 |
| 2019 | 17.6[2] |

Performance in 2023

- Solid improvement, positive addition of SchahlLED
- Increase suppressed by margin pressures from material costs and increased operating cost pressure from wage rate and general inflation

### Basic earnings per share (pence)

**+9%**

| | Basic earnings per share (pence) |
|---|---|
| 2023 | 18.72 |
| 2022 | 17.16 |
| 2021 | 13.57 |
| 2020 | 11.45 |
| 2019 | 13.91 |

Performance in 2023

- Driven by operating results
- Increased number of shares due to exercise of executive share options

### Operating cash (£m)

**+61%**

| | Operating cash (£m) |
|---|---|
| 2023 | 31.9 |
| 2022 | 19.7 |
| 2021 | 21.9 |
| 2020 | 19.4 |
| 2019 | 21.6 |

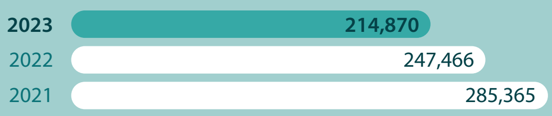
Performance in 2023

- Impacted by operating results
- Stock holding starting to reduce following investment to protect against supply chain disruption

# Sustainability...

## $CO_2$ emissions ($tCO_2$) (Scopes 1,2 and 3)

**-13%**

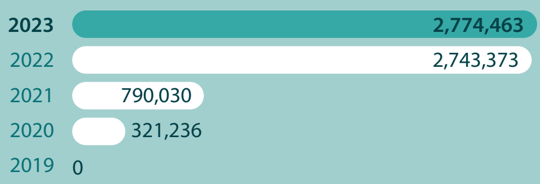



### Performance in 2023

- Investment in solar energy generating capacity at factories in the UK, Netherlands and Spain
- All remaining electricity consumed across the Group is from renewable sources

## Renewable energy usage (kWh)

**+1%**




### Performance in 2023

- Solar generation, renewably sourced electricity
- Further solar investment to be completed in 2023/24

[1] 2021 excludes the exceptional item in respect of Lightronics fire £1.6m

[2] 2019 excludes the profit on disposal of property of £1.9m

# Operational performance.

## 2023 Group company overview

**FW Thorpe Plc encompasses individual companies that concentrate on particular market sectors and geographical locations. The companies provide the Group with diversity as well as risk mitigation, as they do not compete with one another and are complementary.**

The companies within the Group can be affected differently by trends and economic impacts within their respective markets. The continuing development and market adoption of LED lighting and controls technology allows Group companies to share the benefits of their product and technical expertise, differentiating themselves from competitors.

The 2022/23 financial year was another year of improved performance, driven largely by improved operating results at Thorlux Lighting and the addition of SchahlLED in Germany, the Group's long-term distribution partner, for which nine months of results are included. This year was the first when the operating results for the Group's Dutch companies, Famostar and Lightronics, did not improve, due to inflationary pressures on margins; however, both companies produced a creditable ratio of operating profit to sales.

Zemper performed well in its first full financial year as part of the Group; with strong performance in France and an improved second half performance in Spain, the company delivered results in line with expectations.

Within the Group's 'other companies' segment, there were improved results at TRT following a disappointing 2021/22, as well as, generally, progress across the other UK companies.

The supply chain challenges suffered last year have dissipated to a degree. Although the Group continues to carry forward higher stocks of certain electronic components, it has actively reduced stocks in other areas. Group procurement teams will switch their attention from sourcing to value going forwards.

Employee costs continued to increase, driven by wage increases; this will continue for the coming months until headline inflation rates come under control. Within the Group, companies take pride in paying above minimum wage levels. This year, an additional special cost-of-living payment was also made in December across the Group, targeted at those suffering hardship from increased domestic bills.

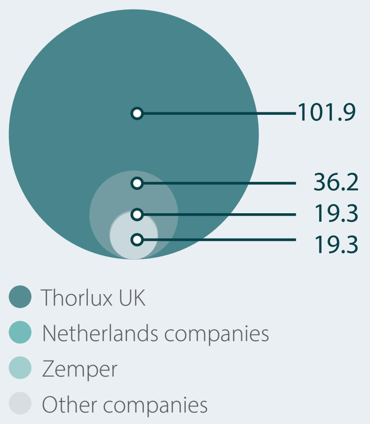
Selling prices have been increased where possible, in a fair and responsible manner, to combat inflationary pressures, but negotiating these increases through to the order book has been more successful with some companies than others. Electricity cost increases have been somewhat offset by successful investments in solar PV on the roofs at the majority of Group buildings.

In summary, there has been a solid increase in revenue across most Group companies, with operating results improving in most companies compared with last year. The addition of SchahlLED and continued growth in Thorlux's export business continues to match the Group's ambition of diversifying its revenues in terms of territorial sales.

The Group continues to be underpinned by the development of market-leading lighting equipment and by investment in manufacturing and employee capabilities, as well as continuing to strive to deliver excellent customer service.

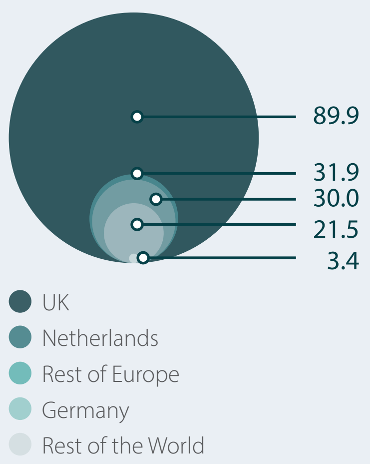
The following is an overview of 2022/23 for each company.

### Group total revenue (£m)[1]




[1] Excluding intercompany

### Revenue by region (£m)




[1] Excluding intercompany

## Thorlux Lighting

**This was another record year in terms of revenue and operating profit, with service levels returning to normal. Orders, as expected, were lower than last year, with less activity in certain sectors; however, this allowed manufacturing to catch up, returning the outstanding order book to more realistic and manageable levels.**

The operations team have certainly delivered this year; with supply chain challenges easing, the focus has been on improving customer service and reducing lead times to more sensible levels. With the improvement in component availability, Thorlux's engineering resource has been able to move the focus away from sourcing and redesigns, to more forward-looking activities supporting product innovation.

Continued investment in sales activities has yielded dividends again this year. Some investment in sales support teams is required to underpin this growth, as well as further investment in direct selling presence in certain sectors and territories continuing in 2023/24.

Large scale projects also had a positive effect on results this year. Whilst these have a dilutive impact on operating results because of lower than normal margins in the services element, such as for surveying or subcontract installation activities, the contribution to operating profit improved again this year.

Revenue

**£92.7m**

+10% (+15%), excluding SchahlLED adding £16.9m (9mths)

Thorlux's capability to offer a turnkey service enables it to secure significant projects with solid product margins.

Revenue from outside the UK has grown again, with strong contributions from Germany and Scandinavia in particular. Revenue from Australia was good for the second half of the year, with solid results for the whole year. Results from the Republic of Ireland were also strong.

SchahlLED is included in the Thorlux segment this year. The Group is pleased to welcome SchahlLED, having worked together for many years selling Thorlux energy saving solutions into the German market, targeting the industrial and logistics sectors. Initial performance has been as expected, adding £17m to revenues and a solid operating profit return before acquisition related accounting adjustments.

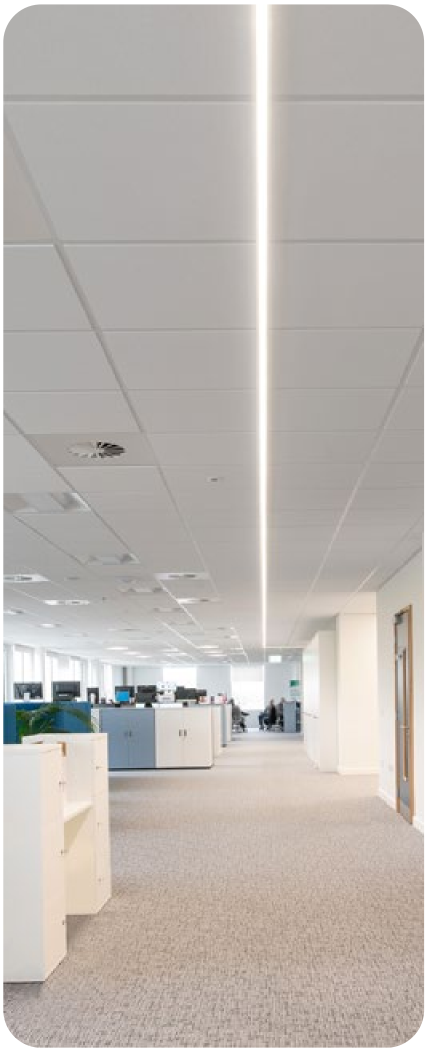
See pages 32 to 33

Product innovation is a founding principle of the Group, and Thorlux continues to lead the way. The SmartScan platform has delivered strong revenue growth again this year, with new features added as part of the generation 2 launch. New products include a commercial luminaire range with reduced material usage and energy consumption, underpinning Thorlux's sustainability credentials. Adding to this, Thorlux will market and distribute Ratio EV's io7 charger before the end of 2023, bringing lighting and electric vehicle charging together as a one-stop solution for customers.

Capital investment centred around the completion of the solar PV project as well as extending the electric vehicle fleet, continuing Thorlux's commitment to sustainability and reducing its total carbon emissions.

With Thorlux having delivered another year of strong revenue growth, the target will be to progress again following investments in customer-facing activities as well as targeted investments in new territories. The wider economic conditions of inflation and higher interest rates may have an impact on demand, as will a potential change of government in the UK. Whilst energy costs are slowly reducing, there is still a push for both carbon reduction and data reporting – areas where the SmartScan system excels and has a proven track record. Along with the impending ban on fluorescent lamps across the UK and the EU, these factors should counteract any slowdown in general capital investment commitments.

**Image:** Fujifilm, Bedford



# Operational performance. continued

## Philip Payne

**Another respectable performance this year built on the results of last year. Operating profit has again improved but was dampened by investments in sales and marketing resource, planning for the future and working with both Famostar and Zemper to develop the UK market.**

Products for the architecturally discerning are at the core of the Philip Payne business model. The ability to offer something different to the standard trade portfolio distinguishes the company from its competitors. The recent launch of the company's new iON exit sign is an example of a new product targeted directly at the specifier.

This year Philip Payne supplied products for the following notable projects including the London Stadium and Birmingham Council house, to name but two.

Specto-XT, a wireless emergency lighting solution, offers customers the ability to comply with safety standards with minimal disruption. This important compliance tool is sadly overlooked in some organisations. Philip Payne will continue to market this essential safety system to targeted market sectors.

Philip Payne continues to target growth from other segments of the emergency lighting market whilst supporting the development of the Group as a whole, aiming to promote both the Zemper and Famostar brands in the UK, targeting different parts of the market, utilising diverse sales channels. The investment in sales and marketing in these areas will hopefully come to the fore during the next few years.

New Philip Payne managing director Nick Revell is welcomed to the Group. Nick is charged with continuing the many years of stability and profitable growth delivered under the stewardship of David Taylor, who retired at the end of the 2022/23 financial year. The Group looks forward to Nick moving the business forward from solid foundations built by David and the team over many years.

Whilst this year has seen some improvement in performance at Philip Payne, the Group expects the combination of investment in the selling function, expansion of the product range and new management to deliver progressive results over the next few years and beyond.

Revenue
**£3.9m**
+20% (+16%)

**Image:** Birmingham Council House, Birmingham

## Solite

**Another year of growth for Solite was delivered by a combination of clean-room and bespoke projects. Operating profits also rose as sales price increases and material cost management yielded some benefits. This operating profit performance, returning the business closer to pre-pandemic levels, is especially pleasing.**

Solite continues to focus on operational performance and managed to return lead times to more acceptable and competitive levels. There will be further investment in this area during 2023/24, as Solite looks to build for the future by improving key manufacturing processes.

The product portfolio continues to be refreshed: the ability of Solite to offer engineered solutions specific to customer needs is an important facet of the business. As well as supplying the traditional customer base this year, Solite has also supplied projects in both the retail and transportation sectors, demonstrating its capability to deliver a bespoke solution for a variety of sectors.

As Solite starts the new financial year, the order book is good; the business has secured a large project for a UK battery plant for electric vehicles and has a number of prospects in more traditional business areas as well as in some new sectors targeted in recent years. Solite is in a good position to build on the success of this year.

Revenue

**£4.4m**

+12% (+21%)

**Image:** WuXi Biologics, Dundalk, Ireland

# Operational performance. continued


**Image:** The Sir Robert Peel pub, Walsall

## Portland Lighting

**Fortunes for Portland were mixed this year. Traditional outdoor sign lighting sales were down, and the development of a new selection of products to target the road and traffic sign market has yet to deliver the growth planned. However, with a new dedicated person now leading the road safety division, there were some promising signs as the Group closed the financial year and started 2023/24.**

Results for the year were mainly impacted by a reduction in spending in the traditional retail and hospitality sectors. This was further compounded by investment in personnel to support Portland's endeavours in the road safety market.

