

Our sustainability journey.

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

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

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

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

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

Since 2009, FW Thorpe has been planting trees on its own land in Wales to offset Group emissions each year. To date, the Group has planted 179,412 trees, offsetting more than 44,385 tonnes CO₂e over the next 100 years.

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

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

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





25

year projection of 12,500 tonnes CO₂e avoided by the use of solar panels
(Based on 2022 conversion factors.)

25

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

500

tonnes CO₂e avoided per annum by the use of solar panels
(estimated average)

2m

kWh electricity production capability per annum from solar panels

Mapping sustainability.

Alignment with the Sustainable Development Goals

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

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 and 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:

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


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

Sourcing:

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

Supply chain:

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


 Read more on pages 61 to 62



Operations (manufacturing excellence) "responsible production"

Energy usage

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

 Read more on pages 56 to 57

Waste

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

Distribution

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

External activities

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



Business model

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

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



People

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

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





Products.

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

The Group continues to invest in the development of energy-efficient luminaires and control systems, utilising LED technology, including circuit board design, software development, thermal modelling and optical lens design, ensuring its luminaires provide the optimum lighting performance with the best use of energy and minimal stray emissions. Using the most up-to-date and high-quality LEDs, based on criteria

such as colour rendering, luminous flux and thermal stability, guarantees that Group luminaires offer exceptional luminous efficacy and long lifetimes.

New products

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

Group products have always been engineered to last and extending the

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

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

Sustainability in action - Philip Payne

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

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



Image: Emergency luminaires from the Philip Payne architectural range



Sustainability in action

Famostar

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

Thorlux

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

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

Solite

Solite is supplying retrofit gear trays to sites with old Solite fluorescent luminaires. Reusing approximately 70% of the original product significantly reduces the quantity of new materials required and the CO₂ associated with their production and transportation.

Portland

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

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



Sourcing

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

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

Supply chain

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

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

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

Operations.



Energy usage

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

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

Waste

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

Sustainability in action

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

Distribution

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

External activities

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

Sustainability in action

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

Thorlux Carbon Offsetting Project Devauden, Monmouthshire, Wales



179,412
trees planted



44,385
tonnes CO₂e offset over
the next 100 years

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

People.



Safety

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

Training and development

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

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

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

Employee engagement and diversity

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

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

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

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

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

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

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

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

During the year the Group gave

£16,880


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

Number of charities supported

30 (2022: 27)

Number of apprentices

16 (2022: 17)

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



SUSTAINABILITY

Business model.



Governance

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

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

Alliance Corporate Governance Guidelines for Smaller Quoted Companies (the 'QCA Code'), which the Board believes appropriate due to the size and complexity of the Company.

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

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

 **Image:** Day of Technology at Lightronics

 **Image:** Local mayor visits Thorlux Lighting





Sustainability in action:

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



Sustainability in action:

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



Sustainability in action:

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

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

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



TCFD.

Reporting for Task Force on Climate-Related Financial Disclosures

Overview

Executive statement

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

Beyond the well-publicised ongoing tree planting projects, FW Thorpe has continued to roll out solar solutions across its multiple factory

roofs. Displaying proactive planning and favourable timing in 2021/22 prior to the energy crisis and supply constraints, the Company acquired an additional 3,000 large PV panels (amounting to £0.8 million) which have been installed on the main Thorlux facility’s roof in Redditch.

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


Internally, the Group is driving various sustainability initiatives. Noteworthy

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

Mike Allcock
Chairman and Joint Chief Executive

Structure of the TCFD recommendations



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



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

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

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

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

Following the risk management workshop, the Group will identify material climate related risks and opportunities. Consequently, it will be

able to describe the potential impacts of climate-related issues on the Group's financial performance and use in its financial planning process.

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

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

 Image: Ratio io5 EV charger



TCFD continued

Reporting for Task Force on Climate-Related Financial Disclosures

Governance

Summary of disclosure

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

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

Board-level oversight

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

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

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

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

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

Management-level oversight

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

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

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

Corporate governance structure



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

Key management personnel have participated in April's 2023 net-zero workshop and will also be joining next

year's climate risk workshop. FW Thorpe provides training for all employees on a range of environmental initiatives and an employee suggestion box scheme, with rewards for adopted ideas. The aim is to educate all existing employees, and new starters on sustainability topics.

A sustainability newsletter is circulated every six months with sustainability achievements, relevant articles and

communication of future targets and initiatives.

