

A photograph of a narrow canyon with steep, dark rock walls. A wooden walkway with a metal railing runs along the left side of the canyon, leading towards a bright opening at the far end. A river flows in the center of the canyon, surrounded by rocks. The walls are covered in moss and some autumn-colored foliage is visible in the distance.

ZUMTOBEL Group








**WE LIVE LIGHT**

we care about the future





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# COMMITMENT

Dear readers,

the climate and the world are changing visibly. We want to counteract this change to the best of our abilities, and so we transform as a company as well.

Our guiding principle „We live light, we care about the future“ captures this aim and at the same time describes the Zumtobel Group's approach to sustainability: From our core business, we make our best possible contribution to a future worth living. We produce light that equally considers people and nature. Our ambition is to recognise and harmonise the needs of both.

Our Sustainability Committee, consisting of the Sustainability Team, the Management Board of the Zumtobel Group and representatives of the brands and specialist areas, decides on the strategic direction of our sustainability journey. Together we set binding targets, deadlines and measures. Our sustainability agenda is further defined by continuous analysis and shaped by the requirements of the market, legislation and our stakeholders.

Our three goals - **climate neutrality, partner of choice and circular economy** - lead the way and formed an integral part of our sustainability strategy in the last business year. While our three focus areas jointly covered the entire supply chain in the previous years, each goal from now on covers the entire process individually.

## Climate neutrality & net zero

In addition to the goal of achieving **climate neutrality** in the Scopes 1 and 2 by 2025, we now want to take responsibility for Scope 3 emissions in the up- and downstream. Together with our suppliers, customers and partners, we are moving towards the net-zero goal.



Looking back at the past business year, we have come another step closer to achieving climate neutrality. By optimising energy-intensive processes, we were able to reduce our CO<sub>2</sub> emissions by another 3,000 tonnes.

In Dornbirn and Lemgo, we switched to district heating, which has further reduced our gas consumption. Joining the Science Based Targets initiative and the subsequent commitment to reduce CO<sub>2</sub> emissions beyond our own immediate sphere of influence successfully concluded the 2022/23 business year.

To achieve climate neutrality in the Scopes 1 and 2 by 2025, we will further reduce our emissions in manufacturing and our fleet. This will involve switching more processes and locations to renewable energy, optimising our production in terms of energy efficiency as well as infrastructure and, as a final step, offsetting the remaining emissions.

### **Partner of choice**

As a **partner of choice** - which we aim to be for all our stakeholders - we will continue to work with our suppliers on sustainable procurement, provide our employees with a great place to work and inspire our customers not only with our light, but also with our sustainable products and services.

First analyses of draft legislation confirm our path with the so far implemented measures towards the goal of becoming a „partner of choice“. Our supplier onboarding process already now meets the upcoming expectations in the area of due diligence.

We ensure occupational health and safety through high standards: seven out of ten of our sites are now certified

to the ISO 45001 standard. Not only did we adapt our materiality analysis to the future requirements of the European Sustainability Reporting Standards, but we also included the results from our globally conducted customer survey.

For the 2023/24 business year, we are again focusing on being a strong partner in the area of sustainability. We will achieve this by continuing to provide our employees with specific know-how to optimally respond to our customers' questions and requirements for sustainable solutions.

In the context of occupational safety, for the health and well-being of our employees, we will have the remaining three sites certified according to the ISO 45001 standard.

### **Circular economy**

With our goal of establishing a **circular economy**, products and materials are to be led in a cycle through reuse, refurbishment or recycling. In the long term, this is intended to make the use of primary raw materials redundant and at the same time reduce the production of waste.

The application of the Circular Design Rules (CDRs) enables us to integrate the principles of the circular economy into our product development: With recycled as well as recyclable raw materials, circular design and second-life opportunities, our products are designed to be circulated from the very beginning. This is how we evolve from a linear to a circular economy.

With the Bronze Cradle to Cradle Certified® certification of Zumtobel's free-standing luminaire ARTELEA, we

have achieved a further step towards a circular economy. The modular luminaire uses carefully sourced, wherever possible recycled material and is built in such a way that individual components can easily be replaced or modernised.

Our technology subsidiary Tridonic also achieved the same certificate for LED modules in three product groups.

And finally, our Thorn brand launched its first product designed according to the CDRs, the CHALICE ceiling luminaire.

After the successful implementation of the Circular Design Rules in the development process, we turn our focus to the up- and downstream processes of product development. Together with our suppliers, we focus on finding more sustainable alternatives for the used raw materials. And together with our customers and partners, we are finding ways to close product cycles by realising lighthouse projects, which allow products as well as materials to circulate.

The path towards a sustainable future can only be taken together, which is why linking our activities with suppliers, customers and partners is all the more important.

As a partner of the klimaaktiv pact, we again worked to reduce our own CO<sub>2</sub> emissions and protect the climate together with twelve Austrian companies in the past business year. We promote circular economy with the help of research projects, for instance with the Berlin-based company Concular.

The Zumtobel Group Award is dedicated to sustainability in many aspects - our architecture prize promotes a more sustainable built environment which focuses on people.

The 2022/23 business year was a particularly successful one for the company as a whole. Despite numerous challenges such as the energy crisis, constantly rising raw material and transport costs as well as inflation, we were able to achieve the best EBIT result in the last 14 years.

The fact that we were able to grow even in these increasingly uncertain times is thanks to the tireless efforts of our approximately 5,800 employees worldwide.

With this in mind, I would like to thank our employees and my colleagues for their work, our customers and partners for their trust.

We look forward to shaping a sustainable future with our light, to new partnerships, exciting innovations and new milestones.

Alfred Felder  
CEO Zumtobel Group



# THE COMPANY

## Zumtobel Group - An Overview

The Zumtobel Group is an international lighting corporation and a leading supplier of innovative lighting solutions, lighting components and related services. This listed company operates 10 production plants on three continents and has sales offices and partners in roughly 90 countries. The Group employed a workforce of 5,503 as of 30 April 2023 and generated revenues of EUR 1,209.2 million in the 2022/23 financial year. The founding Zumtobel family has served as a stable core shareholder since the IPO in 2006 and holds roughly 35.86% of share capital. The company was founded in 1950 in Dornbirn, Vorarlberg (Austria).

With its core brands – Thorn, Tridonic and Zumtobel – the Group offers its customers a wide-ranging portfolio of products and services. The Zumtobel Group consists of two operating segments which form the basis for corporate management: the Lighting Segment with its luminaires and lighting solutions and the Components Segment. Each segment has its own global product portfolio, sales and production organisation.

In the Lighting Segment, the company is one of the European market leaders with its Thorn and Zumtobel brands. Tridonic, the components brand, forms the basis for the Group's leading role in the production of hardware and software for lighting systems (LED light

### Zumtobel Group\*



\*Simplified illustrations as of 30 April 2023



sources, LED drivers, sensors and lighting systems management). The Zumtobel Group's service offering is one of the most extensive in the entire lighting industry: Examples include consulting on intelligent lighting management and emergency lighting, light contracting, design, project management for turnkey lighting solutions and new data-based services with a focus on the integration of buildings and cities by way of the lighting infrastructure (e.g. real time localisation of goods and people via Bluetooth doppler direction finding).

Applications represent the focal point for both the Lighting Segment and the Components Segment. Indoor includes applications for industry (incl. logistics, halls and car parks), offices, education and health (incl. hospitals, schools and universities) as well as the retail trade (incl. supermarkets, home furnishing stores and high-end brand retail), art & culture and exhibition areas (incl. gastronomy). Outdoor addresses applications for roads, tunnels, sport facilities and exterior lighting for public areas, including facade lighting. Services cover all project and software-oriented activities. This application-based orientation determines the form of the product portfolio and is also reflected in the sales organisation.

The sales organisation reflects the two segments and their different sales channels. In the Lighting Segment, this includes sales for construction projects and the related target groups (e.g. architects, lighting and electrical planners, contractors and developers), sales through retail channels, and direct sales to large customers and public contracting entities.

Lighting solutions are also sold over special online sales channels. Sales in the Components Segment involve OEM sales (Original Equipment Manufacturer) to luminaire producers as well as the sale of intelligent solutions to electrical and system planners. The Zumtobel Group is committed to sustainable business operations

and, through its solutions, to helping its customers reach their sustainability goals more easily.

Zumtobel Group AG serves as the parent company of the Group and provides numerous corporate management and service functions for the brands. These central functions include finance, human resources, legal, audit & compliance, insurance, IT and process management, strategy and transformation projects, central procurement as well as corporate communications and investor relations.

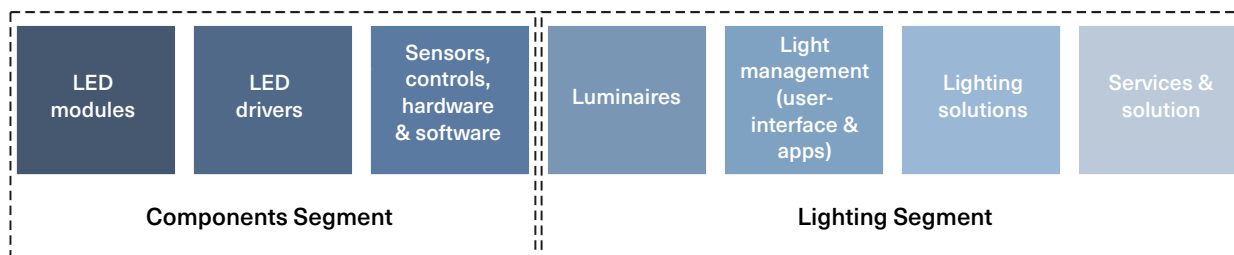
### Products and production locations

The Zumtobel Group's business model covers all key areas of the professional lighting value chain – from components, luminaires and light management systems to complete lighting solutions and services.

The Zumtobel Group's lighting and components plants are organised in a global production network. The individual plants are linked in a way that best utilises their regional and technological strengths for the benefit of the entire Group.

Close geographical proximity to the target markets allows for fast and highly flexible deliveries to customers ("local for local"). Key elements of the FOCUSED corporate strategy include the consistent application of the lean management approach, the automation of business processes, and the use of location-specific cost advantages to continuously optimise production costs.

Lighting and components are produced in individual areas at Dornbirn, Niš and Spennymoor under separate organisation and management. The Zumtobel Group had 10 plants on three continents as of 30 April 2023.



## Market position and brand positioning

The Zumtobel Group is active worldwide, but Europe remains the most important market with approximately 85% of total revenues. The professional lighting industry in Europe is still highly fragmented but the concentration process is accelerating. With its established international lighting brands, the Zumtobel Group holds a strong position in this fragmented market with a share of approximately 7% in Europe. The worldwide components industry, in contrast, is characterised by greater consolidation. With Tridonic, the Zumtobel Group also holds a strong position in lighting management and control gears.

The Zumtobel brand, in its role as an innovation leader, develops sustainable solutions for interior lighting that are tailored to the needs of people in the respective application areas. With a comprehensive portfolio of high-end luminaires and intelligent lighting management and emergency lighting systems, Zumtobel offers the right lighting for every activity and time of the day, for working and living spaces. Lighting solutions optimised to meet

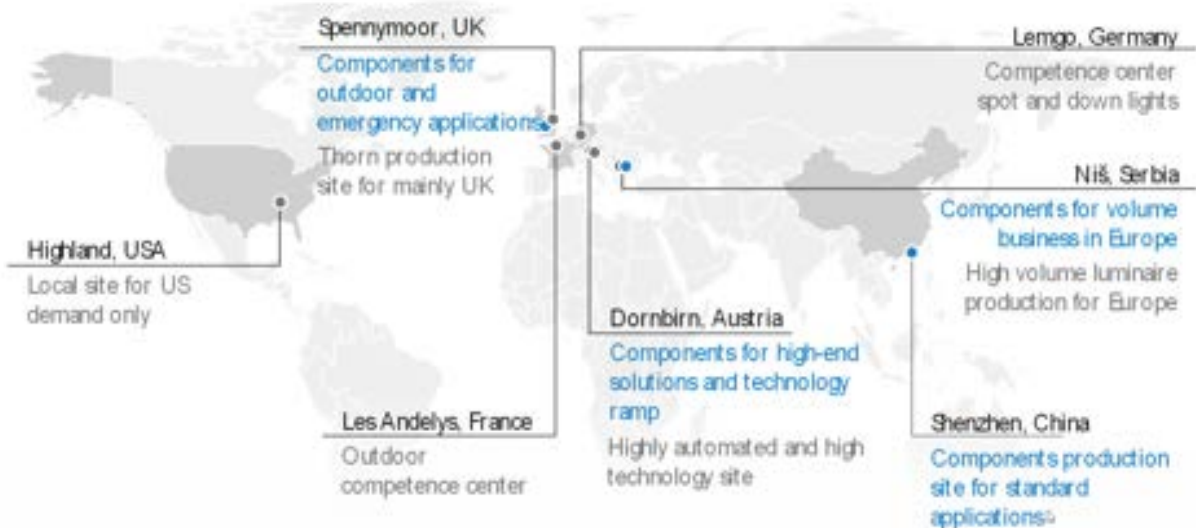
people's needs (Human Centric Lighting) play a central and increasingly important role in these applications.

The most important applications are industry, education, healthcare, retail, gastronomy, and art and culture. Valuable impulses for the further development of the portfolio are created not only through Zumtobel's own internal research and development, but also by long-standing cooperation with leading international architects, lighting planners, designers and artists as well as external partners in the project business. The brand's position as an innovation leader is underscored by nearly 2,000 patents.

Thorn is a leading quality supplier of professional solutions for indoor and outdoor lighting. This brand stands for high performance, cost-efficiency and, above all, user-friendly lighting and integrated controls. The Thorn brand markets its luminaires and lighting solutions worldwide, among others to wholesalers, electricians, planners and municipalities as well as end-users.

The energy-efficient luminaires made by Thorn support

Production network of Zumtobel Group as of 30 April 2023



- Lighting segment  
(6 Plants)

- Components segment  
(4 Plants)

a wide variety of applications in and around buildings, urban areas, sport venues, tunnels and streets. Thorn's functional products also cover all conventional applications from offices to supermarkets, industrial buildings, schools and healthcare facilities.

Tridonic, the Zumtobel Group's technology brand, supports customers with intelligent hardware and software solutions. As a global innovation driver for light-based network technology, e.g. based on Bluetooth, it develops future-safe and scalable solutions that help lighting producers, building managers and system integrators, among others, in their development of new business models. Tridonic is not only active in the production of components and system solutions for the Group's lighting brands, it also serves as an OEM supplier (Original Equipment Manufacturer) for luminaire producers throughout the world and generates over 80% of its revenues outside the Zumtobel Group.

More than 2,500 patents document the brand's innovative strength. Tridonic increased its concentration on digitalisation and connectivity in 2022/23 with the development of technologies for smart and integrated lighting systems for new services and business models. The software competence centre in Porto (Portugal) was expanded in recent years and now the hub for software development in the Zumtobel Group.

### **Key success factors for the Zumtobel Group**

The Zumtobel Group's leading competitive position is based, above all, on three established core brands with broadly diversified market access, extensive know-how in lighting applications and a clear technological advantage in individual areas. The sales function – which had nearly 1,700 employees in 2022/23 – plays a key role in the Zumtobel Group's business model. The sales force includes roughly 1,420 employees for the Lighting Segment and roughly 260 employees for the Components Segment. A systematic focus on each of the three strong core brands allows the Zumtobel Group to optimally meet the diverse needs of its customers.

The design of a customer-specific lighting solution requires extensive knowledge of the product portfolio, the latest technological developments and the specific lighting application. The sales staff must therefore un-

derstand – and be able to convey – not only the technical and functional aspects of light and the potential energy savings, but also the aesthetic and emotional implications and the positive influence of good lighting on the user's sense of well-being. This applies, in particular, to the sales employees in the Lighting Segment. Accordingly, detailed and wide-ranging education and continuous training are decisive for the quality of sales. The programmes offered by the Zumtobel Group's Learning Academy were expanded during the past year with a focus on the design, implementation and organisation of training courses for customers and internal stakeholders.

In 2022/23, the Zumtobel Group invested EUR 67.8 million in research and development (R&D) to strengthen its leading technology position. The further development of lighting quality based on LED technology, increasing digitalisation and the complexity of intelligent lighting systems represent a continuous challenge for R&D. The digital light source LED has made luminaires and their components an integral part of the Internet of Things (IoT) and, consequently, part of the new applications and business models which go beyond lighting.

The Zumtobel Group is one of the largest suppliers in Europe – its optimal positioning forms the basis to master these challenges and creates clear advantages in competition with the many small and medium-sized luminaire producers. An extensive patent portfolio and close collaboration with international light design partners and architects underscores the company's innovative power and supports sustainable growth by securing access to strategic cooperation with other industrial companies.

### **Structural revenue drivers for professional lighting**

The most important structural revenue driver for the professional lighting industry in recent years has been the issue of energy efficiency, also due to the increasing market penetration of LED as a new light source. The technological maturity of LEDs has brought about a continuous improvement in lighting quality and the design of product solutions to optimally meet the individual needs of users. The opportunities provided by digitalisation – i.e. integrated intelligent lighting solutions – are receiving greater attention, and the lighting infrastruc-

re is now increasingly used in applications outside the scope of actual lighting. This development has been reflected in a range of new applications and business models like digital services.

The subject of energy efficiency is, nevertheless, more relevant than ever due to the necessary global efforts to reduce CO<sub>2</sub> emissions and, above all, the steady increase in energy costs. Intelligently managed, LED-based lighting solutions can reduce electricity consumption by up to 80% compared with conventional lighting solutions. Marketing activities for energy-efficient products are concentrating increasingly on the comparison of energy consumption and investment costs over the lifecycle of various lighting solutions (total cost of ownership).

In addition to significant cost saving opportunities, the growing demand for energy-efficient lighting is supported by legal regulations that include the EU directives on the energy efficiency of buildings and ecodesign or the prohibition on fluorescent lighting. The EU's Green Deal also includes an extensive list of projects that are eligible for subsidies. This financial support is available up to 2027 and gives the Zumtobel Group additional possibilities for future projects.

These developments are leading to increased demand for refurbishment solutions: The lighting technology in older buildings can be modernised with a new lighting concept or so-called refurbishment kits without major construction expense, which do not replace the complete lighting system but only exchange the lighting source and adjusted control electronics.