Portland continues to develop products for the road safety market as well as investing in sales and marketing resource. The business has developed some excellent innovations, including a retrofit solution to road crossing safety lights ('Belisha beacons').

This retrofit option provides local authorities with an opportunity to reutilise existing groundworks and mounting posts, saving the time and expense of road closures. Another road safety product is well advanced and will be launched early next year.

Sustainability remains a focus. Following a reduction in plastic packaging last year, the business has managed to reduce its gas usage considerably – saving both carbon emissions and cost.

Whilst the traditional markets of sign lighting have been quiet recently, Portland continues to be optimistic about growth from sales into the road safety market.

Revenue
**£3.2m**
–17% (+35%)

## TRT Lighting

**TRT's revenue bounced back this year. Selling prices started to improve in the second half of the year and, whilst the operating profit performance continues to be below the standards set by the Group, it is a solid improvement on last year's results.**

Street lighting projects contributed most of the revenues for this year. Tunnel projects were at lower levels, with only some smaller scale projects in the UK and Australia. Some larger projects have been secured and ordered for delivery in 2023/24; these higher margin projects will make a strong contribution to results for 2023/24.

The new operational leader at TRT has made a positive impact. Service levels are good, and the business continues to improve its ability to respond to peaks in customer demand. Some improvement is required in stock management following investment in certain stock lines to protect against supply challenges; this now needs to be managed to more sustainable and lower levels.

Significant effort is being focused on product development; for example, an exciting new product will be launched into the street and amenity lighting market towards the end of 2023 which further underpins the Group's reputation for innovation and sustainability, and other new ideas are progressing. The business will continue to build its amenity range, collaborating with other businesses within the Group. Expect to see the results of these innovations in next year's annual report.

TRT starts the new financial year with a solid order book and a few decent sized tunnel projects on the books and in progress. The Group expects a strong operating profit performance for the coming financial year, building on the improved performance for this year.

Revenue
**£10.1m**
+16% (–18%)

**Image:** Hereford Cathedral Close, Hereford

# Operational performance. continued

**Image:** Hoge rij, Deventer, Netherlands

## Lightronics

**Whilst revenue has grown this year, operating results for Lightronics are a little disappointing. Margins were squeezed in the first half of the year; however, the business continues to deliver a very respectable ratio of operating profit to sales.**

The main challenge during the year has been managing increases to supply chain costs. Some progress was made both in improving selling prices and reducing costs, but there is work to do. The commercial organisation continues to develop under the leadership of Lightronics' new commercial director.

Product innovation is fundamental for Lightronics, as it is across the Group. The company is working on a number of shared developments with both TRT and Thorlux.

These businesses share certain product lines and customer types, so the company will continue to find ways to exploit these synergies to the Group's benefit.

Following the completion of building works last June, the Group has invested in further solar PV, which supports operations at Lightronics today as well as into the future. The business will look to invest further in the new financial year to support sales and marketing activities.

Margins improved in the second half of the year; Lightronics expects this to continue into the new financial year, following some positive results on purchase price negotiations in the supply chain. The business starts the new year with a solid order book, with a clear target of improving operating returns in 2023/24.

Revenue

**£24.8m**

+13% (–2%) (constant currency +10% (+2%)) (exc. Thorlux)

## Famostar

**Having delivered many years of double digit and profitable growth, the business has taken a "pause for breath". The business continues to target certain customer activity, embed SmartScan technology into its product offering, and develop Thorlux product sales into the Dutch market.**

Famostar has a solid position in the Dutch market, producing high quality sustainable emergency lighting solutions; however, Famostar continues to look for ways to expand into new territories. The project with Philip Payne to expand sales into the UK market continues, although progress has been limited to date.

The sale and distribution of Thorlux products into the Dutch market continues to make steady progress. Famostar continues to invest in sales and marketing resources and hopes to see improved results. Finding additional good quality people is the main challenge in a tight local labour market.

Sustainability is a key focus for all Group businesses, and Famostar continues to review ways of reducing the impact on the environment in terms of the composition and manufacture of its products. This year Famostar committed to introducing solar PV panels on the roof of its new facility, which will generate enough electricity to power the building each year.

The new warehouse and manufacturing facility was completed before the close of the financial year. The Group expects to see operational efficiencies this coming financial year now that all operations are on one site.

See page 35

Famostar will continue to strive for growth domestically through existing channels, offering SmartScan and delivering projects with the Thorlux product portfolio. Export markets will continue to be explored in conjunction with other Group companies.

Revenue

**£11.5m**

+4% (+20%) (constant currency +3% (+25%))

**Image:** The Streetfood Club, Breda, Netherlands

# Operational performance. continued


**Image:** ExitAlya Surface (surface wall mounted exit sign) and the Spazio Nano (recessed emergency luminaire)

## Zemper

**Zemper joined FW Thorpe in September 2021. Since becoming part of the Group, Zemper has delivered a solid financial performance. Revenues are derived primarily from the local Spanish market, France and Belgium. The business also supplies a wide variety of export markets.**

The business is deeper into the value chain than most Group companies: with its ability to injection mould its own plastic components and populate finished printed circuit boards; it also has its own robotic final assembly and testing process. There has been further investment in these facilities during the year, with the addition of injection moulding capacity that will support the Group as well as additional investment in surface mount machinery that will also facilitate synergy projects for the wider group.

See page 34

Supply cost increases hampered operating results; however, this was partially offset by increased revenues in the targeted growth territories of France and Belgium and several new successful product launches which stimulated order intake in the second half year.

Synergy projects continue, and the Zemper team has added some significant emergency lighting knowledge and technical expertise to the Group. Projects include in-sourcing of troublesome plastic components, standardisation of product offerings across multiple territories, and continual development of shared product ideas. These synergies take time to implement, but the Group expects to see some benefit later in the new financial year.

This year there is the benefit of a full financial year's results for the Group. Zemper will target continued growth, supported by projects in the UK and the UAE, and drive the improvement of margins so the business can deliver on its medium-term growth projections.

Revenue

**£19.3m**

+37% (last year 9mths included)

Image: Shrewsbury Cricket School, Shrewsbury

PRODUCT SPOTLIGHT

# Innovations from around the Group.

## Ratio **io7**

**The io7 pillar integrates high-performance area illumination and electric vehicle (EV) charging into a single stylish and robust unit. As well as incorporating up to 2 x 22kW fast charging capabilities, the io7 also provides essential illumination for users to safely connect to the charger whilst identifying potential trip hazards such as trailing cables.**

The sophisticated optics of the io7 deliver exceptional area illumination with high uniformity, minimal glare and less than 2% upward light emission, effectively mitigating light pollution concerns. This design ensures a well-lit environment whilst minimising any adverse effects on the surrounding areas.

Furthermore, the io7 can be customised to meet specific requirements, including power availability, charging demands, internet connectivity, lighting preferences and budget considerations. Compatibility with the Thorlux Lighting SmartScan platform guarantees optimal functionality.

By combining efficient lighting and EV charging capabilities, the io7 provides a versatile solution for modern infrastructure. Its contemporary design, durable construction and user-focused features make it an ideal choice for those seeking a comprehensive and sustainable solution to meet their EV charging and area illumination needs.

## TRT **I-Range**

**The robust I-Range has been designed and tested for tunnel and urban passageway applications.**

Features include a tough extruded aluminium body, narrow projection, toughened safety glass cover, and IP66 and IK08 ratings (for water and impact-resistance, respectively). This compact, lightweight luminaire has a smooth flat finish to reduce dirt build-up.

A choice of three lengths, four wattages and eight optical distributions ensures that the I-Range can be integrated into most exterior lighting projects. An angled bracket allows optimal positioning, and a bespoke lensing arrangement maximises efficiency. The I-Range is supplied with a pre-wired mains cable, making this out-of-the-box solution easy to install.

Additionally, the product is delivered in a highly sustainable packaging solution that utilises non-virgin cardboard throughout and avoids the use of plastic. This eco-friendly packaging has the optimal dimensions to protect the product during transportation.

## Lightronics **CEDER**

**The CEDER luminaire, with its conical shape, is used in a wide range of applications in public areas.**

The luminaire has been designed for maximum circularity, minimising the use of raw materials, maximising the reuse of parts and facilitating efficient recycling. The collar can be recycled at the end of the luminaire's service life and used as a base material for a new light post or similar, and the aluminium parts are anodised to allow future recycling without additional treatment to remove a coating.

The luminaire is also designed to accommodate the rapid integration of the latest lighting technology. The LED board and driver unit can be effortlessly replaced without the need for specialised tools, ensuring that future upgrades can be easily incorporated and extending the lifespan of the luminaire.

PRODUCT SPOTLIGHT

# SkyCore family.

**The new SkyCore family is the next generation of luminaires for commercial environments. SkyCore luminaires are designed with the principles of circularity and sustainability in mind. Modularity, maintainability and reduced waste are key considerations, as well as high performance for a variety of lighting solutions.**

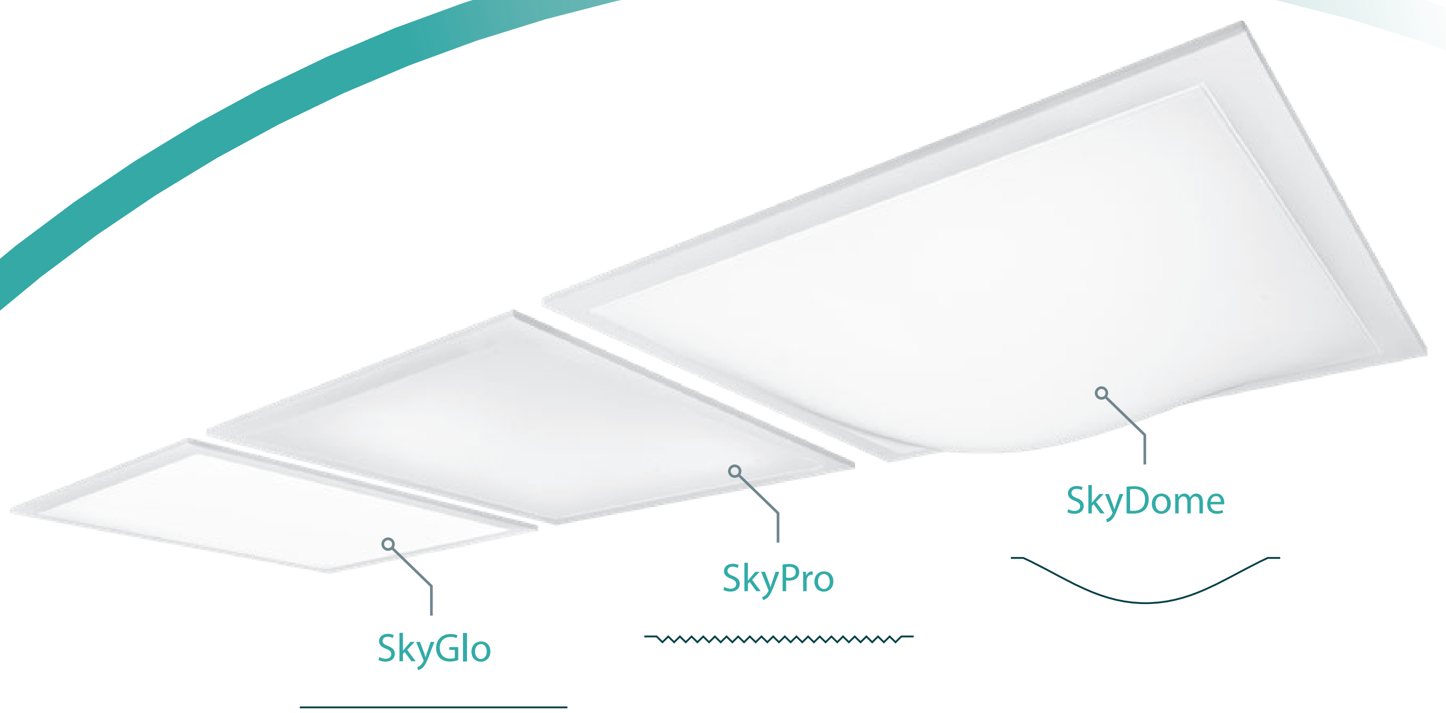
The SkyCore family includes the SkyGlo, SkyPro and SkyDome. All three luminaire types share a common luminaire body, but each has a diffuser option for a different application. SkyGlo has a homogeneously lit flat opal diffuser, ideal for areas where diffuse lighting is required. SkyPro uses a low-glare micro-prism diffuser, making it ideal for office applications or areas with computer screens, and SkyDome, which uses an iconic domed diffuser providing excellent wall and ceiling illumination, is perfect for creating well-lit and stimulating classrooms.

All versions are available recessed, surface mounted or suspended, making the SkyCore family a versatile range of luminaires for a wide variety of applications.

A solution for every space.

