

# Strategic Report.

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# Chairman's statement.



Mike Allcock  
Chairman

“

Larger companies within the Group have, unsurprisingly, made the biggest contributions to consolidated profit. The Group Board would like to see better contributions from all its smaller UK companies.”

**The financial year 2023/24 was largely uneventful but nevertheless satisfying; although revenue was flat, operating profit increased by 10.1% to £30.6m (2023: £27.8m) as a result of improved internal efficiencies.**

Cash reserves, including short-term financial assets, have continued to build and reached £52.9m (2023: £35.0m) at the end of the financial year. Whilst there are no firm plans, the cash reserves give the Board the opportunity to consider further acquisitions if a suitable situation arises.

Stock has been actively reduced to £29.0m (2023: £33.4m); however, the Board considers that the Group should use its robust cash position to its advantage and maintain good levels of strategically important stocks, to ensure security of supply, whilst being mindful of the associated obsolescence risks of such a policy.

Generally, market selling price increases for luminaires have slowed, but so too have component costs, which have begun to trend lower in many cases. Labour cost increases continue, mainly through pay inflation, but the Board expects this to slow during the coming financial year.

Larger companies within the Group have, unsurprisingly, made the biggest contributions to consolidated profit in the last 12 months, with special mention to the excellent performance of the Dutch contingent. The Board would like to see better contributions from all its smaller UK companies – especially, but not only, TRT Lighting. All these smaller companies have undergone changes to their subsidiary board structures in recent times, and improvements to, or diversification of, their product ranges where required. The Board looks forward to these changes enabling bigger contributions to Group profits from these businesses in the future.

The Board's head count has naturally decreased in recent years in favour of strengthening the subsidiary boards at the operating companies and promoting a focused group of managers from within that can support Group activities when called on. It has always been a specific choice of past Group boards to keep the Board populated with 'lighting' individuals with experience of the way that FW Thorpe Plc operates in its chosen market sector. Whilst the Group does not expect to change this strategy materially, in October 2022 the Board was strengthened with one independent non-executive director, Frans Haafkens, who also has

## University Station, Birmingham, UK



international experience, and this year it will formalise an audit committee. Independent external advice, when required, will be sought on a case-by-case basis.

This is my first statement since becoming non-executive chairman in July 2024 and the separating of the CEO and chair roles. Congratulations and best wishes to Craig Muncaster, who now assumes the role of Group CEO. I would like to thank the shareholders for their ongoing support, which over my 40 years of being employed by FW Thorpe Plc has seen me rise from young school leaver apprentice to chairman. My career must surely give all FW Thorpe employees motivation to stay with the business, work hard and be confident that opportunities, if desired, will be forthcoming – right up to the Group Board.

### Group results

Group revenue was in line with last year, at £175.8m (2023: £176.7m), whilst operating profit before acquisition adjustments, removing the impact of amortisation of intangible assets established at purchase, grew to £32.4m (2023: £29.8m).

The Annual Report and Accounts contains a more detailed appraisal of each company's individual achievements and challenges. Over the year, the Group's stand-out performer was Lightronics, in the Netherlands, which simply had one of those years when its business activities all seemed to line up perfectly, to enable an excellent, but certainly a hard fought and well-managed result.

Thorlux Lighting's managing director retired at the end of the half year in December 2023. Promotions to joint managing director of Ian Mulhall and James Thorpe were well received. Ian, an engineer, has served Thorlux for nearly 35 years, being a past technical director and operations director. James was Thorlux's sales director and is great grandson of the founder, Frederick William Thorpe. The joint managing directors' first 6 months in charge delivered a good result, with second half growth offsetting a slightly slower first half, to finish the financial year broadly level with the prior year. Orders and sales at Thorlux have started the new financial year well, with further growth expected this coming financial year.

Portland Lighting's profit improved this year, despite its heavy investments in its new traffic sign direction. Portland

is on the cusp of further growth, with experienced people in place and a super new product range tailored to all the latest requirements for road traffic sign lighting, which has huge potential to accommodate changes from fluorescent lamps to LEDs, amongst other market needs. Solite Europe and Philip Payne both, to a large extent, have new senior management, and their performance was similar to the prior year's. Both have growth targets in place to become larger contributors to the Group in coming years.

TRT Lighting was loss-making in the year, due to a revenue decline of 15%. A new sales director and a whole new sales team are in place with targets to increase new business into local authority regions, which is currently sporadic. TRT Lighting, as a UK designer and manufacturer of street lighting, should encourage all UK local authorities to buy its excellent locally made sustainable products. To assist, investment in products has continued, with further investment in marketing resources. The TRT board looks forward to the company's improvement in performance, but is also cognisant of the time it will take to bed in new salespeople. Performance may get a little worse before it improves for the long term.

<sup>1</sup> Refer to note 2 on page 130.

# Chairman's statement continued

Zemper continues to make good contributions and started the new financial year with a good order book, supported by its host of new products. It is also contributing to some Group collaboration projects where several companies have pooled know-how and developed new products with shared, and hence reduced, costs.

SchahLED's main market, Germany, is in recession, and therefore its operating profit has reduced slightly; nevertheless, the business is making a healthy contribution.

Famostar's year has been steady, as always. Behind the scenes, Famostar is working very hard to assure this consistent profitability whilst also making sure it adapts to market needs, to maintain its position as one of the leading few manufacturers and suppliers to the Dutch emergency lighting market. This year, Famostar is developing an exciting new range of luminaires with intelligent position-orientated sensors. Sales of SmartScan capable emergency luminaires continue to grow, and there are also signs of good growth in Famostar's additional activity of selling Thorlux luminaires into the Netherlands.

The Group's joint venture with Ratio Electric has struggled to make good contributions, but it has achieved significant growth in its Smart charger products, and it has established the Ratio UK company design and production facilities and product range. The io7, Ratio's adaptation of the Thorlux Passway lighting bollard to integrate EV charging and lighting, has started to sell in much larger numbers, and even featured on the BBC's One Show and a high profile electrical installers' YouTube channel. New projects and companies always seem to take longer to start and be harder to establish than one first believes.

Product innovations remain foremost in the minds of Group management.

In recent times more collaboration has been encouraged between subsidiary design teams, especially with regards to sharing the costs of tooling, ideas around circular design principles, material selection and sustainability, and sharing SmartScan software for use in an ever-wider range of Group products. As always a topic for the chairman's statement, SmartScan continues to evolve with a host of new customer focused features coming before the end of the financial year. SmartScan Analytics, a new platform launched in autumn 2024, takes the SmartScan cloud operating system to the next level, bringing data from all sorts of IOT connected devices into its central 'brain'. SmartScan Analytics brings a deeper understanding of a building's use to end users. For example, 'standard' SmartScan can easily measure and report whether a lighting installation is using more power this year than it did last year; SmartScan Analytics tells you why. For example, this year it could be further reported that much longer operating hours were recorded for the business, people counters had detected more footfall, less solar power was generated, and electricity prices per kWh had increased. This 'cross analytics' technology has been trialled with a few customers for the last 2 years, and will now be in general release for an additional charge.

On the capex front, the Group decided to continue its investments in carbon offsetting, by purchasing a further 150 acres of suitable tree planting land near the Welsh border in Longtown, Hereford, UK, for £1.7m. Applications have already been made to the appropriate forestry authorities for the first saplings to be planted next spring. There has been some negative press surrounding offsetting in recent times, but the Board is convinced that over the long term the company is doing the right thing, as it recognises that its tree planting activities are

supplementary to its intensive carbon reduction measures, which of course save carbon right now. For example, it has always been the Board's intention to investigate all means to reduce its actual emissions to the lowest level possible, right back to when the current sustainability programme started in 2009. At that time, the Group reduced energy use across its factories as far as practicable, before only then choosing offsetting as a supplementary option.

Up to the current day, carbon saving activities continue with the recent installation of another solar PV array at the Ratio EV factory in the UK, installation of the Group's trial electric heating oven for powder coating at Solite (£0.3m), and further significant purchases of company electric vehicles (£1.5m). The Group now owns and operates 5,970 solar panels across eight sites, generating 1.8 million kWh of carbon free electricity per annum. In November 2023, Thorlux installed a new cardboard carton manufacturing machine (£0.2m) and can now produce its own product packaging cartons from recycled and recyclable cardboard on demand. The machine substantially reduces overall storage space, fire risk and material costs.

## Sustainability

Sustainability is one of the key pillars for the Group. The Board firmly believes that a business that takes a sustainable approach to the design and manufacturing of its products is highly likely to be more successful as a result. If you use less material in a product and use less power in manufacturing products, costs will be lower.

The Group will continue to find ways to make itself more sustainable, having now completed many of the more obvious initiatives. All Group companies are experiencing increasing sustainability demands from the market. Articles in the Annual Report describe current developments, such as

### Colmslie Boat Ramp, Queensland, Australia



some new lights largely manufactured from wood harvested from sustainable forests in Europe. These components are 3D CNC machined and, as a result, need little or no tooling, can be made in low volume without the need to carry large stocks, and can be altered in their shape and design with little overhead cost, save for a new CNC program.

In summer 2024, the whole Group completed its assessment for the Science Based Targets initiative (SBTi), to become one of only a relatively few companies globally that have completed the very detailed and lengthy third party assessed and verified process. The Group now has a plan to head towards net-zero – a plan that is assessed, verified and realistic, with a first target to achieve significant milestones by 2030. All companies within the Group have targets to reduce their carbon emissions even further, by significant margins from a baseline in financial year 2020/21. Progress is assessed at every board meeting, all employees are trained in sustainability matters, they receive regular newsletters, and there are awards for contributions from employees. The Group is taking its sustainability obligations seriously and, as you can see from the commentary above, is not resting on its laurels and is investing heavily in continuous improvements.

## Personnel

I would like to thank all Group employees for their dedication and commitment throughout the financial year.

In January 2024, Peter Mason retired from his non-executive role on the Board. Peter joined FW Thorpe Plc in 1987 as Finance Director. He became Joint Chief Executive in July 2000 and stepped back to a non-executive role in June 2010. On behalf of the Group and its shareholders, I would like to wish Peter a long and happy retirement and thank him for his many years of service, during which time the Group grew significantly, whilst also underpinning the Group's foundations to make it the strong and stable group it is today.

## Dividend

Performance as a whole for the year to 30 June 2024 allows the Board to recommend an increased final dividend of 5.08p per share (2023:4.84p), which gives a total for the year of 6.78p (2023: 6.46p excluding special dividend). A special dividend of 2.50p will also be paid, reflecting the Group's strong cash position.

## Outlook

All Group companies are charged with growth; as ever, this is their target. With so many companies in the Group, there will be inevitable ups and downs in various locations. All the larger companies are in good shape with stable and experienced leadership teams with good order books at the start of the new financial year. Costs are generally under control, although people cost pressures remain and the companies need to keep working hard to find efficiency improvements.

The smaller companies have all struggled somewhat to get themselves back on a plan for growth in recent years. Changes have been made and each company has a plan to grow.

The change in governments in various Group locations raises a few questions about the future, but the Group setup gives good resilience overall.

Consolidated as a whole, the outlook is positive with modest growth expectations.

**Mike Allcock**  
Chairman

3 October 2024

# 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.

## Market Overview

There was some level of normality this year following a number of years of disruption that impacted supply chains and influenced order books. Material costs stabilised in the main, however, there has been disruption to shipping routes that increased costs and introduced lead time delays. While the Group managed to reduce stock holding during the year, the Group continues to hold safety stock where required.

The Group has diverse coverage from both a territory and sector perspective. The UK market continued to secure orders from target sectors, the increase in revenue in the Netherlands was driven by the Lightronics portfolio, the rest of Europe was subdued with investment delayed in Germany given economic conditions. Australia took a step forwards supported by Thorlux and Lightronics, improving the revenue from our Other Countries segment.

Product development remains a key pillar to success, differentiating the Group from its competitors with innovative products and systems. This year included the introduction of wood as a sustainable material to form our products. SmartScan continues to evolve, adding further features and benefits to keep us ahead of our competitors.

Competition is in a variety of forms, from private businesses to listed multinationals and from the information available, financial performance has been muted given that the last few years were supported by sales price increases.

The Group continues to invest in business development and selling resources, supporting the peaks and troughs of demand across various sectors. The Group continually assesses how to deploy its selling capabilities and routes to market 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 and territories where we have a specific selling presence.

### UK +0.5%

- Continued to secure orders from target sectors
- Services revenue lower but improved gross contribution
- Tunnel projects delivered by TRT, street lighting lower

### Netherlands +13.6%

- Growth at Lightronics, steady Famostar business
- Margin improvement at Lightronics drove operating profit increase, similar operating result at Famostar

### Rest of Europe -12.3%

- Revenue in line with expectations, lower levels in France via Zemper
- Germany lower, investment delayed by SchahILED industrial customers

### Other countries +19.3%

- Improved demand in Australia
- Dampened demand in UAE

## Market-specific drivers . . .

### 01 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

#### Opportunities

- Improves ability to hold specification business with our own controls offering
- Potential to supply retrofit projects with wireless controls where wired controls are 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

### 02 Drive for energy efficiency and carbon reduction

#### What this means

- Global emissions targets
- High energy costs in Europe

#### Opportunities

- 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 . . .

### 01 International economic conditions

#### What this means

- Countries are now dealing with the resurgence of tensions and conflict in the Middle East
- Pressure remains on global supply chains particularly with regard to logistics time and costs
- Certain sectors could slow investment given concerns over future economic growth and government debt levels

#### Opportunities

- 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 all our businesses
- Target sectors where demand is stable or increasing
- Redirect selling resource as appropriate

### 02 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

#### Opportunities

- 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
- Continual review of LED technology offerings to take advantage of the latest advances and ensure we are offering the best solutions to our customers

# Marketplace continued

**38%**  
of sales from  
safety products (emergency  
lighting systems)  
2023: 36%

**97%**  
of sales from  
LED technology, energy  
saving controls and  
related services  
2023: 96%





### 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 support the customer during a product's warrantable life and beyond.

Our business model is focused on the needs of our 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 . . .	The service offering we provide . . .	Group Operations . . .
<p><b>Design &amp; innovation</b> Continuous product development – products, software/controls, lighting design</p> <p><b>Talented people</b> Continual development</p> <p><b>Manufacturing facilities</b> UK – multiple sites, Europe – Netherlands, Spain Continual investment</p> <p><b>Financial &amp; environmental sustainability</b> Financial stability, Carbon Offset Scheme</p>	<p><b>Design &amp; development</b> Designing and developing products in line with customer specifications, market demands and sustainability requirements.</p> <p><b>£2.0m</b> Group spend on capitalised R&amp;D (2023: £1.9m)</p> <p><b>Manufacturing</b> Investment included solar, injection moulding, paint plant facility with reduced carbon emissions.</p> <p><b>£1.0m</b> Investment in Group facilities (2023: £0.8m)</p> <p><b>Services</b> Our services range from site surveys, installation, commissioning through to monitoring the performance of products. We support our customers throughout the product's lifecycle.</p> <p><b>£6.1m</b> Revenue from Services (2023: £8.6m)</p>	<p><b>Specification</b> renovations, new build, energy saving, compliance, technology adoption.</p> <p><b>Diversified product portfolio</b> gives the ability to supply a complete project – “boiler room to board room”.</p> <p><b>Cross-selling opportunities</b> with other Group companies to offer a complete solution to a wide variety of sectors.</p> <p><b>Sustainability leadership</b> Group-wide initiatives and support in achieving sustainability targets.</p>



KraussMaffei, Germany

## Solutions provided for our customers...

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

## The value generated...

### Customers

Short term

Replacement of ageing technology with improved lighting systems

Long term

Innovative lighting that delivers cost savings and additional benefits, such as data capture and presentation

### Shareholders

Short term

Opportunity to invest in a company that pays a progressive dividend and with a robust balance sheet

Long term

Sustainable profit growth drives future shareholder returns

### Employees

Short term

Opportunity to work with an innovative market leading company within the lighting industry

Long term

Continual development with a variety of Group companies in a number of different territories

### Environment

Short term

Build on the work of many years, delivering energy saving products and continuing our carbon offset programme

Long term

Develop and implement our sustainability strategy as we drive towards net-zero

### Communities

Short term

Employment opportunities and supporting local charities

Long term

Providing sustainable employment in the local areas where our businesses are located

# Our 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 being sold in the UK


#### Future opportunities

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

#### Associated risks **F**

- Product acceptance
- Initial product introduction

#### Strategy in action

 See more on pages 28 to 33

### 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 E F**

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

#### Strategy in action

 See more on pages 34 to 36

## Risk key

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

### 3 Focus on manufacturing excellence

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

#### Progress to date

- Further solar investment at Famostar and Ratio UK
- New paint plant at Solite targeted to reduce gas consumption and carbon emissions