The lighting industry has generally completed the transformation from conventional lighting sources to LED and adjusted its portfolio, but the current lighting infrastructure is still dominated by conventional equipment. Rising energy prices, on the one hand, and the EU directive in support of a "renovation wave" to improve the energy efficiency of buildings, on the other hand, will increase the renovation rate. That will involve the upgrading of at least 2%, instead of the previous 1%, of buildings each year.

The relevant trends for the lighting industry currently include "connectivity", meaning intelligent and Internet-linked lighting, as well as the growing demand for comprehensive, integrated service offers. Light is pre-

destined to become a cornerstone for the infrastructure of the Internet of Things (IoT) – lighting is everywhere, connected and digital. The Internet of Things will create new and better experiences and services for the retail trade, buildings and cities and unlock a wide range of opportunities for the development of innovative business models. Today, the Zumtobel Group's customers can rely on one of the most comprehensive integrated service offerings in the entire lighting industry.

The Zumtobel Group aims to create lighting solutions that balance energy savings and optimal lighting quality. Good lighting can increase the sense of well-being and create ideal conditions for fitness, satisfaction and health – while minimising the impact on the environment. Good and precisely adjusted lighting is also becoming increasingly important as an effective marketing and sales tool because human emotions and, in turn, consumers' purchasing decisions can be positively influenced by lighting concepts that focus on various personality types.



### **Our FOCUSED strategy**

BBe FOCUSED. The Zumtobel Group has, in recent years, consistently implemented the corporate strategy that was introduced in 2018/19 with its stronger focus on customer orientation and reduction in process complexity and costs. The "Focus" corporate strategy was expanded by management in 2020/21 to generate new opportunities for growth and strengthen the company's sustainable positioning. The result is the new "Be focused" strategy, which includes increasingly important aspects like environmental issues (the letter "E") and digitalisation (the letter "D").

### **FOCUS ON KEY MARKETS AND APPLICATIONS**

The Zumtobel Group concentrates on its target markets and on sustainable, profitable growth in core application areas and precisely defined future fields. In the indoor area, activities are based primarily on industry, office and education, retail, and art and culture. In the outdoor area, the focus is on lighting for urban areas and streets as well as architecture and sport facilities. The Lighting Segment concentrates on key markets and applications mainly in Europe, while the Components-Segment addresses the global market.

### **OPERATIONAL EXCELLENCE**

The Zumtobel Group works to continually improve the

quality of its products and processes and optimise cost structures along the entire value chain. With its own production facilities and a competitive global supplier network, the Zumtobel Group stands for reliable deliveries and customer-oriented service.

### **COMPETENCE IN EVERY DETAIL**

The Zumtobel Group is, and will remain, an innovation leader for components and sensors and is systematically expanding its high expertise in miniaturisation and product integration. It believes in the seamless interaction between components and lighting as the driver for digitalisation and wants to use its extensive technical expertise to offer an increasing range of Internet-of-Things (IoT) solutions for the world of light.

### **UNIQUE BRANDS UNDER ONE ROOF**

The Zumtobel Group's strong brands cover nearly the entire value chain in the area of light – from components to integrated solutions. The Lighting Segment consequently follows a two-brand strategy (Thorn & Zumtobel) with a balanced product portfolio and a mix of projects, key accounts and the retail sector. The Components Segment relies entirely on the Tridonic brand, which will also stand out with a particular customer orientation in the future.



## **SMART SOLUTIONS AND SERVICES**

The Zumtobel Group relies on innovation and turnkey solutions that cover products, systems and services (including digital expertise). They represent an integral part of its distinguishing features and the driver for future growth. Services will be expanded in the future as an important part of the offering, above all in the Lighting Segment.

## **ENVIRONMENT AND ENGAGED EMPLOYEES**

The Zumtobel Group has set a goal to become climate-neutral by 2025 and to implement the circular economy principle. That would also make the Zumtobel Group a pioneer in this area of the lighting industry. Developing solutions to help customers meet their sustainability targets is also part of this goal. The Zumtobel Group will continue to offer an environment in which employees can grow personally and professionally and, in this way, make an important contribution to the company's success.

## **DIGITALISATION**

The Zumtobel Group is systematically implementing digitalised process workflows "end to end", i.e. from the receipt of orders to after-sales. In addition, the company will increasingly offer digital products with expanded functions as well as digital services that create new customer experiences, strengthen customer ties and support the development of new earnings models for the Group.









# GUIDING LIGHT

## **THE ZUMTOBEL GROUP ON THE ROAD TO SUSTAINABILITY.**

We are making progress. Again. And again much further than required – by legal regulations and time limits. We have always set our own pace. Our determination to reduce emissions is reflected by the net zero goal, the circular economy has become one of our cross-sectional tasks, and the “partner of choice” is a principle we want to be judged on. Sustainability is not a one-way street. We see it as mutual responsibility along the entire value chain in which we as a decision maker, designer and team will go very far in support of a healthy planet and a liveable future.

Our road to sustainability is accompanied by three focal points along the entire value chain, which have evolved from the revision and adaptation of materiality:

### **Climate neutrality & net zero**

*„THERE IS ONLY ONE WAY:  
THE WAY THAT LEADS TO ZERO CO<sub>2</sub>.“*

### **Circular economy**

*„PATHS THAT LEAD US IN CIRCLES  
AND STILL TAKE US FORWARD.“*

### **Partner of choice**

*„THE PATHS WE CHOOSE THAT  
ENCOURAGE OTHERS TO JOIN US.“*

# CLIMATE NEUTRALITY & NET ZERO

## ***„HOW WE WORK TO MEET THE NET ZERO GOAL.“***

We not only want to reduce our ecological footprint, we would rather not leave any footprint at all. Our entire plant network will be climate-neutral by 2025 due to the consequent reduction of production and fleet emissions. To meet this goal, we are converting our plants to renewable energy, implementing wide-ranging energy efficiency and infrastructure measures and, as a last step, compensating the remaining emissions.

In both the upstream and downstream areas, we are following the great net zero goal: no CO<sub>2</sub> emissions along the entire value chain – from the procurement of raw materials and other resources to the use of products by our customers and recycling at the end of the lifecycle. Transparency in our own operations and by our partners as well as the joint identification of measures to improve our footprint will form the important basis we are now creating. Ultimately, we are reducing the energy consumption of our products through more energy efficient lighting solutions and, in this way, helping our partners to improve their own footprint. We are working not only consequently, but also scientifically to achieve climate neutrality and meet the net zero goal – and, for this reason, joined the Science-Based Targets initiative (SBTi) in 2023.



## Key topics and our focus

The material topics for reporting on our road to climate neutrality and net zero are:

- Climate change mitigation
- Energy & renewable energy

In its efforts to achieve climate neutrality (Scope 1 and 2 according to the Greenhouse Gas Protocol), the Zumtobel Group is focusing on the avoidance and reduction of emissions before the compensation of emissions.

9,950

tonnes CO<sub>2</sub>e in  
Scope 1 & 2 in  
FY 2023/24

62%

Share of renewable  
energies in  
FY 2023/24

## Commitment on the road to climate neutrality and net zero

The Intergovernmental Panel on Climate Change (IPCC) published a report on climate change in March 2023: The earth is warming faster and with more dramatic consequences than previously assumed. It was, however, noted that it is still technically possible to meet the 1.5 degree limit.

The conversion to efficient lighting in infrastructure and buildings creates an important opportunity to support climate change mitigation. This is one way the Zumtobel Group can help its customers meet their environmental goals.

The Zumtobel Group is working to attain climate neutrality (Scope 1 and 2) by 2025. The ecological footprint of its own processes was further reduced during the 2022/23 financial year.

The ambition to reduce emissions along the entire value chain in the sense of a net zero roadmap was underscored by a commitment to the Science-Based Targets initiative (SBTi). The attainment of these reduction goals will take place in close cooperation with our customers, suppliers and business partners.

## Highlights on the road to climate neutrality

In the financial year 2022/23, savings of more than 3,000 t CO<sub>2</sub>e were achieved through a package of measures on energy-intensive processes such as heating, cooling and surface treatment.

The pre-heating process for coating in the Dornbirn and Lemgo plants was converted to district heat by the end of the 2022/23 financial year. This led to a further reduction in natural gas consumption.

The Zumtobel Group joined the Science-Based Targets initiative (SBTi) in April 2023.



7.2/7.3



13.1/13.3

# CIRCULAR ECONOMY

## ***„HOW WE EXTEND THE PRINCIPLES OF THE CIRCULAR ECONOMY TO THE ENTIRE VALUE CHAIN.“***

For us, being a sustainable company means closing cycles and finding new, circular business models. That requires product design that meets circular design rules and sustainable concepts for the reconditioning and reuse of our products, the development of the necessary logistics, and high-value recycling of the materials contained in the products. In this way, we can not only give our products – but also the raw materials – a second or third life.

We will be successful in meeting the goal to establish a genuine circular economy because we are working consequently in this direction today: with circular design guidelines that are implemented along the entire product development process, interdepartmental application and continuous improvement. Internal training, workshops and practical analyses of the products, the development and expansion of product-related circular concepts. And the formation of external networks with competent partners to solve the reverse logistics challenges.

## Key topics and our focus

The material topics for reporting on our road to a circular economy are:

- Resources inflows, including resource use
- Resource use, Circularity support, product design, packaging
- Waste
- Sustainable products and applications

The design and quality of products and materials must meet sufficiently high standards to allow for their use as raw materials in the next product generation.

## Commitment on the road to the circular economy

A circular economy offers the Zumtobel Group a model in which products and materials can move within a cycle, e.g. through reuse, processing or recycling. The use of primary raw materials is becoming increasingly obsolete, and waste can be reduced to a minimum.

Circular design principles and product planning based on the circular economy are important elements of a holistic understanding of quality. That covers the entire product lifecycle – from raw materials production to the usage phase and up to the recycling of materials.

The circular economy is viewed as a future-oriented innovation tool in which products serve as a source of raw materials for the next product generation. The intention is to gradually substitute high-quality secondary materials for the use of primary materials.

The Zumtobel Group is fully involved in the transformation process from a linear to a circular economy, for example through the introduction of circular design rules.

## Highlights on the road to the circular economy

The materials used in the Zumtobel Group's brand products were evaluated for critical content together with the respective suppliers. The recycling share of purchased materials was recorded, and the recyclability of materials was systematically increased.

Data recording for the above-mentioned material information improved significantly in 2022/23, and the recycling share of various material groups in the Lighting Brands was increased. For example: The recycling share of purchased steel increased by 2% year-on-year in 2022/23, and the recycling share of purchased casting components rose by 13%.

The first products developed in line with circular design rules were launched during the reporting year. Examples include CHALICE (Thorn) and ARTELEA (Zumtobel). ARTELEA is the first product to be offered with a remanufacturing option, which covers the return of the luminaire after use and its recycling for a new application.

Further partnerships, processes and business models for the recycling of products, components and materials were developed on the basis of first flagship projects. The development of modernisation kits was substantially expanded to support the longest possible use of previously installed lighting by our customers.

In 2022/23, the first Cradle-to-Cradle® certification in Bronze was pursued and successfully completed by the Tridonic and Zumtobel brands.



8.4



12.2/12.5

# PARTNER OF CHOICE

## ***„HOW WE SUCCEED IN BECOMING THE PARTNER OF CHOICE.“***

People accompany us because they see we are steadily moving ahead along the right road. A road on which we create a good and fulfilling working environment together with our employees. A road on which we convince our customers not only with our sustainable lighting solutions, but also help them to meet their own sustainability goals with our services and data.

Being the partner of choice means mutual trust that must be earned. And accepting responsibility for others.

## Key topics and our focus

The material topics for reporting on our road to becoming the partner of choice are:

- Occupational safety, health & well-being
- Education & Training
- Employee satisfaction
- Human rights
- Diversity & equal opportunity
- Customer satisfaction
- Product quality & safety
- Social standards in the supply chain

Our due diligence responsibilities cover the entire value chain. We meet our goals together with our employees and our suppliers, partners and customers.

## Commitment on the road to becoming the partner of choice

The conduct of companies in all sectors is essential to ensure the successful transition to a climate-neutral, green economy and the realisation of the sustainable development goals set by the United Nations. This creates complex challenges for companies and their partners along the entire value chain. People must come first, connections must be identified together, and solutions must be found in networks for the tasks arising from due diligence responsibilities.

The Zumtobel Group works closely together with its business partners. The necessary transparency is expected, human rights are protected, and high social standards are guaranteed along the entire supply chain. The necessary standards are developed together with the company's partners. Sustainability-related due diligence responsibilities are integrated in and included in the roll-out of all key documents and processes in der Zumtobel Group, e.g. the code of conduct for business partners and the internal whistle-blower system.

Customers are increasingly and proactively demanding sustainable products and require transparent background information on their application, composition and use. The Zumtobel Group supports and helps its customers to systematically improve their own sustainability goals which, in turn, leads to a better customer experience and greater satisfaction.

## Highlights on the road to becoming the partner of choice

The first analyses of draft regulations show that the supplier onboarding process with its integrated questionnaire serves as an excellent basis for meeting the requirements of the expected due diligence law. All new and existing suppliers are required to implement wide-ranging processes to reduce the negative effects on human rights and the environment in their governance and management systems.

The roll-out of plant certification under ISO 45001 has gained speed, and the initial goal to certify three additional plants was exceeded. Seven of the ten plant locations are now certified under the occupational safety and health protection management standard ISO 45001.

A worldwide customer survey provided valuable feedback on perceptions, requirements and the importance of issues related to their own sustainability performance. The results were included in the updating of the materiality analysis to meet the future ESRS requirements.



3.8/3.9



9.4



12.2/12.6







# GOVERNANCE

## WE HAVE TAKEN THE DIRECT PATH TO SUSTAINABILITY.

Besides consistency and good organisation, this requires clear responsibilities and scientific standards. We have put our ecological goals on an equal footing with our economic goals and made them measurable and coordinable. We consider the protection of the planet as a cross-sectional task of our management, with binding goals, deadlines and measures throughout the Group. For us, entrepreneurial success means success in economic, ecological and social terms. These three aspects are inextricably linked and are the guiding principles of our entrepreneurial actions.

## WHAT STILL LIES AHEAD

Coordinate the achievement of our sustainability goals also outside our company, with suppliers, partners and end users along the entire value chain. Taking important steps to reduce CO<sub>2</sub> emissions also with our partners and meeting the new geopolitical and economic challenges of globalisation.

## TARGETS 2023/24

- Process integration of sustainability and finance
- Further development of the EcoVadis Score to 78 points
- Reporting system takes into account ESRS requirements



# GOVERNANCE



*„FOR ME, ACTING RESPONSIBLY AND SUSTAINABLY MEANS CONSTANTLY WEIGHING SOCIAL, ENVIRONMENTAL AND ECONOMIC CONCERNS AGAINST EACH OTHER IN ORDER TO BRING THEM INTO A REASONABLE RELATIONSHIP - THUS SAFEGUARDING THE SUSTAINABLE INTERESTS OF HUMANITY.“*

Mario Wintschnig, Corporate Responsibility Manager, Group Sustainability

## Management approach & due diligence processes

Sustainability reporting requirements will be expanded significantly in the coming years. The disclosure of data on the impact on the environment, social aspects and governance create new transparency and permit the comprehensive comparison of various companies. From this perspective, it can be expected that sustainability aspects will grow to become new disciplines and play a more decisive role in competition. An active commitment and well-founded management are essential to continuously improve sustainability performance along the value chain.

Sustainability is an integral part of the Zumtobel Group's management system. Its goal is to protect the Group's market position over the long-term and further develop the organisation in keeping with political, economic, socio-cultural, technological, ecological-geographic and legal influencing factors.

The management process ensures that the context analysis reflects stakeholders' requirements. It must also be capable of identifying the key internal and external issues which are relevant for the Zumtobel Group and evaluating and prioritising the resulting opportunities and risks according to their respective effects.

Any direct need for action and the related goals are defined in line with the context analysis, a review of the company's strategic orientation, its strategy and the related adjustments. Progress on the defined measures and target attainment are reviewed regularly. Compliance with all binding obligations, the dialogue with our stakeholders and insightful reporting are further important elements of the Zumtobel Group's management process.

The stakeholder dialogue often leads to the identification of various possible approaches to sustainability. The

United Nations Sustainable Development Goals (SDGs), as a global compass, are often a suitable starting point for describing the Zumtobel Group's sustainability performance. However, the material issues must be frequently structured according to environmental, social and governance factors or there is a request to allocate these issues to activities along the value chain. The dialogue with stakeholders is designed to reflect the different viewpoints and to always return to the underlying material issues.

The material issues for sustainability reporting are positioned in the core and linked with the above-mentioned approaches – ESG, SDG, value chain. A connection to the internal specialist departments is also shown. In practice, this presentation forms a good basis for a shared understanding with the discussion partner and a workable structure for a successful dialogue on sustainable management.

## Influence of Covid-19 and the war in Ukraine

The Covid-19 pandemic and the war in Ukraine had an impact on the economic, ecological and social environments during the 2022/23 financial year and, consequently, on sustainable and responsible management. Events showed that the measures which proved successful during the Covid-19 pandemic were also successful in countering the negative effects of the Ukraine conflict.

The Zumtobel Group's crisis management developed a certain resilience on the procurement market during the first one to two years of the Covid-19 pandemic and in connection with efforts to safeguard supplies throughout the following availability crisis. A resilience that is necessary to manage the changing demands and cost structures (due to the increase in input factor costs)



which were intensified by the Ukraine conflict and the energy crisis.

The Ukraine conflict has had a strong influence on the procurement market. The sharp rise in energy costs triggered by the conflict and short-term explosion in material cost indexes – which have still not returned to the pre-crisis level over the medium-term – had enormous effects on the cost structure of existing suppliers and on price developments. The specific demands created by the Covid-19 pandemic are addressed under the individual subject clusters.

### **Framework for the non-financial statement**

This year's group management report also includes the consolidated non-financial statement required by § 267a of the Austrian Commercial Code. With this statement, the Zumtobel Group meets its reporting requirements under the Austrian Sustainability and Diversity Improvement Act ("Sustainability- und Diversitätsverbesserungsgesetz", NaDiVeG) on environmental, social and employee issues, on the respect for human rights, and the fight against corruption and bribery. The information included in this report refers equally to the Zumtobel Group and its subsidiaries, unless indicated otherwise.

This non-financial statement applies to the 2022/23 financial year and reflects all principles defined by the Global Reporting Initiative (GRI). It was prepared in agreement with the GRI standards, applicable to the period from 1 May 2022 to 30 April 2023. Reporting was expanded to place a greater focus on the issues most important to the Zumtobel Group and its stakeholders. In addition to this non-financial statement, selected content is included in the current group management report, under risk management, and in the corporate governance report and the consolidated financial statements.