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

Strategy

Summary of disclosure

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

FW Thorpe Plc has a long-standing commitment to tackling global environmental challenges, principally through its core business of manufacturing energy efficient lighting equipment. Over the last two decades, the Group has sought to address its operational carbon impact, by working

towards carbon neutrality for its manufacturing, sales and distribution operations. FW Thorpe is certified as carbon neutral for its Scope 1 and 2 emissions which relates to the sales, manufacturing and distribution phases of making our products. The goal is ultimately to reach net-zero in 2040, before the UK's target for achieving net-zero carbon emissions by 2050. The Group has made initial assessments of its GHG emissions, which will help it to set validated science-based targets in 2023/24,

in line with the Paris Agreement on climate change.

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

Our time horizons

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

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

TCFD

continued

Reporting for Task Force on Climate-Related Financial Disclosures

Risk

Summary of disclosure

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

Risk management

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

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

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

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

Types of climate-related risks

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

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

Climate-related transition risks specifically refer to the risks associated with the transition to a low-carbon economy. These risks can have a substantial impact on businesses and associated stakeholders. The severity of transition risks is projected to grow in the future. Transition risks are subdivided into market, reputation, technology, policy and legal risks. Market risks analysis reviews changing customer behaviour, market changes and the increasing cost of raw materials. Reputational risks will occur as consumer preferences change and stakeholder concerns on climate-related issues grow, demanding a more rapid change from the sector. Technology risks cover the transition to a lower carbon technology and include the risks around adopting existing products and services, the likelihood of failed investment in new technologies and the overall costs of adjusting to low carbon operations. Policy and legal risks develop from the emerging regulations, which are likely

to be enrolled to lessen climate change impacts and accelerate the transition to net-zero. For example, regulations aligned with a price on greenhouse gas (GHG) emissions, increasing reporting requirements (e.g. TCFD reporting) and mandates on current products and services, to align them with a low carbon economy.

Climate scenario analysis

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

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

Climate-related Risks

Transition Risks

Policy and Legal

Mandates on and regulation of existing products and services

FW Thorpe is already subject to mandatory Streamlined Energy and Carbon Reporting (SECR), Energy Savings Opportunity Scheme (ESOS) and climate-related financial disclosures. The Group is aware that additional climate-related regulations could be released soon. Moreover, it is paying attention to the international regulations, due to the international locations of individual businesses. Changes in government legislation or policy can result in reduction in public sector expenditure. Changing policy increases the risk to the order book and increases the complexity of access to EU markets.

Markets

Increased cost of energy and materials

In the next two years the Group is aiming to use expanded climate scenario analysis to understand possible risks to the supply chain.

The UK's exit from the European Union has increased the complexity of access to EU markets. Climate change can have potential impact on supply chains, including an increase in certain raw material prices and disruption to some shipping routes. We are already experiencing market disruptions that are impacting the energy supply price, which is likely to continue in the near future.

Technology

Costs to transition to lower emissions technology

FW Thorpe is actively reducing its overall carbon footprint and has installed solar panels on the majority of its manufacturing facilities. Several sites within the Group have no reliance on gas, and the Company intends to continue reducing its gas consumption in the upcoming years. In the Netherlands, the solar installations generate enough energy to offset their usage. In the UK and Spain, solar energy will contribute a portion of the overall energy consumption. No solar power installations have been established at overseas Group sales offices.

The Group has a packaging reduction programme, manages its waste, is transitioning to electric vehicles where practical and expanding the number of chargers throughout the individual businesses. It has been working on a net-zero strategy throughout this reporting year and finalised this in April 2023 to incentivise further long-term decarbonisation.

Existing competitors, powerful new entrants and the continued evolution of technologies in the lighting industry pose the greatest risk of eroding the Group's revenue and profitability. The aim is to become market leaders and reduce GHG emissions and, through research and development (R&D), the Group will continue to make products and services more efficient, greener and sustainable.

Reputation

Increased stakeholder concern

Stakeholders' concern over the Group's sustainability credentials will continue growing as the world moves to a decarbonised economy. Many of its competitors are actively incorporating sustainability agenda into their operations. As an enabler of global decarbonisation, FW Thorpe's reputation risk is relatively low. The Group is mitigating it by transparent and detailed communication of its current stands and future objectives. In the next reporting period we will update our website with the net-zero SBTi validated goals and carbon reduction achievements.