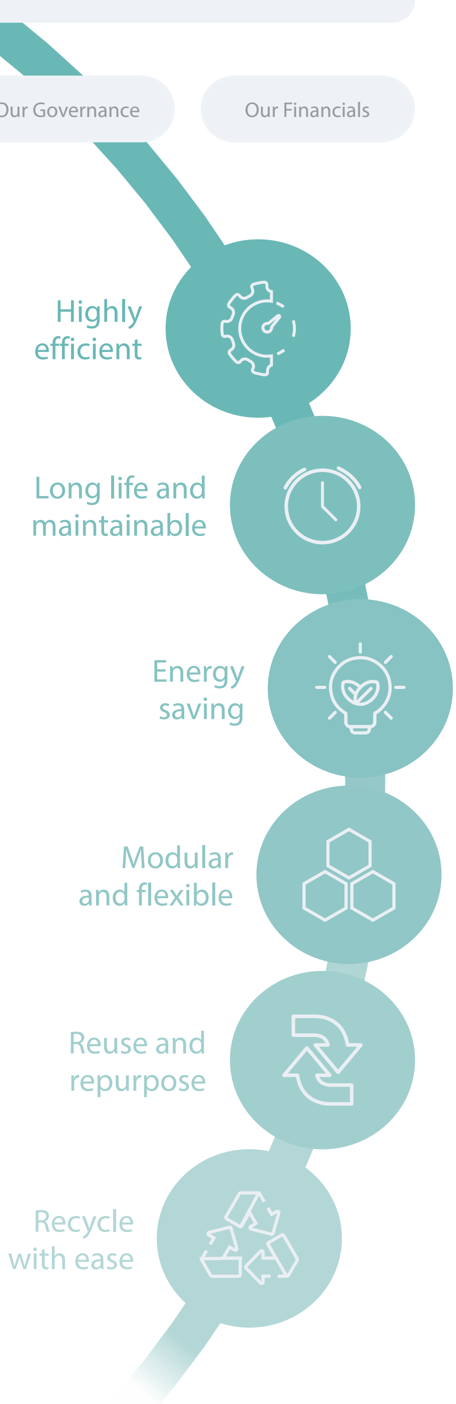
Lighting for your comfort.

**The power is in your hands.**



PRODUCT SPOTLIGHT

# Making changes that matter.




**Thorlux is passionate about minimising its environmental impact. The SkyCore family was therefore designed as follows:**

## Using modular components; giving flexible options

**The principles of circularity aim to eliminate waste by keeping as much of the original product material in use for as long as possible, which is why the SkyCore family has been designed to provide a long and reliable life of at least 100,000 hours.**

The luminaires are fully serviceable and have a modular design. Each luminaire comprises a luminaire head and gearbox which can easily be separated for servicing or repurposing in the future, helping to reduce maintenance time, waste, and the costs associated with replacement. The modular serviceable design allows the luminaire to be fully maintainable throughout its life, keeping it in service longer. Individual components can be removed for ease of servicing or replaced for upgrading should the need arise.

Once the product reaches its end of life, it can easily be disassembled and recycled.

Each SkyCore luminaire can be adjusted on site to one of four predetermined wattages, through the wattage selector mounted on the gearbox.

This clever feature means room light levels can be increased or decreased if there is a change in use or occupier.

## Reducing material waste

**During development of the SkyCore family, manufacturing efficiency and reduced waste were key considerations; this led to a change in the design process.**

The development team carefully considered material types and how they could be used to improve the design and minimise waste during the manufacturing process. Through careful selection of steel sheet size and optimising the component layout, two luminaires can be manufactured from each sheet, with a utilisation of over 80%. The waste material from the centre of the luminaire frame is used to manufacture the accompanying gearbox. The steel comprises at least 27% recycled content.

## Minimising energy consumption

**The greatest environmental impact of a luminaire is during its operating phase – more specifically, due to the energy it consumes.**

The SkyCore family has been designed to be highly efficient, with versions producing 146.9 lumens per circuit watt (LL/cW), minimising a building's lighting load. This can be reduced further with SmartScan, the award-winning wireless lighting management system, which ensures that luminaires consume only the energy required to light the space.

# Financial performance.

"The increase in **Group profitability** has been driven by another **positive year from Thorlux** and a **positive contribution** by recent acquisitions."

**Craig Muncaster**
Joint Chief Executive, Group Financial Director and Company Secretary

**The directors have pleasure in submitting their annual report and the audited consolidated financial statements of the Group and the Company for the year ended 30 June 2023.**

## Results and dividends

Revenue increased by 23.0% to £176.7m with operating profit increasing by 12.6% to £27.8m, supplemented by the addition of SchahlLED acquired in September 2022 and an additional three month's contribution from Zemper, acquired October 2021. Excluding both additional elements, revenue increased 10.7%, with operating profit up 8.8%.

The increase in Group profitability has been driven by another positive year from Thorlux and a positive contribution by recent acquisitions (although dampened by acquisition related fair value adjustments). There was a solid performance by the Netherlands companies, with the other UK companies improving performance in the main. Operating profit before acquisition adjustments reached £29.8m (2022: £25.8m), up 15.6%.

Both acquisitions, Zemper and SchahlLED, made positive contributions of £4.1m (2022: £2.2m) before amortisation costs of acquisition related intangible assets. Given the Group has committed to acquiring the remaining shares over the next few years, we account for 100% of the revenue derived by these companies but adjust the operating profit for intangibles valued at acquisition and profit before tax to reflect the minority shareholding. For added complexity, SchahlLED predominantly distribute Thorlux products, so there are further adjustments at a revenue and operating profit level.

The remaining UK companies all posted positive contributions with improvements in all except for Portland; however, the overall results for the other companies continues to be dampened by the results from our overseas sales offices in the UAE and Australia.

Net finance expense is impacted by both the Zemper and SchahlLED acquisitions; however, the recent upturn in interest rates have seen returns on our significant cash holding improve in the last quarter of the year.

The taxation charge represents an effective rate of 18.6% (2022: 16.7%). The rate is higher than the previous year driven by the addition of profits from Germany and Spain with a higher headline rate and the substantively enacted higher future UK tax rate. The effective tax rate for UK companies is lower than the current corporation tax rate due to patent box relief driven by the Group's product innovations.

Cash balance remained strong following significant investments during the year.

In April 2023, the Company paid an interim dividend of 1.62p per share (2022: 1.54p) amounting to £1,898,000 (2022: £1,803,000). There were no special dividends during the year (2022: 2.27p, £2,659,000). A final dividend of 4.84p (2022: 4.61p) per ordinary share is proposed, amounting to £5,674,000 (2022: £5,403,000). If approved, the dividends will be paid on 24 November 2023. Total dividends paid during the year amounted to £7,301,000 in aggregate (2022: £12,079,000). The final dividend for 2022 was paid on 25 November 2022.

## Cash and liquidity management

The Group's cash is managed in accordance with the treasury policy. Cash is managed centrally on a daily basis to ensure that the Group has sufficient funds available to meet its needs and invests the remainder. The majority of cash is placed with approved counterparties either on overnight deposit or time deposit. There is a series of time deposits that are maturing on a rolling cycle in order to meet regular business payments, with a margin for larger regular and one-off payments as well as seasonal variation in cash requirements.

The Group primarily trades in sterling. There is an exposure to foreign currency as the Group buys and sells in foreign currencies and maintains currency bank accounts in US dollars, Australian dollars, UAE dirhams and euros. The activities of buying and selling in foreign currency are broadly matched with currencies bought and sold as required in order to minimise currency exposures. Larger exposures would be hedged in order to reduce the risk of adverse exchange rate movement. There were no currency hedging derivatives in place as at 30 June 2023 or 30 June 2022.

## Pension scheme position and funding

The latest triennial actuarial valuation was completed as at 30 June 2021. This valuation showed that the pension scheme position remains in surplus and a funding level for the future has been agreed between the trustees of the scheme and the directors of the Company. The directors consider it unlikely that any changes to the present funding levels will have any significant effect on the strength of the Company's statement of financial position.

## Group research and development activities

The Group is committed to research and development activities in order to maintain its market share in the sectors and territories we operate. These activities encompass constant development of both new and existing products to ensure that a leading position in the lighting market is maintained. During the year, the Group spent £1,874,000 (2022: £2,096,000) on capitalised development costs, which includes internal labour.

## Property, plant and equipment

The directors are of the opinion that the market value of the freehold land and buildings is in excess of their net book value. Whilst it is considered that the market value is significantly greater than the net book value for many of the Group's properties as a result of being acquired between one and over 20 years ago, management considers that undertaking formal valuation exercises would be costly for limited value and consequently no formal exercise has been undertaken.

Investment this year continued at a higher level compared with previous years. The main capital expenditure focused on the extension of the Famostar building, a new injection moulding facility for Zemper to support an insourcing project for the Group and an increased investment in solar PV panels for the Thorlux and Lightronics factories, further underpinning of our sustainability credentials.

## Creditor payment policy

The Group's policy concerning the payment of its trade creditors is to accept and follow the normal terms of payment among suppliers to the lighting industry. Payments are made when they fall due, which is usually on the day after the end of the calendar month following the month in which delivery of goods or services is made. Where reasonable settlement discount terms are offered for early payment, these terms are usually taken up. The number of days represented by the Company's year-end trade payables is 45 (2022: 42). The Group continues to report on payment practices and performance as per UK legislation.

## Internal financial control

During the year, a member of the Group finance department has visited all operating sites to assess their compliance with a selection of key control procedures and any non-compliance reported to the Group Board. If there any areas of non-compliance noted as part of this process they are addressed.

In addition, the executive directors regularly visit all operating sites and review with local management financial and commercial issues affecting the Group's operations. Regular financial reporting includes rolling forecasts and monthly financial reports comparing performance against plan as well as the previous year. These reports are reviewed locally with a Group representative and monitored by the Group Board. Accordingly, the directors do not consider that an internal audit department is required.

**Craig Muncaster**
Joint Chief Executive, Group Financial Director and Company Secretary

12 October 2023

Group total revenue (£m)
+23% (2022: +22%)
**£176.7m**

Group operating profit (£m)
+13% (2022: +29%)
**£27.8m**

Net cash generated from operations (£m)
+61% (2022: -10%)
**£31.9m**

Net assets (£m)
+10% (2022: +6%)
**£160.3m**

# Section 172.

## Stakeholder engagement

**The Group has the responsibility for managing the challenges that affect the business on a daily basis; this also includes our impact on our key stakeholders. Our ability to engage and work constructively with these stakeholders underpins the long-term success and sustainability of the Group.**

### Key stakeholders and how we engage with them:

The directors are aware of their duty under Section 172(1) of the Companies Act 2006 to act in the way they consider, in good faith, would be most likely to promote the success of the Company for the benefit of its members as a whole, and in doing so have regard (amongst other matters) to:

- The likely consequence of any decision in the long term.
- The interest of the Company's employees.
- The need to foster the Company's business relationships with suppliers, customers and others.
- The impact of the Company's operations on the community and the environment.
- The desirability of the Company maintaining a reputation for high standards of business conduct.
- The need to act fairly between members of the Company.

The Board considers its key stakeholders to be its employees, customers, shareholders, suppliers and the communities and environment we operate within.

### Employees

#### Why we engage

The right people, capabilities and engagement across the Group is the platform to drive our long-term success.

#### How we engage

- Employee committees
- Health & safety committees
- Employee appraisals, training and development
- Communication via web portal, notices and company newsletter
- Group board meetings held periodically at different company sites

### Customers

#### Why we engage

Understanding the needs of our customer is fundamental. We aim to deliver the correct technical solution, professional service, sustainability of products/services and support the customer during a product's warrantable life and beyond.

#### How we engage

- Meetings/maintaining close relationships via regional sales or business development teams
- Providing Continuing Professional Development seminars and education opportunities
- Company websites
- Customer specific events including trade shows
- Order execution – from lighting design, through to delivery, installation and commissioning

## Shareholders

### Why we engage

Trust from our shareholders is key to delivering our strategy and long-term success. We endeavour to provide fair, balanced and meaningful information to shareholders and potential investors to ensure they understand our performance and strategy.

### How we engage

- Trading updates at appropriate times
- Regulatory News Service
- Investor meetings and presentations, including company visits
- Dedicated Group website
- Annual and Interim reports
- Annual General Meetings

## Suppliers

### Why we engage

We need to maintain reliable relationships with suppliers for mutual benefit and ensure they are meeting our standards, from value for money, quality, through to business ethics.

### How we engage

- Meetings and negotiations with key suppliers
- Site visits
- Quality management reviews and audits
- Attending supplier forums and trade shows

## Communities & environment

### Why we engage

The Group is committed to be a responsible member of the community and considers the environmental impacts of the customer's use of our products as well as our own operations.

### How we engage

- Support local and national charities
- Engagement with local MPs and Chambers of Commerce
- Members of appropriate trade and industry bodies
- Carbon offset scheme in place since 2009, accredited under the Woodland Carbon Code
- Recent investment in solar panels in the UK and Netherlands facilities
- Products and systems support energy saving and carbon reduction – London Stock Exchange Green Economy mark in 2020

SUSTAINABILITY

# Our sustainability journey.

**The Group is committed to addressing today's sustainability challenges and opportunities, adjusting its business strategy accordingly. Understanding the needs of customers and key stakeholders and the expectations they have is central to ensuring that the Group prioritises the most critical issues and operates a responsible and sustainable business.**

Sustainability has been at the core of FW Thorpe for many years. Products are designed for longevity using recyclable materials, and the Group's direct carbon impact has been measured for over a decade, with emissions offset using its own independently certified tree planting scheme. Thorlux Smart technology has been saving energy for customers as well as reducing their carbon impact since 2003.