#### Future opportunities

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

#### Associated risks (B) (F)

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

#### Sustainability

 See more on pages 58 to 59

### 4 Continue to develop high quality people

As 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 (F) (I)

- Ability to retain staff in competitive local job markets
- Potential loss of UK personnel from the EU
- Ability to sponsor non-UK staff and associated increased costs

#### Sustainability

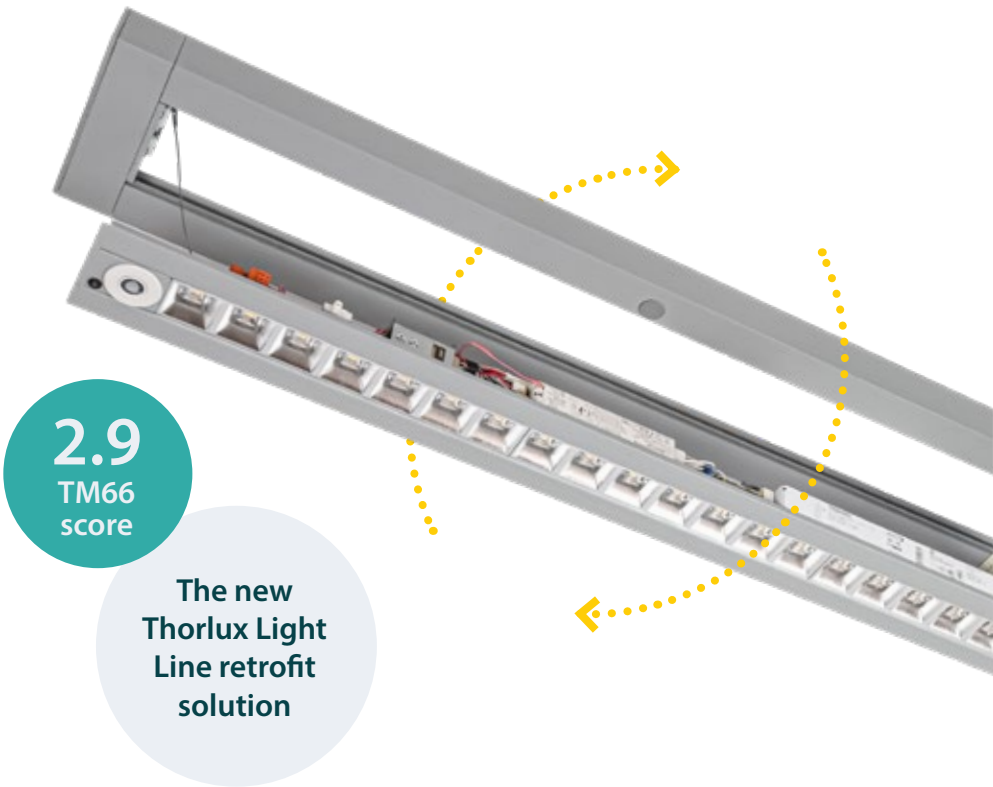
 See more on page 76

# Circularity in lighting.

As we gradually reach the point of depletion of the earth's finite resources, the linear method of taking materials, making products, and then throwing them away at the end of life needs to be re-thought. This is where the concept of the circular economy is becoming increasingly important.

## What is the circular economy?

The key principles of the circular economy are to eliminate waste and pollution, circulate products and materials, and regenerate nature. Products and materials are kept in circulation for as long as possible through maintenance, reuse, refurbishment and remanufacture, then, once the end of life is reached, recycling and/or composting takes place, ensuring nothing is lost. The circular economy looks to move away from the 'take-make-waste' pattern, into a more sustainable and regenerative one.



## Why is circularity important?

FW Thorpe Group companies have always considered the impact of their products on the environment. Key circular principles such as product efficiency, longevity and maintainability have always been pillars of the design process, long before the topic of circularity became mainstream. Combining highly efficient luminaires with a lighting management system such as SmartScan ensures lighting uses the minimum energy possible (therefore producing less pollution).

Group companies ensure luminaires last as long as possible by using high quality parts, materials and manufacturing techniques. In most cases, luminaires are designed to last an impressive 100,000 hours.

In addition, the vast majority of Group products can be serviced easily in situ, keeping them operating and in use for longer.

Looking forwards, the Group believes that engaging in the circular economy is not only the right thing to do from an environmental point of view, but also from a business perspective. Embracing the circular economy stimulates innovation and the development of new products and services, and offers inspiring new business opportunities such as remanufacture, retrofit and renovation projects.

Circularity is now further embedded in the Group Product Design Rules, so that the following practices are incorporated into each new design:



Using less material in the design



Choosing more sustainable materials



Making products last even longer



Making products easier to repair



Optimising material utilisation



Making products as efficient as possible



Making products easier to strip down and recycle at end of life

## What is TM66?

The Chartered Institution of Building Services Engineers (CIBSE) and the Society of Light and Lighting (SLL) have written TM66, a document that provides guidance on how to assess the circularity of a luminaire, including a checklist and real-world examples of good practice. TM66 is an exacting framework that demands proof of the highest standards from lighting product designers and manufacturers.

Off the back of this, the Lighting Industry Association (LIA) has developed TM66 Assured, a scheme where by luminaires can be independently assessed and scored in accordance with TM66. This means that manufacturers can independently verify their circularity claims, and customers can gain comfort from this third-party approval.

In October 2023, the new SkyCore range from Thorlux was the first Group company range to be independently assessed by the LIA TM66 Assured scheme. The SkyCore range received a score of 2.5, certifying it as being 'excellent' – the highest achievable level of circularity.

As a part of Thorlux's drive to improve the circularity of its products, all new Thorlux luminaires will be scored and independently assessed and verified in accordance with TM66 Assured, with the target of meeting a minimum of 'excellent'.

In April 2024, TRT made history with its new Oaken streetlight. Achieving an impressive score of 3.1, Oaken gained the highest verified score for any luminaire in the TM66 Assured scheme at the time. Oaken is a highly innovative luminaire made from recycled polycarbonate and aluminium, housed in an oak body.

FW Thorpe Plc prides itself on its position as a market leader and always being at the forefront of emerging and pioneering movements, concepts and technologies, continually recognising the changing needs of not only its customers and dynamic industry, but also the planet.

The Thorlux Flexbar has achieved a score of 2.6

# The all new Firefly range.

Group Innovation Project

Developed through collaborative efforts as a Group innovation project, the new Firefly emergency downlight has improved features and benefits, including new enhanced lithium battery technology, providing pivotal emergency lighting with a 10-year warranty.



Firefly with Power Pack and Control Module

One of Thorlux Lighting's most successful products, Firefly has helped thousands of customers achieve emergency lighting compliance, making buildings, campuses and facilities safer, and protecting staff, visitors and the general public.

## Group collaboration and joint development

The **Luciérnaga** joint project ('Firefly' in Spanish) is the first collaboration to combine the knowledge, resources and experience from four Group companies: Thorlux Lighting (UK), Philip Payne (UK), Famostar (NL) and Zemper (ES).

This collaboration brings with it a number of advantages:

Control of supply chain components and reduced reliance on third-party suppliers.

Internal production of advanced and market-leading electronic components.

Group development of emergency self-test and wireless communication software (SmartScan).

Significant Group investment in new body moulds, tooling and optical distribution designs, for improved overall product performance.

Reduced product material, manufacturing and component expenditures.



Firefly Surface

Firefly IP65





## The new Firefly combines a discreet recessed downlight with the SmartScan wireless emergency system for a reliable, compliant solution that is easy to install and maintain.

### Reliability, functionality and simplicity

Customers today seek an emergency lighting system that provides a fit-and-forget solution and achieves compliance. Firefly's discreet 50mm recessed head and SmartScan wireless controls are the ideal combination to deliver a reliable and functional answer to this requirement.

The monthly function tests, annual duration tests and daily product status reports provide the responsible person with the necessary information to ensure that people can safely escape a building during a power failure.

With ease of use at the heart of the design, Firefly is simple and quick to install. It offers easy maintenance of consumable parts like batteries. Furthermore, the body has been designed with chamfered edges to make inserting or extracting it from ceilings a smooth process.

### Battery technology

A higher efficiency battery with lower operating power creates an all-around more sustainable Firefly. Findings show lithium batteries have four times less embodied carbon per kilogramme than nickel metal hydride batteries. Additionally, a lithium battery charge cycle will switch off when full capacity is achieved, reducing energy consumption.

### Precision emergency lighting

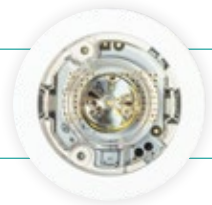
Ensuring safe passage from a building during a power failure is crucial and potentially life saving. For this reason, Firefly has been significantly upgraded, with more optical distribution variations to help eliminate or reduce risk to escapees.

In particular, the new advanced corridor plus optic distributes 1 lux of light 24 metres along a corridor while highlighting points of emphasis such as call points and fire extinguishers.

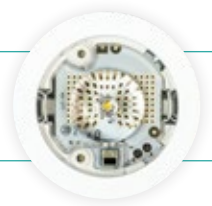
Furthermore, optimisation of the spot optic achieves minimum lighting requirements for healthcare treatment beds, providing 50 lux in emergency lighting conditions. This requirement ensures medical professionals have the correct lighting levels to treat and care for patients under normal power output conditions.

Finally, the corner optic provides a guiding escape light around bends, illuminating the next section of the escape route. Standards dictate that an emergency luminaire must be within two metres of a change of direction; the nine-metre spacing distance provided by this optic means fewer fittings are required.

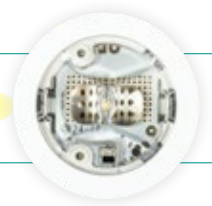
#### Spot Optic Distribution



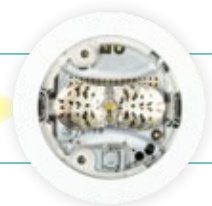
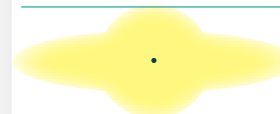
#### Area Optic Distribution



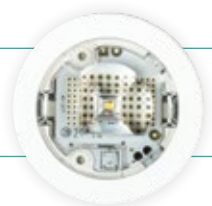
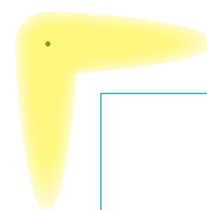
#### Corridor Optic Distribution



#### Corridor Plus Optic Distribution



#### Corner Optic Distribution



# Setting new standards in sustainable lighting.

The Group product innovation team has designed two groundbreaking products – ARDEN and Oaken – that mark a significant departure from conventional luminaire construction; for the first time, wood has been utilised as a primary material. This pioneering use of wood in luminaire construction underscores FW Thorpe's commitment to innovation and sustainability.

## Why wood?

Wood has less embodied carbon (kgCO<sub>2</sub>e) and requires less embodied energy compared with aluminium castings. Since wood is a renewable resource and requires less-energy-intensive processes to be transformed into a usable material, it contributes less to the overall embodied carbon footprint.

## Why specifically European oak?

European oak is an extremely durable hardwood that will achieve in excess of a 20-year life, which ensures its suitability for use in long-service luminaires. European oak is sustainably harvested. Sustainable harvesting practices involve careful consideration of the environmental impact, ensuring

that the rate of extraction does not exceed the rate of regeneration. This approach helps maintain the health and biodiversity of forests while providing a continuous supply of wood.

In the future, there is also the possibility of sourcing wood from the Group woodland projects in Monmouthshire and Herefordshire.

## ARDEN exit sign

ARDEN from Philip Payne represents the company's most sustainable premium emergency exit sign yet. Manufactured and assembled in the UK using European joinery-grade oak sourced from responsibly managed forests, ARDEN combines aesthetic elegance with outstanding functionality to offer a new standard in sustainable emergency exit signage.

ARDEN boasts an impressively low embodied carbon score, according to CIBSE's TM65 calculation methodology, of 29.87kg CO<sub>2</sub>e, up to 30% lower than many non-wooden exit signs. Its extended lifespan, projected to be more than 20 years, ensures a reduced ecological footprint and minimises the need for frequent replacement.

ARDEN's production process is designed to maximise material efficiency, with waste material from Computer Numerical Control (CNC) machining repurposed to heat the timber manufacturing facility. At the end of its lifecycle, the oak body is fully recyclable, further contributing to a circular economy. The water-based finishes used are free from harsh chemicals and solvents, ensuring no complications with recyclability.

When mains supply fails, ARDEN is powered by an advanced lithium iron phosphate (LiFePO<sub>4</sub>) battery with an expected design life of up to eight years, significantly reducing maintenance requirements and waste compared with traditional battery systems.



TM66  
score  
3.1



Certified by DarkSky.org

Top of  
luminaire

## The Oaken

TRT Lighting's Oaken luminaire is a groundbreaking product that redefines outdoor lighting with its eco-friendly design and advanced technology. Through its focus on energy efficiency and the utilisation of sustainable materials, the Oaken showcases a dedication to minimising its carbon footprint across its entire lifecycle.

- European oak housing
- 100% post-industrial recycled polycarbonate gear enclosure
- Highly efficient dual output driver realising up to 92% efficiency
- Gear tray made from >90% recycled aluminium components
- Highly efficient acrylic (PMMA) and polycarbonate (PC) lens options for high optical clarity, durability and recyclability

## Circular design

What truly sets the Oaken apart is its dedication to circular design principles. Each component is designed for disassembly and recyclability, facilitating the recycling and repurposing of materials at the end of its life.

The TM66 Assured product verification scheme is an innovative initiative developed and fulfilled by the Lighting Industry Association (LIA) and endorsed by with Chartered Institution of Building Services Engineers (CIBSE). A TM66 score demonstrates a product's performance in the context of a circular economy. Achieving a third-party LIA accredited TM66 score of 3.1, the Oaken leads the industry with the highest score ever recorded for any lighting product under this methodology.



See pages 28 to 29

## Impressive performance

The Oaken not only delivers impressive performance but also sets new standards for efficiency (up to 191.7 luminaire lumens per circuit watt), minimising energy consumption while maximising light output.

## Intelligent control

By combining programmable presence detection and light sensing with LED luminaires, the Oaken enables enhanced energy and carbon savings whilst extending maintenance cycles. Additionally, the Oaken offers a range of connectivity options, from simple factory-set dimming to full wireless control, ensuring versatility and adaptability to various lighting needs.

# West Midlands Trains and Network Rail.

Thorlux has worked closely with West Midlands Trains (WMT) and Network Rail for nearly a decade to modernise the lighting systems at 150 sites, including 145 stations. Additionally, Thorlux has supplied luminaires and control systems for the brand-new £56 million University Station in Birmingham.

## A long-standing collaboration

Existing WMT stations frequently relied on out-of-date, inefficient lighting technology. WMT set a goal of improving lighting efficiency across the network, reducing emissions and costs whilst improving light levels to comply with current standards.

WMT appointed Thorlux based on its reputation for innovation and previous rail industry experience. In 2016, WMT became an early adopter of the then-new Thorlux SmartScan lighting management system. Following the 2017 lighting renovation at Redditch Station in Worcestershire, which functioned as a proof of concept for the larger plan, Thorlux began installations across the network.

The project required significant retrofitting and remanufacturing work – many stations have at least one unique retrofit requirement or ‘heritage’ element. Some of the oldest luminaires requiring modernisation had been in service for 50 years or more.

Above all, railway premises are safety-critical, requiring constant functional lighting. Removing a fitting for off-site inspection or refurbishment is impossible unless a temporary substitute provides identical performance – which is usually impractical. This restriction made on-site retrofitting a central part of the project.

Every upgraded WMT luminaire now uses either standard SmartScan or SmartScan Radar controls. Even with lighting levels increasing by 500% at certain stations to achieve industry standards compliance, WMT has reduced carbon emissions by 65%. With increased efficiency cutting lighting energy costs, plus reduced upkeep (planned, reactive and callout) and other factors, WMT calculates it will save over £1 million per year on its combined total energy and maintenance spend.