The base year was changed from 2015/16 to 2020/21 following the orientation on GRI standards and the related expansion of reportable data. This ensures the comparability of data over the coming years.

In preparation for the introduction of mandatory reporting under ESRS (European Sustainability Reporting Standards), the Zumtobel Group deals with sustaina-

bility based on the principle of double materiality in this report. Double materiality covers two dimensions, namely the materiality of the impact on society and the environment ("inside out") and financial materiality ("outside in"). The effects, risks and opportunities along the Zumtobel Group's value chain are identified and evaluated for all areas of the company to determine which can be seen as probable. This is dependent on the type of the activity, business relations, geographical issues or other risk factors.

The consolidated non-financial statement was presented to the Supervisory Board and reviewed and released by this corporate body and by PwC for its correctness, regularity and appropriateness with limited assurance. The supplementary content in this non-financial statement is intended to provide a better understanding for our stakeholders.

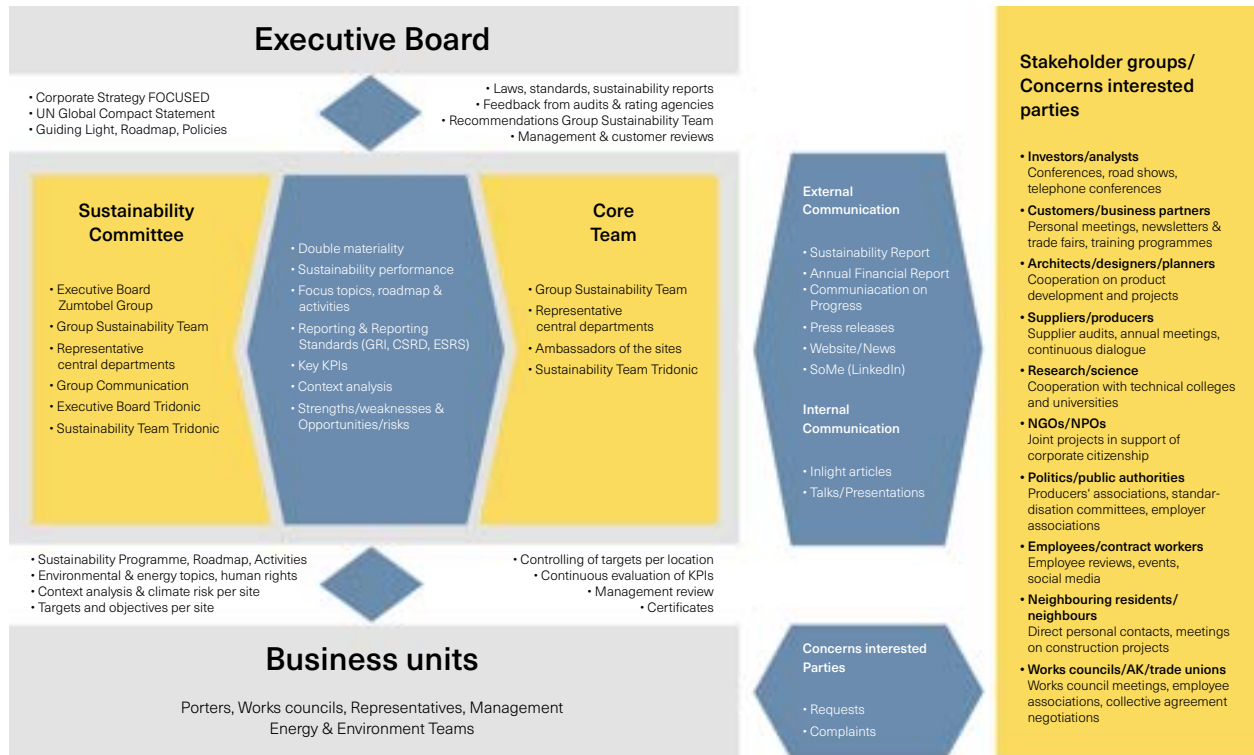
### **Sustainable Management**

#### **Organisational anchoring & due diligence processes**

The Zumtobel Group's commitment to sustainability covers the entire value chain and represents an integral part of the corporate strategy. The holistic approach taken in developing the sustainability programme includes the assignment of material issues to the ESG structure and their connection with the SDG goals of the Zumtobel Group.

The material issues prioritised in the materiality update 2022/23 are viewed along the value chain and flow into the focal points – climate neutrality, partner of choice and circular economy. The roadmap which was finalised and released by the specialist departments and the Management Board rounds out the structured basis for the development of the sustainability programme.

The responsibilities for sustainability in the Zumtobel Group are clearly regulated and anchored. The sustainability steering committee (SSC) takes decisions on the strategic focus of all sustainability issues in the Group. It includes the Management Board of the Zumtobel Group as well as representatives of the brands, specialist departments like global human resources management, global procurement, brand & portfolio management,



R&D, and the Group sustainability team. The sustainability steering committee meets quarterly to discuss and develop reporting requirements, focal points, non-financial indicators, the sustainability strategy and content for the roadmap and to define binding goals, deadlines and activities and to monitor indicators, goals and actions.

The Group sustainability staff department coordinates sustainability management. It is headed by the Group sustainability director who reports directly to the chairman of the Management Board of the Zumtobel Group. Sustainability officers are responsible for implementing the sustainability goals in the business units and, for this purpose, are in regular contact with the Group sustainability team. The Management Board, with the support of the Group sustainability director, provides the Supervisory Board with regular information on financial, operating, and strategic issues as well as current sustainability issues and progress on sustainability activities. This procedure makes it possible for the Supervisory Board to meet the controlling responsibilities related to sustainability performance.

Group Sustainability Team







Information on the applied concepts and due diligence processes can also be found in the following sections: Compliance, Procurement, Employer, Environmental Protection, Product Responsibility and Product Use.

## Stakeholder management

*„WE WANT TO BE AN ACTIVE PARTNER FOR OUR CUSTOMERS' DAY-TO-DAY BUSINESS OPERATIONS AND PROJECTS. WITH OUR KNOW-HOW, CALCULATION TOOLS, EXTERNAL VERIFIED DOCUMENTATION (E.G. IN THE FORM OF EPDs) – SIMPLY TO SUPPORT OUR CUSTOMERS IN ALL PHASES OF THEIR PROJECTS AND TO FIND THE RIGHT ANSWERS.*

*SUSTAINABILITY-RELATED ISSUES MUST BE SCALED, FOR EXAMPLE THROUGH DIGITALISATION. THE DECISIVE FACTOR FOR ME IS TO IDENTIFY THESE SOLUTIONS TOGETHER AND IN A DIALOGUE WITH OUR CUSTOMERS.“*

Thomas Steinmayer, Vice President Global Sales Retail & E-Commerce

The Zumtobel Group maintains an open dialogue with its interest groups to exchange information and opinions, and along these lines, to understand the expectations and demands of the various stakeholders and integrate the results in its corporate activities. This dialogue also helps to identify risks and opportunities at an early time and creates trust. As the social criteria are increasing in importance, the stakeholder groups were supplemented by the group of social partners (works councils, trade chambers and trade unions).

Close and direct dialogue, especially with customers and partners in the project business, supports the development of pioneering and sustainable lighting solutions. The following table provides an overview of the most important stakeholder groups and the platforms used by the Zumtobel Group for individual dialogues.

The customer survey carried out in 2022/23 brought more than 2,500 responses for an analysis of sustainability-related issues. Positive feedback and suggestions

for improvement from over 800 customers provided an opportunity to anchor the customer's voice in the company from the viewpoint of a stakeholder dialogue. The completeness of the material issues was also evaluated via open feedback, and incomplete material issues were supplemented. The results were included in the 2022/23 materiality update.

The issue of sustainability and ESG, in general, is a focal point for the Zumtobel Group's international customers and, consequently, represents an important area. Many customers have already developed an ESG roadmap and place high demands on their suppliers. The Zumtobel Group makes a contribution at the strategic level and, at the same time, offers numerous proven lighting solutions for implementation.

### Stakeholder groups Zumtobel Group

- Investors/analysts - Conferences, road shows, telephone conferences
- Customers/business partners - Personal meetings, newsletters & trade fairs, training programmes
- Architects/designers/planners - Cooperation on product development and projects
- Suppliers/producers - Supplier audits, annual meetings, continuous dialogue
- Research/science - Cooperation with technical colleges and universities
- Politics/authorities - Manufacturers' associations, Standardisation bodies, employers' associations
- NGOs/NPOs - Joint projects in support of corporate citizenship
- Employees/contract workers - Employee reviews, events, social media
- Neighbouring residents/neighbours - Direct personal contacts, meetings on construction projects
- Works councils/AK/trade unions - Works council meetings, employee associations, collective agreement negotiations



## Materiality update in 2022/23

The materiality analysis is a core element of sustainability reporting. The analysis for the 2021/22 financial year was updated based on the requirements of the Global Reporting Initiative (GRI) 2021 standards and formed the starting point for the update of the materiality analysis in 2022/23.

The requirements of the GRI 2021 reporting framework created the basis for revising the materiality analysis, as in the previous year. As a further development of the materiality analysis, the currently available status of the CSRD (Corporate Sustainability Reporting Directive), which came into force on 5 January 2023, and the ESRS (European Sustainability Reporting Standards), which will come into force in 2025, were also taken into account.

The introduction of the new reporting requirements and standards includes a transition period, but the Zumtobel Group has decided to gradually integrate the requirements proactively and beginning with the materiality analysis in this report to adapt to this new world of sustainability reporting.

## The principle of double materiality

Accordingly, the principle of double materiality was applied in the revision of the materiality analysis. Here, sustainability aspects along the value chain are considered in two dimensions: on the one hand, with regard to their impact on people and the environment (impact analysis, inside-out) and, on the other hand, with regard to their financial opportunities and risks (financial materiality, outside-in).

Based on the environmental matrix and the context analysis of the due diligence processes for sustainability, the impact, opportunities and risks were identified. These issues were aggregated into or assigned to possible material issues and evaluated according to the scope and probability of occurrence.

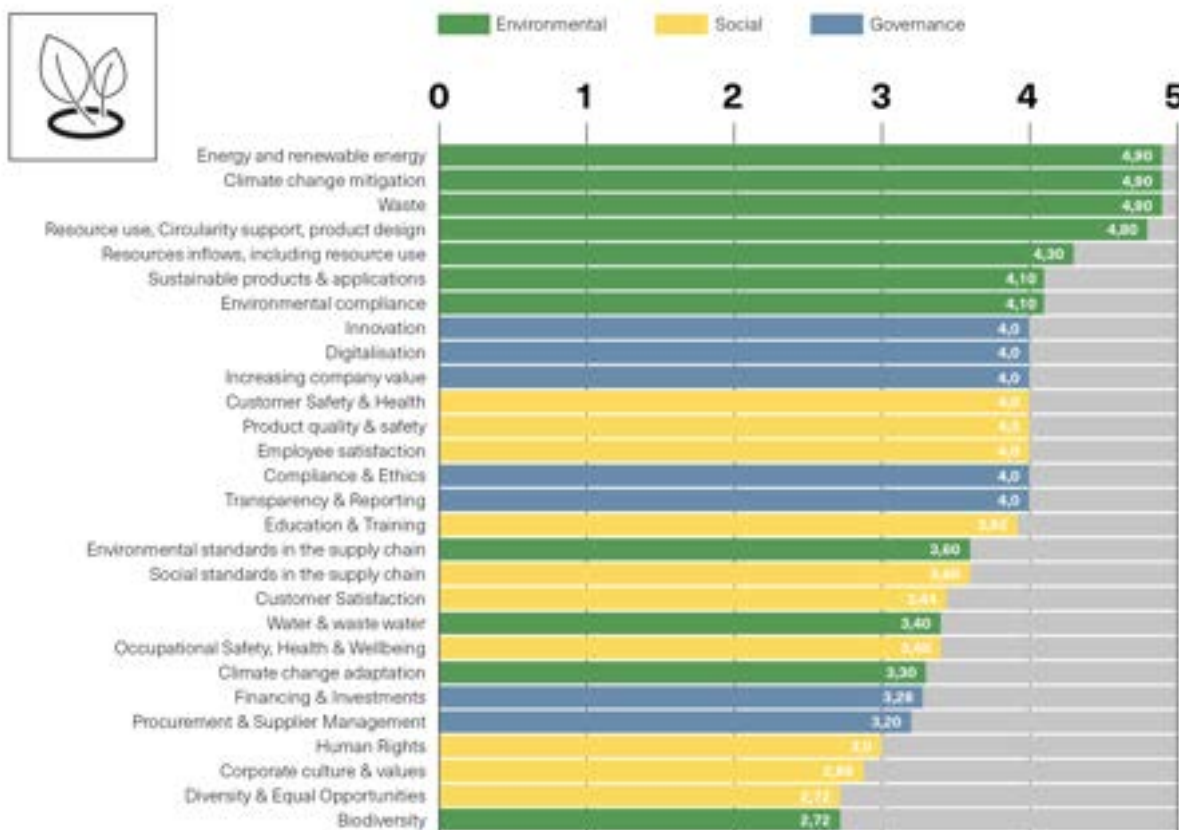
In the context analysis, all significant internal and external topics, the requirements of the stakeholders and the opportunities and risks resulting from the topics and requirements are determined annually at all production locations, both globally and locally. Based on the opportunity and risk assessment and the prioritisation of the issues, measures are defined, planned accordingly and implemented.

Development of the materiality analysis in three steps





## Results from the assessment of impacts (inside-out) on humans & the environment



The material topics for reporting were finally fixed by defining threshold values. Topics are considered material even if they only have a high score in one dimension, such as the topic of environmental compliance or diversity & equal opportunities.

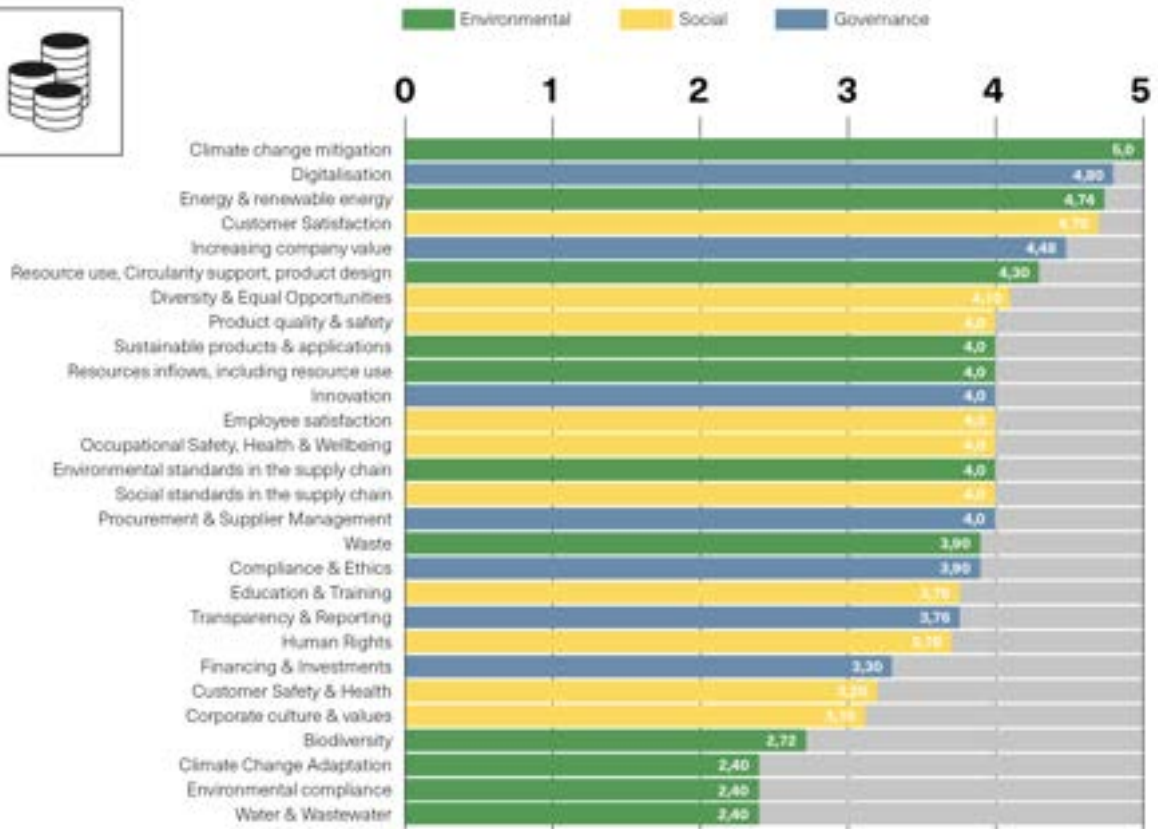
Nine issues were added to the materiality matrix in the new version and are highlighted in the following table.