FW Thorpe holds the Green Economy Mark, which identifies companies and funds listed on the London Stock Exchange that generate between 50 and 100% of total annual revenues from products and services that contribute to the global green economy.

## The journey so far: the Group's progress and plans for the future

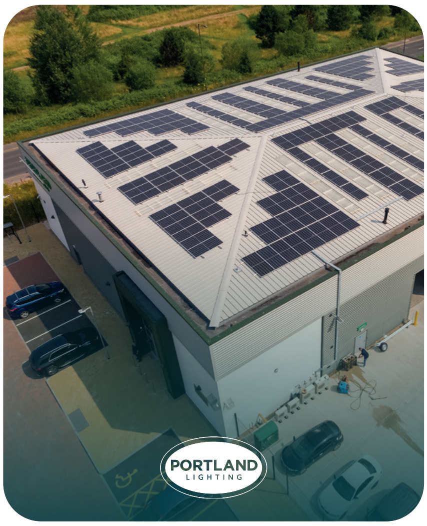
Over the last two decades, FW Thorpe has sought to address the carbon impact of its manufacturing and distribution operations. This has led to a major employee engagement programme on energy efficiency of Group operations, as well as significant recent investments in renewable energy generation with the addition of roof-top solar photovoltaic (PV) panels to the Group's manufacturing facilities.

Since 2009, FW Thorpe has been planting trees on its own land in Wales to offset Group emissions each year. To date, the Group has planted 179,412 trees, offsetting more than 44,385 tonnes $CO_2e$ over the next 100 years.

FW Thorpe has completed its woodland creation project in Devauden, Wales and has purchased 195 acres of land in Herefordshire.

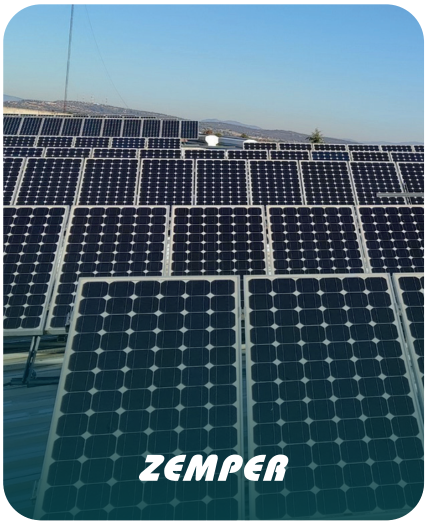
The land has significant potential for connecting existing woodlands for biodiversity and landscape enhancement and the transition from grazing sheep to woodland creation will have little to no impact on food security.

FW Thorpe has been officially recognised as being carbon neutral, with systems of reduction, measurement and certified offsetting in place, since 2012. This status has been independently assessed by a third party in accordance with ISO 14064-1, an international standard for the quantification and reporting of greenhouse gas emissions and removals. Meeting this standard provides independent assurance of the Group's longstanding commitment to sustainability across all its operations worldwide.








**25**
year projection of 12,500 tonnes $CO_2e$ avoided by the use of solar panels
(Based on 2022 conversion factors.)

**25**
year projection of 50,000,000 kWh of electricity produced from solar panels

**500**
tonnes $CO_2e$ avoided per annum by the use of solar panels
(estimated average)

**2m**
kWh electricity production capability per annum from solar panels

# Mapping sustainability.

## Alignment with the Sustainable Development Goals

The 17 Sustainable Development Goals (SDGs) were launched in 2015 by the United Nations (UN). The SDGs aim to end poverty and create a life of dignity and opportunity for all, within the boundaries of the planet. Global sustainable development priorities and aspirations for 2030 are defined which seek to mobilise global efforts among governments, business and civil society around a common set of targets.

FW Thorpe's activities align most closely with six UN SDGs covering the themes of good health and well-being, affordable clean energy, decent work and economic growth, sustainable human settlements, responsible consumption and production and climate action.

SUSTAINABLE DEVELOPMENT GOALS

**3** Ensure healthy lives and promote well-being for all at all ages.

**7** Ensure access to affordable, reliable, sustainable and modern energy for all.

**8** Promote sustained, inclusive and sustainable economic growth.

**11** Sustainable cities and communities.

**12** Ensure sustainable consumption and production patterns.

**13** Take urgent action to combat climate change and its impacts.

# Sustainability in action.

**The link between the Group's sustainability journey and its strategic priorities related to its products, operations, business model and people is vital to the long-term success of the business.**

## Products (design and innovation)

### New products:

- New product design follows the Group's Circular Design Strategy including the development of retrofit solutions for new and existing customers.
- The Group continues to offer increasingly energy efficient products and lighting management systems that further reduce energy and prolong lifetimes.
- The Group focuses on smart technology including enhancements to the SmartScan lighting management system.

Read more about **Sustainability in Action** on pages 60 to 62

### Sourcing:

- The Group is working to increase the use of sustainable materials in products.
- Initiatives are in place to reduce supplier packaging waste.

### Supply chain:

- The Group is committed to its Supplier Code of Conduct.
- Group companies are working with key suppliers to embed sustainable practices and remove single-use plastic from the supply chain.

Read more on pages 61 to 62

## Operations (manufacturing excellence) "responsible production"

### Energy usage

- The majority of the Group's electricity usage is from renewable sources.
- The Group's solar installations have the capability to produce 2m kWh of electricity per annum.
- Continued investment in carbon offsetting programmes.

Read more on pages 56 to 57

### Waste

- All Group companies have been tasked to reduce waste to landfill.

### Distribution

- Systems are being introduced to enable returnable and reusable packaging.
- A policy is in place to increase the use of electric and hybrid vehicles.

### External activities

- The majority of Group companies have electric vehicle (EV) charging stations at the workplace.
- Sales engineers fleet switching to EV.

## Business model

- New product developments support the green economy e.g. electric vehicle chargers
- Several Group companies offer financing models for customer projects.
- The Group promotes the refurbishment or reuse of existing luminaires – e.g. replacement light engines
- Existing products support the green economy – SmartScan.

Read more about **Our Business Model** on page 64

## People

- All Group companies are certified to the international standard ISO 45001 (Occupational Health and Safety Management) or equivalent.
- The Group offers a fully funded employee assistance programme (EAP) and 24/7 GP video helpline.
- All employees are paid above the minimum wage rates and the majority are enrolled in some form of bonus scheme.
- The Group supports equal opportunity, regardless of gender, age, religion, ethnic origin or sexual orientation.

Read more about **Our People** on page 63

# Products.


**From an environmental point of view, the greatest impact of a luminaire is during the operating phase and, more specifically, in the amount of energy it consumes.**

The Group continues to invest in the development of energy-efficient luminaires and control systems, utilising LED technology, including circuit board design, software development, thermal modelling and optical lens design, ensuring its luminaires provide the optimum lighting performance with the best use of energy and minimal stray emissions. Using the most up-to-date and high-quality LEDs, based on criteria such as colour rendering, luminous flux and thermal stability, guarantees that Group luminaires offer exceptional luminous efficacy and long lifetimes.

## New products

The Group endeavours to limit the environmental impact of its products throughout their lifetime, and new product design follows an FW Thorpe agreed circular design strategy. Offering increasingly energy-efficient luminaires and lighting solutions reduces energy consumption and prolongs the lifetime of all products.

Group products have always been engineered to last and extending the life of a product allows it to remain in use for as long as possible; this may be by designing products to be physically durable or to allow the product to be adapted to a user's changing needs through easy upgrade.

The Group actively promotes retrofit solutions for existing and new customers, utilising the bodies of existing luminaires. Designing custom-made gear trays to replace traditional light sources with LEDs realises significant benefits in terms of energy efficiency, maintenance costs and luminaire lifetime.

## **Sustainability in action** - Philip Payne

Philip Payne supplied the original emergency luminaires for the London Stadium and was approached by the appointed engineering services provider to retrofit the luminaires to be LED. Philip Payne designed custom-made gear trays, utilising the existing luminaire bodies and eliminating the expense and inconvenience of replacing the entire luminaire.

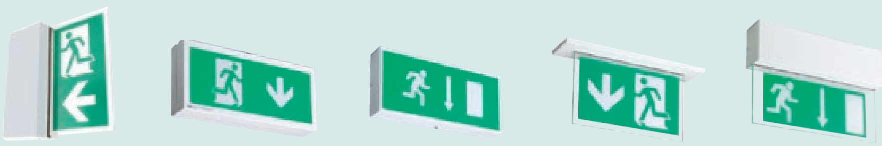
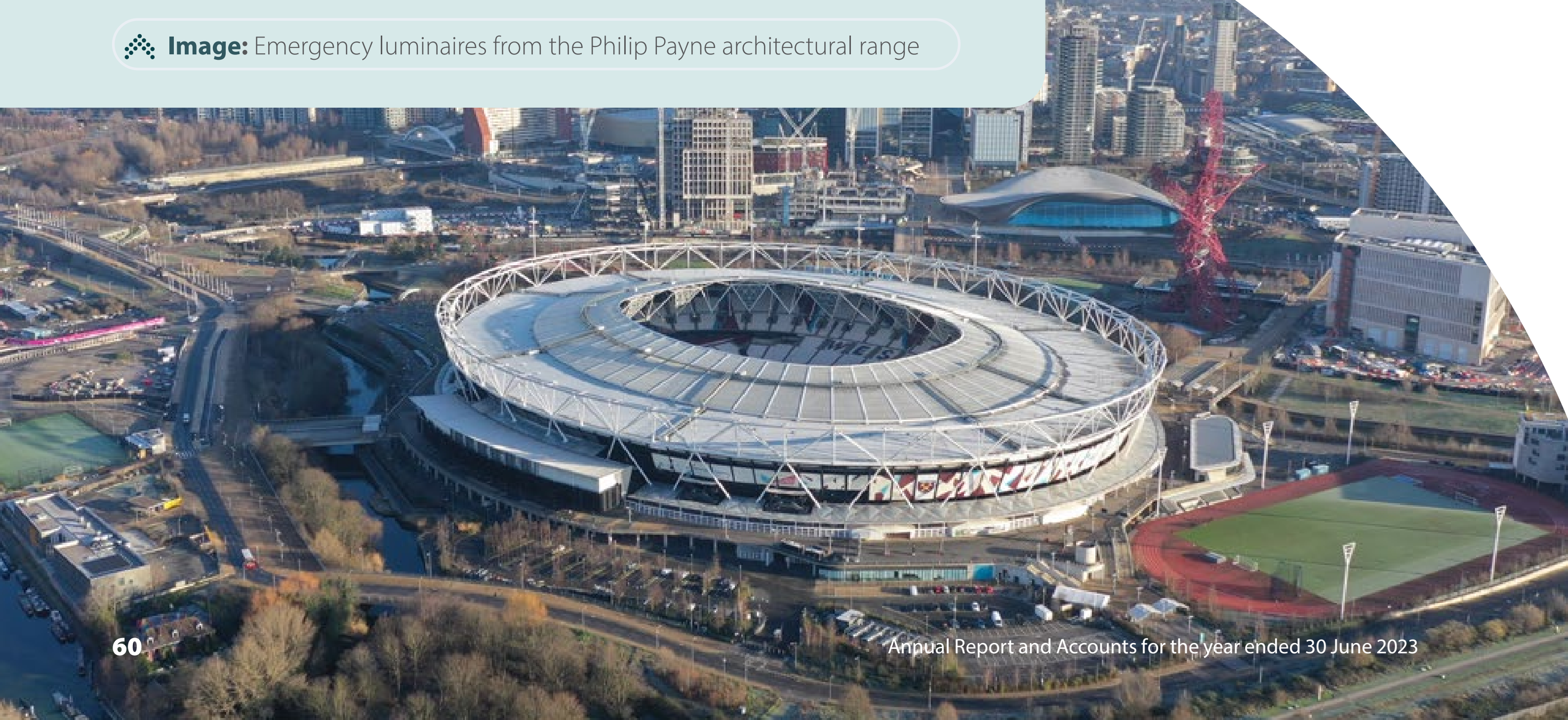


**Image:** Emergency luminaires from the Philip Payne architectural range

**Image:** Philip Payne secures the retro fit exit signs for London Stadium



# Sustainability in action

## Famostar

Famostar has joined the Circular Circuits consortium, a five-year research programme focused on the design of next generation electronics for a circular economy. The project involves 11 universities and research institutes and 17 industrial partners.

## Thorlux

Thorlux continues to collaborate with WMG Business through a Knowledge Transfer Partnership. The focus for the project is to assess and improve product development processes to ensure new products become more circular in their design.

The aim is to embed circular principles and concepts into the new product development team through workshops and design-related activities.

## Solite

Solite is supplying retrofit gear trays to sites with old Solite fluorescent luminaires. Reusing approximately 70% of the original product significantly reduces the quantity of new materials required and the $CO_2$ associated with their production and transportation.