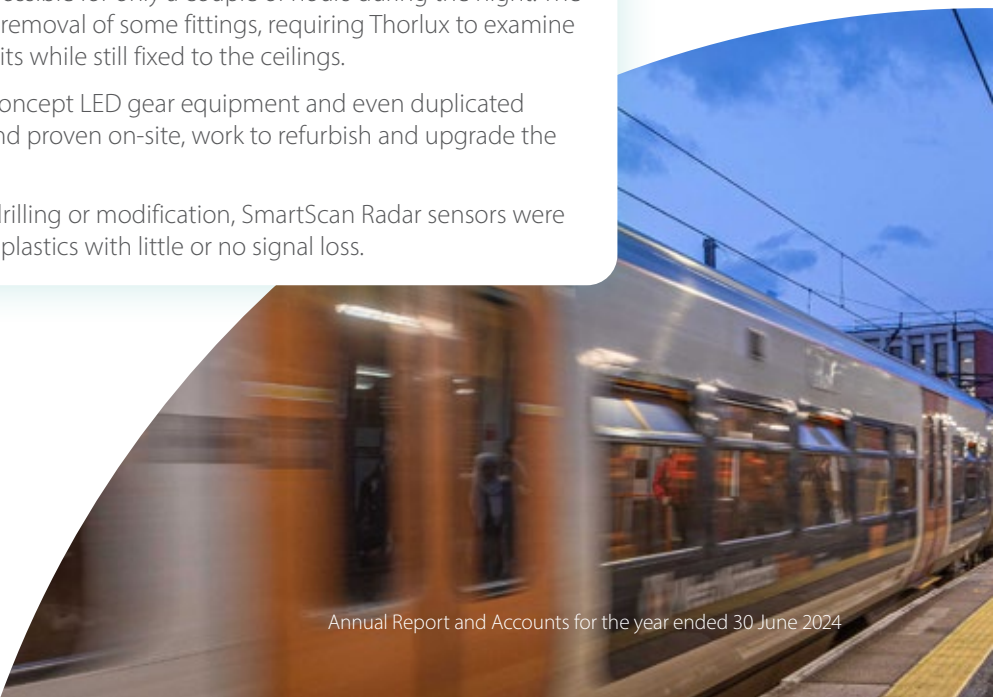
## Coventry Station...

Coventry rail station opened in 1962 and was made a Grade II-listed building in 1995. The station canopy is a listed structure, with original luminaires maintained since the 1960s. Conservation authorities stipulated that any retrofitted or replaced luminaires must look and fit as the originals did while complying with modern standards and significantly improving lighting performance.

Access is a notable complication when working in the rail environment. For example, there is limited scope to close a line to conduct work safely on a luminaire mounted above a platform or near the railway track. At Coventry, this is possible for only a couple of hours during the night. The need to minimise disruption ruled out the removal of some fittings, requiring Thorlux to examine and take detailed measurements of the units while still fixed to the ceilings.

Thorlux then prepared bespoke proof-of-concept LED gear equipment and even duplicated bodywork. When these had been tested and proven on-site, work to refurbish and upgrade the lighting throughout the station began.

To preserve the original diffusers without drilling or modification, SmartScan Radar sensors were used. 24 GHz radar technology penetrates plastics with little or no signal loss.





## University Station...

At University Station on the southern leg of Birmingham's Cross City rail line, an ageing late-1970s canopy structure has been replaced with a £56 million state-of-the-art building.

The new station can handle up to 7.2 million passengers yearly and features two spacious pavilion buildings, each containing comfortable waiting areas, offices and platform lifts. The rebuild took three years, during which the station remained open. Thorlux was delighted to supply high-performance, long-life SmartScan luminaires for the new build.

Customers arriving at the new station will find outdoor areas and platforms illuminated by pole-mounted IP66-rated Starbeam luminaires. These powerful, efficient floodlights emit less than 1% upward light, reducing unnecessary light pollution. Corrosion-resistant A-Line luminaires have been deployed under platform canopies and in the passenger footbridge. Other outdoor spaces feature wall-mounted Realta, Realta Micro and vandal-resistant Prismalette 360 luminaires.

Indoors, the pavilion spaces are lit with powerful suspended Comboseal circular luminaires. Capable of producing over 22,000 lumens of white light, with a colour-rendering index (CRI) of over 80, Comboseal is an ideal choice for large, fast-paced transit environments. Elsewhere, narrow-body Kanby LED Controller linear luminaires are installed outside the ticket offices, while backroom spaces feature Radiance Recessed fittings. All the luminaires connect via the SmartScan network.



## WMT project accolade

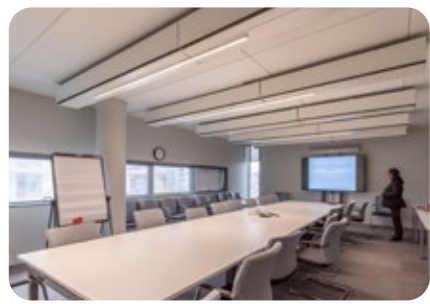
Recognising the success of this long-term relationship and the impressive carbon reductions it has generated, Thorlux Lighting and WMT were highly commended for their overall LED station lighting project at the 2024 Rail Business Awards.



94%  
Energy saving

125,387kg  
CO<sub>2</sub>e reduction

£194,498  
Anticipated  
annual saving



STRATEGY IN ACTION

# Rhind Building, University of London.

**Thorlux Lighting has worked closely with City, University of London to convert aged light fittings in its Rhind Building on St John Street to the latest energy-saving LED lighting technology.**

The Rhind Building houses several lecture rooms and meeting spaces that are in regular use by the university. However, the lighting system comprised outdated fluorescent technology and required updating; besides the recent phase-out of fluorescent lamps from general sale under changes to the Restriction of Hazardous Substances in Electrical and Electronic Equipment Directive (RoHS), the university sought to improve energy efficiency and reduce carbon output.

Seeking a sustainable solution, the university wished to keep the existing multi-function chilled beams at the Rhind Building in place instead of replacing them with new fixtures. Thorlux provided tailored retrofits

to replace the existing lamps and covers, re-engineering the existing chilled beam chassis. The retrofit was completed in situ by Thorlux engineers and scheduled around lectures and other bookings to minimise disruption to both staff and students.

Retrofitting offers a circular economy solution which can help minimise waste and keep valuable materials in use for longer. A renovated lighting scheme must provide sufficient light levels and uniformity. With modern LED and optical technology, it is possible to significantly improve light levels while reducing energy consumption compared with older light fittings. This renovation also has the added benefit of saving the embodied carbon arising from brand-new light fittings.

Thorlux retrofitted 1,260 luminaires in the Rhind Building, resulting in an energy saving of 94% compared with the old lighting system, with the potential saving of £194,498 of electricity each year. The award-winning SmartScan lighting management system now controls the retrofitted luminaires, combining maintained illuminance, daylight dimming and presence detection to maximise energy savings. This change contributes significantly to meeting City's environmental, social and governance responsibilities and sustainability goals. Both City and Thorlux Lighting have separately committed to achieving net-zero emissions by 2040.

# 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. For meeting sustainability objectives the Group considers that measuring CO<sub>2</sub> emissions and renewable energy usage to be the most appropriate indicators.

## Financial...

Revenue (£m)

**-0.5%**

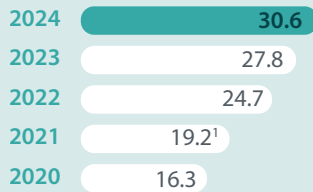


Performance in 2024

- Maintained Group revenues
- Revenue growth at Lightronics, offset by Germany and other European countries

Operating profit (£m)

**+10.1%**



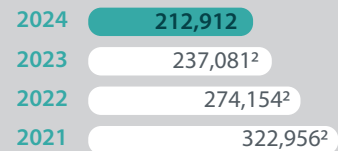
Performance in 2024

- Solid operational improvements
- Operating cost pressures from wage rate and general inflation
- Suppressed by TRT

## Sustainability...

CO<sub>2</sub> emissions (tCO<sub>2</sub>) (Scopes 1, 2 and 3)

**-10.2%**

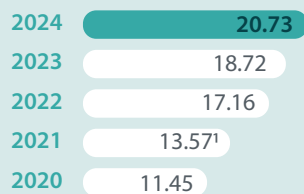


Performance in 2024

- 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

Basic earnings per share (pence)

**+10.7%**

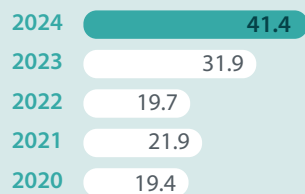


Performance in 2024

- Driven by operating results

Operating cash (£m)

**+29.8%**

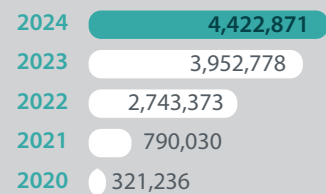


Performance in 2024

- Impacted by operating results
- Stock holding continued to reduce, some strategic stock positions still in place

Renewable energy usage (kWh)

**+11.9%**



Performance in 2024

- Solar generation, renewable sourced electricity
- Further solar investment completed

<sup>1</sup> 2021 excludes the exceptional item in respect of Lightronics fire £1.6m

<sup>2</sup> Redated to include SchahLED

# Operational and financial review.



**“Following a few years of significant organic and acquisitive growth, this year has been one of consolidation.”**

**Craig Muncaster**  
Chief Executive, Group Financial Director  
& Company Secretary

## Operational review

### 2024 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; 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.

Following a few years of significant organic and acquisitive growth, this year has been one of consolidation. The standout performance was from Lightronics, which increased revenue and drove through margin improvements to deliver record operating results.

Performance at SchahLED was reasonable, especially given the economic conditions in Germany and the company managing the consolidation of the Thorlux Germany business. Zemper also gave a solid performance, with further growth outside of Spain. Operating profit performance improved in the second half, following a slow first half.

The Group's other companies saw mixed results, with similar performance from most companies in the main, but with TRT suppressing results with an operating loss.

Supply chain challenges and material inflation eased this year. The Group procurement team delivered some impressive results at most companies, reversing the increases seen over the last two years. Stock has also been reduced; however, strategic stock levels of certain components are still carried for protection.

The Group's people costs have continued to rise, driven not only by inflationary pressures but also by

consecutive significant increases in the minimum wage, which drove cost increases across all levels of the business. Within the Group, we continue to pride ourselves on paying above these minimum wage standards and rewarding success.

The success of the Group's strategic direction has been demonstrated. Diversification of Group revenue sources, either by territory or sector, has delivered solid revenue and, combined with a targeted reduction of material spend, resulted in a growth in operating profit despite selling price increases being limited this year, hampering the Group's ability to offset cost pressures.

The Group continues to invest in manufacturing, selling activities and associated support services, supported by the continued development of innovative lighting products as well as sustained improvement of overall service to customers.

The following is an overview of 2023/24 for each company.



## Peckham Library, London, UK



### Thorlux Lighting

**Following a few years of growth, revenues remained steady this year. Orders surpassed those of last year, with the order book staying at the more typical levels expected.**

There was another strong performance from the operational side of the business, delivering close to £50m of revenue in the second half of the year as well as driving stock levels lower. Supply chain challenges lessened; however, there has been some disruption to shipping routes in the Middle East, with knock-on increased costs.

SchahLED Germany, which reports to Thorlux Lighting on a day-to-day basis, saw its performance slow during its first full year with the Group. The economic climate, with Germany being in recession, has not been helpful, with some projects being deferred. A new IT system was introduced and Thorlux Germany personnel integrated into SchahLED, distracting effort for parts of the year. The outlook remains positive, with a developing pipeline of opportunities.

Ongoing investment in Thorlux selling and support personnel continues to solidify the business's growth in recent years. This is a targeted approach, both territory and sector driven, with a plan to continue to build the Thorlux sales presence and ultimately grow revenues.

Larger scale projects had less of an impact this year, although a number of healthcare and education projects boosted the final quarter results. Some target sectors perhaps did not deliver the hoped-for return, but investment in these areas will continue.

Revenue from outside the UK, excluding Germany, was more modest this year. Revenue from Australia moved forwards following a few years of being static, and that from Ireland also improved. Exports to some other areas were disappointing, making the overall total lower than last year.

Product innovation remains at the heart of the Thorlux business. SmartScan continues to evolve, with a host of new features and enhancements currently under development and planned for launch in 2024/25. New ranges include the Zipline Eco for warehousing applications and the Group-wide innovation of the popular emergency downlight Firefly. The Firefly project was a collaboration, led by Zemper in Spain, with engineers from all emergency lighting businesses in the Group.

Capital investment projects included the automation of the cardboard packaging process, reducing packaging costs and stock holding whilst improving sustainability. The business's first HVO (hydrogenated vegetable oil) fuelled vehicle was added to the fleet, with potentially more to come this year. With over

54% of the Thorlux car fleet now electric, investments in alternative fuel vehicles are further reducing the emissions and carbon intensity of the business.

Sustainability remains high on the agenda, with Thorlux achieving EcoVadis silver, a recognised measure both for customers and the industry. Investment is planned in gas-reducing technologies for the powder coating process and heating the business's facilities in the next few years to support the Group's net-zero journey.

Whilst continuing to invest for growth, Thorlux managed to deliver a solid revenue result and, more pleasingly, improved operating profits, before acquisition adjustments. The business will continue to build on its targeted sector and territory approach and aim for growth again in 2024/25, mindful that the headwinds of a change of government in the UK could impact short term demand, delaying replacement programmes in certain sectors. Demand for energy saving technologies as well as carbon reporting should underpin revenues, however.

#### Revenue

## £91.9m

2023: £92.7m, -1% (+10%),  
excluding SchahLED adding  
£15.4m (9mths – £16.9m)

# Operational and financial review continued

 Ypenburg Den Haag, Netherlands



## Lightronics

**Lightronics was the stand out performer for 2023/24 by a distance. Following below par but still respectable results last year, Lightronics returned to form with record operating results this year.**

Targeted commercial activities in the wall and ceiling division, aimed at relighting projects in a particular sector, yielded dividends this year. The ability to survey, design and supply enabled Lightronics to secure projects across the Netherlands. Export revenues were generally lower this year, with reduced levels of business in both Germany and France. Growth in the wall and ceiling division and good management of both selling and procurement prices have supported the improvement in margins this year. The commercial team continues to evolve and target its core markets of street lighting, wall and ceiling lighting, and anti-vandal lighting.

There has also been some successful cross-Group selling this year, with the Lightronics wall and ceiling team introducing certain Thorlux UK made products to its customers. Lightronics will take on a number of TRT developments to sell into the Netherlands in the coming year, such as the Oaken and TRT's updated Aspect street light family.

Product development synergies are starting to take shape – collaborations with TRT in particular, which shares similar customer bases, and also Thorlux from a SmartScan lighting controls perspective.

Investments at Lightronics centred around new product tooling following product developments this year; the business looks to share these costs with other Group companies by tooling common components when the opportunity arises. Lightronics plans to invest even further during 2024/25 by stepping up product development innovations, with the appointment of an innovations director, to ensure it remains in a strong market position in the Netherlands, underpinned by renowned excellent quality products.

This year's figures will be tough to beat; however, the business starts the new financial year with a reasonable order book and good pipeline.

### Revenue

**£26.2m**

2023: £24.8m, +6% (+13%)  
(constant currency  
+7% (+10%))<sup>1</sup>

<sup>1</sup> Constant currency shows percentage change in sales in the company's local currency.

 Amadeus Lyceum, Netherlands


## Famostar

**This year, Famostar delivered another robust performance, which improved on last year's. Famostar continues to grow SmartScan-enabled revenues and further develop sales of Thorlux products into the Netherlands market, where further progress has been made this year.**

There is little to report on the capital investment front this year, given recent investments in buildings and the introduction of a new enterprise resource planning system. Famostar will switch some of its attention to managing a technology shift in terms of batteries that the Group is already well positioned to achieve, given its investments in the UK and Spain in recent years.

Thorlux's product sales via Famostar increased marginally; orders exceeded €1m this year. Successful projects include sectors well known to the Group, such as education and healthcare. At the time of writing, Famostar is on the cusp of winning a project over a three-year period in the education sector in the Netherlands.

Growth is still on the agenda for Famostar, both in the local Dutch market and by exploring export markets with support from other Group companies. The SmartScan solution is now fully integrated into the existing portfolio, and the distribution of Thorlux products continues to gather momentum.

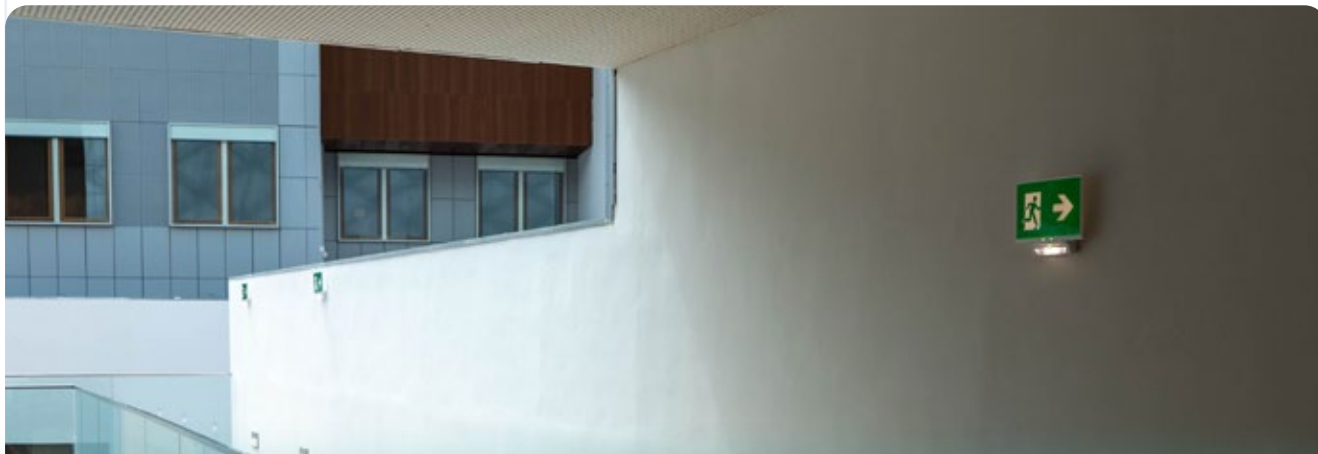
### Revenue

## £12.0m

2023: £11.5m, +4% (+4%)  
(constant currency +5%  
(+3%))<sup>1</sup>

# Operational and financial review continued

Palace of Justice, Namur, Belgium



## Zemper

**As Zemper completed another full year with the Group, revenue and operating profits were broadly in line with last year's. Zemper supplies its product into the three main territories of Spain, France and Belgium, previously untapped by the Group, with additional business from a number of other countries.**

The domestic Spanish market was slow this year, but this was largely offset by sales growth in France and Belgium. Supply chain challenges from previous years have now subsided, stock is returning to normal levels, and price increases are starting to reverse. Zemper experienced some shipping disruption during the year, with some temporary uplift in cost.