The process to define the material issues for reporting was verified with various stakeholders and evaluated and approved by the highest management bodies, the Management Board and Supervisory Board, as well as by internal experts and the Steering Committee. Following is a structured list of the material issues for the Zumtobel Group and their connection with issues

related to the Austrian Sustainability and Diversity Improvement Act ("NaDiVeG"), focal points, ESG criteria and SDGs:




## Results from the financial impact assessment (outside-in)





## List of material topics 2022/23

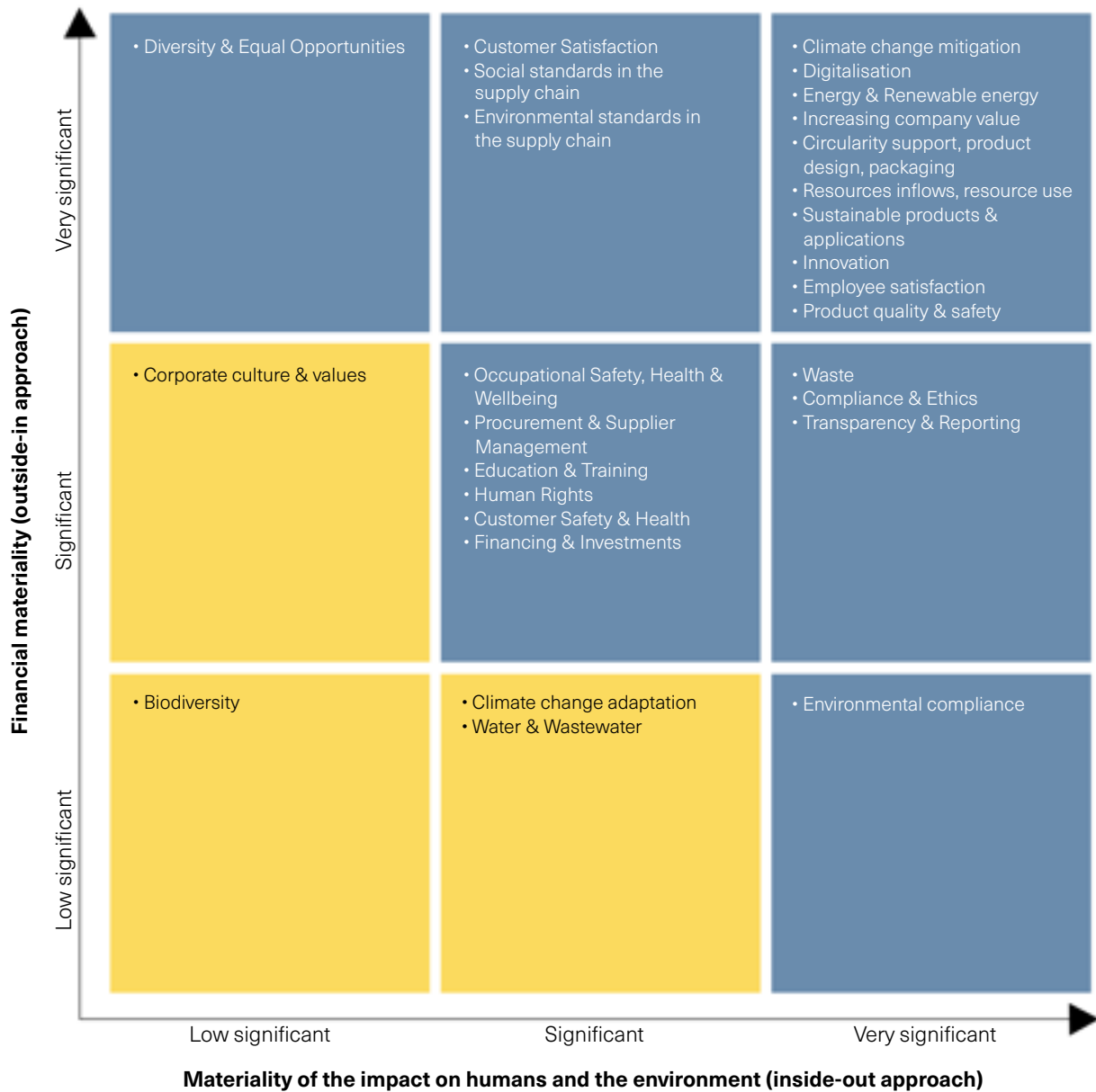
Area	ESG	Focal points	Material topic	Sustainability/diversity*	SDG
Corporate Governance	G		Digitalisation		8
	G		Increasing company value		8
	G		Financing & Investments		8
	G		Innovation		9
	G		Transparency & Reporting		8
Compliance	G		Compliance & Ethics	Fighting against corruption Employee issues	16
Procurement	G		Procurement & Supplier Management	Social issues Respect for human rights Fighting against corruption	12
Environmental Protection	E	Climate Neutrality & Net Zero	Climate change mitigation	Umweltbelange	13
	E		Energy & Renewable energy	Umweltbelange	7
	E		Environmental standards in the supply chain	Environmental issues	12
	E		Environmental compliance	Environmental issues	16
Product responsibility	E	Circular Economy	Resource use, Circularity support, product design, packaging	Environmental issues	8
	E	Circular Economy	Resources inflows, including resource use	Environmental issues	12
	E	Circular Economy	Waste	Environmental issues	12
	E	Circular Economy	Sustainable products & applications	Environmental issues	12
Employer	S	Partner of choice	Occupational Safety, Health & Wellbeing	Employee issues	3
	S	Partner of choice	Education & Training	Employee issues	4
	S	Partner of choice	Employee satisfaction	Employee issues	8
	S	Partner of choice	Human Rights	Respect for human rights	16
	S	Partner of choice	Diversity & Equal Opportunities	Employee issues	5
Product use	S	Partner of choice	Customer Satisfaction	Social issues	12
	S	Partner of choice	Customer Safety & Health	Social issues	12
Product responsibility	S	Partner of choice	Product quality & safety	Social issues	12
Procurement	S	Partner of choice	Social standards in the supply chain	Social issues	8

 Newly added essential topics from the revision of the essentiality 2022/23

\*) Austrian Sustainability and Diversity Improvement Act ("Nachhaltigkeits- und Diversitätsverbesserungsgesetz", NaDiVeG)



Materiality matrix 2022/23



## Review & outlook

### Progress report on sustainability performance in 2022/23

Sustainable actions are firmly anchored in the Zumtobel Group's corporate strategy. Based on our core business,

we want to make the best possible contribution to a liveable future – and have done so for slightly over 70 years.

The Zumtobel Group documents its sustainability performance summarised by the areas covered in the report and the respective material topics.





Area	Material topic <sup>1</sup>	Goal	Measures, activities, results	Status	SDG	Page
<b>Corporate governance</b>						
		Revision of materiality according to ESRS criteria	Revision of materiality according to the ESRS reporting standard	●	8	30 - 34
		Publication of the UN Global Compact Progress Report (COP)	Renewal of commitment to UN Global Compact for FY 2022/23; COP is available for download on the Zumtobel Group website	●	16, 17	45
		Submission of annually updated monitoring documents	The corporate targets set for the klimaaktiv Pact 2030 were already achieved in the reporting year 2021/22	●	17, 13	45 - 46
		Active membership of IPC	The Tridonic technology brand is a member of the IPC - Association Connecting Electronics Industries	●	16, 17	46
		EcoVadis Platinum Medal award	The Zumtobel Group improved its score in the 2022/23 assessment from 71 points to 77 points - Gold Medal	●	16, 17	46 - 48
	Increasing the value of the company (Material topic)				8	
		Positive sustainability indices	The Zumtobel Group is included annually in sustainability indices (e.g. Völnix and MSCI)	●	8	50
	Financing & Investments (Material topic)				8	
		Implement regulatory requirement of the EU Taxonomy Regulation	Implementation concept developed; taxonomy-eligibility included in reporting	●	8	52 - 63
	Transparency & reporting (Material topic)				8	
		Base reporting on GRI framework (2021)	Reporting structure adapted to meet GRI requirements; content prepared in agreement with GRI (2021)	●	8	27
<b>Compliance</b>						
	Compliance & Ethics (Material topic)				16	
		Carrying out a Fraud Awareness Check	During the reporting period, a fraud awareness check was carried out at corporate functions and decentralised sales units, finance and operations; 115 senior employees participated in it	●	16	66 - 67
		Updating the Code of Conduct 2023	Inclusion of due diligence obligations as well as the commitment to observe and implement all obligations of the German Supply Chain Due Diligence Act	●	8, 16	67 - 68
		Internal Control Check 2022	24 sales companies have undergone a self-assessment; assessment includes questions regarding the existence and implementation of local guidelines with the aim of fraud prevention	●	8, 16	68 - 69
		Update whistleblower system	Due diligence topics are integrated into the whistleblower system; access options were optimised and adapted during the reporting period	●	8, 16	71
		New employees are trained on compliance topics	Automated process for conducting compliance training for new employees	●	4, 16	72



Area	Material topic <sup>1</sup>	Goal	Measures, activities, results	Status	SDG	Page
Human rights (Material topic)					16	
		Compliance with due diligence requirements	Requirements from the due diligence obligations (LkSP and CSDD) were integrated into all internal documents and processes	●	16	72
<b>Procurement</b>						
Procurement & Supplier (Material topic)					12	
	Integrate requirements from due diligence		Requirements from due diligence (LkSP and CSDD) were integrated into the supplier onboarding process	●	12, 16	79
			Updating the Code of Conduct for Business Partners	●	16	79 - 80
			Concept on diversity & inclusion along the value chain	●	5, 10	100
	Evaluation of upstream Scope 3 emissions		Integration of an emissions screening into the supplier questionnaire; evaluation at selected suppliers	●	13	79
Resources inflows, including resource use (Material topic)					12	
	Transparency with reference to ingredients per material group		Review commodity groups for Restricted Substances List compliance	●	12	80 - 81
	Optimisation of material ingredients		Survey recyclability & recycled content of purchased materials; increase recyclable material content in key commodity groups	●	12	80 - 81
	Integration of sustainability aspects into the material group strategy		Main suppliers are regularly checked for sustainability requirements and continuously developed further	●	8, 12	80 - 81
	Greening of the company car fleet		Procurement strategy in line with the company car policy; share of e-mobility is 5%	●	8, 13	81 - 82
Environmental & social standards in the supply chain (Material topic)					8, 12	
	Conduct sustainability audits for new and existing suppliers		175 Quality audits and 114 sustainability audits were conducted with suppliers	●	5, 8, 12, 16	82 - 84
	Assess suppliers from risk countries for sustainability performance		90.3% of suppliers from risk countries were audited for their sustainability performance	●	5, 8, 12, 16	78
	Require suppliers to comply with RoHS, REACH and conflict minerals		CMRT report is available for download on the website	●	8, 12, 16	84 - 85
<b>Employer</b>						
Employee satisfaction (Material topic)					8	
	Conduct employee survey		Employee survey carried out; results communicated to departments; participation was Results were communicated to the departments; participation was 82%.	●	8	89
Work-life balance						
	Promotion of a work-life balance		Award of the „Excellent Family-Friendly Company 2022-2023“ seal of quality	●	8	90



Area	Material topic <sup>1</sup>	Goal	Measures, activities, results	Status	SDG	Page
	Training & further education (Material topic)				4	
		Management development programme	Implementation and launch of the programme with a Leaders Summer Camp	●	4	91 - 92
		General training	Newly revised training catalogue with interdisciplinary training offers	●	4	91 - 92
		Specialist training	80 Core Knowledge Modules, imparting product and application knowledge on the Zumtobel product portfolio; Tridonic Training Camp, an initiative for imparting sales skills	●	4	91 - 92
		Trainee programmes	Concept development and resumption of the Trainee Programme	●	4, 8	92 - 93
	Diversity & Equal Opportunities (Material topic)				5	
		Supply Chain Compliance Act	Implementation of due diligence along the entire value chain	●	5	100
		Promotion of women in the company	Increase the percentage of women in management positions to 22.2%	●	5	100 - 101
		Diversity & Inclusion	Vocational support programme for young people with physical or mental disabilities	●	5	101 - 102
	Human rights (Material topic)					
		Code of Conduct	Addition of human rights issues to the Zumtobel Group Code of Conduct and the Code of Conduct for Business Partners	●	8	104 - 105
		Whistleblowing system	Addition of possible human rights violations to the user interface	●	8	102 - 103
	Occupational Safety, Health & Wellbeing (Material topic)				3	
		Continuous development of the health programme	Sick leave analysis for all Austrian sites; responsibility area „ZG Health“ established	●	3	106, 108
		Implementation of ISO 45001 in the company network	5 additional sites are ISO 45001 certified	●	3	105 - 106
	Pilot project BGF	Pilot project carried out at the Dornbirn site, duration two years, partnership with the Austrian Health Insurance Fund for workplace health promotion	●	3	108 - 109	
	Occupational accidents	Significant improvement in the LTI rate from 7.7 to 3.7; the accident severity rate fell from 87 to 42	●	3	109	
Environmental protection						
	All major sites in the group of companies are ISO 14001 and ISO 50001 certified	Obtaining certification according to the requirements of ISO 14001 and ISO 50001 at all certified sites	●	13	116	
Energy and renewable energy (Material topic)				7, 13		
	Continuous increase in the share of renewable energy to 57%.	All European sites purchase electricity from renewable energy sources; share of renewable energy increased from 52% to 59%	●	7, 13	121	
	Reduction of energy consumption	Energy consumption reduced by 12%	●	7, 13	118 - 119	



Area	Material topic <sup>1</sup>	Goal	Measures, activities, results	Status	SDG	Page	
		Reduction of energy consumption for products sold	Continuous improvement of average energy efficiency of all products sold; further improvement of 2.7% in 2022/23 financial year	●	7, 9, 12, 13	142	
		Continuous improvement	Optimisation of switch-on and switch-off times for equipment; optimisation of base load; elimination of compressed air leaks, conversion to LED lighting, etc.	●	13	120	
	Climate change mitigation (Material topic)				13		
		Scope 1 & 2 emissions according to Greenhouse Gas Protocol and GRI	Scope 1 reduced from 9,064 t to 7,892 t, reduction 13%; Scope 2 reduced from 4,698 t to 2,644 t, reduction 44%	●	13	121 - 123	
		Scope 3 emissions according to Greenhouse Gas Protocol and GRI	9 of the 15 upstream and downstream processes according to the Greenhouse Gas Protocol are relevant for the Zumtobel Group and are recorded	●	13	123 - 125	
		Continuous improvement	Analyses of the expansion of photovoltaic systems; analysis of the conversion of powder coating systems (electricity instead of gas) in the group of companies; heat recovery projects	●	7, 13	126 - 127	
	Water & Wastewater				6		
		Optimisation of water consumption	Reduction of water consumption by 2%	●	6	128	
		Continuous improvement	Less water for cooling the recoilers; reuse of water in powder coating and reduction of water change cycles as well as short rinses in the sanitary area; reduction of change intervals of dirty water	●	6	128	
	Waste (Material topic)				12		
		Waste optimisation	Reduction of waste from 15%	●	12	131	
		Continuous improvement	Optimisation in production planning; segregation of plastic waste by type; optimisation of maintenance cycles leads to reduction of waste; optimal use of gates; one-time use and reuse of sprue materials	●	12	130 - 131	
		Improve recycling rate to 91%	The recycling rate for internal waste was increased to 91.3%	●	12	131	
	Product responsibility						
		Innovation (Material topic)				9	
	Expansion of the number of patents and property rights	Active number of industrial property rights 9,134 and 4,568 patents	●	9	138 - 139		
Sustainable products & applications (Material topic)				11, 13			
	Marketing of Environmental Product Declarations EPDs after 10 years of use	EPDs are included in reporting; defined new products receive an EPD; 5,000 environmental product declarations issued	●	11, 13	143		



Area	Material topic <sup>1</sup>	Goal	Measures, activities, results	Status	SDG	Page
		Improving the energy efficiency of products	The average energy efficiency of products placed on the market improved by 2.7%	●	11, 13	142
		Resource use, Circularity support, product design, packaging (Material topic)			8, 12	
		Circular Design Rules form framework for development process	Implementation of the guidelines in research & development; ARTELEA developed according to the Circular Design Rules	●	8, 12	147
		Circularity in the procurement of materials	Procurement processes aligned with circularity; recycling proportion of materials used determined; conspicuous ingredients identified and removed	●	8, 12	145 -146
		Establishment of closed-loop systems	Concept and target definition for the cycles Maintenance & Upgrade, Reuse & Remanufacturing and High Value Recycling	●	8, 12	146 - 147
		Cradle-to-Cradle certified products	Tridonic LED modules of the LLE, QLE and CLE product groups (bronze - certification standard 3.1); Zumtobel Lighting with the ARTELEA free-standing luminaire (bronze - certification standard 4.0)	●	12	148
<b>Product use</b>						
		Customer satisfaction (Material topic)			12, 13	
		Conduct customer satisfaction survey	800 customer responses on positive experiences and suggestions for improvement	●	7, 9, 11, 12, 13	153 -154

Status of measures, activities, results

- Completed
- In progress
- Not implemented

<sup>1</sup> Takes into account the company's topics that are material for reporting and topics that are relevant to reporting





## Sustainability roadmap

The roadmap was prepared for the climate neutrality, partner of choice and circular economy focal points and translated into a working programme with voluntary commitments. These commitments are related to the material issues connected with the above-mentioned

three focal points and are underscored with measures and activities. They cover the full range of environmental, social and governance aspects.

This roadmap serves as a guideline for the continuous improvement in the sustainability performance of the Zumtobel Group.