## Portland

Portland Lighting has developed the Crossafe Converter, a variant of its Crossafe illuminated post oversleeve, providing the potential to upgrade thousands of older illuminated pedestrian crossing posts installed throughout the country.

The heavy gauge base of the existing steel post is still serviceable after many years. By cutting and removing the top of the old post, the existing old base housing is left in situ to be repurposed. The new Crossafe Converter is installed in just 20 minutes, fitted, and secured to the old base with a built-in clamp system without the need to close the crossing.


## Sourcing

Sustainable sourcing, which includes considering social, ethical and environmental performance factors, is integrated into the Group's practices and procurement decisions. All materials used in manufacture comply with the Restriction of Hazardous Substances (RoHS) directive, which applies to electrical and electronic equipment. The choice of material in a luminaire has a significant environmental impact throughout the product's lifetime, so the Group is working to increase the use of sustainable materials to reduce this impact. The recycled content of all raw materials is being established and increased wherever possible.

As the Group begins to embed the principles of the circular economy, one of the first initiatives is to reduce the amount of packaging waste generated by the business. Improved planning will allow Group companies to successfully manage inventory, reduce excess, consolidate deliveries and eliminate the purchase of unnecessary items, all of which will reduce the amount of supplier-delivered waste.

## Supply chain

The Group is committed to its Supplier Code of Conduct to ensure an ethical and sustainable supply chain and is working with suppliers to embed sustainable practices.

The Group's mainline suppliers are based throughout the world and vary considerably, both in terms of size and amount spent with them. All product suppliers are subject to an approvals process before they are permitted to supply products. Many hold international quality standards and accreditations and are regularly audited to ensure ongoing compliance with quality standards and other regulatory requirements.

In addition, the Group has a large number of non-product suppliers, who are predominantly based in Europe. These suppliers are subject to the same due diligence processes as the product suppliers.

# Operations.

## Energy usage

The Group has installed solar PV units on the roofs of most of its UK manufacturing facilities, as well as at Lightronics and Famostar in the Netherlands and Zemper in Spain. The units have the capability to deliver over 2 million kWh per annum, reducing the Group's consumption from traditional electricity sources. All remaining significant electricity consumption is now derived from renewable sources.

All Group companies are certified to the international standards ISO 14001 (Environmental Management) and ISO 9001 (Quality Management).

## Waste

All Group companies are required to meet ambitious targets to reduce waste to landfill through the economical use of resources and recycling of materials. With improved planning, the Group has been able to manage inventory, reduce excess, consolidate deliveries, and eliminate the purchase of unnecessary items – all of which will reduce the amount of supplier delivered waste.

### Sustainability in action

Lightronics has replaced plastic wrap with lashing straps to secure boxes on pallets; these are reusable and returned with every recurring shipment.

## Distribution

Systems are being successfully introduced which lend themselves to the implementation of returnable and reusable packaging, including a customer packaging recycling scheme. All finished goods packaging will be supplied from Forest Stewardship Council (FSC) or equivalent sources.

## External activities

A proactive policy is in place to increase the use of either hybrid or full electric vehicles (EVs). To date, over 50% of company vehicles are either electric or hybrid.

### Sustainability in action

Portland Lighting now uses paper bubble wrap (globular embossed paper) which is 100% recycled and 100% recyclable. This replaces plastic bubble wrap and significantly reduces plastic waste.

## Thorlux Carbon Offsetting Project

**Devauden, Monmouthshire, Wales**

**179,412**
trees planted

**44,385**
tonnes $CO_2e$ offset over the next 100 years

**Image:** The final tree was planted at the Group Carbon Offsetting Project in Monmouthshire, Wales by retiring FW Thorpe Group Director David Taylor, pictured with Chairman Michael Allcock

# People.

## Safety

All Group companies are certified to the international standard ISO 45001 (Occupational Health and Safety Management) or equivalent. The Group is committed to developing a safe and healthy working environment for all employees, consistent with the requirements of the Health and Safety at Work Act.

## Training and development

The Group offers skill and personal development to all employees and continues to support its apprenticeship scheme. A number of senior managers and directors within the Group are former apprentices.

The Group continues to work with Warwick Business School to develop its leaders of the future.

Within the constraints of health and safety, disabled people are given full and fair consideration for job vacancies. Depending on their skills and abilities, disabled people enjoy the same career prospects as other employees, and, if employees become disabled, every effort is made to ensure their continued employment, with appropriate training where necessary.

## Employee engagement and diversity

Employees are kept informed of matters of concern to them by publication and distribution of a company newsletter and other notices, or by specially convened meetings. Committees representing different groups of employees meet regularly to ensure the views of employees are considered when making decisions that are likely to affect their interests.

The Group aims to improve employees' work–life balance by continuing to offer flexible working time models.

The Group offers a fully funded employee assistance programme (EAP) and 24/7 GP video helpline that make available the support and resources needed to address any personal challenges and/or concerns that may affect well-being and/or work performance. The EAP is confidential and free to all employees as well as their eligible family members.

The Group is committed to the highest standards of openness, probity and accountability. The Whistleblowing Policy is intended to assist individuals who believe they have discovered malpractice or impropriety and to offer protection to any employees of the Group who disclose such concerns.

Employees are encouraged to share ideas and solutions through Group suggestion schemes, to encourage sustainable development. Additionally, the FW Thorpe Sustainability Working Group has been set up to share, discuss, learn about and circulate ideas on sustainability topics. A biannual Group sustainability newsletter is distributed to all employees with updates of company environmental initiatives.

The Group pays employees above minimum wage rates as well as an additional annual profit share bonus for all those who meet eligibility criteria, as well as providing access to a pension scheme with a contribution from the respective Group company.

The Group supports equal opportunity, regardless of gender, age, religion, ethnic origin or sexual orientation.

The Group's Modern Slavery Act disclosure is published on the corporate website (www.fwthorpe.co.uk) in the company documents section.

During the year the Group gave

**£16,880**

(2022: £23,153) for charitable purposes. This is made up of donations to charities of £7,116, and to local causes of £9,764.

Number of charities supported

**30** (2022: 27)

Number of apprentices

**16** (2022: 17)


**Image:** The Ratio team playing in a five-a-side football tournament to raise money for Birmingham Women's and Children's NHS Foundation Trust

SUSTAINABILITY

# Business model.

## Governance

Sustainable management and social responsibility are at the core of Group governance. The Board and Group management are responsible for determining the strategic direction of sustainability initiatives and for governance and monitoring of sustainable working methods.

The Company's shares are traded on the Alternative Investment Market (AIM) of the London Stock Exchange. Previously, the Company was not required to comply with the Principles of Good Governance and Code of Best Practice (the 'UK Corporate Governance Code', or the 'Code'). Following a change to the AIM rules in 2018, from 28 September 2018 the Company adopted the Quoted Companies Alliance Corporate Governance Guidelines for Smaller Quoted Companies (the 'QCA Code'), which the Board believes appropriate due to the size and complexity of the Company.

It is Group policy to conduct all business in an honest and ethical manner. The Group takes a zero-tolerance approach to bribery and corruption and is committed to acting professionally, fairly and with integrity in all business dealings and relationships, wherever it operates.

Several small-scale projects have been funded directly or indirectly by FW Thorpe, enabling the customer to benefit from energy savings immediately as well as lowering their carbon emissions.

**Image:** Day of Technology at Lightronics

**Image:** Local mayor visits Thorlux Lighting

## Sustainability in action:

TRT Lighting has achieved International Dark-Sky Association (IDA) approval for eight of its product ranges. The IDA is the recognised authority on light pollution and is the leading organisation combating light pollution worldwide.

## Sustainability in action:

Zemper has been awarded an EcoVadis Silver Medal in recognition of its continued commitment to improving sustainability across its business operations. EcoVadis operates an evidence-based online platform providing supplier sustainability ratings and allows companies to assess the environmental, social and governance performance of its global suppliers.

## Sustainability in action:

Lightronics has been selected for 'De Groene Pluim' (The Green Plume). This mark is granted to organisations that excel in the following SDGs: decent work and economic growth (SDG 8), responsible consumption and production (SDG 12), climate action (SDG 13), and partnership (SDG 17).

**Image**: World Clean Up Day at Famostar

**Image:** Bicycle to Work Day at Lightronics

SUSTAINABILITY

# TCFD.

## Reporting for Task Force on Climate-Related Financial Disclosures

## Overview

### Executive statement

"An important challenge facing FW Thorpe is the global issue of sustainability. The Group commenced its sustainability programme in 2009 and recognises the need to continually invest in greener solutions for its factories, enhance component sourcing and management, foster circular design practices, and develop energy-efficient product offerings to maintain a leading position in the market.

Beyond the well-publicised ongoing tree planting projects, FW Thorpe has continued to roll out solar solutions across its multiple factory roofs. Displaying proactive planning and favourable timing in 2021/22 prior to the energy crisis and supply constraints, the Company acquired an additional 3,000 large PV panels (amounting to £0.8 million) which have been installed on the main Thorlux facility's roof in Redditch.

The Group is making substantial strides in bolstering its sustainability profile. Collaborating with a third-party entity, FW Thorpe has comprehensively collected and collated emissions data from all its operational activities, spanning Scope 1, 2, and 3 emissions.

Internally, the Group is driving various sustainability initiatives. Noteworthy examples include material selection, reduction strategies, fostering reusability, and promoting recycling practices. All Company personnel receive sustainability training and a biannual sustainability newsletter featuring contributions from across the Group. Many of the efficiency enhancements achieved at both the factory and product levels not only reduce costs but also contribute to the company's ability to secure orders and enhance its overall reputation."

**Mike Allcock**
Chairman and Joint Chief Executive

Structure of the TCFD recommendations


**Image:** Tree planting at the Group Carbon Offsetting Project, Devauden, Wales

This is the Group's first TCFD aligned report, to commence the journey on understanding its current position on climate-related risks and opportunities. The TCFD is a framework for overseeing and analysing the Group's climate-related risks and opportunities. The framework has four thematic areas (Governance, Strategy, Risks and Metrics and Targets) that are core elements and eleven disclosure recommendations, defining the scope of information that should be reported, to provide transparency in relation to climate change. FW Thorpe recognises that climate change presents both physical and transitional risks, as well as opportunities, for the business.

FW Thorpe has developed net-zero targets and strategy and incorporated multiple decarbonisation projects. It has procured an external consultant, to help it understand climate-related risks and opportunities this financial year. During the next financial year (2023/24), they will help the Group to conduct climate scenario analysis and provide it with a comprehensive, long-term picture of the potential impacts.

Three time horizons will be used to provide the analysis with a suitable level of granularity and coverage. Best, worst and moderate case scenarios will be used to consider a broad range of eventualities.

The Group will be modelling the likelihood and severity of potential impacts on its operations from flooding, storm patterns, precipitation, mean temperatures and sea level rise, to fully understand the threats and establish a mitigation strategy to safeguard the future of the business against climate change. The Group plans to utilise climate scenario analyses to facilitate climate-related decision-making in an organised, systematic, and analytical manner. The findings will be discussed during the 2023/24 Board level workshop and integrated into the general risk management process.

Following the risk management workshop, the Group will identify material climate related risks and opportunities. Consequently, it will be able to describe the potential impacts of climate-related issues on the Group's financial performance and use in its financial planning process.

During the next financial year, the Group will consider producing a standalone TCFD report, to widen its understanding of the potential impacts of climate change and incorporate mitigation approaches into overall business strategy.

The TCFD disclosures for the Group will continue to evolve. Climate analysis was not performed this year as the Group continued to expand with acquisitions in recent years, resulting in revenue and operations in additional territories such as Spain, France, Belgium, and Germany, that extends the assessment scope. We will develop this analysis during 2023/24 and look to report progress in next year's annual report.

**Image:** Ratio io5 EV charger

# TCFD. continued

## Reporting for Task Force on Climate-Related Financial Disclosures

## Governance

*Summary of disclosure*

*Disclosure of the Group's governance around climate-related risk and opportunities.*

Sustainable management and social responsibility are at the core of the Group's Governance. The Board and Group management are responsible for determining the strategic direction of sustainability initiatives, the governance and monitoring of sustainable working methods.

### Board-level oversight

The Joint Chief Executive, Group Financial Director and Company Secretary in collaboration with the Chairman of the Board are responsible at Board level for the overall Environmental, Social and Governance (ESG) agenda, including the management of climate-related risks and opportunities. Sustainability is a standing agenda item at Board level and is discussed in every Board meeting. From the next reporting year, climate change will become a separate additional agenda item at the quarterly board meetings at each Group company.

Board members received a capacity-building training session in April 2023, as a part of developing FW Thorpe's net-zero strategy. In the next reporting year, separate climate-risk workshops will be held for Board members and managing directors. This will include a general overview of climate change, climate scenario analysis for the Group level and a detailed review of climate-related risks and opportunities that are specific to the business.