Physical Risks

FW Thorpe has not yet made a full climate scenario analysis to assess climate-related physical risks to its sites. A high-level assessment of the primary site in Redditch indicates that the likelihood of extreme weather events at the Redditch site is low. Climate risk assessment of all locations across the globe will be carried out in 2023/24 to understand possible impacts and prepare a mitigation strategy.

An acute event is a sudden change in climate conditions leading to extreme weather e.g. heatwave, cyclones, floods. Whereas chronic is a long-term shift in climate patterns e.g. less rain, warming summers, sea level rise, and much more gradual. Extreme weather can damage property and assets, which could cause significant operational impacts. Suppliers may be subject to events of flooding and wildfires, which may impact operations through shipping delays and increased costs. Acute physical risk will be fully accessed in the next reporting year.

As a result of rising mean temperatures, the Group has experienced an increase in business disruptions. Rising mean temperatures will increase energy usage, leading to increased operating costs for the business and associated operational emissions. Chronic physical risk will be fully assessed in the next reporting year.

SUSTAINABILITY

TCFD continued

Reporting for Task Force on Climate-Related Financial Disclosures

Climate-related opportunities

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

Lighting accounts for 5% (2.5 billion tonnes) of global CO₂ emissions. A global switch to energy efficient light emitting diode (LED) technology could save over 1,400 million tonnes of CO₂ and avoid the construction of 1,250 power stations. Most of the environmental impact is from the products that the Group manufactures and sells, especially from the power they use throughout their lifetime.

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



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



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

Carbon neutral to net-zero.

Upstream activities

Reporting company

Downstream activities

A

Emissions from purchased goods and services

Scope 3



Purchased goods and services



Capital goods



Transportation & distribution



Business travel



Leased assets

Emissions from purchased energy

Scope 2



Purchased electricity, steam, heating & cooling for own use

Emissions from FW Thorpe manufacturing & operations

Scope 1



Company facilities



Company vehicles

B

Emissions from our goods and services in use

Scope 3



Transportation & distribution



Processing of sold products



Use of sold products



End-of-life treatment of sold products



Leased assets

TCFD

continued

Reporting for Task Force on Climate-Related Financial Disclosures

Metrics and targets

Summary of disclosure

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

Measuring our climate impact

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

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

Greenhouse gas emissions

In 2022, the Group conducted a thorough data collection process, working with a specialist ESG consultancy, to calculate its full carbon footprint comprising of Scope 1, 2 and 3 GHG emissions. The Group followed the Greenhouse Gas Protocol

Corporate Value Chain (Scope 3) Accounting and Reporting Standards and the guidelines of ISO14064-1.

An initial assessment of the 15 categories of Scope 3 was conducted to determine the categories that are applicable to the business. Subsequently, the relevant spending and activity data was collected, to support the analysis. Emissions are reported on a consolidation, operational control approach, as defined by the GHG Protocol, and all applicable Scope 3 categories have been quantified. As this process is complex, the 2021 data was used to calculate a baseline year. The Group's total GHG emissions (Scopes 1, 2 and 3) were 285,365 tCO₂e for 2021, with Scopes 1 and 2 representing 0.9% and Scope 3 99.1%.

Group Scope 1, 2 and 3 emissions

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

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

Emission reduction targets

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

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

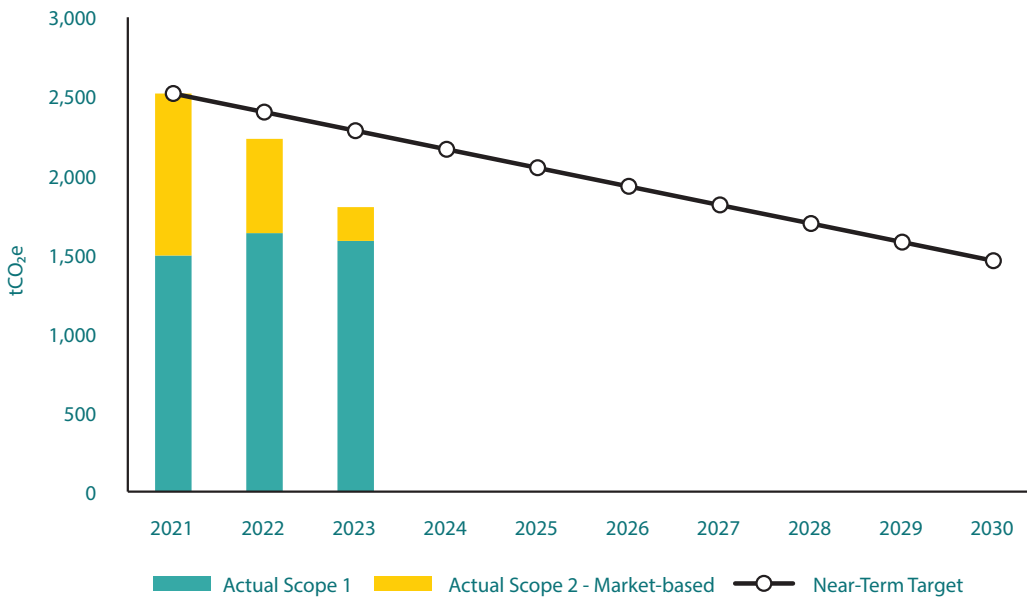
Image: Lightronics receive “De Groene Pluim” award. See page 65.