Focal points	Material topic <sup>1</sup>	Commitment	Measures, activities	Status	SD	ESG	Goal
<b>Climate Neutrality &amp; Net Zero</b>							
		Climate change mitigation			EP	E	
		Achieve climate neutrality (Scope 1 & Scope 2) by 2025	Concept for avoidance and reduction of remaining emissions at all major locations (focus on heat generation and coating)	Corresponding proposals were developed by the main sites			2023
			Development of a compensation strategy for residual emissions				2024
			Implementation of concept and compensation strategy as well as independent validation of the achievement of climate neutrality				2025
		Climate neutrality & Net-Zero (Scope 1 to Scope 3)	Capture of emissions along the entire value chain	Emissions fully captured and mapped in the report			2023
			Prepare net-zero reduction plan in accordance with the Paris Climate Agreement	Active SBTi membership since April 2023			2025
		Energy & Renewable Energy			EP	E	
		Increasing the share of renewable energy	Concept to increase the share of renewable energy (e.g. solar, wind, biomass)	Three locations converted to district heating; feasibility study prepared for photovoltaic plant in Niš			2023
<b>Partner of choice</b>							
		Occupational Safety, Health & Wellbeing			E	S	
		Promoting employee health & wellbeing	Certification of all major European sites according to ISO 45001				2024
			Prepare overall concept for health management and implement key elements at the major European locations				2024
			Develop programme to record and identify main causes and duration of lost working days				2024
		Education & Training			E	S	
		360° feedback tool	Roll out the feedback tool within the Zumtobel Group				2024



Focal points	Material topic <sup>1</sup>	Commitment	Measures, activities	Status	SD	ESG	Goal
	Education & Training				E	S	
		Trainee programmes	Implement trainee concept in four corporate divisions				2024
	Employee satisfaction				E	S	
		Conduct an employee survey	Communicate departmental results to employees through managers; team workshops to derive measures				2024
	Human rights				E	S	
		Policy/Guideline	Creation and roll-out of a Human Rights Policy				2024
	Product quality & -safety				E	S	
		Fulfilment of the highest product safety standards	Planning for future standards through committee work and innovative hard- and software development in own laboratories	Simulation software (thermal calculation, FEA, Moldflow) for linking with risk analyses			2023
			Screening of new requirements for measurements and tests from the circular economy topic (refurbishment, remanufacturing)				2025
	Customer satisfaction				PU	S	
		Monitoring and improving customer satisfaction	Conduct regular brand equity monitoring	2,500 feedbacks on loyalty, brand perception, performance and sustainability			2023
			Programme for continuous improvement of customer satisfaction	Conduct workshops to improve and further develop customer satisfaction			2023
	Environmental & social standards in the supply chain				P	E, S	
		Independent validation of commitment to sustainable procurement	Validate sustainability performance (e.g. using EcoVadis, RMI)	Discussions with suppliers are currently being finalised			2024
		Expand evaluation of suppliers according to social criteria	Further develop sustainability questionnaire based on expected EU due diligence regulation				2025
		Encourage suppliers to conduct independent audits and assessments	Inquiry/survey on ISO 45001 with TOP suppliers	Supplier questionnaire takes into account the query of ISO certifications and SBTi			2023



Focal points	Material topic <sup>1</sup>	Commitment	Measures, activities	Status	SD	ESG	Goal
<b>Circular economy</b>							
		Resources inflows, including resource use			P	E	
		Use of materials for the circular economy	Continuous increase of the recycled material content in products	Recyclate content in all new product developments is increased to 50%			2028
			Continuous increase of recyclable material content in products	70% recyclable materials are used in product portfolios			2023
			Packaging material is fully recyclable (components)				2024
			Management and integration of environmental data (e.g. CO <sub>2</sub> , recycled content)				2025
		Resource use, Circularity support, product design, packaging			PR	E	
		Developing products for the circular economy	Systematic implementation of Design for Disassembly for simplified reparability and upgradeability of products	Design for Disassembly is taken into account in the development process of new products			2023
			Development of refurbishment kits				2025
			Remanufacturing option for 10% of the product families (Lighting Brands)	The ARTELEA family of free-standing luminaires is offered with a remanufacturing option			2030
			All premium products are Cradle to Cradle certified (Components)	LED modules of the LLE, QLE and CLE product groups in Niš - Bronze			2030
		Establishing circular systems	Implement projects for circular economy systems: maintenance & upgrade, remanufacturing, high-value recycling	Partnerships and lighthouse projects			2025
			Establishment of infrastructure for high-value recycling				2028
		Sustainable products & applications			PR	E	
		Expanding the availability of environmental product declarations	Target for availability of EPDs in number, % per product family, % of all products and new products	In order to be able to provide customers with EPDs at short notice, EPDs for a representative selection of products are prepared at the product launch			2023

SD – Specialist departments: C – Compliance, P– Purchasing, E – Employer, EP – Environmental protection, PR – Product responsibility, PU – Product use



## Initiatives, ratings & social engagement

### UN Sustainable Development Goals

At the World Summit for Sustainable Development in New York during September 2015, the United Nations General Assembly adopted 17 goals with 169 subgoals. First and foremost, the 193 member states are required to meet these goals. Responsible companies are also expected to contribute to reaching the SDGs.

The Zumtobel Group actively supports the UN Sustainable Development Goals, but it is clear that not all of the 17 SDG goals are equally relevant for the company. Certain goals are focused more on governmental activities, e.g. state development assistance, while the Zumtobel Group, as a production and manufacturing company, can only make a limited contribution to other goals, e.g. to ending poverty or hunger.

There is, however, a clear connection between many of the goals and our business activities. They include, for example, decent work and economic growth, responsible consumption and production, and climate action.

In view of the knowledge that the Zumtobel Group will make a positive contribution – direct or indirect – to all goals, it was necessary to create a sharper focus. The relevance of the 17 goals and 169 subgoals for the Zumtobel Group was reviewed, and a survey of the positive and negative effects on the relevant goals along the entire value chain was evaluated. The purpose was to strengthen the positive effects of our actions and minimise the negative effects.

The Zumtobel Group believes the following SDG goals are particularly relevant for its sustainable corporate activities and incorporates these goals in the implementation of activities and measures:

The following SDG goals have little relevance for the Zumtobel Group at the present time, which means they do not represent a focus of activities or measures to directly support these overriding goals: 1 No poverty, 2 Zero hunger, 10 Reduced inequalities, 14 Life below water, and 15 Life on land.

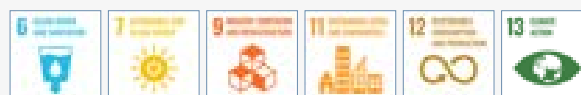
### SDG goals with a relevance for improving well-being (more internal effects)

SDG 3	Good health and well-being
SDG 4	Quality education
SDG 5	Gender equality
SDG 8	Decent work and economic growth
SDG 16	Peace, justice and strong institutions
SDG 17	Partnerships for the goals



### SDG goals with a relevance for resource security (more external effects)

SDG 6	Clean water and sanitation
SDG 7	Affordable and clean energy
SDG 9	Industry, innovation and infrastructure
SDG 11	Sustainable cities and communities
SDG 12	Responsible consumption and production
SDG 13	Climate action





- Renewal of the commitment to the UN Global Compact
- Active membership of IPC
- EcoVadis ranking improved from 71 to 77 points

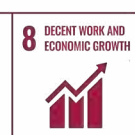
- Code of Conduct 2023 included Due diligence requirements
- 24 sales offices undergo self-assessment with the goal of fraud prevention

- Improving the average energy efficiency of all luminaires sold
- luminaires sold in 2022/23 is 2.7%
- 9 of 15 Scope 3 categories in the Sustainability Report
- Energy consumption reduced by 12.0%

- Transparency of ingredients per product group
- Continuous improvement reduces waste by 15.0%
- Recycling rate is 91.3%

- Representative selection of New products receive EPDs
- 800 customer feedbacks on positive experiences and suggestions for improvement

- Active number of 4,568 patents and 9,134 industrial property rights
- R&D expenses amount to 5.6% of turnover
- EU-wide research projects



- 5 additional sites ISO 45001 certified
- Pilot project for workplace health promotion in Austria
- Occupational accidents (LTI rate) reduced by half

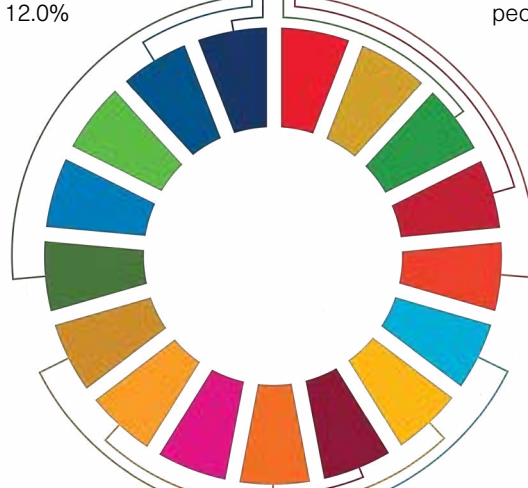
- Large group event with 60 managers (Leaders Summer Camp) to establish new leadership culture
- New training catalogue for employees
- Development of trainee concept

- Implementation of due diligence along the value chain
- Increasing the proportion of women in management positions
- Work development programme for people with disabilities

- Construction of short rinsing facilities in the sanitary area
- Water reduction in recooling systems
- Reducing water value controls
- Water change in the coating

- Share of renewable energy 59%
- Green electricity at all locations in Europe
- Feasibility study for the construction of a PV installation in Niš

- Updating of the materiality according to the requirements of the CSRD/ESRS
- Sustainability goals are part of the Bonus & Incentive Programme
- 82% Participation in employee survey







## UN Global Compact

In connection with its efforts on behalf of sustainability, the Zumtobel Group supports the principles of the world's largest initiative for corporate social responsibility (CSR) and sustainable development. The company joined the United Nations Global Compact in 2020 and thereby confirmed its intention to comply with the ten principles on human rights, labour standards, environmental protection and the fight against corruption. The Zumtobel Group and Tridonic are members of RespACT, Austria's leading corporate platform for responsible business activity and are also represented on the management board.

This commitment to responsible management was renewed in 2022/23 with our annual progress report (COP-Communication on Progress) based on the UN Global Compact and informs all relevant stakeholders of the activities and progress in implementing these ten principles. The current version of the progress report is available for download on the Zumtobel Group's sustainability website.

## klimaaktiv Pakt 2030 for Austria

klimaaktiv Pakt 2030, Austria's climate platform for large companies, was established in 2021 as the successor to the klimaaktiv Pakt 2020 and is one of the 50 most important CSR awards in this country. Under the professional guidance of klimaaktiv experts, 12 associated partners prepared individual climate protection concepts for the years up to 2030. As a klimaaktiv Pakt partner, the Zumtobel Group made a voluntary written commitment to reach the following climate protection goals by 2030:

Targets Zumtobel Group klimaaktiv Pakt 2030

## System limits for the klimaaktiv Pakt 2030

The Zumtobel Group's most energy-intensive locations in Austria were defined as system limits for the energy and greenhouse gas balance sheet prepared in accordance with the klimaaktiv Pakt. It currently covers three locations operated by Zumtobel Lighting GmbH (Schweizerstrasse 30), Tridonic GmbH & Co KG (Färbergasse 15) and Zumtobel Group AG/IT (Schmelzhütterstrasse 26a), which together are responsible for 85% of the energy consumption and over 80% of the employees in Austria. All building components and production processes at these locations are included – together with the related consumption, refrigerants and refilling quantities for refrigeration equipment as well as the fuel consumption for emergency aggregates and sprinklers.

The Zumtobel Group's CEO underscored this commitment to the klimaaktiv Pakt 2030 at the annual meeting on 18 October 2021 and, in doing so, set a strong signal for climate protection. Together with 11 other companies, the Zumtobel Group supports the goal to achieve a reduction of almost 57% in CO<sub>2</sub> emissions by the pact partners (basis: 2005) by 2030.

This agreement and inclusion in the klimaaktiv Pakt 2030 commit the company to submitting an annual report to the klimaaktiv Pakt office on the current status of target attainment. The reporting requirements are covered by the submission of annually updated monitoring documents (reporting form, monitoring data sheet and list of measures).

## Annual monitoring

Based on these values, the klimaaktiv Pakt office evaluates the annual target attainment and the implementation of planned measures and comments on the results. The

Area	Unit	Baseline 2015	Target Value 2030	Improvement 2030 in %
Greenhouse gas emissions	tons/a	5,032	2,516	50.0
Energy efficiency	Energy intensity	1	0.86	14.0
Share of renewable energy	in %	53.0	73.0	



Target achievement (June 2022 report)	Unit	Bas year 2015/16	Reporting year 2021/22	Savings in %	Target value 2030 in %
Greenhouse gas emissions (t CO <sub>2</sub> eq)	Tons/a	5,032	2,356	53.0	50.0
Improvement of energy efficiency	weighted index	100	86	14.0	14.0
<i>Energy efficiency Schweizerstraße</i>	<i>kWh/piece</i>	6.45	5.23	19.0	26.0
<i>Energy efficiency Schmelzhütterstrasse</i>	<i>kWh/m<sup>2</sup></i>	3,266	582	82	78
<i>Energy efficiency Tridonic</i>	<i>kWh/piece</i>	0.59	0.82	-39.0	-49.0
Share of renewable energy	in %	54.0	74.0		73.0

annual evaluation is intended to objectively review the current target attainment and implementation of measures and provide the Zumtobel Group with the best possible support in reaching the 2030 goals.

#### Comments by the expert committee

The Zumtobel Group focuses on specially defined activities and measures in the areas of energy savings & energy efficiency, construction & refurbishment, mobility, renewable energy carriers, renewable raw materials & resource efficiency as well as the creation of a greater awareness among employees and stakeholders.

The corporate goals defined in connection with the klimaaktiv Pakt were met ahead of schedule during the 2022/23 financial year. The klimaaktiv Pakt monitoring office congratulates the Zumtobel Group on this success and expects, in spite of this early target attainment, further successful results in support of the climate by 2030 through the implementation of planned measures.

# klimaaktiv



#### IPC – Association of Connecting Electronics Industries

The technology brand Tridonic relies, among others, on its membership in IPC – the Association Connecting Electronics Industries – to remain on the leading edge of new and changed norms and guidelines for product reliability and standardisation as well as the latest insight into innovative solutions in the electronics industry.

This platform is actively used as a source of information, above all on the requirements for the design and production of electronic components. It enables the fast processing of branch information and subsequent integration in corporate structures.

#### Sustainability performance in 2022/23 rated by EcoVadis

EcoVadis has grown to become the world's largest and most trusted provider of business sustainability ratings and created a global network of more than 100,000 rated companies.

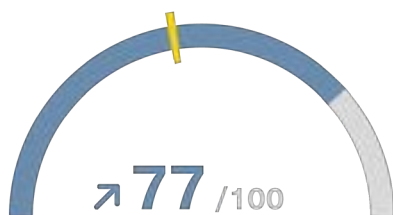
The EcoVadis methodology includes an assessment of the guidelines, measures and reports published by Zumtobel Group AG on the environment, labour and human rights, ethics and sustainable procurement.

The EcoVadis team consists of international experts who analyse sustainability and evaluate business data (support documentation, 360° watch findings etc.) to prepare a reliable rating that reflects the branch in

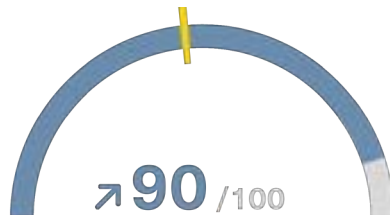


## Score & score by topic

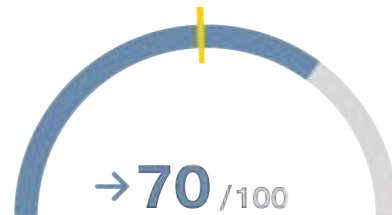
Zumtobel Group Total  
98th percentile rank



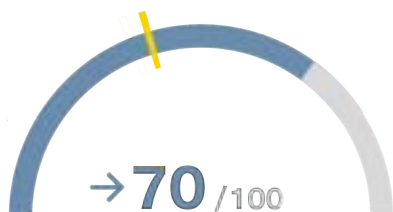
Environmental  
(best 1% of the branch)



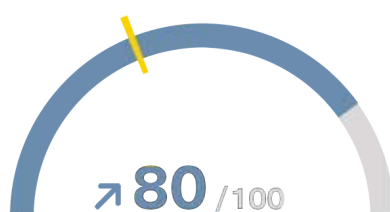
Labour & Human Rights  
(best 11% of the branch)



Ethics  
(best 7% of the branch)



Sustainable procurement  
(best 1% of the branch)



which Zumtobel Group AG operates as well as the company's size and geographical location.

This evidence-based rating between 0 and 100 points results in a scorecard that can be shared with other companies across the world.

### Continuous further development in the ranking

The Zumtobel Group improved from 71 points to 77 points in the 2022/23 rating and increased its percentile rank from 97 to 98. With these results, Zumtobel Group AG remains in the upper 1% of the companies rated by EcoVadis in the electrical lighting and luminaire branch.

This four-point improvement was realised primarily in the sustainable procurement category. Very close, coordinated and target-oriented cooperation as well as the continuous realisation of identified opportunities for improvement by the global procurement department brought an increase of 20 points in the sustainable procurement category. In this category, the Zumtobel Group ranks in the upper 1% (in 2021, the Zumtobel Group was in the upper 10%) of the companies rated by EcoVadis in the electrical lighting and luminaire branch.

Other EcoVadis ratings for Zumtobel Group AG based on branch comparison include the upper 1% in the category environment, the upper 7% in the category ethics, and the upper 11% in the category labour and human rights.



### Special comments by EcoVadis on the 2023 rating:

- No records for risk and compliance were found in the third-party provider database
- The company has an advanced management system as required for the category environment
- The company has an advanced management system as required for the category sustainable procurement

The goal for the 2023/24 financial year is to improve to 80 points in the category labour and human rights to further increase the company's point score.

### Social engagement

The international jury for 2021/22 presented the "Zumtobel Group Award – Innovations for Sustainability and Humanity in the Built Environment" to projects by the Lacol architects' cooperative from Barcelona, Spain, the initiative Black Women Build from Baltimore, USA, and the Circular Construction Lab at Cornell University in Ithaca, USA.

The Zumtobel Group Award supports future-oriented developments to improve the quality of life and the sustainability of the constructed environment.

A Zumtobel Group Award was not announced or presented in 2022/23. The next public tender for the award is planned for the 2024 calendar year.

### Participation in associations

The Zumtobel Group is active in industry associations, standardisation committees, lighting organisations and individual consortia to develop the best framework conditions for optimal energy efficiency and lighting quality for the lighting industry, its customers and users. In connection with the certification of energy-efficient buildings, the company is also a member of various initiatives for sustainable construction.

The most important memberships at the present time are as follows:

- Company Member in Lighting Europe
- ZVEI („Zentralverband Elektrotechnik- und Elektroindustrie e. V, Germany")
- Lighting Industry Association (LIA, Great Britain)
- Association for the Electrical and Electronics Industries (FEEI, Austria)
- European Committee for Standardisation (CEN)
- International Standards Organisation (ISO)
- International Electrotechnical Committee (IEC)
- International Commission on Illumination (CIE)
- Lux Europe
- various national lighting societies
- the German Sustainable Building Council (DGNB)
- Green Building Council
- The Consortium for international specifications of LED light sources interfaces (ZHAGA)
- Consortia on the subject of data exchange and communications technology (e.g. DALI Alliance, Thread, Zigbee, Bluetooth, Matter).



### Climate-relevant risks/opportunities & effects

The Zumtobel Group systematically analyses climate-related risks. A differentiation is made between two categories of risks: the physical risks resulting from the expected climate change and the transition risks resulting from the transformation to a low CO<sub>2</sub> economy.

### Physical risks

Potential future risks are evaluated within the context of taxonomy. They result from current potential risks





and from the RCP 4.5 and RCP 8.5 climate scenarios. Climate risks are evaluated at every location, previously implemented measures are reviewed and new measures are defined where necessary.

An inspection of the company's locations did not identify any notable risks at the time this report was prepared. Increased precipitation and rising temperatures are connected with low, potentially long-term physical risks, and appropriate measures were, and will be, implemented to address these risks. Potential effects, e.g. damage to assets, the interruption of procurement processes and production stops, have been taken into account. At all locations, procedures to manage climate and other risks were compiled in an emergency response plan.

The analysis of the climate scenarios shows an increase in the number of heat waves and potential dry periods as well as an increase in the number and intensity of extreme weather events. However, this does not result in any greater risks or need for short-term actions.

An assessment of the physical risks at all locations indicates that the Zumtobel Group is marginally affected by climate change.

### Transitional risks

Political and legal developments have led to an increase in reporting and disclosure requirements that has been accompanied by stricter legislation, e.g. on the reduction of emissions. These developments were proactively included in the context and impact analysis of the management system, and the related assessments were followed by the timely implementation of appropriate measures. Goals were formulated to reduce emissions, and significant measures were initiated and implemented to achieve climate neutrality.