Operational performance of the business this year should not be the only measurement of Zemper's contribution to the Group. Zemper is the most prolific and enthusiastic contributor to Group synergy projects which should result in significant savings in various Group companies over the next few years.

Zemper's recent investment into injection moulding capacity has started to come to the fore in recent projects. Certain Group components, which would have been sourced externally, are now starting to be

manufactured at Zemper, reducing both the cost and certain risk factors to the Group.

The business continues to deliver a solid EBITDA return, and its synergy projects are starting to deliver but will take a little time to come to full fruition. The challenge for Zemper remains: to achieve sustainable profitable growth as per its medium-term projections, building on the foundations of a number of projects that have started following the Group's acquisition of the business.

### Revenue

**£19.4m**

2023: £19.3m, -% (+37%)  
(constant currency +1%  
(+33%))<sup>1</sup>

<sup>1</sup> Constant currency shows percentage change in sales in the company's local currency.


 Soldier's Bridge, Fort William, UK


## TRT Lighting

Having bounced back last year, unfortunately TRT dropped back this year. Some good orders from tunnels were not enough to offset the fall in street lighting revenues.

The sales side of the business has been subject to a complete overhaul, with new sales leadership in place and new personnel covering territories across the UK to improve the depth of coverage. Some shared selling resource with Portland will be introduced in the new financial year, as Portland targets a similar customer base with street/road safety lighting products, as well as the reinvigoration of cross-selling opportunities with Thorlux.

The operational and technical side of the business continued to perform well, not only delivering the complicated mix of both tunnel and street lighting but also supporting Group companies with manufacturing and technical product testing requirements from its facilities in Redditch.

In terms of innovation, TRT is proud to have completed the development of its most sustainable street light, Oaken; this product was recognised by an independent testing house as the most sustainable light it had ever tested in the UK lighting industry. Oaken, a wooden street and amenity light, scored an impressive 3.1 in a TM66 sustainability rating in April 2024. (TM66 takes into account aspects such as material sourcing, embedded CO<sub>2</sub> and recyclability; see more on page 33).

TRT's solid operational base combined with a reinvigorated sales team and innovative product portfolio give cause for some optimism for 2024/25.

Revenue

**£8.5m**

2023: £10.1m, -15% (+16%)

# Operational and financial review. continued

Wuxi Biologics, Dundalk, Ireland



## Solite

**Following a few years of growth, Solite fell back this year. Orders remained buoyant, with larger scale projects secured, but some of these deliveries have been deferred into the next financial year. Operating results were still reasonable and not far off the levels of last year.**

Operational performance certainly improved. Management of both selling and material cost prices supported margin improvement. Reorganisation of the manufacturing process continues so that Solite can improve its ability to deliver larger scale projects. Solite is also pioneering the use of new powder coating ovens which should result in an estimated 70% reduction in gas usage, supporting the Group's net-zero ambitions.

The ability of Solite to deliver bespoke products for specific projects is one of the fundamental pillars of its success. The business continues to invest in improving its product portfolio as well as adding new ranges such as a specialist exit sign for cleanroom environments and developing a highly efficient cleanroom luminaire, improving efficiencies by over 50% in some applications.

Projects this year included the delivery of products for a UK battery plant for electric vehicles, as well as many notable pharmaceutical, healthcare and transport projects. Successful collaboration with Thorlux continues, both in the UK and Ireland.

The order book remains healthy as Solite starts the new financial year, which will support the continued development of commercial activities. Solite will continue to evolve its product portfolio from both an efficiency and sustainability perspective during the next financial year.

Revenue

**£4.0m**

2023: £4.4m, -8% (+12%)

Shifnal, Shropshire, UK



## Portland Lighting

**There will be elements of *déjà vu* in this year's report for Portland. Revenues improved compared with those of a disappointing prior year, driven by the traffic division (road safety sign lighting) of the business.**

Although revenue from the traditional sign lighting business remained low, the traffic division, whilst only just starting, accounted for over 20% of revenues this year, supporting the decision to invest in targeting this market. The operating costs of developing this part of the business continue to have an impact; however, the division is starting to deliver promising results.

Product innovation and investment continued, mainly in road safety products. A mid-post beacon was launched and Portland's first significant order of 3,000 Hydra, a safety sign luminaire, was secured, with further opportunities to follow.

Traditional markets – retail and hospitality sign lighting – remained subdued. Portland continues to refine its product offering for these markets as well as look for opportunities to sell into overseas territories via existing distribution channels open to the Group.

Portland starts 2024/25 with a strong pipeline of opportunities for the traffic division spanning the next few years. The combination of traditional sign lighting and a new market opportunity with traffic products should enable Portland to deliver growth in the future.

Revenue

**£3.5m**

2023: £3.2m, +12% (-17%)

# Operational and financial review continued

 Raffles Hotel, London, UK



## Philip Payne

**Solid results this year followed a return to typical business levels in 2022/23. Although investment in selling activities continues to weigh on underlying operating results, this is still a reasonable operating return but with room for improvement.**

The Philip Payne business is now refocused on its traditional homegrown market of architectural emergency lighting, with additional channels into certain targeted end users and contractors supported by the Group's products from Zemper and Famostar. Philip Payne has also revitalised its channel into hospital safety signage with an updated product portfolio.

Philip Payne will benefit from the Group-wide update of the emergency downlight project, as mentioned in the Thorlux section and in a separate article in this annual report. Further developments completed by Philip Payne this year include ION – the new, high quality exit sign – and the ultimate sustainable exit sign, Arden, supported by the Group innovation team (another example of collaboration and the Group's search for alternative sustainable materials).

Of course, the Group would not be able to sign off a year without mentioning Philip Payne's projects of distinction. This year, the business supplied products into the Dorchester and Raffles hotels in London and Ivy restaurants nationwide.

This year has been one of consolidation, focusing on redefining routes to market and refreshing the product portfolio. Investment in product development, sales and marketing will take some time to come to fruition; however, next year should see those investments starting to deliver.

Revenue

**£3.9m**

2023: £3.9m, -% (+20%)





Raffles Hotel, London, UK  
Philip Payne supplied bespoke lighting solutions to Raffles London, to address the unique challenges presented by the building's diverse spaces.

# Operational and financial review continued

## Financial review

**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 2024.**

### Results and dividends

Revenue remained relatively flat at £175.8m with operating profit increasing by 10.1% to £30.6m, supplemented by an additional three months contribution from Schahl, acquired in September 2022. Any additional contribution by recent acquisitions are dampened by IFRS related adjustments as disclosed in our segmental analysis.

The increase in Group profitability has been driven by a solid year from Thorlux and growth from our Netherlands companies, in particular Lightronics. Robust results from Zemper and the majority of other UK companies this year also supported the overall result. Operating profit before acquisition adjustments reached £32.4m<sup>1</sup> (2023: £29.8m), up 8.7%.

Both of our most recent acquisitions, Zemper and Schahl, made positive contributions of £4.8m (2023: £4.1m), before amortisation 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, Schahl predominantly distribute Thorlux products, so there are further adjustments at a revenue and operating profit level.

The remaining UK companies all posted solid contributions with improvements in all except for TRT, 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, although the latter did generate a small profit this year.

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

The taxation charge represents an effective rate of 18.6% (2023: 18.6%). The rate is similar to 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 2024, the Company paid an interim dividend of 1.70p per share (2023: 1.62p) amounting to £1,994,000 (2023: £1,898,000). A final dividend of 5.08p (2023: 4.84p) per ordinary share is proposed amounting to £5,961,000 (2023: £5,674,000), a special dividend of 2.5p per share (2023: nil) amounting to £2,934,000 (2023: nil). If approved, the dividends will be paid on 29 November 2024. Total dividends paid during the year amounted to £7,668,000 in aggregate (2023: £7,301,000). The final dividend for 2023 was paid on 24 November 2023.

### 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 invest the remainder. The majority of cash is placed with approved counterparties either on overnight deposit or time deposit. There are 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 2024 or 30 June 2023.

### 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.

<sup>1</sup> Refer to note 2 on page 130.

### 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 £2,019,000 (2023: £1,874,000) 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. While 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 was at a lower level compared with previous years. Capital expenditure included an investment in land to further develop our carbon offset programme and replacement of company cars with electric vehicles, as well as further solar at Ratio UK, all continuing to solidify 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 47 (2023: 45). 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. Any areas of non-compliance noted as part of this process have been 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**  
Chief Executive, Group Financial  
Director and Company Secretary

3 October 2024

Group total revenue (£m)

**£175.8m**

-0.5% (2023: +23.0%)

Group operating profit (£m)

**£30.6m**

+10.1% (2023: +12.6%)

Net cash generated from operations (£m)

**£41.4m**

+29.8% (2023: +61.5%)

Net assets (£m)

**£176.8**

+10.2% (2023: +10.3%)

# 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 and 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 and 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 and environment . . .

### Why we engage

The Group is committed to being a responsible member of the community and considers the environmental impacts of the customers' 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, Netherlands and Spain facilities
- Products and systems support energy saving and carbon reduction – London Stock Exchange Green Economy mark in 2020
- SBTi commitment to achieve net-zero by 2040

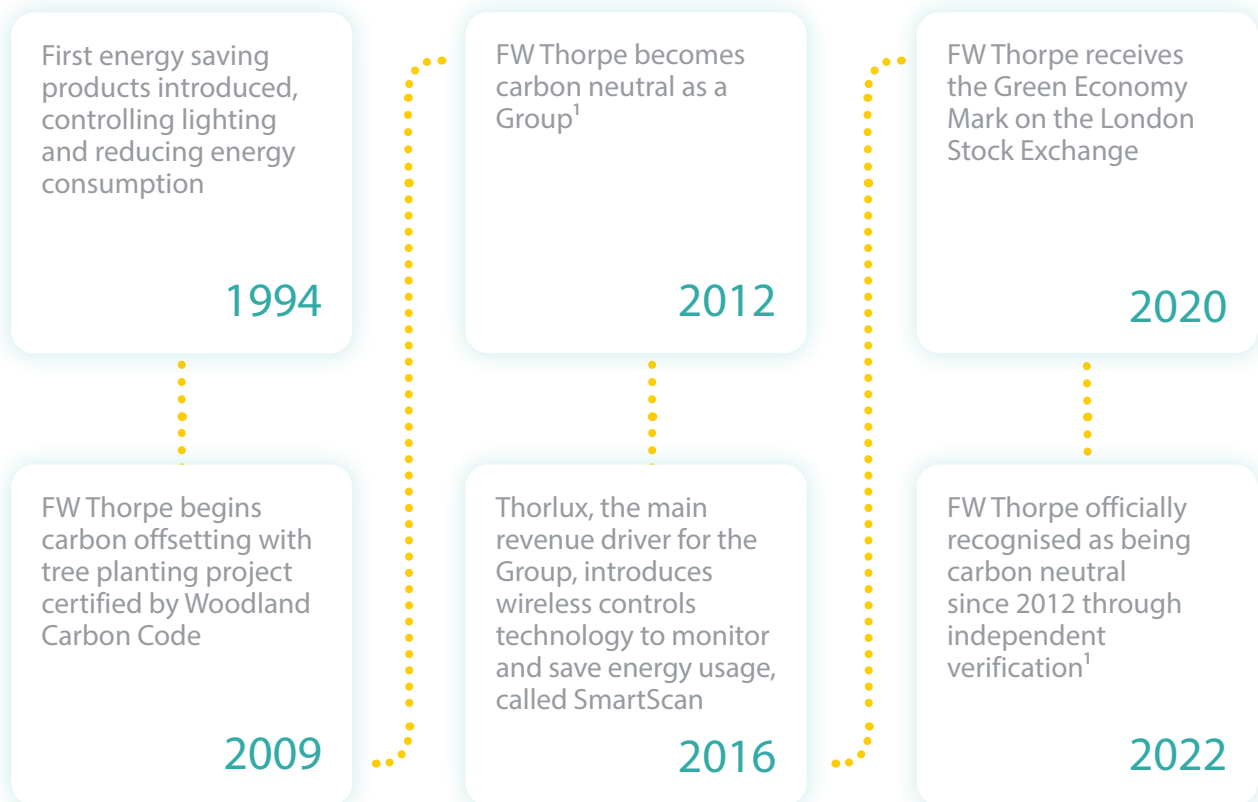
# Our sustainability journey.

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 at 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. The Group has planted 179,412 trees, offsetting more than 44,385 tonnes CO<sub>2</sub>e over the next 100 years. FW Thorpe has completed its woodland creation project in Devauden, Wales, and has recently purchased 195 acres of land in Herefordshire.



<sup>1</sup> Professionally assessed by independent third party.

## Progress this year

In 2023, FW Thorpe Plc announced its ambitious target to achieve net-zero emissions by 2040 and set credible and robust science-based targets. The SBTi has validated that FW Thorpe Plc's science-based greenhouse gas (GHG) emissions reduction targets conform to the SBTi Corporate Net-Zero Standard. The standard includes the guidance, criteria and recommendations companies need to set science-based net-zero targets consistent with limiting global temperature rise to 1.5°C.

Overall net-zero target: FW Thorpe Plc commits to reach net-zero greenhouse gas emissions across the value chain by 2040.



SCIENCE  
BASED  
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

THE NET  
ZERO  
STANDARD  
APPROVED NET-ZERO TARGETS

FW Thorpe Plc's net-zero target is verified by the Science Based Targets initiative (SBTi) under the net-zero standard

2024



### Near-term targets

FW Thorpe Plc has submitted two near-term targets for review by the SBTi. All targets have been assessed against the SBTi's quantitative and qualitative criteria, alongside the Criteria Assessment Indicators.

FW Thorpe Plc commits to reduce absolute scope 1 and 2 GHG emissions by 57.5% by 2030 from a 2021 base year.

FW Thorpe Plc also commits to reduce absolute scope 3 GHG emissions by 25% within the same timeframe.

2030



### Long-term targets

FW Thorpe Plc has submitted two long-term targets for review by the SBTi. All targets have been assessed against the SBTi's quantitative and qualitative criteria, alongside the Criteria Assessment Indicators.

FW Thorpe Plc commits to reduce absolute scope 1 and 2 GHG emissions by 90% by 2040 from a 2021 base year.

FW Thorpe Plc commits to reduce absolute scope 3 GHG emissions by 90% within the same timeframe.

2040

# 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.

FWThorpe'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, climate action.



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



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



Promote sustained, inclusive and sustainable economic growth.



Sustainable cities and communities.



Ensure sustainable consumption and production patterns.



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:

- Design principles – circularity focus, recycled renewable content, retrofit options
- Product lifetimes – e.g. 100,000 hour's operation
- Energy efficiency
- Smart technology
- Health and well-being
- Minimum certification against sustainability and circularity standards

### Supply chain:

- Determine sourcing criteria with key suppliers



See more on pages 56 to 58

## Operations (Manufacturing Excellence)

### Energy usage:

- Own solar generation
- Source from renewables
- Continue and expand carbon offsetting programme

### Waste:

- Reduce waste to landfill

### External activities:

- Sales and engineering fleet – hybrids/EVs/hydrogen
- Consider travel policy – trains, air travel
- Ability for certain staff to work at home – reduced travel
- EV charging at work using solar/renewable energy



See more on pages 59 to 60

## People

- Health and safety measures – ISO 45001 across the Group
- Training and development
- Employment of young people – continued support of apprenticeship scheme
- Diversity, gender pay
- Responsible wage/salary rates
- Flexible working



See more on pages 76 to 77

## Governance

- New products supporting green economy – e.g. EV charging
- Existing products that support the green economy – e.g. Smart, SmartScan
- Refurbishment/reuse business – replacement light engines, upgraded controls
- Alternative financing models for customer projects



See more on page 79

# Products.



From an environmental perspective, the greatest impact of a luminaire is during the operating phase, primarily due to the 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. We see this as an important part of our strategy, and while the products and projects below may not have a directly material or significant impact of our own emission reductions, they are linked to our environmental responsibilities.