Progress against targets

Scope 1 and 2

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



TCFD continued

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The Group's operational emissions (Scope 1 and 2) represent 0.8% of its baseline emissions and result from energy consumption (transport fuels, gas, and electricity) in controlled assets. Between 2021 and 2022, the Group experienced an increase in Scope 1 emissions due to a rebound in driving after COVID, coupled with a decrease in market-based Scope 2 emissions,

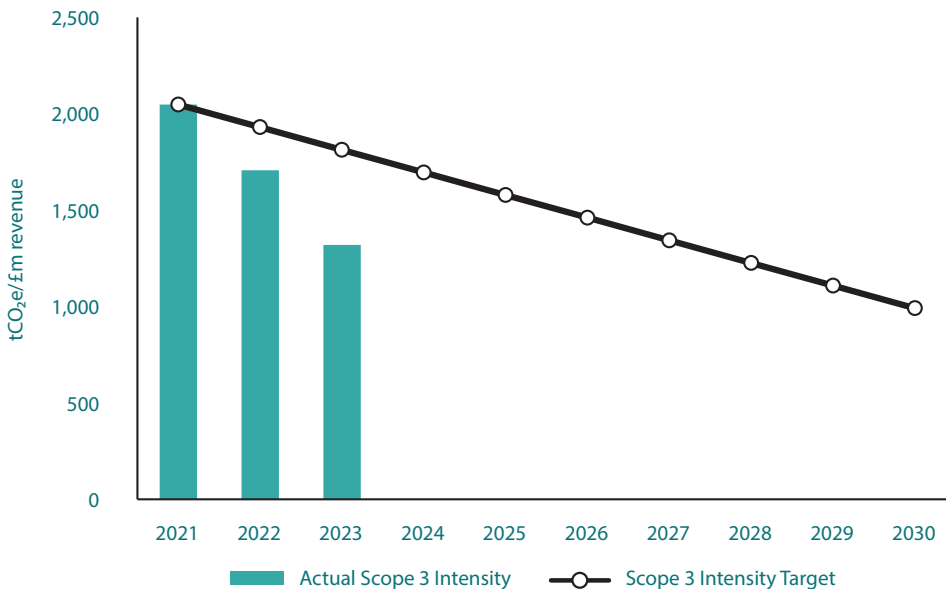
as subsidiaries began purchasing renewable electricity. Although transport emissions continued to increase in 2023, the switch to electric vehicles should start to influence these emissions.

The Group has set a near-term target to reduce these industrial Scopes 1 and 2 emissions by 42% by 2030, from a

2021 base year. This requires an annual reduction of 4.2%, whilst a total of 28.5% decrease was identified between 2021 and 2023. The Group is currently ahead of schedule. Going forward, a mix of energy efficiency measures, fuel switching, and on-site generation will help to reduce these emissions.

Scope 3

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



Calculating the Group's indirect Scope 3 emissions enables it to identify the main sources of GHGs outside of its operations. This process provides a baseline for making decisions regarding net-zero. Twelve of the 15 Greenhouse Gas Protocol Scope 3 categories are applicable to the business and have been calculated. The non-applicable categories are further processing of sold products (Category 10), downstream leased assets (Category 13) and franchises (Category 14). Within Scope 3, the largest component comes from