The Board considers climate-related issues in relation to its business in the form of research and development (R&D) of its products, decarbonisation of its operations, resource management and its carbon offsetting program. From the next reporting year, the aim is to incorporate, where possible, climate-related issues when reviewing the Group's business strategy, targets and major plans of actions and investments.

The Group's Board remuneration is currently not directly linked to climate/sustainability, but any future share options granted will contain a specific performance condition around carbon reduction.

FW Thorpe is currently reviewing incentives across the Group to consider a potential link to sustainability targets in 2023/24.

### Management-level oversight

At the Group level, we have established a sustainability working group in 2022/23 that includes representatives from the Board and other key stakeholders. The Sustainability Working Group also participated in April's 2023 net-zero workshop.

At subsidiary level, responsibility for the sustainability agenda and climate-related issues lies with each individual business managing director who reports back to the Board, which has overall responsibility.

Currently, FW Thorpe does not have a formal ESG committee. The sustainability agenda is discussed at general meetings across the Group, where subsidiary directors and key management are expected to report back to the Board on sustainability KPIs. Next financial year the Group will consider establishing a formal ESG committee that will include representatives from the Board and key roles relevant to the topic.

Corporate governance structure

Across the Group, meetings with subsidiary directors are hosted every two months. Within each subsidiary, the managing directors are responsible for sustainability and climate change, which are guided by the board. Each managing director has assigned a sustainability champion to their individual business.

Key management personnel have participated in April's 2023 net-zero workshop and will also be joining next year's climate risk workshop. FW Thorpe provides training for all employees on a range of environmental initiatives and an employee suggestion box scheme, with rewards for adopted ideas. The aim is to educate all existing employees, and new starters on sustainability topics.

A sustainability newsletter is circulated every six months with sustainability achievements, relevant articles and communication of future targets and initiatives.

FW Thorpe's Sustainability Committee has purchased Group licenses for software (One-Click LCA), which will enable all the Group's companies to review and assess its products, and fine tune their design, material use / optimisation and efficiency, to reduce the impact on the environment of making and selling the product.

## Strategy

*Summary of disclosure*

***Disclosure of the actual and potential impacts of climate-related risks and opportunities on the business where such information is material.***

FW Thorpe Plc has a long-standing commitment to tackling global environmental challenges, principally through its core business of manufacturing energy efficient lighting equipment. Over the last two decades, the Group has sought to address its operational carbon impact, by working towards carbon neutrality for its manufacturing, sales and distribution operations. FW Thorpe is certified as carbon neutral for its Scope 1 and 2 emissions which relates to the sales, manufacturing and distribution phases of making our products. The goal is ultimately to reach net-zero in 2040, before the UK's target for achieving net-zero carbon emissions by 2050. The Group has made initial assessments of its GHG emissions, which will help it to set validated science-based targets in 2023/24, in line with the Paris Agreement on climate change.

FW Thorpe Plc has been officially recognised as being carbon neutral since 2012, environmental management systems ISO 14001 accredited and follows principles of circular economy under the FW Thorpe Circular Design Strategy. More details can be found in the Sustainability section on page 60.

## Our time horizons

| Time horizon | Years | Description |
|---|---|---|
| Short term | 0-5 | From 2023 to 2027. Short-term climate risks are most likely to result from legislation changes, shifts in market preference and pressures, increased costs and external investment conditions. If the Group does not respond to these pressures, reputational and financial damage is likely. In the short term, the business strategy will be aligned, to prepare for medium- and long-term change. |
| Medium term | 5-15 | From 2027 to 2035. Effective management of medium-term climate risk, both transitional and physical, is expected, to require a broader shift in business strategy and challenging targets for deep de-carbonisation. |
| Long term | 15-30 | From 2036 to 2050. Long-term risk assessment reviews the likely outcome of transitional risk over time. Also, the more prevalent physical risks, including more frequent and extreme weather events. |

The long-term horizon was decided to align with the UK net-zero by 2050 target. Medium term is catered to match with SBTi interim targets. Finally, the short-term time horizon is based on known and upcoming policies.

# TCFD. continued

## Reporting for Task Force on Climate-Related Financial Disclosures

## Risk

*Summary of disclosure*

*Disclosure of how FW Thorpe identifies, assesses, and manages climate-related risks.*

### Risk management

The Board is responsible for the identification and effective management of risks posed to the Group. Due to the impact certain risks could pose, the Board annually reviews the likelihood of risks occurring and the potential impact they could have on the business. The Group as a manufacturer of energy consuming products has an impact on the environment in terms of its operations and its products in use.

Further development of the Group's approach to climate change risk management is building on the Group's evolving understanding of materiality, time horizons and approach to risk.

For a wider assessment of climate-related risks, FW Thorpe has procured an external consultant, to help it understand the risks and opportunities. The consultant will conduct a climate scenario analysis in the next reporting year, and provide the Group with a comprehensive, long-term picture of the potential impacts. The findings will be discussed at the Board-level workshop and integrated into the Company's risk management process. The completed climate risk register will be presented to the Board in the next reporting period for approval.

FW Thorpe has an existing risk management process in order to assess and manage the Group's principal risks. The Group's current overall risk management programme focuses on the unpredictability of financial markets and seeks to minimise potential adverse effects on the Group's financial performance. However, FW Thorpe recognises that climate change may present risks to the business. As a responsible business, the Group acknowledges that it has a duty to effectively manage and mitigate these risks. Moving forward, it plans to work closely with the ESG consultancy to identify, assess, appraise and address any risks and, where possible, capitalise on any opportunities identified.

### Types of climate-related risks

The TCFD provides a framework of two main categories of climate-related risks. The main types of risks are physical (outcomes of changing climate impacts) and transition (outcomes of necessary responses to the challenges presented by climate change and the need for a transition to the low carbon economy).

Physical risks are divided into acute (single events, e.g., wildfires) and chronic (continuous, e.g., sea level rise). In the next financial year, the Group will be modelling the likelihood and severity of potential impacts on its operations from flooding, storm patterns, precipitation, mean temperatures and sea level rise, to fully understand the threats and establish mitigation strategy to safeguard the future of the business against climate change.

Climate-related transition risks specifically refer to the risks associated with the transition to a low-carbon economy. These risks can have a substantial impact on businesses and associated stakeholders. The severity of transition risks is projected to grow in the future. Transition risks are subdivided into market, reputation, technology, policy and legal risks. Market risks analysis reviews changing customer behaviour, market changes and the increasing cost of raw materials. Reputational risks will occur as consumer preferences change and stakeholder concerns on climate-related issues grow, demanding a more rapid change from the sector. Technology risks cover the transition to a lower carbon technology and include the risks around adopting existing products and services, the likelihood of failed investment in new technologies and the overall costs of adjusting to low carbon operations. Policy and legal risks develop from the emerging regulations, which are likely to be enrolled to lessen climate change impacts and accelerate the transition to net-zero. For example, regulations aligned with a price on greenhouse gas (GHG) emissions, increasing reporting requirements (e.g. TCFD reporting) and mandates on current products and services, to align them with a low carbon economy.

### Climate scenario analysis

In the next financial year, the Group will conduct a climate scenario analysis. Three-time horizons will be used to provide the analysis with a suitable level of granularity and coverage. Best, worst and moderate case scenarios will be used to consider a broad range of eventualities.

Climate change cannot be perfectly predicted. Future outcomes depend on the level of action taken in the coming decades. Climate scenario analysis uses possible global warming pathways, to envisage potential futures. This allows a better understanding of the potential risks and opportunities.

## Climate-related Risks

### Transition Risks

| | |
|---|---|
| **Policy and Legal**<br>Mandates on and regulation of existing products and services | FW Thorpe is already subject to mandatory Streamlined Energy and Carbon Reporting (SECR), Energy Savings Opportunity Scheme (ESOS) and climate-related financial disclosures. The Group is aware that additional climate-related regulations could be released soon. Moreover, it is paying attention to the international regulations, due to the international locations of individual businesses. Changes in government legislation or policy can result in reduction in public sector expenditure. Changing policy increases the risk to the order book and increases the complexity of access to EU markets. |
| **Markets**<br>Increased cost of energy and materials | In the next two years the Group is aiming to use expanded climate scenario analysis to understand possible risks to the supply chain.<br>The UK's exit from the European Union has increased the complexity of access to EU markets. Climate change can have potential impact on supply chains, including an increase in certain raw material prices and disruption to some shipping routes. We are already experiencing market disruptions that are impacting the energy supply price, which is likely to continue in the near future. |
| **Technology**<br>Costs to transition to lower emissions technology | FW Thorpe is actively reducing its overall carbon footprint and has installed solar panels on the majority of its manufacturing facilities. Several sites within the Group have no reliance on gas, and the Company intends to continue reducing its gas consumption in the upcoming years. In the Netherlands, the solar installations generate enough energy to offset their usage. In the UK and Spain, solar energy will contribute a portion of the overall energy consumption. No solar power installations have been established at overseas Group sales offices.<br>The Group has a packaging reduction programme, manages its waste, is transitioning to electric vehicles where practical and expanding the number of chargers throughout the individual businesses. It has been working on a net-zero strategy throughout this reporting year and finalised this in April 2023 to incentivise further long-term decarbonisation.<br>Existing competitors, powerful new entrants and the continued evolution of technologies in the lighting industry pose the greatest risk of eroding the Group's revenue and profitability. The aim is to become market leaders and reduce GHG emissions and, through research and development (R&D), the Group will continue to make products and services more efficient, greener and sustainable. |
| **Reputation**<br>Increased stakeholder concern | Stakeholders' concern over the Group's sustainability credentials will continue growing as the world moves to a decarbonised economy. Many of its competitors are actively incorporating sustainability agenda into their operations. As an enabler of global decarbonisation, FW Thorpe's reputation risk is relatively low. The Group is mitigating it by transparent and detailed communication of its current stands and future objectives. In the next reporting period we will update our website with the net-zero SBTi validated goals and carbon reduction achievements. |
| **Physical Risks** | FW Thorpe has not yet made a full climate scenario analysis to assess climate-related physical risks to its sites. A high-level assessment of the primary site in Redditch indicates that the likelihood of extreme weather events at the Redditch site is low. Climate risk assessment of all locations across the globe will be carried out in 2023/24 to understand possible impacts and prepare a mitigation strategy.<br>An acute event is a sudden change in climate conditions leading to extreme weather e.g. heatwave, cyclones, floods. Whereas chronic is a long-term shift in climate patterns e.g. less rain, warming summers, sea level rise, and much more gradual. Extreme weather can damage property and assets, which could cause significant operational impacts. Suppliers may be subject to events of flooding and wildfires, which may impact operations through shipping delays and increased costs. Acute physical risk will be fully accessed in the next reporting year.<br>As a result of rising mean temperatures, the Group has experienced an increase in business disruptions. Rising mean temperatures will increase energy usage, leading to increased operating costs for the business and associated operational emissions. Chronic physical risk will be fully assessed in the next reporting year. |

# TCFD. continued

## Reporting for Task Force on Climate-Related Financial Disclosures

### Climate-related opportunities

The Group will assess the range of climate-related opportunities in the next reporting period, through climate scenario analyses. FW Thorpe is an enabler of global transition to the low carbon economy through the types of products it manufactures and sells. Global efforts to decarbonise have become a climate-related opportunity for the Group to grow its business and increase profitability. To maintain the leadership position on the market, FW Thorpe is constantly investing in the R&D of new products and services.

Lighting accounts for 5% (2.5 billion tonnes) of global $CO_2$ emissions. A global switch to energy efficient light emitting diode (LED) technology could save over 1,400 million tonnes of $CO_2$ and avoid the construction of 1,250 power stations. Most of the environmental impact is from the products that the Group manufactures and sells, especially from the power they use throughout their lifetime.

The Group believes that its efforts will appeal to all stakeholders, especially customers, and improve its business performance overall.