By utilising the latest high-quality LEDs, evaluated on criteria including colour rendering, luminous flux and thermal stability, the Group guarantees that its luminaires deliver exceptional luminous efficacy and extended operational lifetimes.

## New products

The Group is committed to minimising the environmental impact of its products throughout their lifetime, and circular economy principles are now further embedded in the Group Product Design Rules. By focusing on the creation of increasingly energy-efficient luminaires and lighting solutions, the Group not only reduces energy consumption but also extends the lifespan of its 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 both existing and new customers. By repurposing the bodies of existing luminaires and designing custom gear trays to replace traditional light sources with LEDs, the Group significantly enhances energy efficiency, reduces maintenance costs, and extends the operational lifetime of its luminaires.

## Sustainability in action

### Zemper EVO10

Zemper has launched the EVO-10 range, a line of premium products that emphasise sustainability and durability, in accordance with its commitment to a commercial policy focused on sustainability. The EVO-10 range aims to achieve longevity, efficiency and reusability.

To meet these goals, Zemper has integrated environmental preservation into both product design and development processes. This approach minimises the environmental impact throughout the product life cycle by reducing the use of plastics and the size of printed circuit boards and electronic components, and by closely monitoring their environmental footprint through certified energy consumption and end-of-life studies. During production, recycled and recyclable polycarbonate is utilised, and 95% of the energy consumed comes from renewable sources.

The use of durable components, tested with thermal cameras to identify critical points, has extended the lifespan of all products in the EVO-10 range. This includes the design and manufacture of LEDs guaranteed for 100,000 hours. For batteries, Zemper conducted the largest study to date on LiFeP04 batteries for emergency lighting applications, in collaboration with experts from the IMDEA Institute. The development of microprocessor-controlled hardware and software for managing LiFeP04 battery charging has optimised battery life. Additionally, Zemper has created a proprietary charging system for LiFeP04 batteries that maximises energy efficiency and extends battery lifespan.



### Sustainability in action

#### Portland Hydra

The Hydra represents a revolutionary approach to traffic sign lighting, featuring nine adaptable heads with components arranged in flexible combinations. This design accommodates and services road sign faces of varying shapes and sizes, ranging from 600mm to 1500mm, meeting all required lighting standards. Through ingenious optical engineering, type E2 road signs up to 750mm can be effectively illuminated using just 1W of power. Additionally, with its versatile multi-bracket system designed to fit any size of lamp post, the Hydra stands out as a truly distinctive and fully maintainable modular sign lighting solution.



### Sustainability in action

#### Portland Crossafe Retro

The Crossafe Retro illuminated post converters are proving very popular, providing extended life to existing posts. First installed at Crickhowell for Powys County Council, the Crossafe Retro was nominated for the Innovative Product award at the Highways Electrical Association AGM and Conference at Celtic Manor in October 2023.

### Sustainability in action

#### Thorlux Light Line Retrofit

Thorlux Light Line Retrofit is a drop-in replacement for the original Thorlux Light Line and Light Line Integra fluorescent luminaires. The existing luminaire body remains, while the new clip-in Light Line Retrofit module replaces the original lamps and louvre.

The retrofit solution provides a highly sustainable option for replacing the complete luminaire. Typically, there is a 68% embodied carbon saving, a 50% operational carbon saving, and over 60% of the original luminaire is retained, helping to reduce the environmental impact of upgrading lighting. Thorlux Light Line Retrofit has been certified 'excellent' under the TM66 Circular Economy Assessment Method (CEAM), with a score of 2.9.



See more on pages 28 to 29



# Products continued

## Sourcing

As the Group continues to embed the principles of the circular economy, significant strides have been made in reducing packaging waste generated by its businesses. Over the past year, the Group has implemented enhanced planning processes that have enabled Group companies to better manage inventory, minimise excess stock and streamline deliveries. This has not only reduced the amount of supplier-delivered waste but has also eliminated the procurement of unnecessary items.

Building on these initiatives, the Group has further refined its supply chain practices to prioritise sustainable packaging solutions. These efforts

include collaborating with suppliers to reduce packaging materials, increasing the use of recycled and recyclable materials, and adopting bulk shipping methods to decrease the overall volume of packaging.

## Supply chain

The Group remains committed to its Supplier Code of Conduct, ensuring an ethical and sustainable supply chain by working closely 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 maintains relationships with a large number of non-product suppliers, primarily based in Europe. These suppliers are also subject to stringent due-diligence processes to ensure they meet the same high standards as our product suppliers. This comprehensive approach ensures that all the Group's suppliers adhere to the Group's commitment to quality, sustainability and ethical practices.

### Sustainability in action

#### Lightronics reusable plastic clips

In its efforts to further reduce packaging materials, Lightronics is currently trialling reusable plastic clips as substitutes for single-use foam inserts between stacks of polycarbonate bowls. These clips were developed in collaboration with the injection moulding supplier of the bowls, and are sent back with each shipment from the supplier. This return system has already been established with Lightronics-branded lashing straps.

## Thorlux box-making machine

In November 2023, Thorlux Lighting installed a new box-making machine at its Redditch, UK, manufacturing facility. This significant investment is part of the ongoing efforts to maximise sustainability and efficiency in the Thorlux packaging and dispatch department.

The new Panotec Nextmode 2.5 machine can cut, crease and perforate up to 10 cardboard boxes per minute, depending on the required size and shape. The new machine is approximately 3.5 metres wide and 8 metres long and was purchased through cardboard supplier Ribble Packaging. In addition to the box

machine itself, the November installation included an e-gluer machine, barcode reader and internal printers. This setup provides a complete in-house branded packaging solution for the company.

Thorlux now has the flexibility to produce boxes to order, making specific packaging for luminaires and equipment at the point of shipping. This capability eliminates wasteful stockpiling and saves valuable space. Any card offcuts are baled and recycled, ensuring Thorlux keeps wastage to the absolute minimum.

Thorlux anticipates it will produce approximately half a million boxes on-site each year. Besides reducing waste and overstocking, the new equipment will increase efficiency and cost-effectiveness; Thorlux anticipates the machine will pay for itself in just two years, based on its previous carton spend for the year 2022.



## SUSTAINABILITY

## Operations.



## Energy usage

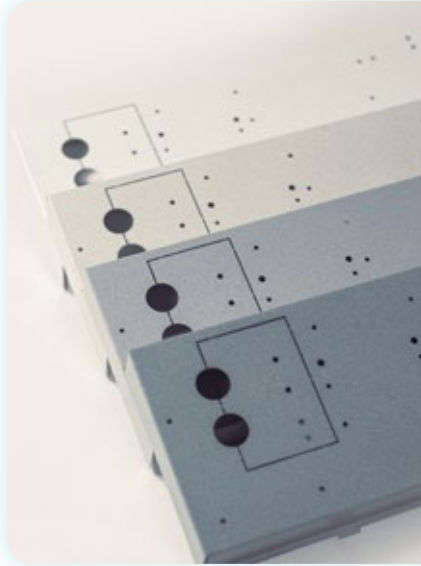
The Group has installed solar PV units on the roofs of most of its UK manufacturing facilities, as well as at Lightronics and Famostar in the Netherlands and Zemper in Spain. The units have the capability to deliver over 2 million kWh per annum, reducing the Group's consumption from traditional electricity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

## 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. Through better planning, the Group has successfully managed inventory, minimised excess stock, streamlined deliveries and eliminated unnecessary purchases.

## External activities

A proactive policy has been implemented to increase the adoption of hybrid and fully electric vehicles. Currently, more than half of the company's fleet consists of either electric or hybrid vehicles.



## Sustainability in action

## Thorlux powder coating process

Despite the efficiency of the Thorlux powder coating process, a small amount of paint ends up as waste. To keep this from landfill, it is now being collected and reused. The collected powder is a mix of colours, so Thorlux only uses it to coat non-visible parts of the luminaire, such as internal components or gear trays. This initiative has reused over 1.8 tonnes of powder in four months, coating nearly 38,000 components.



## Sustainability in action

## Zemper goes green

Zemper has acquired an electric van for local deliveries to enhance its commitment to sustainability and reduce its carbon footprint. Additionally, the electric van offers cost savings on fuel and maintenance compared to traditional vehicles, contributing to the company's operational efficiency.



# Operations continued

## Thorlux carbon offsetting project

Since 2009, FW Thorpe has been planting trees on its own land in Wales to offset Group emissions annually. The Group has planted 179,412 trees, effectively offsetting more than 44,385 tonnes of CO<sub>2</sub>e emissions over the next 100 years.

The carbon capture tree-planting scheme (quality-assured by the government-backed Woodland Carbon Code) is independently certified to ISO 14064-3 and ISO 14065 standards. (The Woodland Carbon Code is an independent standard devised by a group led by the UK Forestry Commission that certifies woodland creation projects that accurately measure how much carbon is captured and stored).

FW Thorpe has completed its woodland creation project in Devauden, Wales, and has purchased 195 acres of land in Herefordshire. This land holds significant potential for connecting existing woodlands to enhance biodiversity and landscape. Ecological surveys have been conducted on the new land, and community consultations have taken place, with planting activities scheduled to commence in spring 2025.

The Group is committed to making Brook Farm a destination for community enjoyment. A network of shale paths will be established, allowing dog walkers and visitors easy access via a public right of way from the village or a car park at the entrance. Features such as signposts, waymarkers, noticeboards, benches and picnic areas will enhance the visitor experience.



## Sustainability Working Group – visit to Devauden

In May 2024, the FW Thorpe Sustainability Working Group convened in person for a two-day event including a trip to the Group carbon offsetting project in Monmouthshire, Wales and the recently acquired land in Herefordshire. Plans for this new site are currently being developed with planting expected to start in early 2025.



 Sustainability Working Group visit



To date, the Group has planted **179,412** trees

Offsetting more than **44,385** tonnes of CO<sub>2</sub>e



### Brook Farm Planting Map

The Brook Farm Woodland Creation Scheme aims to establish a thriving woodland, enhance biodiversity through the expansion of natural habitats, and improve existing site features whilst providing enjoyable recreational areas for local residents.



Recreational Footpaths



Public Right Of Way



Watercourses



Managed Open Space



Existing Woodland



Broadleaf High Forest



Native Broadleaf Woodland



Continuous Cover Forestry

# CFD.

## Reporting on Climate-Related Financial Disclosures

### Overview

F. W. Thorpe Public Limited Company (“FW Thorpe” or the “Group”), a leading designer and manufacturer of professional lighting equipment with over 900 employees worldwide, recognises that long-term success is inextricably linked to environmental responsibility. The Group acknowledges the critical nature of issues such as greenhouse gas emissions and energy efficiency. FW Thorpe is dedicated to maintaining the highest environmental standards and is committed to supporting the UK’s goal of achieving net-zero emissions by 2050. This commitment aligns with its long-term growth and stability core values, achieved by delivering market-leading products backed by excellent customer service. The Group’s passionate team leverages its energy and ability to develop the business for the benefit of shareholders, employees and customers. With the future in mind, the Group is confident that by combining its expertise in lighting with a commitment to sustainability, FW Thorpe will continue to illuminate the path forward.

### Compliance statement

The Companies (Strategic Report) (Climate-related Financial Disclosure) Regulations 2022 (the Regulations) require certain publicly quoted companies and large private companies to incorporate climate disclosures in their annual reports. As a large company, FW Thorpe is regulated and required to implement the reporting guidelines. It has adhered

to the mandatory requirements by including climate-related financial disclosures that are consistent with the regulations. In 2024, FW Thorpe complied with all eight reporting disclosure requirements of the Climate-related Financial Disclosures regulations.

### Governance

Climate-related considerations are incorporated into the Group’s strategic planning process. While climate risk is currently being integrated into the strategy, the Group aims to further embed climate-related factors into its decision-making processes, including target setting, capital allocation and performance evaluation. The Group maintains open and transparent communication with stakeholders regarding its climate-related activities. This includes regular reporting, engagement with industry associations, and participation in relevant initiatives. The Group has implemented the following governance structure to address climate-related risks and opportunities effectively.

### Board composition and oversight

FW Thorpe’s Board of Directors recognises the significance of climate change and its potential impact on business operations, financial performance and reputation. The Board comprises experienced professionals with a diverse skill set encompassing finance, operations and industry-specific knowledge.

Climate change is a strategic imperative for FW Thorpe and is given dedicated attention at quarterly Board meetings of each Group company and annual sessions of the overall Board. 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 programme. The Chairman and Chief Executive Officer (CEO) provide leadership in overseeing the Environmental, Social, and Governance (ESG) agenda, with a particular focus on climate change. Sustainability and Climate Risk are standing agenda items at both the Group and subsidiary levels. Each company generates a specific report detailing progress against Science-Based Targets Initiative (SBTi) targets, annual Group sustainability, climate risk targets and specific projects aimed at achieving these goals.

The Board annually oversees the climate-related risk management process, which involves input from the management team and external consultants, Inspired ESG. During the current reporting year (2024), a climate-risk workshop was held in March 2024, attended by a member of the Board and members of the Sustainability Working Group. This workshop included a general overview of climate change, a climate scenario analysis at the Group level, and a detailed review of climate-related risks and opportunities specific to the business.

Figure 1: Our Governance Structure





### Remuneration committee

The Committee meets at least once a year and is responsible for determining and reviewing, with the Board, the policy for remuneration of the executive directors. The Committee approves the structure of, and determines any targets for, any performance related pay schemes, reviews the design of any share incentive plans and determines the policy of any pension arrangements for each executive director. An element of the executive share option plan is tied to achieving the Carbon Reduction Target, aligning executive incentives with the Group's sustainability strategy. Although the Group lacks a formal ESG committee, sustainability is discussed at subsidiary board meetings where management reports to the Board.

### Management engagement

The Group-wide sustainability strategy is chaired by the Chairman and the CEO, who ensure climate considerations are embedded into the Group's core business operations. A robust reporting framework supports quarterly updates to the

Board by the CEO on climate-related performance, fostering accountability and transparency throughout the organisation.

Climate risk management is a collaborative effort involving various stakeholders. The Group management team, subsidiary boards, and Sustainability Working Group work together to identify, assess and manage risks and opportunities. To aid this process, the Group also benefits from the expertise of external consultants who conduct annual climate scenario analyses and risk workshops. Management reviews the resulting risk register and presents it to the Board. The CEO oversees the climate risk register providing quarterly updates to the Board on climate-related risks and opportunities.

The Group-wide Sustainability Working Group, led by senior managers from the subsidiaries, focuses on identifying and developing sustainability solutions. This group works with the Group management team and subsidiary boards to address climate-related risks and opportunities. Each

subsidiary's Managing Director (MD), guided by the Board, is responsible for sustainability and climate change initiatives. Subsidiary managing directors host quarterly meetings, report Key Performance Indicators (KPIs) and update the Board on progress against climate-related targets and associated initiatives. To support local sustainability efforts, a designated sustainability champion is appointed within each business and reports to the subsidiary managing directors. The Sustainability Working Group meets quarterly to monitor progress and discuss initiatives.

### Future plans

FW Thorpe is committed to strengthening its climate governance framework. It is considering establishing a formal ESG committee to enhance its focus on sustainability and climate-related matters. Additionally, the Group will continue to invest in employee training and development to build climate-related expertise across the organisation.

 TRT Solar installation, Redditch, UK



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## Reporting on Climate-Related Financial Disclosures

### Risk management

FW Thorpe evaluates how climate-related risks might impact its ability to continue operating in the foreseeable future. Climate risk is assessed separately from other enterprise risks, and both are managed using distinct methodologies. The aim is to incorporate, where possible, climate-related issues when reviewing the Group’s business strategy, targets and major plans of action and investments.

This involves identifying and assessing potential impacts on operations and overall business viability due to regulatory changes, physical impacts of climate change (e.g., extreme weather events), and shifts in market demand. These evaluations are included in the Group’s disclosures to provide stakeholders with an understanding of how climate change may affect the Group’s long-term sustainability and operational continuity.

#### Step 1: Identification of risks

The Sustainability Working Group and its third-party ESG consultants are the main participants in climate-related risk identification in collaboration with key departments (e.g. Operations, Finance, Marketing and Research and Development). This process involves:

- **Scenario analysis:** The Group used the climate scenario analysis conducted in February 2024 to identify potential physical and transition risks across different warming scenarios and time horizons.
- **Data analysis:** The Group analysed operational data, supply chain information, and market trends to identify climate-related vulnerabilities and dependencies.
- **Stakeholder engagement:** The Group gathered insights from employees, customers, suppliers and industry experts to identify emerging risks and opportunities.