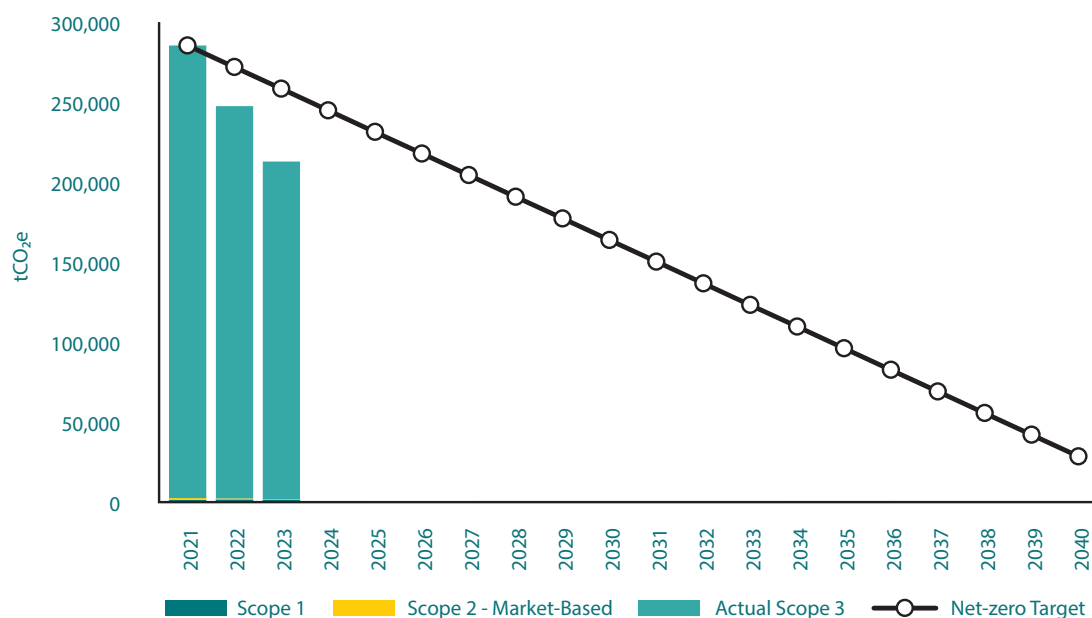
the use of sold products (Category 11), accounting for 77.6% of baseline emissions. As the Group sells more products, this category should increase in emissions. However, as electricity grids decarbonise, the emissions per product will decrease. The Group's near-term Scope 3 target requires a 51.6% decrease in the emissions intensity per £m revenue, equivalent to 5.7% annually. Between 2021 and 2023, a 24.6% decrease was achieved, which is ahead of the interim target. This was mainly achieved by an increase in

the efficiency of the Group's products coupled with the rapid decarbonisation of electricity grids globally.

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

Net-zero

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



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

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

	2023	2022	2021
		(Restated)*	(Restated)*
Scope 1	1,586	1,635	1,493
Natural Gas	754	960	979
Transport	832	675	514
Scope 2 – market-based	213	596	1,024
Scope 3	213,071	245,235	282,848
1: Purchased Goods and Services	34,474	35,404	31,235
2: Capital Goods	2,222	1,636	1,791
3: Fuel-related Emissions	571	594	538
4: Upstream Transport and Distribution	2,780	2,497	1,737
5: Waste Generated in Operations	100	178	127
6: Business Travel	379	265	435
7: Employee Commuting	1,063	1,104	727
8: Upstream Leased Assets	278	190	150
9: Downstream Transport and Distribution	12	184	285
10: Further Processing of Sold Products	-	-	-
11: Use of Sold Products	166,714	196,902	239,087
12: End-of-life Treatment of Sold Products	29	36	61
13: Downstream Leased Assets	-	-	-
14: Franchises	-	-	-
15: Investments	4,449	6,245	6,675
Total (market-based)	214,870	247,466	285,365
tCO₂e/£m Revenue	1,216	1,722	2,420

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

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

The power consumed by the luminaire

The typical hours operated per annum

The typical dim level which reduces the power consumed

Emergency light power

10 year life expectancy

TCFD

continued

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Since 2018, the Group's energy usage has been monitored, and the associated emissions have been calculated in line with the UK Government's policy on Streamlined

Energy and Carbon Reporting (SECR). The Group's Scope 1 emissions are from the combustion of natural gas for heat and processes and the combustion of transport fuels in Company-owned

assets. Scope 2 emissions are from the purchase of electricity. The calculation of these emissions will aid in reducing the Group's energy usage, where possible.

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

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

The Group's energy consumption

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

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

Energy efficiency improvements

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

Compliance Responsibility

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

This report (including the Scope 1 and 2 consumption and CO₂e emissions data) has been developed and

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

Government Emissions Factor Database 2023 version 1 has been used, utilising the published kWh gross calorific value (CV) and kgCO₂e emissions factors relevant for the reporting period 1 July 2022 to 30 June 2023.

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