We see a potential technological risk in the competitiveness of our products from a sustainability viewpoint. In order to counter this risk, our product development process includes tools like the lifecycle assessment and circular design rules. This provides our customers with sustainable and highly energy efficient products and services as well as product-related information like environmental product declarations.

Other potential risks result not only from market trends, but also from customer demands for environmentally friendly products and services and the inclusion of a company's sustainability performance in purchase decisions. In addition to expanding the offering of energy-efficient products and sustainable services, the Zumtobel Group follows a strategy that is designed to continuously develop and improve its sustainability performance along the entire value chain.

A company's reputation can be potentially damaged when products and services are not sustainable or are perceived as not sufficiently sustainable. Communication that is not credible and fact-based can lead to a loss of confidence. Consequently, the Zumtobel Group places high priority on fact-based communications over sustainability and environmental issues. The environmental impact of products is systematically documented by independent, validated environmental product declarations. The progress made by the Zumtobel Group in improving its sustainability performance is visible, for example, in the external EcoVadis rating.

In the transition to a low CO<sub>2</sub> economy, the potential risks are contrasted by substantial opportunities – and the Zumtobel Group is optimally positioned to utilise these opportunities.

### Environmental aspects at the Group level

The most important environmental aspects related to products and activities have been identified for all European production locations that are certified under ISO 14001. Other, unrelated conditions and predictable emergency situations are also included. The evaluation of opportunities and risks forms the basis for the development of measures to minimise the effects of the environmental factors.

The value-creating business processes and all downstream and upstream processes in the Zumtobel Group's environmental matrix were updated in 2022/23. The matrix was also modified to meet the requirements of the European Sustainability Reporting Standards.

This matrix is used to derive the most important direct environmental factors for the production locations, e.g. electrical current, CO<sub>2</sub> emissions, liquid and fossil fuels,



raw materials and packaging. The major processes with the greatest environmental impact are automated production (soldering processes, automated assembly), plastics processing, coating and metal processing.

The upstream processes with the greatest environmental impact are the transport of goods and travel by employees to and from work, whereby the environmental aspects related to fossil fuels and CO<sub>2</sub> emissions are significant. The procurement of raw materials and packaging also has a substantial, indirect effect on CO<sub>2</sub> emissions.

The main downstream processes involve the use of the sold products, whereby electricity is the significant environmental aspect here. The end-of-life handling of the products is another relevant factor, whereby the resulting waste is important.

Environmental conditions and their potential negative impact on the Zumtobel Group's production locations are identified and regularly examined as part of the context analysis in the environmental management systems. Current potential effects are considered, and steps are taken to reduce any adverse effects.

A climate risk and vulnerability assessment was carried out for all lighting and components plants in 2022/23 based on the requirements of the Taxonomy Regulation and the European Sustainability Reporting Standards. The analysis covered all potential environmental conditions that could affect the Zumtobel Group.

Moreover, the environmental conditions that could influence the Zumtobel Group in the future were evaluated based on two climate scenarios (representative concentration pathways 4.5 and 8.5; scenarios that outline long-term climate changes).

The climate risk and vulnerability assessment did not identify any significant risks for the lighting and component locations. All risks for the ISO 14001-certified locations are documented in a hazard prevention plan and appropriate measures to minimise this risk were defined and implemented.

### **Digitalisation (material topic)**

The Zumtobel Group sees digitalisation as the intelligent, data-driven connection between people and information along and above all processes. The related digital transformation involves the necessary cultural and technological conversion in the value chain of the Zumtobel Group: It is the only way the defined strategic goals can be reached.

Through digitalisation, the Zumtobel Group wants to increase ("optimise & scale") process and resource efficiency as well as effectiveness along the entire value chain. Digital products and services lead to new earnings and business models and contribute to sustainable corporate growth ("create").

### **Sustainable increase in the value of the company (material topic)**

For the Zumtobel Group, a sustainable increase in the value of the company stands for holistic entrepreneurial actions which, among others, require continuous adjustments to reflect the dynamic financial market environment.

The Zumtobel Group is included annually in various sustainability indexes (e.g. VöniX and MSCI). These index companies undergo regular, comprehensive audits to guarantee their sustainability performance.





Financial flows to stakeholders in EUR million	2018/19	2019/20	2020/21	2021/22	2022/23
Corporate revenues <sup>1</sup>	1,173.2	1,144.4	1,061.9	1,158.6	1,215.2
Operating expenses <sup>2</sup>	(723.1)	(666.8)	(594.3)	(675.9)	(695.1)
Personnel expenses	(399.2)	(375.3)	(357.4)	(365.5)	(387.7)
Payments to shareholders	(0.0)	(0.0)	(4.3)	(8.6)	(15.1)
Payments to providers of borrowed capital	(6.7)	(7.2)	(5.7)	(5.4)	(6.9)
Payments to public bodies <sup>3</sup>	(9.0)	(14.7)	(13.1)	(8.6)	(11.8)
<b>Residual economic value</b>	<b>35.1</b>	<b>80.4</b>	<b>87.1</b>	<b>94.6</b>	<b>98.5</b>

<sup>1</sup> Revenues and other operating income, interest income and cash inflows from the sale of assets.

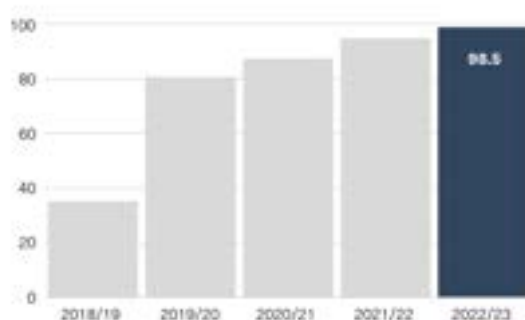
<sup>2</sup> Cost of goods sold, selling expenses, administrative expenses and other operating expenses (excluding personnel expenses and depreciation/amortisation).

<sup>3</sup> Excluding deferred taxes.

## Financial flows to stakeholders

The Zumtobel Group generated economic value of EUR 1,215.2 million in the 2022/2023 financial year. After the deduction of expenses and payments to providers of equity and debt and to governments, the residual economic value equals EUR 98.5 million. This presentation reflects the GRI definition and is based on financial flows derived from the income statement and cash flow statement.

Development of economic value in EUR million



## Financing & investments (material topic)

The greening of the economy creates significant opportunities for the investor stakeholder group. This is reflected in a key goal of the EU Action Plan on Sustainable Finance, which calls for the redirection of capital flows to sustainable investments. Against this backdrop, the EU Taxonomy Regulation took effect in mid-2020. It was conceived as a standardised and legally binding classification system to determine which economic activities in the EU are considered "ecologically sustainable".

At the same time, the share of sustainable financing in companies is increasing. Sustainable financing is no longer a fleeting trend, but plays an increasing role in corporate financing. Sustainability-linked loans, for example, focus on the company as a borrower and evaluate the development and improvement of the company's sustainability goals.

## Transparency & reporting (material topic)

Reliable criteria for environmental, social and governance (ESG criteria) are becoming more important for companies and their stakeholders. Development in this area is driven by new regulatory requirements and unified reporting standards (Corporate Sustainability Reporting Directive, European Sustainability Reporting Standards, Corporate Sustainability Due Diligence Directive), which are designed to improve both transparency and



comparability. Demands by customers and the capital market are growing continuously and, for example, the ESG profile of a company's equity and debt investments is receiving greater attention from the investor stakeholder group.

It is basically irrelevant whether the goal is to improve climate protection, strengthen sustainable production patterns across branches, or focus the entire economy on a circular economy model: Sustainability only works with proven transparency. Issues involving sustainability no longer concentrate only on transparent external reporting, but also cover the active inclusion of the issue in relevant corporate control processes. The financial and non-financial world of information collection and its transparent communication are growing closer together.

Transparency in both financial and non-financial aspects has, therefore, always been an essential factor for the Zumtobel Group to safeguard the trust in the company's sustainability performance. Transparency also gives a company the opportunity to set goals, even for critical ESG issues, and to strive for continuous improvement. The Zumtobel Group has committed to coordinating its sustainability performance in a specially established steering committee and to communicate its successes and required information transparently to stakeholders in accordance with the GRI 2021 reporting structure, option "comprehensive".

In this sustainability report, the Zumtobel Group presents and reflects on its sustainability strategy and performance. The focus here, above all, is on the impact of its own actions on people and the environment along the entire value chain and on the design of corporate responsibility. Keeping pace with the times also means being successful in competition. This is more demanding than ever today because companies think economically as well as ethically and no longer have a responsibility for their customers but also for the world in which these customers live.

## **Disclosure pursuant to Article 8 of Regulation (EU) 2020/852 – Taxonomy Regulation**

The Taxonomy Regulation forms the basis for the EU Taxonomy by defining three conditions which must be met to classify an economic activity as sustainable.

a) An economic activity contributes substantially to at least one of the two climate goals (climate change mitigation, climate change adaptation). In the future, a substantial contribution must be made to at least one of the six environmental objectives defined in Art. 9 (EU) 2020/852 and the technical screening criteria must also be met:

- Climate change mitigation
- Climate change adaptation
- Sustainable use and protection of water and marine resources
- Transition to a circular economy
- Pollution prevention and control
- Protection and restoration of biodiversity and ecosystems

b) A business activity is only qualified as sustainable when it makes a substantial contribution to at least at least one environmental objective but, at the same time, does not significantly harm any of the other objectives ("do no significant harm", DNSH).

To qualify as sustainable, a business activity must meet minimum social objectives (Minimum Social Safeguards, MSS).

Based on this regulation, the EU Commission issued two delegated acts to define the technical screening criteria and publication methodology.

In the 2022/23 financial year, data were collected for the first time on the environmental objectives "climate change mitigation" and "climate change adaptation" in addition to the taxonomy eligibility and taxonomy alignment of revenues, capital expenditure (CapEx) and the proportional share of operating expenses (OpEx).



The Zumtobel Group created a project team for this purpose which includes members from corporate accounting & tax, Group sustainability, controlling lighting brands, Tridonic controlling and global quality. In a first step, the business activities were individually evaluated and the respective criteria were analysed with the IT tools established by the EU Commission ("Taxonomy Compass").

Based on this analysis, taxonomy eligibility was then analysed at the Group level.

Business activities connected with the Zumtobel Group's value creation process were identified as including activities directly related to revenues generated

by the Zumtobel Group or activities involving individual CapEx or OpEx measures.

### Overview of the identified taxonomy eligible business activities

The following table is designed to provide an overview over the identified business activities whose description reflects the EU Regulation and its interpretation by the Zumtobel Group. The interpretation was based on currently available information.

Business activity as per Regulation	Description of business activity as per Regulation	Interpretation and basis for taxonomy eligibility
3.5 Production of energy-efficient building equipment	(g) Production of light sources	Light sources in the sense of the Regulation include the LED modules as well as the luminaires and related equipment (tracks, mountings etc.) produced by the Zumtobel Group. Also included here are the luminaires produced by third parties on behalf of the Zumtobel Group which are marketed under a Zumtobel Group brand.
	(j) Presence detection and daylight controls for lighting systems	Presence detection and daylight controls for lighting systems include sensors together with hardware and software for light management systems.
	(m) Energy-efficient systems for building automation and controls for residential and non-residential buildings	This category includes LED ballasts which regulate the current flow between the electricity network and the LED light source. Emergency lighting is also classified as 3.5 (m) because it represents an exception to the regulations for energy labelling defined by Annex IV of the delegated regulation (EU) 2019/2015.
6.4 Operation of technical devices for personal mobility, bicycle traffic logistics	Sale, purchase, finance leasing, rental and operation of technical devices for personal mobility or personal transportation which are driven by the user's muscle power, an emission-free motor or a combination of emission-free motor and muscle power	Bicycles purchased as job bikes and general e-bicycles are assigned to this category.





Business activity as per Regulation	Description of business activity as per Regulation	Interpretation and basis for taxonomy eligibility
6.5 Transportation via motorcycle, passenger car and light utility vehicle	Purchase, financing, rental, leasing and operation of vehicles classified as M1 (232) or N1 (233), which both fall under the scope of application of Regulation (EC) Nr. 715/2007 of the European Parliament and the Council (234), or L (two- and three-wheel as well as four-wheel vehicles) (235)	Neither motorcycles nor light utility vehicles are in use. This category includes leased automobiles whose maintenance is the responsibility of the leasing company.
7.3 Installation, maintenance and repair of energy-efficient equipment	(d) Installation and exchange for more energy-efficient lighting sources	Installation and exchange for more energy-efficient lighting sources is understood to cover electrical installations as well as the inspection and maintenance of luminaires.
7.4 Installation, maintenance and repair of charging stations for electric vehicles in buildings (and on the related parking areas)		In particular, charging equipment for climate friendly autos was assigned to this position.
7.5 Installation, maintenance and repair of equipment for the measurement, regulation and control of the total energy efficiency of buildings	(a) Movement and daylight controls	The corresponding digital services of the Zumtobel Group were included here..
	(b) Lighting controls and energy management systems	The corresponding digital services of the Zumtobel Group were included here.
7.7 Purchase of real estate and the exercise of ownership of this real estate		This covers, above all, the Zumtobel Group's leasing expenses for buildings.
8.1 Storage, processing, administration, movement, control, display, relay, exchange, transmission or receipt of a variety of data via computing centres		The internal computing centre was included here.

### Review of taxonomy alignment

An internal platform was installed to support knowledge building. It contains all information materials, links to the related legal frameworks as well as documents and training videos on the EU Taxonomy and individual business activities. The examination and verification process included a particular focus on verifiability and

the dual control principle for data analysis. The developed approach was simulated in a pilot projects with semi-annual data from the largest companies in the Zumtobel Group.

Global quality and Group sustainability were responsible for the examination and documentation of results from the climate risk and vulnerability analysis and the



minimum safeguard criteria, whereby all requirements were met in full by the listed business activities. Physical climate risks were evaluated according to a risks analysis of all plant locations, including a materiality analysis, and the identification of approaches to reduce the risk potential.

The following guiding principle were met in full: the OECD guidelines for multinational companies, the UN Guiding Principles on Business and Human Rights including the eight fundamental conventions of the Declaration by the International Labour Organisation (ILO) on Fundamental Principles and Rights at Work, and the International Human Rights Charter.

The definitions used by the EU Taxonomy and the related delegated acts permit different interpretations as seen from the Zumtobel Group's point of view, and the interpretation of certain business activities as of the reporting date did not identify any "prevailing theory". In a limited number of cases, third parties were unable to provide proof for conformity of the business activity and the related position was therefore classified as not taxonomy aligned (e.g. the tyre configuration of the electric vehicles or external computing centres). Contacts to other stakeholders in the lighting industry was, and still is, sought to standardise reporting and to improve its scope and comparability.

### Changes versus the previous year

In comparison with reporting on the 2021/22 financial year, the reporting approach was further refined and expanded in 2022/23. Examples include the identification of new business activities in addition to 3.5 (see the table) and a deduction is no longer made for minor revenues of 3%, while the calculation method for capital expenditure (CapEx) remained largely unchanged. Operating expenditures (OpEx) are now exactly classified according to the definition in the EU Taxonomy.

### Key performance indicators (KPIs)

A specific approach was developed to analyse the taxonomy aligned share of the KPIs for revenues, capital expenditure (CapEx) and operating expenditures (OpEx)

as a component of the respective business activity.

### Revenues (see note 2.6.4.1 Revenues)

Taxonomy eligible revenues include revenues from the sale, installation and repair of luminaires and from the sale, installation and repair of LED modules, ballasts, hardware and software for light management systems. These revenues are allocated to business activities 3.5 (g) (j) (m) and 7.3 (d) and 7.5 (a) (b). The quantitative distribution of revenues to the various business activities can be found on the notification form. Our evaluation of revenues is based on the consolidated Group amounts, whereby a breakdown is provided in the notes to the consolidated financial statements.

Taxonomy aligned revenues represent the share of revenues that meet the technical screening criteria.

The technical screening criteria for business activity 3.5 (g) define lighting sources as taxonomy aligned when they are classified in the two highest energy efficiency categories under Regulation (EU) 2017/1369 of the European Parliament and of the Council on Energy Labelling and delegated acts issued on the basis of this Regulation. The European Product Registry for Energy Labelling (EPREL) lists energy efficiency classes A and B as having the highest energy efficiency for lighting sources. Therefore, only luminaires in energy efficiency class A or B are recorded as taxonomy aligned. Emergency lighting does not carry an energy efficiency class under the EU Regulation and, consequently, there is no technical screening criterion here.

### CapEx

Taxonomy eligible capital expenditures represent the additions to tangible assets, assets under construction and intangible assets (incl. IFRS 16 rights of use as described in the IFRS consolidated financial statements) (see note 2.6.6.2 Other intangible assets and note 2.6.6.3 Property, plant and equipment). Capital expenditures are allocated to business activities 3.5, 6.4, 6.5, 7.3 to 7.7 and 8.1. Our evaluation of CapEx is based on the consolidated Group amounts.



in TEUR	Additions to tangible assets	Internally produced and purchased in- tangible assets	Rights of use to assets	Total	Thereof a part of a business combination	Thereof part of a CapEx plan
3.5	14,093	6,854	0	20,947	0	11,517
6.4	827	0	0	827	0	0
7.3	159	0	0	159	0	0
7.4	53	0	0	53	0	0
7.5	46	0	0	46	0	0
7.6	16	0	0	16	0	0

Taxonomy eligible CapEx includes the investments in category (a) (b) or (c) of the delegated act to Art. 8 1.1.2.2. Examples are:

- Investments in machinery and tools for the production of energy-efficient luminaires or LED components
- Investments in the development of products for energy-efficient luminaires or LED components as well as hardware and software for light management systems

Taxonomy aligned CapEx are determined according to the same procedure applied to revenues, i.e. taxonomy conformity results from compliance with the technical screening criteria.

In 2022/23, a CapEx plan was prepared and approved for the development of a product family that is particularly energy efficient (Energy Efficiency Class A or B), contributes to climate protection, and whose development will cover several years up to 2025/26. The related taxonomy eligible capital expenditures are reported as 100% taxonomy aligned.

## OpEx

OpEx covers all direct, non-capitalised costs for research and development, building refurbishment measures, maintenance and short-term leases. The evaluation of OpEx is based on the consolidated Group amounts.