- **Regulatory review:** The Group monitored relevant climate-related regulations and policies to assess potential impacts on the business.

Guided by CFD recommendations and an expert sustainability consultancy, the risk identification process, which is conducted annually, identified nineteen climate-related risks and five opportunities at the Group level in 2024. The Group has potential exposure to climate-related risks that could impact both its operations and the products it promotes. FW Thorpe identified climate change as a principal risk in 2023, with the help of external consultants during a climate modelling scenario workshop, followed by subsequent internal discussions. This risk, initially recognised in 2023, has been reaffirmed this year. For more details, please refer to the Strategic Report on pages 16 to 83.

Ratio io7 EV charger



### Step 2: Evaluation of risks

In February 2024, the Group conducted a climate scenario analysis to evaluate each risk. This assessment considered varying timescales and global warming projections. The outcomes of the climate scenario analysis were disseminated to a diverse group of stakeholders, including representatives from Operations, Sustainability, Risk Management, Finance, and the Board, at a dedicated workshop held in March 2024.

The Group employed a matrix-based approach, to assess and prioritise climate-related risks. A scoring system quantifies the risks, with higher scores indicating more significant potential harm to the business.

- Risk scoring:** Risks are evaluated based on probability (likelihood of occurrence) and impact/severity. Probability is assessed on a scale of 1-5, with one being unlikely and five being almost certain. Impact is assessed on a scale of 1-5, with one being low and five being catastrophic. This scale measures the potential consequences of the risk occurring.
- Gross risk factor:** A numerical scale correlates with the level of risk materiality to the business, guiding decision making on the necessary response. It is calculated as the product of likelihood and impact scores. The combined score determines the risk's overall severity and helps prioritise mitigation efforts. Risks falling within the 10 to 25 range require our most rigorous mitigation strategies.

- Residual risk factor:** This is calculated by multiplying the likelihood and impact scores after implementing control measures. The Group uses the matrix in Table 2 to identify material risks. A risk is deemed material to the business if the residual risk factor is equal to or greater than ten. Thus, if the residual risk factor scores between 10 and 25, it is material to the business and requires close monitoring.

Table 1: Risk Response Options

Residual Risk Factor After Control(s) Applied	Description
1	The identified risk is not material to the business.
2-4	The identified risk is not material to the business.
5-9	The identified risk is not material to the business.
10-14	The identified risk is material to the business.
15-25	The identified risk is material to the business.

Table 2: Risk Rating Matrix (Residual Risk Factor)

		Probability/Likelihood				
		1	2	3	4	5
Impact/Severity	1	1	2	3	4	5
	2	2	4	6	8	10
	3	3	6	9	12	15
	4	4	8	12	16	20
	5	5	10	15	20	25

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## Reporting on Climate-Related Financial Disclosures

### Step 3: Management of Risks

Following the risk assessment, the Group developed tailored management and mitigation strategies for each identified risk. The Group collaborated with internal Finance, Operations and Marketing stakeholders to leverage existing mitigation practices to inform this process. A "climate lens" was applied to existing strategies across the business, and new approaches were introduced as needed. A climate-risk register was established in June 2024 and is maintained and reviewed annually by the Chief Executive with support from the finance team. The Risk Register received approval by the Board in July 2024. Risk ownership and accountability were assigned to specific individuals or teams, ensuring clear responsibility for managing climate-related risks. The climate risk register is integrated with the existing risk management framework, as climate change is incorporated within the principal risks.

### Strategy

The Group is dedicated to tackling contemporary sustainability challenges and seizing related opportunities through its business strategy. A thorough understanding of customer and key stakeholder needs and expectations is pivotal in prioritising the most pressing issues and maintaining responsible and sustainable operations.

FW Thorpe has set ambitious goals to significantly reduce its Group-level Greenhouse Gas (GHG) emissions, demonstrating its commitment to climate action. The Group had these targets validated by the SBTi in 2024. FW Thorpe aims to reduce absolute

Scope 1 and 2 (market-based) GHG emissions by 57.5% by 2030 from a 2021 base year. Additionally, the Group is committed to reducing absolute Scope 3 GHG emissions by 25% within the same timeframe and compared to the same baseline. Furthermore, the Group pledges to achieve a 90% reduction in absolute Scope 1 and 2 GHG emissions by 2040, using 2021 as the baseline. It also commits to a 90% reduction in absolute Scope 3 GHG emissions within the same period and compared to the same baseline, in accordance with SBTi's definition of net-zero. To support these goals, FW Thorpe has implemented Group-wide initiatives to minimise energy use, generate renewable energy through solar photovoltaic (PV) units, and procure renewable energy. These initiatives are integral to the sustainable and responsible business strategy.

### Climate scenarios

Following the guidance of the Task Force on Climate-related Financial Disclosure (CFD), the Group has conducted a climate scenario analysis across its operations, to evaluate its climate-related risks and opportunities. Climate scenarios are projections of future climate conditions, based on different warming pathways. To develop the scenarios, the Group utilised a variety of climate models and internationally recognised frameworks, such as the International Energy Agency's World Energy Models (WEM), the Shared Socioeconomic Pathways (SSPs), the Climate Natural Catastrophe Damage Model, Coordinated Regional Climate Downscaling Experiment (CORDEX) regional climate forecasts, and Integrated Assessment Models (IAM). Climate models, while valuable tools, have limitations. Their ability

to perfectly replicate real-world dynamics is uncertain, and they may overestimate or underestimate certain variables. This highlights the need for continuous refinement and updates.

- Transition and physical risks:** The Group considered both the challenges presented by the shift to a low-carbon economy (transition risks) and the direct impacts of climate change on its operations, such as flooding, heat stress and water scarcity (physical risks). Transition risks have been identified at the Group level, with a potential of impacting the overall business strategy and operations. A total of 15 operational and sales offices across multiple regions have been identified to address potential physical risks.
- Multi-timeframe assessment:** Recognising that climate change impacts extend beyond traditional planning horizons, the Group evaluated risks across short (2023-2027), medium (2028-2037), and long-term (2038-2052) timeframes. The medium-term timeframe aligns with its near-term targets, and the long-term timeframe covers the Group's net-zero targets for 2040.
- Exploring climate scenarios:** The Group analysed different warming scenarios, based on global responses to climate change. These included scenarios aiming for a below 2°C, 2-3°C, and an above 3°C future by 2100. This approach, exceeding CFD's recommendation of exploring scenarios below and above 2°C, provides a more comprehensive understanding of potential impacts.

Table 3: Three warming pathways

Scenario warming pathways	
<p><b>&lt;2°C by 2100:</b></p> <p>Achieving Collective Net-Zero Ambition</p>	<p><b>The &lt;2°C scenario represents a global ambition to limit global warming to below 2°C by 2100, aligning with the goals of the Paris Agreement.</b></p> <p>This optimal scenario involves concerted efforts from businesses, governments and individuals to mitigate climate change. Aligning with the Paris Agreement and setting net-zero goals will be crucial. While transition risks are elevated, this path significantly reduces future climate impacts. As a sustainable lighting leader, FW Thorpe is well-positioned to capitalise on the growing demand for energy-efficient solutions. The Group is committed to innovation, collaboration, and achieving net-zero by 2040, in line with the Paris Agreement.</p>
<p><b>2-3°C by 2100:</b></p> <p>Adapting to a Transforming Climate</p>	<p><b>The 2-3°C scenario highlights the critical need for a strong and coordinated global response to climate change.</b></p> <p>This scenario reflects a potential future where global climate action is uneven. While some governments enact regulations, lacking strong, coordinated responses could create business uncertainties. The Group recognises the potential for poorly designed policies to disrupt supply chains and hinder access to vital resources. However, this is an opportunity to drive innovation in sustainable lighting solutions. The Group can navigate this dynamic landscape, by proactively adopting sustainable practices and collaborating with stakeholders across the industry.</p>
<p><b>&gt;3°C by 2100:</b></p> <p>Prioritising Risk Mitigation in a Warmer Future</p>	<p><b>This scenario serves as a reminder of the urgency of climate action.</b></p> <p>This scenario represents a future with minimal short- or medium-term global action on climate change. While transition risks for businesses may be limited in the short term due to a lack of regulatory pressure, the long-term consequences are significant. For FW Thorpe, a "business as usual" approach poses challenges. Increased extreme weather events could disrupt supply chains, impact energy infrastructure and damage facilities. Additionally, rising temperatures could lead to resource scarcity, affecting the availability of crucial materials for lighting solutions.</p>

The following outlines the time horizons used to identify when a risk or opportunity will significantly impact the business.

#### Short term (2023-2027): A foundation for sustainability

This timeframe aligns with typical business planning cycles, allowing immediate action on sustainability initiatives. The Group can quickly capitalise on easily achievable opportunities and mitigate risks associated with upcoming regulations. This period coincides with growing client demand for environmentally conscious practices within the lighting industry.

#### Medium term (2028-2037): Shaping the future of sustainable lighting

This timeframe positions FW Thorpe as a market leader in developing sustainable lighting solutions. The Group can utilise this period for strategic investments in research and development, focusing on innovative technologies that pave the way towards net-zero goals. Additionally, this timeframe aligns with established targets for significant reductions in greenhouse gas emissions by 2030.

#### Long term (2038-2052): Charting the course to net-zero

This extended timeframe provides a comprehensive lens for risk management. The Group can anticipate potential shifts in consumer preferences and the emergence of new technologies that impact the lighting industry's environmental footprint. Setting a long-term vision for sustainability demonstrates FW Thorpe's unwavering commitment to a greener future. This period encompasses the entire journey to net-zero emissions by 2040, allowing the Group to explore long-term technological advancements, infrastructure changes and potential policy shifts necessary to achieve this ambitious goal.

## Reporting on Climate-Related Financial Disclosures

### Analysis results

In February 2024, the Group conducted a climate scenario analysis, which was presented to and discussed by the Board and other key personnel in a workshop in March 2024. Representatives from Operations, Finance and Marketing attended the workshop. This analysis evaluated nineteen climate-related transition and physical risks and determined that none were material to the Group's future business and strategy after applying mitigation and controls. The Group assessed physical risks by location, focusing on 15 sites, and transition risks at the Group level, as they are relevant across all business operations. These risks will be reviewed annually. Please see the Risk Management section for the methodology used to determine material risks and the review process.

Although mitigations and controls are already in place to manage these climate-related risks, monitoring their status and effectiveness is crucial. Annual reviews and updates will be conducted to ensure these controls remain robust and responsive to any changes in the risk landscape. Additionally, the Group must be prepared to escalate its response if the risk severity increases. Should a risk move into the higher score ranges (10-14 or 15-25), it will be considered material and may require more stringent measures.

While the Group acknowledges the presence of various climate change risks, its assessment indicates that no individual climate-related threat currently poses a material risk to the business. This is due to a combination of factors, including geographic spread, which mitigates exposure to localised climate impacts, and robust risk management strategies encompassing scenario analysis, contingency planning, and continuous monitoring;

no risks are deemed material. Thus, all individual climate change risks are currently manageable.

Even though the assessment indicates that no single climate-related risk currently poses a material threat to the business, the Group recognises that the cumulative impact of climate change represents a significant principal risk, as it requires, and will require, ongoing attention and proactive management. The risk management process is designed to proactively identify and mitigate principal risks before they escalate to material levels. Before the Group's mitigation efforts, it identified six transition risks and five physical risks as material. These included increased regulation due to climate change, enhanced emissions reporting obligations, carbon pricing, heatwaves, flooding and wildfires. The Group has implemented strategies to mitigate these risks and minimise their potential impact on the business. To address this, the Group has implemented strategies that have reduced greenhouse gas emissions (see Table 4 for progress against targets). Additionally, the Group conducts site risk assessments, monitors climate-related trends and plans for potential future scenarios to ensure its business remains resilient in the face of evolving climate risks.

### Opportunities

FW Thorpe recognises the imperative to reduce its carbon footprint and contribute to a sustainable future. The identified opportunities to decrease emissions across the product lifecycle are pivotal to achieving these goals. These initiatives are not merely operational improvements but strategic imperatives driven by various factors. Firstly, increasing regulatory pressures and consumer expectations around environmental responsibility necessitate a proactive approach. Secondly, a reduced carbon footprint can lead to cost

savings through energy efficiency and potential government incentives. Thirdly, such initiatives align with FW Thorpe's corporate social responsibility commitments and can enhance the Group's reputation.

The materiality of these opportunities was determined through a rigorous assessment and discussion of their potential environmental impact and alignment with the Group's overall strategy in the climate risk workshop held in March 2024, as well as subsequent internal discussions. FW Thorpe has prioritised a strategic focus on identifying and capitalising on material climate opportunities rather than formalising a scoring system. This is because climate opportunities are often more fluid, emerging and less tangible than risks. They may require a more flexible and iterative approach to identifying and evaluating potential benefits.

#### 1. Products and services

Description: New low-emission product and service lines.

Timeline: Short -medium Term (2023-2037). Scenario: <2°C and 2-3°C.

Early investment in low-emission and energy-saving products offers a strategic advantage, by positioning a company as a market leader, differentiating it from competitors, and building a strong, environmentally conscious business. This approach capitalises on growing market demand for sustainable products, increasing revenue and reducing costs through innovation. It contributes to climate change mitigation and enhances the Group's image. By proactively addressing tightening environmental regulations and building a resilient supply chain, companies can mitigate risks and achieve long-term financial and environmental sustainability.

FW Thorpe is actively working to reduce its environmental impact and

is continuing to invest significantly in research and development to create innovative products, while optimising its supply chain. By emphasising product longevity, reusability, reduced energy consumption and the use of sustainable materials, FW Thorpe is aligning its business with consumer preferences for environmentally friendly options.

#### Alignment with net-zero targets:

Investing in low-emission and energy-saving products can significantly reduce overall environmental impact through lower absolute Scope 1 and 2 (market-based) emissions and reduced absolute Scope 3 emissions. Please see Table 4 for progress against targets and Tables 6 and 8 for reported emissions.

## 2. Energy Source

Description: Use and installation of low-emission energy technology.

Timeline: Short-medium Term (2023-2037). Scenario: <2°C and 2-3°C.

FW Thorpe is well-positioned to capitalise on the global drive towards net-zero. The Group's existing solar PV projects demonstrate its commitment to sustainable practices. By expanding

renewable energy generation, FW Thorpe can reduce operational costs, lower carbon emissions, and enhance its reputation as a responsible corporate citizen. With available financing options to support these initiatives, the Group has a significant opportunity to achieve long-term financial and environmental benefits, while solidifying its leadership in sustainable manufacturing.

The Group is actively increasing its renewable energy footprint. For example, focusing on scaling up its solar PV operations by increasing panel numbers, exploring new locations, and adopting advanced technologies to minimise gas consumption. The Group is committed to transparency and is tracking its progress in renewable energy generation and emissions reduction.

#### Alignment with net-zero targets:

Increasing renewable energy generation directly contributes to reducing market-based Scope 1 and 2 emissions (purchased energy) and indirectly impacts Scope 3 emissions (depending on the electricity grid's carbon intensity). Please see Tables 4 and 8 for progress against these targets.

## 3. Resource efficiency

Description: Use of energy-efficient technology.

Timeline: Short-medium Term (2023-2037). Scenario: <2°C and 2-3°C.

FW Thorpe sees a significant opportunity to reduce its carbon footprint and operational costs through energy efficiency. By investing in advanced technology, companies can optimise processes, consume less energy and reduce energy costs. These savings will benefit the environment and improve profitability. Coupled with the existing SmartScan platform, the Group can offer comprehensive energy management solutions to its customers.

FW Thorpe is already taking concrete steps to enhance its energy efficiency, by identifying areas where energy-saving technologies can make the biggest impact on operations. The Group is focusing on solutions that boost efficiency, without compromising output. To drive this initiative forward, teams are encouraged to share their ideas for saving energy. The sustainability newsletter, training

Thorlux powder coating facility utilising recycled powder



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## Reporting on Climate-Related Financial Disclosures

materials, and the “Net-Zero Hero” award highlight the importance of this work. The Group is committed to continuous improvement, regularly reviewing its processes, to identify further opportunities for efficiency gains. Before investing in new technology, the Group carefully assess its long-term financial benefits to ensure a positive return.

**Alignment with net-zero targets:**

Reducing energy intensity directly contributes to lower energy consumption and, consequently, reduced Scope 1 and 2 emissions. Please see Tables 4 and 8 for the progress against targets and year-on-year comparison.

**4. Markets**

Description: New emerging low-emission markets.

Timeline: Short-medium Term (2023-2037). Scenario: <2°C and 2-3°C.