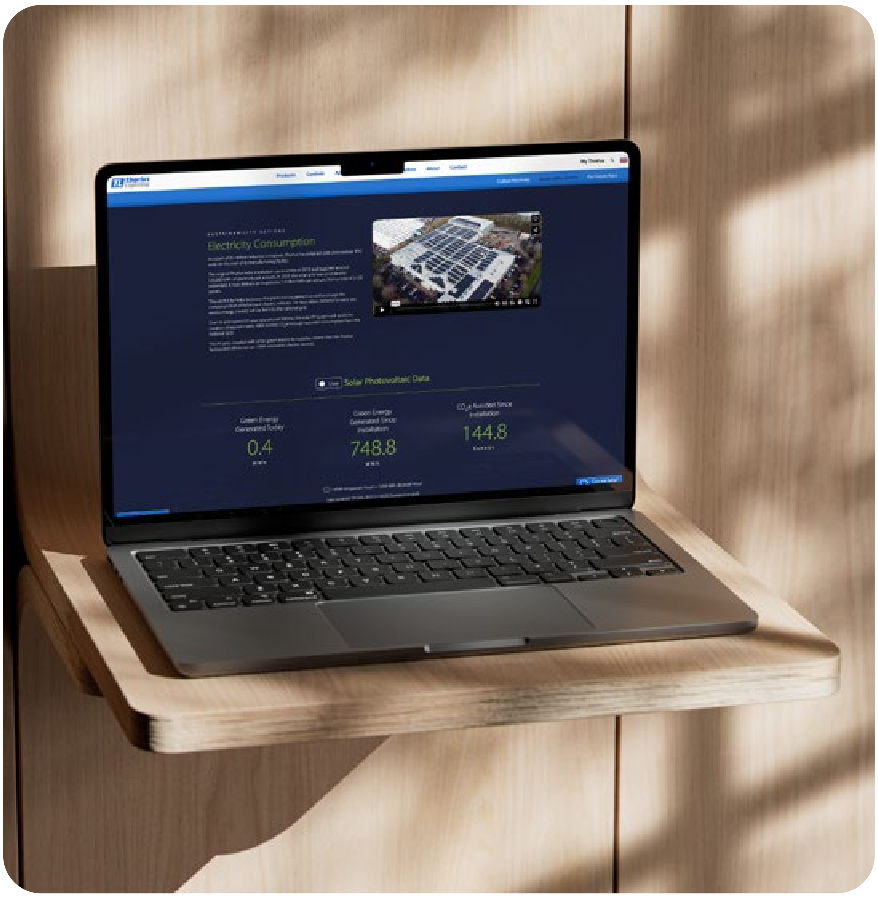



**Image:** Real-time solar photovoltaic data from the Thorlux solar installation

**Image:** Solar photovoltaic (PV) units on the roof of Thorlux's manufacturing facility

# Carbon neutral to net-zero.

**Upstream activities**

A

## Emissions from purchased goods and services

Scope 3

- Purchased goods and services
- Capital goods
- Transportation & distribution
- Business travel
- Leased assets

## Emissions from purchased energy

Scope 2

- Purchased electricity, steam, heating & cooling for own use

**Reporting company**

## Emissions from FW Thorpe manufacturing & operations

Scope 1

- Company facilities
- Company vehicles

**Downstream activities**

B

## Emissions from our goods and services in use

Scope 3

- Transportation & distribution
- Processing of sold products
- Use of sold products
- End-of-life treatment of sold products
- Leased assets

# TCFD. continued

## Reporting for Task Force on Climate-Related Financial Disclosures

## Metrics and targets

*Summary of disclosure*

*Disclosure of the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.*

### Measuring our climate impact

FW Thorpe is committed to operating sustainably and doing what it can to protect the environment. A range of metrics are used to measure the Group's impact, and it has established emission reduction targets to manage the climate-related risks and opportunities. The Group is working to minimise its GHG emissions and has been working to reforest an area in Monmouthshire in Wales since 2009, with almost 180,000 trees planted. FW Thorpe Plc's environmental performance will be reported annually in the future.

To reduce the Group's impact on the environment, it must first be understood and measured. Reducing GHG emissions is a material topic for stakeholders. Therefore, in 2022, FW Thorpe initiated a robust data collection process to calculate its full carbon footprint. The Group's carbon emission reduction plan is aligned with the Paris Agreement 1.5°C scenario (reactive) and full Scope 1, 2 and 3 emissions for the 2021 base year, 2022, and the current financial year 2023 have been calculated.

### Greenhouse gas emissions

In 2022, the Group conducted a thorough data collection process, working with a specialist ESG consultancy, to calculate its full carbon footprint comprising of Scope 1, 2 and 3 GHG emissions. The Group followed the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standards and the guidelines of ISO14064-1.

An initial assessment of the 15 categories of Scope 3 was conducted to determine the categories that are applicable to the business. Subsequently, the relevant spending and activity data was collected, to support the analysis. Emissions are reported on a consolidation, operational control approach, as defined by the GHG Protocol, and all applicable Scope 3 categories have been quantified. As this process is complex, the 2021 data was used to calculate a baseline year. The Group's total GHG emissions (Scopes 1, 2 and 3) were 285,365 $tCO_2e$ for 2021, with Scopes 1 and 2 representing 0.9% and Scope 3 99.1%.

### Group Scope 1, 2 and 3 emissions

| Emission Scope | 2023 | 2022 | 2021 | % Change 2021 to 2023 |
|---|---|---|---|---|
| | | (Restated)* | (Restated)* | |
| Scope 1 | 1,586 | 1,635 | 1,493 | +6.2% |
| Scope 2 (market-based) | 213 | 596 | 1,024 | -79.2% |
| Scope 3 | 213,071 | 245,235 | 282,848 | -24.6% |
| **Total** | **214,870** | **247,466** | **285,365** | **-24.7%** |

* Figures restated due to recalibration of Scope 1 data and market-based data is now being used for Scope 2.

## Emission reduction targets

FW Thorpe has set and will seek validation by the Science Based Targets initiative on the following science-aligned targets:

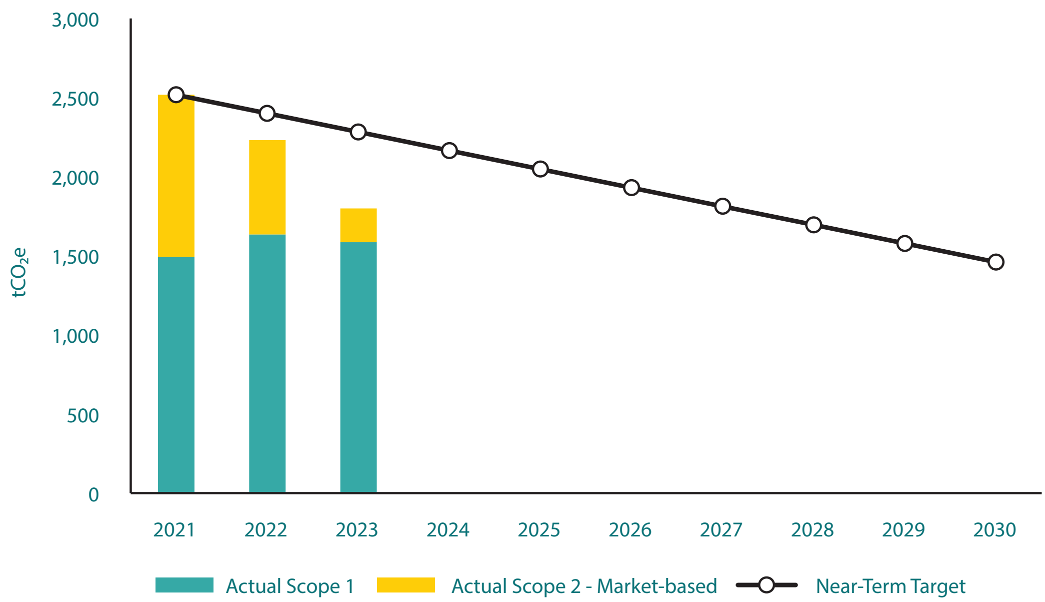
- Reduce absolute Scope 1 and 2 emissions by 42% by 2030, from a 2021 base year on a market-based approach.
- Reduce Scope 3 emissions per £m revenue 51.6% by 2030, from a 2021 base year.
- Reduce Scope 1, 2 and 3 emissions by 90% by 2040 from a 2021 base year, in line with reaching net-zero with a maximum of 10% of emissions being offset by this date.

**Image:** Lightronics receive "De Groene Pluim" award. See page 65.


## Progress against targets

### Scope 1 and 2

Progress against the Group's near-term Scope 1 and 2 absolute target



# TCFD. continued

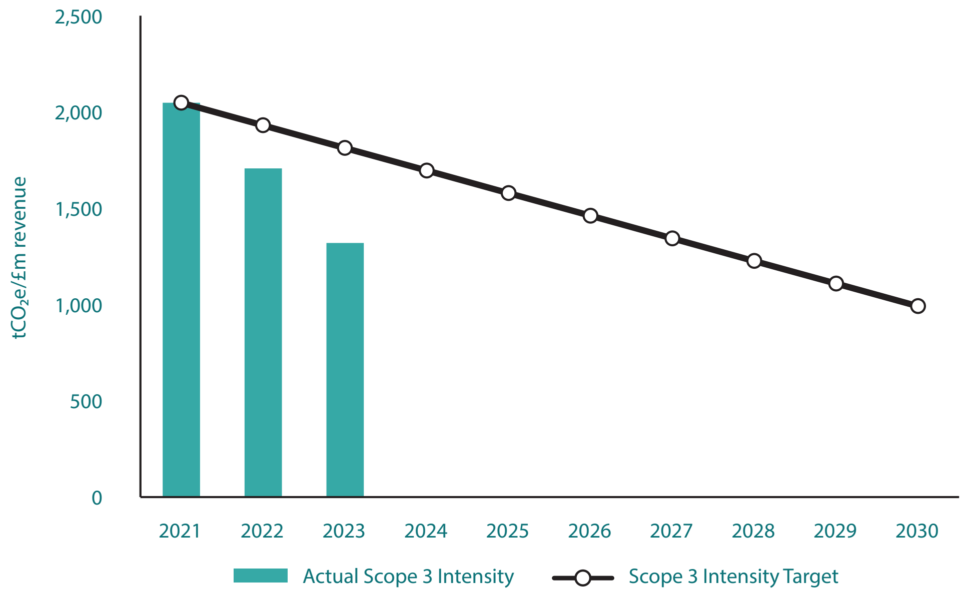
## Reporting for Task Force on Climate-Related Financial Disclosures

The Group's operational emissions (Scope 1 and 2) represent 0.8% of its baseline emissions and result from energy consumption (transport fuels, gas, and electricity) in controlled assets. Between 2021 and 2022, the Group experienced an increase in Scope 1 emissions due to a rebound in driving after COVID, coupled with a decrease in market-based Scope 2 emissions, as subsidiaries began purchasing renewable electricity. Although transport emissions continued to increase in 2023, the switch to electric vehicles should start to influence these emissions.

The Group has set a near-term target to reduce these industrial Scopes 1 and 2 emissions by 42% by 2030, from a 2021 base year. This requires an annual reduction of 4.2%, whilst a total of 28.5% decrease was identified between 2021 and 2023. The Group is currently ahead of schedule. Going forward, a mix of energy efficiency measures, fuel switching, and on-site generation will help to reduce these emissions.

### Scope 3

Progress against the Group's near-term Scope 3 intensity target

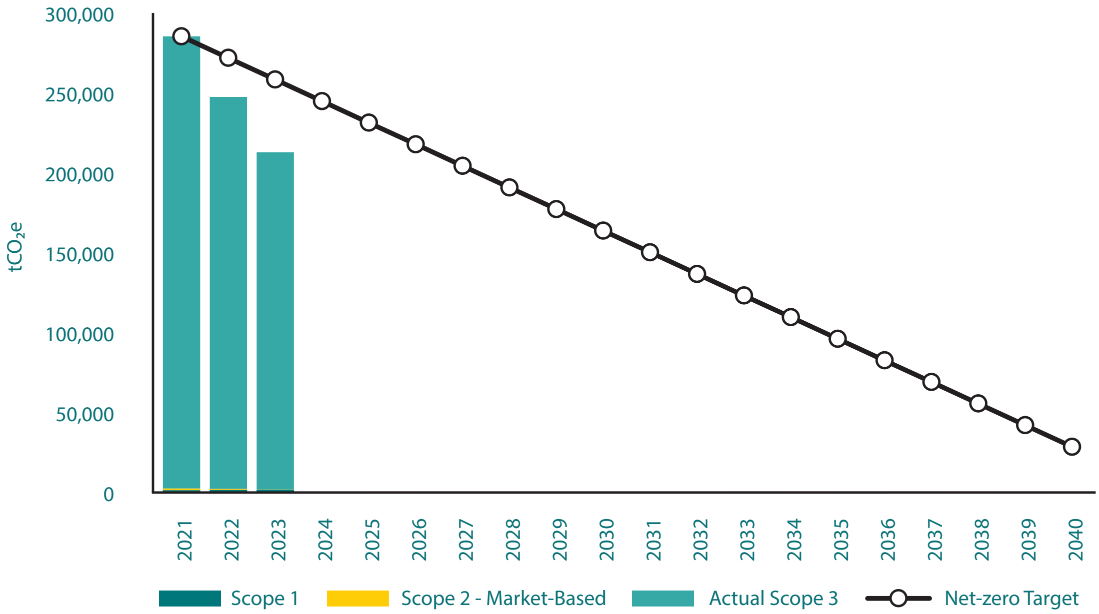



Calculating the Group's indirect Scope 3 emissions enables it to identify the main sources of GHGs outside of its operations. This process provides a baseline for making decisions regarding net-zero. Twelve of the 15 Greenhouse Gas Protocol Scope 3 categories are applicable to the business and have been calculated. The non-applicable categories are further processing of sold products (Category 10), downstream leased assets (Category 13) and franchises (Category 14). Within Scope 3, the largest component comes from the use of sold products (Category 11), accounting for 77.6% of baseline emissions. As the Group sells more products, this category should increase in emissions. However, as electricity grids decarbonise, the emissions per product will decrease. The Group's near-term Scope 3 target requires a 51.6% decrease in the emissions intensity per £m revenue, equivalent to 5.7% annually. Between 2021 and 2023, a 24.6% decrease was achieved, which is ahead of the interim target. This was mainly achieved by an increase in the efficiency of the Group's products coupled with the rapid decarbonisation of electricity grids globally.