Taxonomy eligible OpEx are operating expenses classified under category (a) or (c) of the delegated act to Art. 8.1.1.3.2. Examples are:

- Directly allocated operating expenses for taxonomy eligible business activities (production of energy-efficient luminaires etc.)
- Proportional share of OpEx for taxonomy eligible projects in research
- Taxonomy eligible OpEx are assigned to business activities 3.5 and 7.3.
- Taxonomy aligned OpEx are determined according to the same procedure

in TEUR	Tools and machinery for internally produced products	R&D activities for internally produced products	Total
3.5	2,598	737	3,335



## Overview

Revenues	2022/23		2021/22	
	in TEUR	in %	in TEUR	in %
Absolute revenues	1,209,200	100	1,148,317	100
thereof taxonomy eligible	1,201,135	99	1,113,867	97
thereof taxonomy aligned	304,137	25		

CAPEX	2022/23		2021/22	
	in TEUR	in %	in TEUR	in %
Absolute capital expenditures	69,409	100	54,093	100
thereof taxonomy eligible	59,888	86	41,048	76
thereof taxonomy aligned	22,048	32		

OPEX	2022/23		2021/22	
	in TEUR	in %	in TEUR	in %
Absolute operating expenditures	36,630	100	34,030	100
thereof taxonomy eligible	22,966	63	7,618	22
thereof taxonomy aligned	3,335	9		



## Turnover

	Substantial Contribution criteria								
	Code	Absolute turnover	Proportion of turnover	Climate Change Mitigation	Climate Change Adaptation	Water marine resources	Circular Economy	Pollution	Biodiversity and ecosystems
Economic activities		TEUR	in %	in %	in %	in %	in %	in %	in %

### A. TAXONOMY-ELIGIBLE ACTIVITIES

A.1 Environmental sustainable activities (Taxonomy-aligned)									
Manufacture of energy efficiency equipment for buildings	3.5	304,083	25	100	0	n/a	n/a	n/a	n/a
Installation, maintenance and repair of energy efficiency equipment	7.3	54	0	100	0	n/a	n/a	n/a	n/a
<b>Turnover of environmental sustainable activities (Taxonomy-aligned) (A.1.)</b>		<b>304,137</b>	<b>25</b>						
A.2 Taxonomy-eligible but not environmental sustainable activities (not Taxonomy-aligned activities)									
Manufacture of energy efficiency equipment for buildings	3.5	872,149	72						
Installation, maintenance and repair of energy efficiency equipment	7.3	24,849	2						
<b>Turnover of Taxonomy-eligible but not environmental sustainable activities (not Taxonomy-aligned activities) (A.2.)</b>		<b>896,998</b>	<b>74</b>						
<b>Total (A.1 + A.2)</b>		<b>1,201,135</b>	<b>99</b>						

### B. TAXONOMY-NON-ELIGIBLE ACTIVITIES

<b>Turnover of Taxonomy-non-eligible activities (B)</b>		<b>8,065</b>	<b>1</b>						
<b>Total (A + B)</b>		<b>1,209,200</b>	<b>100</b>						





DNSH criteria („Does Not Significantly Harm“)										
Climate Change Mitigation	Climate Change Adaptation	Water marine resources	Circular Economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of turnover, fiscal year 2022/23	Taxonomy-aligned proportion of turnover, fiscal year 2021/22	Category (enabling activity)	Category (transitional activity)
Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	in %	in %	E	T

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Y	Y	Y	Y	Y	Y	Y	25	n/a		
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Y	Y	Y	Y	Y	Y	Y	0	n/a		
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							<b>25</b>	<b>n/a</b>		
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							<b>25</b>	<b>n/a</b>		
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## CapEx (Capital Expenditure)

Economic activities	Code	Absolute CapEx	Proportion of CapEx	Substantial Contribution criteria					
				Climate Change Mitigation	Climate Change Adaptation	Water marine resources	Circular Economy	Pollution	Biodiversity and ecosystems
		TEUR	in %	in %	in %	in %	in %	in %	in %
<b>A. TAXONOMY-ELIGIBLE ACTIVITIES</b>									
<b>A.1 Environmental sustainable activities (Taxonomy aligned)</b>									
Manufacture of energy efficiency equipment for buildings	3.5	20,947	30	100	0	n/a	n/a	n/a	n/a
Operation of personal mobility devices, cycle logistics	6.4	827	1	100	0	n/a	n/a	n/a	n/a
Transport by motorbikes, passenger cars and light commercial vehicles	6.5	0	0	100	0	n/a	n/a	n/a	n/a
Installation, maintenance and repair of energy efficiency equipment	7.3	159	0	100	0	n/a	n/a	n/a	n/a
Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)	7.4	53	0	100	0	n/a	n/a	n/a	n/a
Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings	7.5	46	0	100	0	n/a	n/a	n/a	n/a
Installation, maintenance and repair of renewable energy technologies	7.6	16	0	100	0	n/a	n/a	n/a	n/a
Acquisition and ownership of buildings	7.7	0	0	100	0	n/a	n/a	n/a	n/a
Data processing, hosting and related activities	8.1	0	0	100	0	n/a	n/a	n/a	n/a
<b>CapEx of environmental sustainable activities (Taxonomy-aligned) (A.1.)</b>		<b>22,048</b>	<b>32</b>						
<b>A.2 Taxonomy-eligible but not environmental sustainable activities (not Taxonomy-aligned activities)</b>									
Manufacture of energy efficiency equipment for buildings	3.5	16,227	23						
Operation of personal mobility devices, cycle logistics	6.4	0	0						
Transport by motorbikes, passenger cars and light commercial vehicles	6.5	6,183	9						
Installation, maintenance and repair of energy efficiency equipment	7.3	2,256	3						
Installation, maintenance and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings)	7.4	0	0						
Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings	7.5	94	0						
Installation, maintenance and repair of renewable energy technologies	7.6	0	0						
Acquisition and ownership of buildings	7.7	7,314	11						
Data processing, hosting and related activities	8.1	5,765	8						
<b>CapEx of Taxonomy-eligible but not environmental sustainable activities (not Taxonomy-aligned activities) (A.2.)</b>		<b>37,840</b>	<b>55</b>						
<b>Total (A.1 + A.2)</b>		<b>59,888</b>	<b>86</b>						
<b>B. TAXONOMY-NON-ELIGIBLE ACTIVITIES</b>									
<b>CapEx of Taxonomy-non-eligible activities (B)</b>		<b>9,521</b>	<b>14</b>						
<b>Total (A + B)</b>		<b>69,409</b>	<b>100</b>						



DNSH criteria („Does Not Significantly Harm“)										
Climate Change Mitigation	Climate Change Adaptation	Water marine resources	Circular Economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of CapEX, fiscal year 2022/23	Taxonomy-aligned proportion of CapEX, fiscal year 2021/22	Category (enabling activity)	Category (transitional activity)
Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	in %	in %	E	T
Y	Y	Y	Y	Y	Y	Y	30	n/a		
Y	Y	Y	Y	Y	Y	Y	1	n/a		
Y	Y	Y	Y	Y	Y	Y	0	n/a		
Y	Y	Y	Y	Y	Y	Y	0	n/a		
Y	Y	Y	Y	Y	Y	Y	0	n/a		
Y	Y	Y	Y	Y	Y	Y	0	n/a		
Y	Y	Y	Y	Y	Y	Y	0	n/a		
Y	Y	Y	Y	Y	Y	Y	0	n/a		
Y	Y	Y	Y	Y	Y	Y	0	n/a		
							<b>32</b>	<b>n/a</b>		
							<b>32</b>	<b>n/a</b>		



## OpEx (Operating Expenditure)

Economic activities	Code	Absolute OpEx	Proportion of OpEx	Substantial Contribution criteria					
				Climate Change Mitigation	Climate Change Adaptation	Water marine resources	Circular Economy	Pollution	Biodiversity and ecosystems
		TEUR	in %	in %	in %	in %	in %	in %	in %

<b>A. TAXONOMY-ELIGIBLE ACTIVITIES</b>									
<b>A.1 Environmental sustainable activities (Taxonomy aligned)</b>									
Manufacture of energy efficiency equipment for buildings	3.5	3,335	9	100	0	n/a	n/a	n/a	n/a
Installation, maintenance and repair of energy efficiency equipment	7.3	0	0	100	0	n/a	n/a	n/a	n/a
<b>OpEx of environmental sustainable activities (Taxonomy-aligned) (A.1.)</b>		<b>3,335</b>	<b>9</b>						
<b>A.2. Taxonomy-eligible but not environmental sustainable activities (not Taxonomy-aligned activities)</b>									
Manufacture of energy efficiency equipment for buildings	3.5	19,461	53						
Installation, maintenance and repair of energy efficiency equipment	7.3	169	0						
<b>OpEx of Taxonomy-eligible but not environmental sustainable activities (not Taxonomy-aligned activities) (A.2.)</b>		<b>19,630</b>	<b>54</b>						
<b>Total (A.1 + A.2)</b>		<b>22,966</b>	<b>63</b>						
<b>B. TAXONOMY-NON-ELIGIBLE ACTIVITIES</b>									
<b>OpEx of Taxonomy-non-eligible activities (B)</b>		<b>13,664</b>	<b>37</b>						
<b>Total (A + B)</b>		<b>36,630</b>	<b>100</b>						



DNSH criteria („Does Not Significantly Harm“)										
Climate Change Mitigation	Climate Change Adaptation	Water marine resources	Circular Economy	Pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of OpEX, fiscal year 2022/23	Taxonomy-aligned proportion of OpEX, fiscal year 2021/22	Category (enabling activity)	Category (transitional activity)
Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	in %	in %	E	T

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Y	Y	Y	Y	Y	Y	Y	9	n/a		
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Y	Y	Y	Y	Y	Y	Y	0	n/a		
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							<b>9</b>	<b>n/a</b>		
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							<b>9</b>	<b>n/a</b>		
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# COMPLIANCE

## **WE WANT TO WORK WITH PEOPLE WHOSE BEHAVIOUR IS IN LINE WITH OUR CORPORATE ETHICS AND DUE DILIGENCE.**

Our Code of Conduct covers due diligence along the value chain and was introduced in a process together with our internal specialist departments. On our MyCampus learning platform, all new employees must complete our online Compliance & Data Protection training. With the Zumtobel Group's whistleblower system, we offer all stakeholders along the value chain a secure reporting and communication system for breaches of environmental, compliance and due diligence issues.

## **WHAT STILL LIES AHEAD**

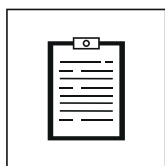
Demanding, promoting and further developing our business partners with regard to human rights and environmental aspects. Furthermore, the transition from the German Supply Chain Due Diligence Act to the European Due Diligence Directive with extended due diligence as well as the group-wide training of the correspondingly extended Code of Conduct.

## **TARGETS 2023/24**

- Adaptation of the requirements from the CSDD
- Group-wide training on the CoC 2023
- Training of employee representatives on data protection



# COMPLIANCE



*„IN MY UNDERSTANDING, CORPORATE GOVERNANCE IS THE LEGAL AND FACTUAL REGULATORY FRAMEWORK FOR RESPONSIBLE MANAGEMENT AND SUPERVISION OF THE COMPANY. COMPLIANCE IS ONE ELEMENT OF THIS FRAMEWORK, WITH THE OVERARCHING GOAL OF PROTECTING THE COMPANY AND ITS STAKEHOLDERS FROM HARM.“*

Stephan Hempel, Senior Director Corporate Audit & Compliance

## Management approach & due diligence processes

The Zumtobel Group has installed an extensive and responsible compliance management system which is administered by the audit and compliance organisation. For the Zumtobel Group, responsibility means ethical actions, the disclosure of necessary information, the transparent co-design of framework conditions, and the acceptance of responsibility for activities.

Corporate audit and compliance is a staff department which reports directly to the Audit Committee of the Supervisory Board and to the full Management Board. This ensures the department's independence within the organisation.

The responsibilities of the corporate audit and compliance department include all precautionary measures to prevent violations and criminal acts. Compliance does not cover the identification or prosecution of criminal acts and violations.

Together with the responsible corporate governance and compliance organisation, the Zumtobel Group coordinates the comprehensive management and monitoring of all business activities. The framework for the design of the corporate governance system is provided by the Austrian Corporate Governance Code in its latest version. This code has been implemented in the Zumtobel Group through the corporate values, the recently revised code of conduct for the Zumtobel Group and the code of conduct for business partners, various corporate guidelines, and the Group-wide whistle-blower system.

As a listed international company, the Zumtobel Group is committed to transparent and conscientious management and contributes to the continuous improvement of systematic corporate controls.

The exchange of information with the Audit Committee was regular and ongoing during the reporting year. This Supervisory Board subcommittee guarantees the necessary independence of corporate governance and compliance.

## Influence of the Covid-19 pandemic

The restrictions caused by the-19 pandemic at the beginning of the reporting year and subsequent energy savings measures led to a renewed focus on remote work. This development has also been reflected in the greater acceptance of online training programmes. The growing interest in training on governance and compliance subjects also led to the expansion of the related offering.

## Compliance & ethics (material topic)

### Continuous review and evaluation of risks

The audit plan for 2022/23 was approved by the Audit Committee and executed during the past financial year. The required resources were available, and the audits were assigned to the responsible staff members.

Audit activities in 2022/23 focused primarily on legal entities, in particular sales companies. International audits concentrated on the introduction and implementation of the internal control system (ICS) as one of the focal points.

At the request of corporate compliance, the audit department carried out a survey (fraud awareness check) to identify and evaluate fraud risks in the Zumtobel Group.



The compliance charter of the Zumtobel Group (GP 219) defines compliance as the observance of legal regulations, norms and internal rules of conduct. Compliance risk, consequently, is the risk arising from failure to comply, for example, with the following points:

- Applicable laws

which include, among others:

- Legal/regulatory risk
- Fraud risk
- Money laundering risk
- Reputation risk
- Financial risks

Corporate compliance is also responsible for identifying, evaluating, monitoring and reporting on the compliance risks to which Zumtobel Group is exposed.

The fraud awareness check covered corporate functions as well as the decentralised sales units, finance and operations in 2022/23. A total of 115 key employees took part. The analysis was prepared and documented by the audit department and submitted to corporate compliance and the Management Board of the Zumtobel Group in December 2022. The identified risks were mapped in the Zumtobel Group's compliance management system and preventive measures were implemented through guidelines, work instructions and training to minimise these risks.

Eighty per cent of the Zumtobel Group's policies have been revised and recorded in the internal communications network. The ongoing revision of the remaining 20% is managed by the respective departments.

### Code of conduct

*„GUIDELINES FOR BEHAVIOUR ARE A SOURCE OF ORIENTATION FOR OUR EMPLOYEES.“*

In its code of conduct, the Zumtobel Group defines basic guidelines and procedures. These requirements represent general standards for behaviour in social, legal and ethical matters. They provide the members of the Management Board, management and company employees with a binding orientation and regulatory

framework for their interaction with each other and with external persons.

Based on the widespread introduction and training on the code of conduct in 2021 (95% of all salaried employees have completed this training), a revised version was prepared in 2022/23. The introduction of the revised code of conduct is supported by training courses with mandatory participation.

The current version of the code of conduct includes supply chain due diligence requirements as well as a commitment to observe and implement all requirements of the Austrian Act on Corporate Due Diligence in Supply Chains (“Lieferkettensorgfaltspflichtengesetz”).

The process for the introduction and related obligations was prepared together with internal specialist departments and specified in the code of conduct for business partners of the Zumtobel Group.

The code of conduct for business partners is designed to ensure that due diligence principles and rules are applied and shared across the entire value chain, above and beyond the own organisation.

The code of conduct for business partners is an integral part of all contracts between the Zumtobel Group (with all its business units) and its business partners. The Zumtobel Group expects its business partners and their employees to acknowledge and observe the due diligence principles and rules included in the code of conduct, and to share these principles and rules with their direct business partners and employees.

### Contents of the code of conduct

#### Basic behavioural requirements

- Individual responsibility
- Management and management behaviour
- Behaviour in conflict situations
- Compliance with legal regulations
- Respect and fairness



#### Due diligence requirements along the entire value chain

- Compliance with due diligence requirements
- Discrimination and working conditions
- Child labour
- Forced labour
- Freedom of association
- Right to collective negotiations
- Occupational safety and health
- Sustainability and the environment

#### Interaction with business partners and third parties

- Prohibition of corruption, acceptance of gifts
- Donations and sponsoring
- Fight against money laundering
- Export controls
- Business relations with suppliers
- Fair competition

#### Avoidance of conflicts of interest

##### Handling of information

- Prohibition of insider trading
- Commitment to data protection and security
- Protection of trade secrets – confidentiality obligations
- Information security
- Social media and external communications

##### Handling of company property

### Fight against corruption

*„WE ACCEPT CORRUPTION IN NO FORM AND REPORT ANY CORRUPT BEHAVIOUR BY THIRD PARTIES.“*

The management of the Zumtobel Group is convinced that sustainable business success in a competitive environment is only possible on the basis of legally compliant actions. Therefore, preventing corruption and violations of anti-trust law has high business relevance and is an important success factor for the expansion of market positions and the fulfilment of corporate goals. This conviction is reflected in the installation of a com-

pliance management system (CMS) by the Zumtobel Group.

The systematic, standardised risk analysis for compliance risks represents an important element of the CMS. Based on a relevance analysis, a compliance risk assessment will be carried out in a second step. The Management Board supports this process with a suitable compliance organisation as well as adequate and efficient software.

The corporate audit and compliance organisation also provides the Management Board and Audit Committee with timely and extensive written information. The Audit Committee and compliance department meet on a quarterly basis. The senior director of corporate audit and compliance is responsible for the development of the CMS in the Zumtobel Group, carries out risk analyses and training courses, and advises the Management Board on the development and implementation of risk-minimising measures. The CMS is reviewed by internal audit, and an external evaluation was also completed in 2021.

Corporate audit reviews the Zumtobel Group's worldwide sales organisations and plants at regular intervals. A generalist approach is normally taken and focuses, above all, on the internal control system of the unit to be audited. Special audits are also performed if there are concrete reasons for suspicion. The targeted review of Group companies for corruption risks goes hand in hand with the systematic and standardised analysis of compliance risks. This analysis is repeated annually, its development is analysed and measures to minimise risk are implemented if necessary.

Twenty-four sales companies underwent an Internal control check as part of the self-assessment for global sales during the reporting year. As part of the self-assessment process, questions were added to determine the existence and implementation of local policies to prevent fraud.