The shift to a lower-carbon economy presents opportunities for FW Thorpe. By actively seeking out new markets and investing in low-emission technologies, the Group can diversify its business and strengthen its position for the future. It sees potential in collaborating with local businesses and communities to support their transition

to cleaner energy sources. Additionally, investing in green technologies and infrastructure can open new revenue streams and enhance the Group’s sustainability profile. Embracing these opportunities will contribute to a greener planet and drive long-term growth and success for FW Thorpe.

The Group is already adapting its business to meet the challenges and opportunities of a low-carbon economy. It is transforming its product range to meet the specific requirements of new markets, developing lower-emission and energy-efficient versions that align with global sustainability standards. To support local economies and reduce the Group’s environmental impact, it is building strong relationships with local suppliers. This helps the Group to source materials and services closer to home, cutting down on transportation emissions. The Group is also committed to sustainable supply chains, ensuring that the materials it uses are sourced responsibly and that suppliers share its commitment to environmental protection.

**Alignment with net-zero targets:**

The Group’s commitment to achieve net-zero by 2040 aligns with the growing demand for sustainable

solutions. As outlined in Table 4, it has made significant strides in reducing both direct and indirect emissions. The 100% landfill diversion target by 2030 aligns with a circular economy, promoting resource efficiency and environmental sustainability.

**5. Resilience**

Description: The business is well-adapted and positioned to deal with climate change.

Timeline: Short-medium Term (2023-2037). Scenario: <2°C and 2-3°C.

FW Thorpe is building resilience to climate change by preparing for its impacts and seizing opportunities. As a company with long-term assets and complex supply chains, it understands the importance of adapting to a changing climate. It is focused on building its capacity to manage climate-related risks while exploring new avenues for growth. By doing so, FW Thorpe is positioned for long-term success in a changing world.

The Group is actively building its resilience to climate change. It has started by identifying potential climate risks to its business through detailed assessments and scenario planning. Based on these findings, strategies will

Thorlux retrofitting service





be developed to protect its operations and assets. This includes creating more flexible supply chains, strengthening its infrastructure, and staying ahead of evolving climate regulations. Taking a proactive approach, ensuring FW Thorpe's long-term sustainability.

### Alignment with net-zero targets:

Achieving emissions reduction targets can bolster its resilience by mitigating exposure to carbon pricing, regulatory shifts and physical climate impacts. Additionally, enhancing energy efficiency, which directly contributes to emissions reductions, can fortify against volatile energy costs. Please see Tables 4 and 8 for progress against targets.

## Metrics and targets

FW Thorpe recognises the need for climate action and emissions reduction. Capitalising on the Group's position as a manufacturer of highly efficient lighting solutions, FW Thorpe has decided to set ambitious near-term and net-zero targets at the Group level. By defining clear targets for reducing

greenhouse gas emissions across its operations and supply chain, the Group is demonstrating transparency and accountability.

As such, FW Thorpe is committing to reach net-zero Scope 1, 2 and 3 emissions by 2040, ten years ahead of the UK and EU targets of net-zero by 2050. This means reducing absolute Scope 1, 2 and 3 emissions by 90% by 2040, then offsetting the remaining 10% with high-quality sequestration offsets from 2040 onwards, in line with the SBTi guidance on net-zero. In 2024, FW Thorpe submitted targets to SBTi, and these targets were validated in June 2024. Progress against these targets can be found in Table 4 and Figures 1 and 2.

While the near-term target for Scope 1 and 2 (market-based) emissions is a 57.5% reduction by 2030, the Group has set a less ambitious goal of a 25% reduction for Scope 3 emissions within the same timeframe. The variation in near-term targets across different scopes is primarily due to the distinct

nature of emissions within each category. Scope 1 emissions, directly from owned or controlled sources, offer greater control and potential for rapid reduction through operational changes and technology adoption. Scope 2 emissions from purchased energy are influenced by factors such as regional energy mix and the availability of renewable energy sources. Scope 3 emissions from value chain activities present a more complex challenge due to their indirect nature and dependence on supply chain partners. Therefore, while the overall ambition for net-zero applies to all Scopes, the pathways to achieving these reductions vary in complexity and timelines.

The data presented in this report has been compiled by FW Thorpe based on internal records and calculations performed by its third-party consultants. While reasonable care has been taken to ensure the accuracy and completeness of the information, it has not been externally verified.

**Table 4: Progress against targets**

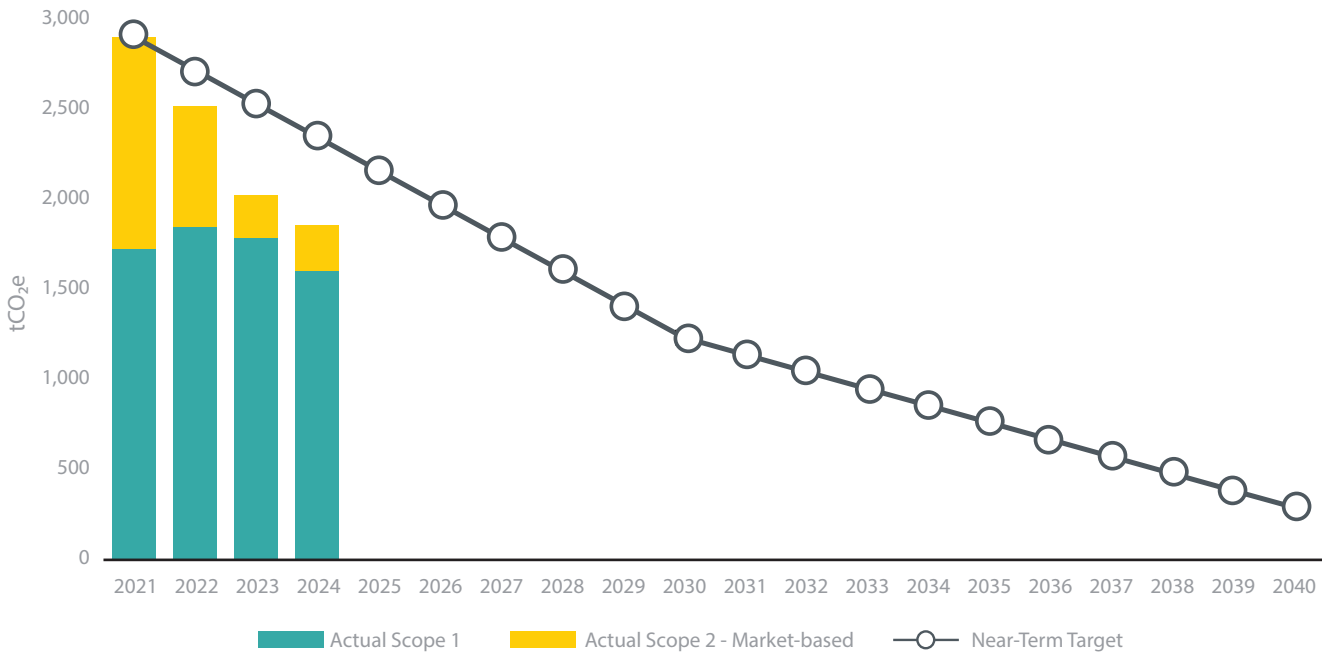
Target	Baseline 2021 Value (Restated)	2024 Value	Progress Against Target
Reduce absolute Scope 1 and 2 (market-based) emissions by 57.5% by 2030 from 2021 baseline.	2,856* tCO <sub>2</sub> e	<b>1,831 tCO<sub>2</sub>e</b>	A 35.9% reduction against the baseline year has been achieved. This requires a further 3.6% annual reduction until 2030 to meet this target.
Reduce absolute Scope 3 emissions by 25% by 2030 from 2021 baseline.	320,100* tCO <sub>2</sub> e	<b>211,082 tCO<sub>2</sub>e</b>	A 34.1% reduction against the baseline year has been achieved, meaning this target has been achieved six years ahead of schedule.
Reduce absolute Scope 1 and 2 (market-based) emissions by 90% by 2040 from 2021 baseline.	2,856* tCO <sub>2</sub> e	<b>1,831 tCO<sub>2</sub>e</b>	A 35.9% reduction against the baseline year has been achieved. This requires a further 3.4% annual reduction until 2040 to meet this target.
Reduce absolute Scope 3 emissions by 90% by 2040 from 2021 baseline.	320,100* tCO <sub>2</sub> e	<b>211,082 tCO<sub>2</sub>e</b>	A 34.1% reduction against the baseline year has been achieved. This requires a further 3.5% annual reduction until 2040 to meet this target.
Divert 100% of waste from landfill by 2030 from 2024 baseline	80% landfill diversion rate		An annual 3.3% increase in landfill diversion rate is required until 2030 to meet this target.
Utilise 100% renewable electricity by 2030	3.8%	<b>87.9%</b>	A 84.1% increase in renewable electricity consumption has been achieved. An annual increase of 2.2% is needed until 2030 to meet this target.

\*These baseline figures have been restated to include SchahLED. Please see the Carbon Balance Sheet section for further details.

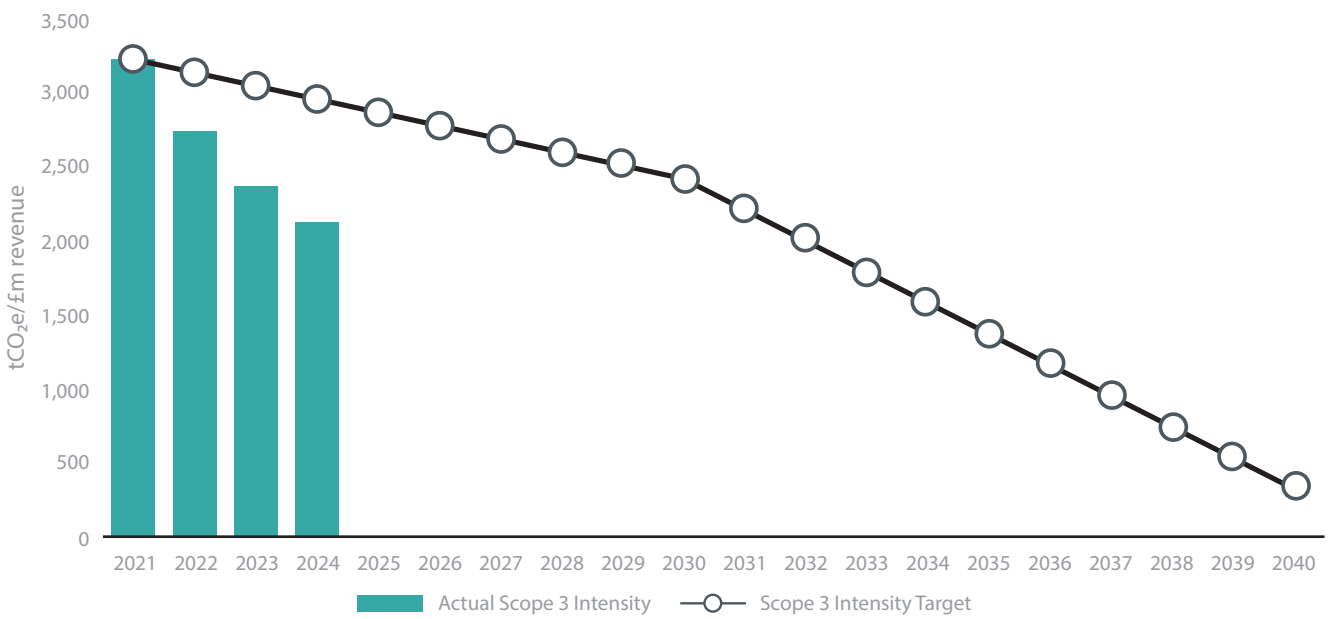
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## Reporting on Climate-Related Financial Disclosures

**Figure 1:** FW Thorpe Group's Progress against Scope 1 and 2 Targets



**Figure 2:** FW Thorpe Group's Progress against Scope 3 Targets



## Streamlined Energy and Carbon Reporting (SECR)

Since 2018, the Group has been monitoring and reporting its energy and emissions from its own operations, in line with the UK Government's Streamlined Energy and Carbon Reporting (SECR) policy. The Group's Scope 1 emissions are from the combustion of natural gas and transport fuels in company-owned assets. Scope 2 emissions are from the purchase of electricity, and the use of electricity in company-owned electric vehicles charged offsite. 2023 numbers do not include SchahLED, as no data was available. However, 2024 contains emissions from SchahLED. In the 2023 report, the Group was in the process of acquiring SchahLED, but 2024 is the first year of full data available and is the first year SchahLED has been included in the SECR reporting.

**Table 5: UK and Global Total Energy Consumption (kWh)**

Utility and Scope	2024 Consumption (kWh)			2023 Consumption (kWh)*		
	UK	Global (Excluding UK)	Total	UK	Global (Excluding UK)	Total
<b>Scope 1 Total</b>	<b>5,808,621</b>	<b>1,870,167</b>	<b>7,678,788</b>	<b>5,796,551</b>	<b>1,641,272</b>	<b>7,437,823</b>
Natural gas and Other Fuels	4,078,450	341,124	4,419,574	3,692,331	426,075	4,118,406
Transportation	1,730,171	1,529,043	3,259,214	2,104,220	1,215,197	3,319,417
<b>Scope 2 Total</b>	<b>3,487,049</b>	<b>1,955,904</b>	<b>5,442,953</b>	<b>3,037,441</b>	<b>1,729,212</b>	<b>4,766,653</b>
Grid-Supplied Electricity	1,984,384	1,216,408	3,200,792	2,175,879	1,336,184	3,512,063
Transportation	297,573	112,310	409,883	12,315	63,960	76,275
Self-Generation	1,205,092	627,186	1,832,278	849,247	329,068	1,178,315
<b>Total</b>	<b>9,295,670</b>	<b>3,826,071</b>	<b>13,121,741</b>	<b>8,833,992</b>	<b>3,370,484</b>	<b>12,204,476</b>

\*Does not include emissions from SchahLED.

**Table 6: UK and Global Total Market-based Emissions (tCO<sub>2</sub>e)**

Utility and Scope	2024 Emissions tCO <sub>2</sub> e			2023 Emissions tCO <sub>2</sub> e*		
	UK	Global (Excluding UK)	Total	UK	Global (Excluding UK)	Total
<b>Scope 1 Total</b>	<b>1,152.78</b>	<b>421.34</b>	<b>1,574.12</b>	<b>1,176.80</b>	<b>382.54</b>	<b>1,559.34</b>
Natural gas and Other Fuels	745.95	62.39	808.34	675.43	77.94	753.37
Transportation	406.83	358.95	765.78	501.37	304.60	805.97
<b>Scope 2 Total</b>	<b>61.61</b>	<b>194.83</b>	<b>256.44</b>	<b>2.55</b>	<b>237.02</b>	<b>239.57</b>
Grid-Supplied Electricity	–	171.58	171.58	–	213.33	213.33
Transportation	61.61	23.25	84.86	2.55	23.69	26.24
<b>Total</b>	<b>1,214.39</b>	<b>616.17</b>	<b>1,830.56</b>	<b>1,179.35</b>	<b>619.56</b>	<b>1,798.91</b>

\*Does not include emissions from SchahLED.

## Reporting on Climate-Related Financial Disclosures

Table 7: SECR Global Intensity Metrics

Intensity Metrics	Location-based tCO <sub>2</sub> e		Market-based tCO <sub>2</sub> e	
	2024	2023*	2024	2023*
Total Revenue (£m)	175.80	176.75	175.80	176.75
All Scopes tCO <sub>2</sub> e per Revenue (£m)	12.93	13.20	10.41	10.18
YoY Percentage Change (tCO <sub>2</sub> e)	-2.0%		+2.3%	

\*Does not include emissions from SchahLED.

### Energy efficiency narrative

Over the past few years the Group has made substantial investments in solar panels to generate its own electricity and is now looking at other areas to improving its energy efficiency, in particular how gas usage can be reduced. The biggest usage of gas is in the process of painting its products and the heating of buildings. During the year the Group started a trial of a new powder paint process at one of its production facilities, which if successful, will be rolled out to other paint facilities in the Group. In the near future the Group will also be looking at how it can make further progress to reduce its use of gas for heating and increasing the capacity for solar generation where possible.

### Methodology

The Group's Scope 1 and 2 emissions have been developed and calculated using the GHG Protocol – A Corporate Accounting and Reporting Standard; Greenhouse Gas Protocol – Scope 2 Guidance; ISO 14064-1 and ISO 14064-2; Environmental Reporting Guidelines: Including Streamlined Energy and Carbon Reporting Guidance.

Government Emissions Factor Database 2023 version 1.0 has been used, utilising the published kWh gross calorific value (CV) and kgCO<sub>2</sub>e emissions factors relevant for the reporting period 1 July 2023 to 30 June 2024. All consumption data for FW Thorpe was complete for the reporting period. Therefore, no estimations were required.

Market-based calculations were calculated using an emissions factor of 0.0 kgCO<sub>2</sub>e/kWh, where 100% renewable electricity was purchased. Where a site was not on a renewable contract, the country's residual grid factor, taken from Carbon Footprint's 2024 publication of global electricity factors, was used.