Whilst most of our Scope 3 emissions are outside of the Group's direct control, it acknowledges that it has direct control over business travel and influence on employee commuting emissions. Therefore, it will identify opportunities and prioritise implementation to reduce these emissions over the next few years.

**Net-zero**

Progress against the Group's net-zero by 2040 target




The Group has set an ambitious net-zero target of 2040, showing its commitment to action on climate change. This net-zero target requires an annual emissions reduction of 4.7%. Between 2021 and 2023, there has been a 24.7% decrease in total emissions. The Group is more than three years ahead of schedule. To continue making progress, the Group will continue to develop highly efficient products and work with suppliers to procure lower-emission materials.

## The Group's Carbon Balance Sheet for 2021, 2022, and 2023

| | 2023 | 2022<br>(Restated)* | 2021<br>(Restated)* |
|---|---|---|---|
| **Scope 1** | **1,586** | **1,635** | **1,493** |
| Natural Gas | 754 | 960 | 979 |
| Transport | 832 | 675 | 514 |
| **Scope 2 – market-based** | **213** | **596** | **1,024** |
| **Scope 3** | **213,071** | **245,235** | **282,848** |
| 1: Purchased Goods and Services | 34,474 | 35,404 | 31,235 |
| 2: Capital Goods | 2,222 | 1,636 | 1,791 |
| 3: Fuel-related Emissions | 571 | 594 | 538 |
| 4: Upstream Transport and Distribution | 2,780 | 2,497 | 1,737 |
| 5: Waste Generated in Operations | 100 | 178 | 127 |
| 6: Business Travel | 379 | 265 | 435 |
| 7: Employee Commuting | 1,063 | 1,104 | 727 |
| 8: Upstream Leased Assets | 278 | 190 | 150 |
| 9: Downstream Transport and Distribution | 12 | 184 | 285 |
| 10: Further Processing of Sold Products | - | - | - |
| 11: Use of Sold Products | 166,714 | 196,902 | 239,087 |
| 12: End-of-life Treatment of Sold Products | 29 | 36 | 61 |
| 13: Downstream Leased Assets | - | - | - |
| 14: Franchises | - | - | - |
| 15: Investments | 4,449 | 6,245 | 6,675 |
| **Total (market-based)** | **214,870** | **247,466** | **285,365** |
| **$tCO_2e$/£m Revenue** | **1,216** | **1,722** | **2,420** |

* Figures restated due to recalibration of Scope 1 data and market-based data is now being used for Scope 2.

Emissions from the use of sold products have been calculated using assumptions based on the following factors:

The power consumed by the luminaire

The typical hours operated per annum

The typical dim level which reduces the power consumed

Emergency light power

10 year life expectancy

# TCFD. continued

## Reporting for Task Force on Climate-Related Financial Disclosures

Since 2018, the Group's energy usage has been monitored, and the associated emissions have been calculated in line with the UK Government's policy on Streamlined Energy and Carbon Reporting (SECR). The Group's Scope 1 emissions are from the combustion of natural gas for heat and processes and the combustion of transport fuels in Company-owned assets. Scope 2 emissions are from the purchase of electricity. The calculation of these emissions will aid in reducing the Group's energy usage, where possible.

## The Group's Scope 1 and 2 emissions (SECR)

| | 2023 $tCO_2e$ | 2022 $tCO_2e$ (Restated)* | % Change |
|---|---|---|---|
| **Scope 1** | **1,585.58** | **1,635.02** | **-3.0%** |
| Natural gas | 753.38 | 959.83 | -21.5% |
| Transport fuels | 832.20 | 675.49 | +23.2% |
| Scope 2 – Location-based | 747.09 | 821.51 | -9.1% |
| **Scope 2 – Market-based** | **213.33** | **595.51** | **-64.2%** |
| **Total (Market-based)** | **1,798.91** | **2,230.53** | **-19.4%** |
| $tCO_2e$ / £m revenue (Market-based) | 10.18 | 15.52 | -34.4% |

## The Group's energy consumption

| | 2023 kWh | 2022 kWh (Restated)* |
|---|---|---|
| **Scope 1** | **7,514,098** | **7,912,788** |
| Natural gas | 4,118,406 | 5,258,199 |
| Transport fuels | 3,395,692 | 2,654,589 |
| **Scope 2** | **3,512,063** | **3,941,777** |
| **Total** | **11,026,161** | **11,854,565** |

* Figures restated due to recalibration of Scope 1 data and market-based data is now being used for Scope 2.

## Energy efficiency improvements

- All Group companies have now been certified to the international standards ISO 14001 (Environmental Management Systems), ISO 45001 (Occupational Health and Safety Management Systems) and ISO 9001 (Quality Management Systems).
- The Group has installed solar PV units on the roofs of most of its UK manufacturing facilities, as well as at Lightronics in the Netherlands and Zemper in Spain. The remaining electrical energy from the grid is now 79% from renewable electricity.
- All Group companies will be required to meet ambitious targets to reduce waste to landfill.
- New product design is to follow an FW Thorpe Plc agreed Circular Design Strategy, ensuring products last even longer, use sustainable materials in their construction and are easier to reuse, refurbish or recycle at the end of their lifetime.
- All Group companies to produce Environmental Product Declarations (EPDs) for their best-selling product ranges and to evaluate the Life Cycle Assessments (LCAs) generated to assess and improve product performance.
- All Group delivery vehicles are to be a minimum of Euro 6 compliant.
- All Group companies to review their manufacturing processes and develop plans to reduce energy usage.
- The majority of Group companies have electric vehicle (EV) charging stations at the workplace.
- All Group companies to evaluate emissions from business travel and actively find ways to reduce it, without impacting business performance.
- All Group companies will target zero plastic bags and zero bubble wrap usage in its factories and aim to reach zero single-use plastic from the supply chain.
- All finished goods packaging is to be supplied from the Forest Stewardship Council (FSC) or equivalent sources. Group companies will offer a return and reuse service for product packaging.
- All Group employees are to be trained in environmental initiatives.
- All Group companies have appointed a Sustainability Champion and have a written sustainability plan.

## Compliance Responsibility

FW Thorpe's registered Joint CEOs are responsible for complying with the Regulations. They must be satisfied that, to the best of their knowledge, all relevant information concerning FW Thorpe's organisation structure, properties, activities and energy supplies has been provided for calculation.

This report (including the Scope 1 and 2 consumption and $CO_2e$ emissions data) has been developed and calculated using the GHG Protocol – A Corporate Accounting and Reporting Standard (World Business Council for Sustainable Development and World Resources Institute, 2004); Greenhouse Gas Protocol – Scope 2 Guidance (World Resources Institute, 2015); ISO 14064-1 and ISO 14064-2 (ISO, 2018; ISO, 2019a); Environmental Reporting Guidelines: Including Streamlined Energy and Carbon Reporting Guidance (HM Government, 2019).

Government Emissions Factor Database 2023 version 1 has been used, utilising the published kWh gross calorific value (CV) and $kgCO_2e$ emissions factors relevant for the reporting period 1 July 2022 to 30 June 2023.

**Image:** Ekeberg School, Oslo, Norway

# Principal risks and uncertainties.

## Risk management process

**The Board is responsible for the identification and effective management of risks posed to the Group. Due to the impact certain risks could pose, the Board regularly reviews the likelihood of risks occurring and the potential impact they could have on the business. Detailed below is a list of the principal risks facing the business, and the corresponding actions the Board is currently taking in order to manage them.**


### Strategic priorities key

1. Focus on high-quality products and good leadership in technology
2. Continue to grow the customer base for Group companies
3. Focus on manufacturing excellence
4. Continue to develop high-quality people

### Type of risks key

- Strategic
- Operational
- Financial

### Change in period key

- Increase in risk
- Decrease in risk
- No change in risk

| Area of risk | Type of risk | Description of risk | Mitigation of risk | Possible impact on performance | Strategic priorities impacted upon | Change in period |
|---|---|---|---|---|---|---|
| **A** Adverse economic conditions | | Deferred or reduced capital investment plans in market sectors, which our products are supplied into and are key sources of revenue for the Group<br><br>Impact of Ukraine conflict on domestic and global economies | • Broad range of customers in differing sectors<br>• High quality, technically advanced products to differentiate the Group from competitors<br>• Energy efficient products with shorter payback periods<br>• Actively seek to identify new opportunities to ensure we maximise our potential of winning new business | High | 1, 2, 4 | |
| **B** Changes in government legislation or policy | | Reduction in public sector expenditure and changing policy increases risk to our order book<br><br>Increased complexity of access to EU markets | • Continue to seek to diversify our customer portfolio to ensure we have an appropriate spread, mitigating the risk of any industry or specific sector spending issues<br>• Develop sales in new markets<br>• Leveraging increasing footprint in Europe | Medium | 2, 4 | |
| **C** Competitive environment | | Existing competitors, powerful new entrants and continued evolution of technologies in the lighting industry eroding our revenue and profitability | • Offering innovative products and service solutions that are technologically advanced products to enable us to differentiate ourselves from our competitors<br>• Investing in research and development activities to produce new and evolving product ranges<br>• Investing in new production equipment to ensure we can keep costs low and maintain barriers to new market entrants | Medium | 1, 2, 3, 4 | |
| **D** Price changes | | Erosion of revenue and profitability | • Management reviews prices regularly to take into account fluctuations in costs, in order to minimise the risk of reduction in gross margin, or the loss of market share from a lack of competitiveness | High | 1, 2 | |

# Principal risks and uncertainties. continued

| Area of risk | Type of risk | Description of risk | Mitigation of risk | Possible impact on performance | Strategic priorities impacted upon | Change in period |
|---|---|---|---|---|---|---|
| **E** **Business continuity** | | A significant proportion of the Group's revenues are from products manufactured in the Redditch facility | • High level of importance attached to environmental management systems, health and safety and preventative maintenance<br>• Insurance cover is maintained to provide financial protection where appropriate<br>• Increased production flexibility with the ability to build products in more than one manufacturing facility | **High** | **2, 3** | |
| **F** **Credit risk** | | The Group offers credit terms which carry risk of slow payment and default | • Credit policy includes an assessment of the bad debt risk and management of higher risk customers<br>• The Group maintains a credit insurance policy for a significant proportion of its debtors | **Low** | **2** | |
| **G** **Movements in currency exchange** | | The Group is exposed to transaction and translation risks. With some natural hedging in EUR this risk is primarily with changes in the GBP:USD rates | • The Group has increased its sourcing of materials to maintain a natural hedge to offset its currency risk from EUR receivables, whilst at the same time buying EUR and USD when the exchange rate is favourable, compared to our operational rates, to minimise the risk | **Low** | **2** | |
| **H** **Cyber security** | | A breach of IT security could result in the inability to operate systems effectively and efficiently or the release of inappropriate information | • Continual review and monitoring of potential risks<br>• Computers encrypted where necessary to protect data<br>• Cyber security awareness training continues to be delivered to employees<br>• Third party specialists engaged to provide enhanced support and advice<br>• Critical applications protected by multi-factor authentication and all connectivity is through the Virtual Private Network (VPN) | **Medium** | **1, 3, 4** | |

| Area of risk | Type of risk | Description of risk | Mitigation of risk | Possible impact on performance | Strategic priorities impacted upon | Change in period |
|---|---|---|---|---|---|---|
| **I** **Exit from the European Union** | Strategic | Increased complexity of access to EU markets, customers in certain EU territories actively moving business from UK companies. | • With the Group having a manufacturing presence in two EU countries, the Netherlands and Spain, this leaves us ideally placed to react to any negative trade barriers that may be imposed on the UK<br>• Continue to develop closer working relationship with these entities, sharing product development, market knowledge and operational expertise to ensure we have the flexibility to adapt to any changes in the future<br>• Creation of legal entity in Republic of Ireland to route all EU business in the future to ease the process of customers trading with us | **Medium** | **2, 4** | No change in risk |
| **J** **Impact of Ukraine conflict on domestic and global economies** | Operational | Potential impact on supply chains including increase in certain raw material prices and disruption to some shipping routes. Impact of energy supply price increases. | • Alternative sources for certain materials and alternative shipping routes, albeit with higher costs in some circumstances<br>• Electricity usage has been reduced with implementation of solar panels at the majority of manufacturing sites across the Group | **Medium** | **2, 3** | No change in risk |
| **K** **Sustainability & climate -related risk** | Strategic | The Group has potential exposure to climate-related risk that could impact both its operations and the products it promotes. | • Sustainability targets are set each year for Group companies.<br>• Education of employees to further develop sustainability and climate-related understanding, evolving knowledge of the related risks.<br>• Targeted reduction of total GHG emissions, reducing the impact of its operations. | **Medium** | **2, 4** | **New** |

## Strategic priorities key

1. Focus on high-quality products and good leadership in technology
2. Continue to grow the customer base for Group companies
3. Focus on manufacturing excellence
4. Continue to develop high-quality people

## Type of risks key

- Strategic
- Operational
- Financial

## Change in period key

- Increase in risk
- Decrease in risk
- No change in risk