### Carbon balance sheet

The Group began calculating its full Scope 1, 2 and 3 emissions in 2022, using 2021 as the baseline year for future emission reduction targets. Emissions are calculated following the Greenhouse Gas Protocol. All fifteen Scope 3 categories were evaluated to understand the applicability to the business and twelve categories were found to be applicable and have been quantified. The three non-applicable

categories are Category 10: Further Processing of Sold Products (only finished products are sold), Category 13: Downstream Leased Assets (no assets leased to others) and Category 14: Franchises (no franchises). In 2024, emissions from SchahLED were included for the first time. Since this has increased emissions by more than 5%, following the SBTi's recalculation policy, the baseline year (2021) and 2023 emissions have been restated to include SchahLED. The 2023 Scope 1 and 2 values reported in Table 8 differ from the Scope 1 and 2 values reported in Table 6 since SchahLED emissions have been included in Table 8 via an estimation based on revenue. Since this method may be inaccurate, these estimates have not been added to the data reported under SECR in Table 6.

The Group's operational emissions (Scope 1 and 2 (market-based)) account for 0.9% of total emissions in 2024. Scope 1 emissions have decreased by 7.1% since the 2021 baseline due to the installation of more efficient equipment and the transition from combustion to electric vehicles, while Scope 2 market-based emissions have decreased by 78.0%

due to the installation of Solar PV by subsidiaries and the purchase of 100% renewable electricity contracts. As of 2024, 87.9% of all electricity utilised by the Group is derived from renewable sources. Scope 3 emissions overall have decreased by 34.1% from the baseline, driven predominantly by a 36.9% decrease in Category 11: Use of sold products emissions. This

category, relating to the energy usage over the lifetime of all luminaires sold by the Group, is the Group's largest source of emissions. The decrease is due to a mixture of selling increasingly more efficient products and the decarbonisation of electricity grids globally.

**Table 8: The Group's Carbon Balance Sheet for 2021, 2023 and 2024**

	2024	2023 (restated)*	2021 (baseline) (restated)*	% Change against baseline
<b>Scope 1</b>	<b>1,574</b>	<b>1,753</b>	<b>1,694</b>	<b>-7.1%</b>
<b>Scope 2 (Market-based)</b>	<b>256</b>	<b>262</b>	<b>1,162</b>	<b>-78.0%</b>
<b>Scope 3</b>	<b>211,082</b>	<b>235,066</b>	<b>320,100</b>	<b>-34.1%</b>
1: Purchased Goods and Services	29,948	38,109	35,448	-15.5%
2: Capital Goods	2,254	2,456	2,033	+10.9%
3: Fuel-related Emissions	482	631	611	-21.1%
4: Upstream Transport and Distribution	1,747	3,073	1,971	-11.4%
5: Waste Generated in Operations	112	111	144	-22.2%
6: Business Travel	406	419	494	-17.8%
7: Employee Commuting	810	1,175	825	-1.8%
8: Upstream Leased Assets	245	307	170	+44.1%
9: Downstream Transport and Distribution	52	13	323	-83.9%
10: Further Processing of Sold Products	-	-	-	-
11: Use of Sold Products	171,241	184,291	271,337	-36.9%
12: End-of-life Treatment of Sold Products	24	32	69	-65.2%
13: Downstream Leased Assets	-	-	-	-
14: Franchises	-	-	-	-
15: Investments	3,761	4,449	6,675	-43.7%
<b>Total (Market-based)</b>	<b>212,912</b>	<b>237,081</b>	<b>322,956</b>	<b>-34.1%</b>
<b>tCO<sub>2</sub>e (market-based)/£m revenue</b>	<b>1,211</b>	<b>1,341</b>	<b>2,414</b>	<b>-49.8%</b>

\* 2023 and 2021 have been restated to include SchahILED

# People.



## Safety

All Group companies maintain certification to the international standard ISO 45001 (Occupational Health and Safety Management) or equivalent. The Group remains committed to cultivating a safe and healthy working environment for all employees, in line with the requirements of the Health and Safety at Work Act.

## Employee engagement and wellness

Employees are regularly informed about matters concerning them through company newsletters, notices and specially convened meetings. Committees representing various employee groups meet regularly to ensure employee perspectives are considered in decision-making processes. The Group fosters a culture of idea-sharing and sustainable development through suggestion schemes. Additionally, the FW Thorpe Sustainability Working Group facilitates the sharing and discussion of sustainability ideas. A biannual Group sustainability newsletter is circulated to all employees to provide updates on environmental initiatives. The Group also prioritises employee wellness by offering flexible working models and a fully funded employee assistance programme (EAP), including a 24/7 GP video helpline, to address personal challenges and promote work-life balance.

## Recruitment, promotion and retention

The Group ensures full and fair consideration for job vacancies to disabled individuals within the constraints of health and safety regulations. Disabled employees are afforded equal career prospects as other employees, with efforts made to support continued employment and provide necessary training if circumstances change. The Group also maintains a commitment to paying employees above minimum wage rates, offering an annual profit share bonus, and providing access to a pension scheme with contributions from the respective Group company.

## Training and development

The Group offers skill and personal development opportunities to all employees and continues to support its apprenticeship scheme. Several senior managers and directors within the Group are former apprentices. Additionally, the Group collaborates with Warwick Business School to develop future leaders.

## Sustainability in action

### Lean Six Sigma

Several Thorlux employees have passed the Green Belt Lean Six Sigma training course. Lean Six Sigma is a method that relies on a collaborative team effort to improve performance by systematically removing waste and reducing defects or mistakes. Over a dozen lean manufacturing apprenticeships are currently in progress, and the company is also exploring Yellow and Black Belt Lean Six Sigma training.

## A Legacy of mentorship and inspiration

Thorlux apprentices past and present joined together to wish Paul Mitchell of Midland Training Services a long and happy retirement. Over the last 23 years, Paul has mentored many aspiring engineers through the company's apprenticeship programme, 42 of whom are currently working in the business, including two managing directors and four directors.



## Diversity

The Group upholds principles of equal opportunity, regardless of gender, age, religion, ethnic origin or sexual orientation. Its Modern Slavery Act disclosure is publicly available on the corporate website ([www.fwthorpe.co.uk](http://www.fwthorpe.co.uk)) in the company documents section. The Group remains committed to the highest standards of openness, probity and accountability, as outlined in its Whistleblowing Policy.

## Charity

### Sustainability in action

#### Waddle of Worcester

Thorlux was proud to sponsor two penguins in the great Waddle of Worcester in aid of St Richard's Hospice. The Waddle of Worcester saw the city transformed by the arrival of 40 super-sized penguins plus 40 chicks designed by local schools and community groups. The Thorlux penguin was designed by artist Amy Gazeley, and the penguin chick was painted by the children of Astwood Bank Primary School. Both were on display in the city between Monday 22 July and Sunday 15 September, before each large penguin was auctioned to raise funds for the hospice and the chicks headed to their forever homes with schools and groups.



### Sustainability in action

#### Lightronics illuminates Villa Pardoos

Lightronics has contributed to Villa Pardoos, a charitable organisation in Kaatsheuvel that provides Dutch families with seriously ill children (aged 4 to 12) a unique and memorable holiday experience. As Villa Pardoos relies solely on sponsorships and donations, Lightronics supported their mission by donating new lighting for the garden and parking lot, helping to enhance the comfort and safety of the exterior space.



### Supporting the community

For over 25 years, Lightronics has provided meaningful employment to individuals from Baanbrekers, the local sheltered workplace in Waalwijk, the Netherlands. These talented individuals meticulously assemble subassemblies for various luminaires, contributing greatly to Lightronics' operations.

# Accreditations.



## Zemper awarded EcoVadis gold

Zemper has been awarded an EcoVadis gold 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.



Certified by DarkSky.org

## TRT Lighting luminaires DarkSky approved

The TRT Optio Micro was supplied for the Presteigne Dark Skies project, which was awarded 'First IDA Dark Sky Community in Wales and mainland England'.



SCIENCE  
BASED  
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

THE NET  
ZERO  
STANDARD

APPROVED NET-ZERO TARGETS

## FW Thorpe has 2040 net-zero goals officially validated

FW Thorpe Plc has had its net-zero target validated by the Science Based Targets initiative (SBTi).

FW Thorpe Plc's ambitious climate target is to achieve net-zero emissions by 2040. The organisation has set credible and robust science-based targets. The SBTi has validated that FW Thorpe Plc's science-based greenhouse gas emissions reduction targets conform to the SBTi Corporate Net-Zero Standard.

Full details of the validated targets can be found on the FW Thorpe website: [www.fwthorpe.co.uk/sustainability](http://www.fwthorpe.co.uk/sustainability)



## Thorlux nominated for Best Corporate Social Responsibility 2023

Thorlux was nominated for Best Corporate Social Responsibility at the 2023 Redditch Business Awards.

Thorlux Lighting and West Midlands Trains (WMT) were highly commended for their LED station lighting project at the 2024 Rail Business Awards, in the Sustainability and Environmental Excellence category. Thorlux has modernised the lighting systems at approximately 150 WMT stations.

The WMT lighting project was also nominated at the CITi Awards in the Public Transport section.



## SUSTAINABILITY

# Governance.



Sustainable management and social responsibility are central to the Group's governance framework. The Board and Group management are tasked with setting the strategic direction for sustainability initiatives, and they oversee the governance and monitoring of sustainable business practices.

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 the Group's policy to conduct all business activities with honesty and ethical integrity. 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. FW Thorpe has funded several small-scale projects which have enabled its customers to achieve immediate energy savings and reduce their carbon emissions.

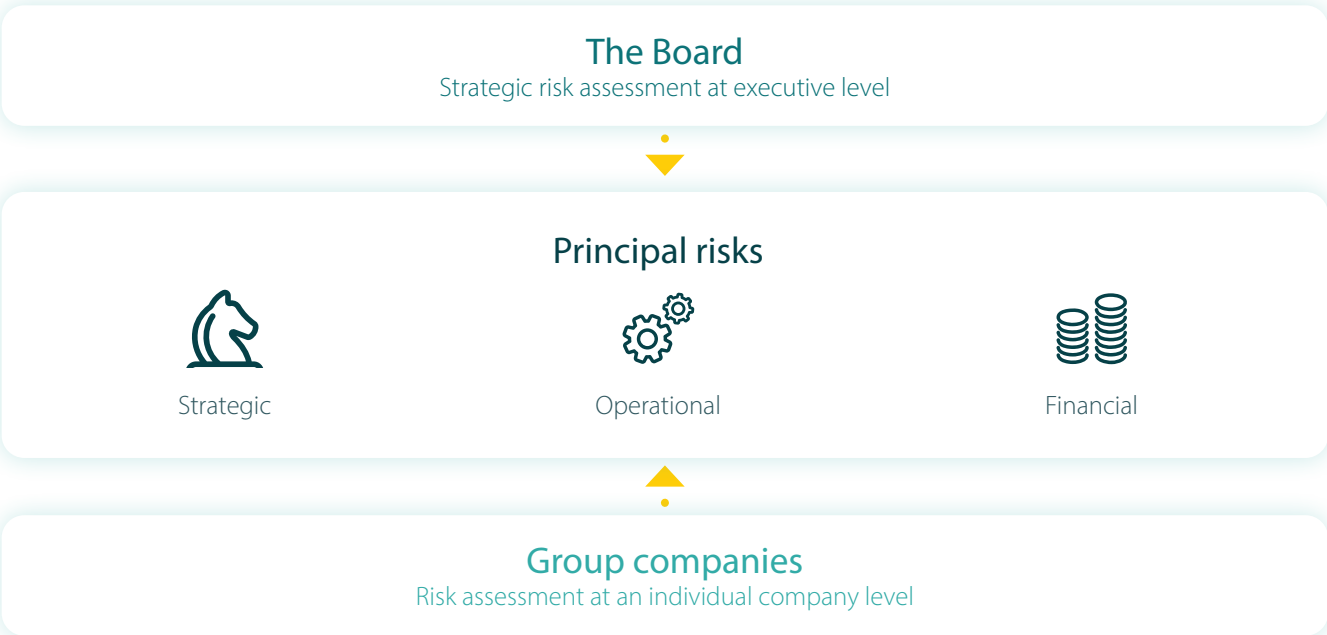
 KraussMaffei, Germany



# 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	Type of risks key	Change in period key
1 Focus on high-quality products and good leadership in technology	 Strategic	 Increase in risk
2 Continue to grow the customer base for Group companies	 Operational	 Decrease in risk
3 Focus on manufacturing excellence	 Financial	 No change in risk
4 Continue to develop high quality people		

Area of risk	Type of risk	Description of risk	Mitigation of risk	Possible impact on performance	Strategic priorities impacted upon	Change in period
<b>A</b> 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	<ul style="list-style-type: none"> <li>Broad range of customers in differing sectors</li> <li>High quality, technically advanced products to differentiate the Group from competitors</li> <li>Energy efficient products with shorter payback periods</li> <li>Actively seek to identify new opportunities to ensure we maximise our potential of winning new business</li> </ul>	<b>High</b>	<b>1, 2, 4</b>	
<b>B</b> Business continuity		A significant proportion of the Group's revenues are from products manufactured in the Redditch facility	<ul style="list-style-type: none"> <li>High level of importance attached to environmental management systems, health and safety and preventative maintenance</li> <li>Insurance cover is maintained to provide financial protection where appropriate</li> <li>Increased production flexibility with the ability to build products in more than one manufacturing facility</li> </ul>	<b>High</b>	<b>2, 3</b>	
<b>C</b> Price changes		Erosion of revenue and profitability	<ul style="list-style-type: none"> <li>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</li> </ul>	<b>High</b>	<b>1, 2</b>	
<b>D</b> Changes in government legislation or policy		<p>Reduction in public sector expenditure and changing policy increases risk to our order book</p> <p>Increased complexity of access to EU markets</p>	<ul style="list-style-type: none"> <li>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</li> <li>Develop sales in new markets</li> <li>Leveraging increasing footprint in Europe</li> </ul>	<b>Medium</b>	<b>2, 4</b>	

# 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
<b>E</b> Impact of conflict on domestic and global economies		Potential impact on supply chains including increase in certain raw material prices and disruption to some shipping routes. Impact of energy supply price increases.	<ul style="list-style-type: none"> <li>Alternative sources for certain materials and alternative shipping routes, albeit with higher costs in some circumstances</li> <li>Electricity usage has been reduced with implementation of solar panels at the majority of manufacturing sites across the Group</li> </ul>	Medium	2, 3	
<b>F</b> Competitive environment		Existing competitors, powerful new entrants and continued evolution of technologies in the lighting industry eroding our revenue and profitability	<ul style="list-style-type: none"> <li>Offering innovative products and service solutions that are technologically advanced products to enable us to differentiate ourselves from our competitors</li> <li>Investing in research and development activities to produce new and evolving product ranges</li> <li>Investing in new production equipment to ensure we can keep costs low and maintain barriers to new market entrants</li> </ul>	Medium	1, 2, 3, 4	
<b>G</b> Sustainability & climate-related risk		The Group has potential exposure to climate-related risk that could impact both its operations and the products it promotes.	<ul style="list-style-type: none"> <li>Sustainability targets are set each year for Group companies.</li> <li>Education of employees to further develop sustainability and climate-related understanding, evolving knowledge of the related risks.</li> <li>Targeted reduction of total GHG emissions, reducing the impact of its operations.</li> </ul>	Medium	2, 4	
<b>H</b> Cyber security		A breach of IT security could result in the inability to operate systems effectively and efficiently or the release of inappropriate information	<ul style="list-style-type: none"> <li>Continual review and monitoring of potential risks</li> <li>Computers encrypted where necessary to protect data</li> <li>Cyber security awareness training continues to be delivered to employees</li> <li>Third party specialists engaged to provide enhanced support and advice</li> <li>Critical applications protected by multi-factor authentication and all connectivity is through the Virtual Private Network (VPN)</li> </ul>	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
<b>I</b> Exit from the European Union		Increased complexity of access to EU markets, customers in certain EU territories actively moving business from UK companies.	<ul style="list-style-type: none"> <li>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</li> <li>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</li> <li>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</li> </ul>	<b>Medium</b>	2, 4	
<b>J</b> Credit risk		The Group offers credit terms which carry risk of slow payment and default	<ul style="list-style-type: none"> <li>Credit policy includes an assessment of the bad debt risk and management of higher risk customers</li> <li>The Group maintains a credit insurance policy for a significant proportion of its debtors</li> </ul>	<b>Low</b>	2	
<b>K</b> 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	<ul style="list-style-type: none"> <li>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</li> </ul>	<b>Low</b>	2	

## 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



## University Station, Birmingham, UK

Thorlux Lighting and West Midlands Trains were highly commended for their overall LED station lighting project at the 2024 Rail Business Awards.