Code of conduct training has been successfully completed by 95% of all salaried employees. The focus topics included fair competition, conflicts of interest, the handling of invitations and gifts, and processes and procedures to combat corruption. This training is mandatory and automatic for all new hires. The course content is currently under revision, the code of conduct will be





adjusted accordingly and will be followed by mandatory employee training.

#### **Disclosure of incidents:**

- There were no confirmed incidents of corruption or bribery during the 2022/23 financial year.
- There were no convictions or fines for violations of the laws governing corruption or bribery.
- There were no confirmed incidents involving the termination or disciplinary action of company employees for corruption or bribery.
- There were no confirmed incidents involving contracts with business partners that were cancelled or not extended due to violations related to corruption or bribery.

#### **Conflicts of interest**

*„WE ALWAYS ACT IN THE COMPANY’S INTEREST.“*

Loyalty and actions in the best interest of the company represent fundamental values for the employees of the der Zumtobel Group. The Zumtobel Group’s employees are required to report any activities or secondary employment that could lead to a conflict of interest or influence decisions. In this connection, a supplementary guideline was issued for buyers (ethical charter for buyers) and must be confirmed in writing.

#### **Money laundering**

*„WE ARE DECISIVELY OPPOSED TO THE MISUSE OF THE FINANCIAL MARKET.“*

The Zumtobel Group is committed to the active fight against the improper use of the financial market and financial system. Clear rules have been issued for the initiation of business transactions and the settlement of payments to prevent the possible concealment or shift of assets with a potentially illegal origin and the possible financing of malicious actions. The preventive measures implemented by the Zumtobel Group include the following:

- Exclusion, prohibition of cash transactions
- Identification and verification of the identity of business partners
- Especially for customers in countries outside Europe: Review of the business partner (countries and persons) by global customs & export control before the conclusion of any business transactions to identify possible inclusion in sanction lists
- Special audits by corporate finance and corporate compliance of implausible constellations between the customer/delivery location/source of payment

The Zumtobel Group’s business model is based on business to business (B2B), i.e. our business partners are companies. These companies are subject to similar or the same legal disclosure obligations for their own business activities. This situation facilitates the implementation of precautionary measures to prevent money laundering.

Any suspected cases are logged and reported to the Zumtobel Group’s financial organisation and examined together with group compliance. If the existing doubts cannot be clarified, the business transaction or payment is rejected.

#### **Disclosure of incidents:**

- No violations or legal proceedings over money laundering were identified during the reporting year.

#### **Fraud**

*„OUR BEHAVIOUR IS CHARACTERISED BY RESPECT, HONESTY, TRANSPARENCY AND RELIABILITY.“*

The Zumtobel Group takes preventive steps to detect and manage misconduct, fraud and white-collar crime as well as violations of organisational rules. Any type of violation in this connection is strictly rejected.

The Zumtobel Group aims to create transparency in its dealing with customers, suppliers and public authorities in order to comply with international standards for the



fight against corruption and to meet national and local requirements for the fight against corruption, bribery and fraud.

The integrated compliance management system installed by the Zumtobel Group covers the prevention of criminal offenses involving corruption, fraud and bribery as well as the granting of advantages to or bribery of public officials.

#### **Disclosure of incidents:**

- There were no confirmed incidents of fraud during the reporting year.
- There were no confirmed incidents involving the termination or disciplinary action of company employees for fraud

#### **Anti-competitive practices**

*„WE ARE COMMITTED TO FAIR COMPETITION.“*

The Zumtobel Group's compliance management system covers the prevention of corruption, in particular criminal offences involving corruption and bribery. The CMS guidelines related to anti-trust law cover the prevention of agreements and coordinated practices that could restrict competition.

The Zumtobel Group strives to establish and maintain competitive advantages over other market participants. We realise these advantages through the continuous improvement of our products and services – and reject prohibited agreements in any form.

#### **Disclosure of incidents:**

- No violations or legal proceedings involving legal disputes over anti-competitive behaviour or the creation of cartels or monopolies were identified during the reporting year.

- No new findings or legal proceedings over non-compliance with legal regulations or requirements in the economic field were identified during the reporting year.

#### **Data protection**

*„DATA PROTECTION GIVES US A COMPETITIVE ADVANTAGE.“*

The Zumtobel Group's compliance organisation supported the subsidiaries and affiliates which process personal data and are therefore subject to the General Data Protection Regulation (GDPR; "Datenschutz-Grundverordnung"), among others with training and the preparation of corporate guidelines in 2022/23. The data protection coordinator actively assists the local data protection officers in implementing the necessary measures.

The extensive updating of data protection involved the implementation of the following measures and preparation of the following documents:

- Updating the production registers for the leading companies in the Zumtobel Group
- Transfer of processing activities from the management companies to local unit registers (LEs)
- Clarification of the requirements for a legally effective content management system for marketing and sales
- Inclusion of changes in the data protection toolbox
- Integration of new legal requirements
- Advising on technical issues
- Continuous adaptation of the data protection manual to reflect new legal requirements

All major process descriptions relating to data protection and the handling of personal data in the Zumtobel Group are described in the new data protection manual. In addition to these process descriptions, the manual also includes a list of contact partners, pre-printed forms, and processes and procedures for special data protection cases (e.g. violations of data protection). The goal to achieve data protection conformity in business processes was generally met.

A compliance training tool was purchased as further support for training activities and successfully used in implementing the code of conduct.



The data protection guideline was also revised, and the most important legal changes were incorporated. This guideline is available to all Zumtobel Group employees in the "INlight" internal communications network.

#### **Disclosure of incidents:**

- An information security incident was identified in 2022/23. The attack was immediately halted by IT security. The effects were limited, the involved circle of persons was in the single-digit range, and there was no access to sensitive data.

#### **Critical concerns and the whistle-blower system**

*„ANONYMITY REDUCES FEAR AND PROTECTS AGAINST NEGATIVE CONSEQUENCES.“*

The Austrian Parliament passed a new whistle-blower protection act ("HinweisgeberInnenschutzgesetz") and an accompanying legislative amendment on 1 February 2023. This finalised the implementation of an EU Directive in Austrian national law.

The Zumtobel Group's whistle-blower system is a safe reporting and communication tool that is available to all stakeholders (employees, suppliers, customers, shareholders etc.) to submit information on potentially serious violations of compliance and due diligence issues and issues involving data security.

Technical support for the Zumtobel Group's whistle-blower system is provided by the BKMS (Business Keeper Management System) which is used worldwide. The whistle-blower system meets all legal requirements of the EU Whistle-blower Directive and the Austrian Whistle-blower Protection Act.

The whistle-blower system installed by the Zumtobel Group makes it possible for employees and external third parties to anonymously report possible compliance violations over a link on the Zumtobel Group's website. Confidentiality is always ensured – it is one of the basic requirements of the EU Whistle-blower Directive which took effect on 16 December 2019 and its implementa-

tion in Austrian national law. A whistle-blower hotline is available to employees and external persons throughout the world. The access options and usability were optimised and adapted in 2022/23.

Critical concerns and issues can, as a result, be reported directly to corporate audit and compliance. As an additional communication channel, reports can also be submitted via email. The whistle-blower hotline is administered by corporate compliance and ensures that incoming reports are classified and processed on a timely basis. These reports are communicated without delay to the Management Board. If the immediate notification of the Audit Committee is not required to address a significant violation, the reports are compiled and presented to the Audit Committee on a quarterly basis.

Individuals can also contact the corporate compliance staff through various channels if they have any questions concerning responsible business conduct in the plants or the organisation's business relations. The necessary information is available for all employees in the Intranet and is regularly used.

The Zumtobel Group's whistle-blower system covers the following reportable point:

- Health, safety and environmental regulations
- Fraud / breach of trust / embezzlement
- Corruption
- Capital market compliance/insider trading
- Data protection violations
- Anti-competitive behaviour
- Discrimination / harassment / mobbing
- Interaction with business partners
- Violations of due diligence requirements along the supply chain
- Other violations

The necessary measures related to supplier due diligence are the responsibility of the Zumtobel Group's global procurement organisation and are implemented through supplier sustainability audits. The requirements were re-evaluated during the reporting year and integrated in organisational instructions. Possible violations or non-compliance with due diligence requirements can also be reported over the external whistle-blower system.



#### Disclosure of reports:

- There were four reports over minor concerns in 2022/23.
- All of these concerns were resolved or refuted after internal investigations

#### Training on compliance issues

*„ALL NEW EMPLOYEES RECEIVE COMPLIANCE TRAINING.“*

The code of conduct implemented by the Zumtobel Group many years ago was revised during the 2022/23 financial year. The goal is to hold regular refresher courses and training on compliance-relevant issues to help employees act with integrity in all types of business situations and to minimise risks for the company.

All new employees are required to register for online training on compliance and data protection during their introduction phase. The modules – compliance (module 1) and data protection (module 2) – are offered on a Group-wide learning platform. The invitation to online training is sent via email and is a fixed part of the onboarding process for new employees. These modules must be completed within 30 days.

#### Human rights (material topic)

*„WE RESPECT HUMAN RIGHTS AND CONDEMN DISCRIMINATION IN ANY FORM.“*

As an international company, the Zumtobel Group is fully committed to the protection of human rights and compliance with high social standards and the legal regulations applicable in Austria and other countries. The “slavery and human trafficking statement” for Great Britain is renewed annually.

The Zumtobel Group regularly renews its commitment to responsible management and publishes an annual progress report (COP - Communication on Progress) based on the UN Global Compact. It contains information for all relevant stakeholders on activities and progress in implementing the 10 principles.

To meet the requirements of the Supply Chain Due Diligence Law (“Lieferketten-sorgfaltspflichtengesetz”, LkSG) which is now legally binding in Germany and in preparation for the EU’s Corporate Sustainability Due Diligence Directive, the Zumtobel Group is addressing the risks related to human rights and the environment along the value chain. The goal is to proactively prevent and minimise risks and to eliminate possible violations. This takes place, on the one hand, through regular exchanges with suppliers, the adaptation and signing of the code of conduct for business partners, surveys on compliance with human rights and environmental issues, and supplier sustainability audits. On the other hand, these risks are reduced through the consequent handling of issues recorded in the whistle-blower system.

Sanction lists are monitored by the global customs & export control organisational unit. The Zumtobel Group clarified compliance with due diligence requirements in a supplement to the code of conduct in 2023 and in the code of conduct for business partners and integrated this information in the following processes:

- Revision of the Zumtobel Group’s code of conduct
- Revision of the code of conduct for business partners
- Information for suppliers, inclusion in the supplier onboarding process
- Adaptation of the supplier questionnaire and supplier evaluation
- Supplier audits and sustainability audits
- Responsibility for escalations and complaint management
- Integration in the existing whistle-blower system

Corporate compliance and global procurement are responsible for implementation. The compliance management system also requires the risk-based selection of business partners, and a compliance check was integrated to support this process.

#### Disclosure of incidents:

- There were no findings or legal proceedings involving violations of human rights or violations of environmental compliance during the reporting year.









# PROCUREMENT

## WE WANT OUR SUPPLIERS TO FOLLOW OUR PATH.

And we do a lot to achieve this: before the possible start of a business relationship with the Zumtobel Group, every potential supplier signs the Code of Conduct for Business Partners. Before approval, the supplier partner completes a questionnaire on environmental and social standards in the supply chain as well as due diligence issues. This continuously assesses performance and is a prerequisite for the awarding of contracts. Currently, 97.4 % of suppliers have signed codes of conduct based on volume.

## WHAT STILL LIES AHEAD

An emissions screening and explicit queries on conformity with diversity and inclusion guidelines. Development and tracking of the criteria of the Code of Conduct as well as agreement and ongoing monitoring of implementation at suppliers. Sustainability audits with a focus on risk countries, a supplier programme for CO<sub>2</sub> reduction in the supply chain with performance measurement, the procurement of environmentally friendly materials and technologies over the entire life cycle, and the company vehicle fleet optimised for sustainability.

## TARGETS 2023/24

- Validation of sustainability performance by third parties
- Further development of CO<sub>2</sub>, ISO and SBTi at TOP suppliers
- Continuous increase of recycled content in materials



# PROCUREMENT



*„FOR ME, SUSTAINABLE PROCUREMENT MEANS ENSURING COMPLIANCE WITH MINIMUM SOCIAL AND ENVIRONMENTAL REQUIREMENTS THROUGHOUT THE SUPPLY CHAIN ON THE BASIS OF ECONOMIC SUSTAINABILITY. SUSTAINABILITY ASPECTS ARE AN INTEGRAL PART OF PROCUREMENT AND AWARD CRITERIA.“*

Miro Ardan, SVP Global Purchasing

## Management approach & due diligence processes

Sustainable procurement plays an important role for the Zumtobel Group as a producing company. Global procurement, the responsible department, is centrally organised, globally positioned and located in Dornbirn. The Zumtobel Group's supply chain takes full account of the following social, labour law and ecological factors and issues:

- Ethics along the entire supply chain (code of conduct, self-declaration on sustainability, sustainability audits)
- Global procurement with local areas of influence (organisational structure)
- Safety of employees and suppliers (code of conduct, self-declaration on sustainability, sustainability audits, training)
- CO<sub>2</sub> footprint of the supply chain (concrete, resp. targeted inquiries)
- Evaluation of suppliers' environmental and social standards (code of conduct, self-declaration on sustainability, sustainability audits)
- Respect for human rights and all employee and social

issues (code of conduct, self-declaration on sustainability, sustainability audits)

The Zumtobel Group relies more than ever on the long-term inclusion of and communication with its stakeholders along the supply chain and in the organisation's other areas of influence. All processes are characterised by mutual respect, open dialogue and transparent behaviour.

Stakeholders who have an influence on the Group's business activities are involved in procurement processes through open and clear representation. This involves the suppliers of materials required for production, contract suppliers for merchandise, and the suppliers of indirect materials or products used in production.

The procurement volumes for all plants are bundled under designated commodity managers. The various procurement groups are also managed centrally in keeping with the focus on sustainability. The Zumtobel Group

Supplier data	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Suppliers (99.9% Annual volume)	Number	700	692	674	659	708
New suppliers	Number	N/A	N/A	N/A	8	11
Share of new suppliers	in %	N/A	N/A	N/A	1.2	1.6
Suppliers from Europe	Number	N/A	N/A	N/A	545	555
Share of suppliers from Europe	in %	N/A	N/A	N/A	82.7	78.4
Suppliers from other regions	Number	N/A	N/A	N/A	114	153
Share of suppliers from other regions	in %	N/A	N/A	N/A	17.3	21.6
Top suppliers	Number	N/A	N/A	N/A	89	93
Suppliers from risk countries	Number	N/A	N/A	N/A	109	139



works worldwide with 708 suppliers from 36 countries (2021/22: 659 suppliers from 34 countries). This setup helps employees to continuously optimise sustainable procurement and improve resource efficiency. It also makes a substantial contribution to the protection of the environment and climate and to compliance with social standards and the correct observance of conditions under labour law along the supply chain.

The local plants and their procurement teams are also integrated in the procurement structure. These teams can react on location to current requirements and contribute to regional, transport-optimised and sustainable procurement through local initiatives.

The company attempts to purchase most of the raw materials, goods and services in the region where production takes place. Key raw materials like steel, copper, aluminium and plastic granulate are purchased in Central Europe. Electronic and LED components are sourced primarily in Asia, where many of the most competitive suppliers are located.

In 2022/23, the share of the procurement volume from Asia amounted to 51.8% (2021/22: 58.2%) in the Components Segment and nearly 8.4% (2021/22: 9.9) in the Lighting Segment.

### From the Covid-19 pandemic and the supply chain crisis to the Ukraine conflict and the prevailing energy crisis

The massive capacity reductions in nearly all industrial sectors during the Covid-19 pandemic led to an unprecedented availability crisis. During these times of shortages, the Zumtobel Group benefited from the long-standing partnerships with its suppliers. Various procurement tools must, however, still be used regularly and carefully to organise the materials required for production.

#### Success factors in connection with the Covid-19 pandemic

- Long-standing partnerships with suppliers
- Local supply chains
- Increased authorisation of local suppliers
- Regular coordination with local plants
- Continuous, close coordination with suppliers
- Continuous monitoring of supply plans
- Ad-hoc changes in established transport routes
- Increase in remote meetings and remote audits with suppliers

Procurement volumes	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Procurement volumes (total)	EUR million	390	357	305	395	390
Share of revenues	in %	N/A	N/A	N/A	34.4	32.2
Procurement volumes Europe	EUR million	N/A	N/A	N/A	263	276
Procurement volumes Asia	EUR million	N/A	N/A	N/A	130	113
Procurement volumes Rest	EUR million	N/A	N/A	N/A	2	1
Procurement volumes Europe Lighting Brands	in %	N/A	N/A	N/A	89.5	91.1
Procurement volumes Asia Lighting Brands	in %	11.0	9.0	8.2	9.9	8.4
Procurement volumes Rest Lighting Brands	in %	N/A	N/A	N/A	0.6	0.5
Procurement volumes Europe Components	in %	N/A	N/A	N/A	41.3	48.1
Procurement volumes Asia Components	in %	65.0	63.0	58.9	58.2	51.8
Procurement volumes Rest Components	in %	N/A	N/A	N/A	0.5	0.1



The beginning of the Ukraine conflict in February 2022 significantly changed the situation and focus on the procurement market. It showed that the measures which proved to be successful during the Covid-19 pandemic were also able to counter the negative effects of the Ukraine conflict.

Our crisis management developed a certain supply chain resilience during the first one to two years of the Covid-19 pandemic that proved useful in their efforts to safeguard supplies during the following availability disruptions. This resilience was necessary to react to the changing demands and cost structures (due to the increase in input factor costs) which were intensified by the Ukraine conflict and the energy crisis.

In addition to the above success factors, a greater focus was placed on developing a better understanding and clear picture of the economic and ecological influence of suppliers in the largely localised supply chain. The recently revised supplier sustainability questionnaire and better concentration on the CO<sub>2</sub> footprint will improve transparency over the energy consumption of key suppliers (in particular, suppliers from risk countries).

It also forms an excellent basis to work with suppliers on their energy autonomy and the resulting higher share of green energy. This not only helps to reduce costs, but also has a positive effect through an increase in independence and supply security with a parallel reduction in emissions.

## Procurement & supplier management (material topic)

The implementation of a sustainable procurement concept, including a maximum value contribution for the organisation, has represented a core initiative for procurement in the Zumtobel Group for many years. As a producing company, the Zumtobel Group wants to meet its responsibility to society and, in all areas of its activities, ensure the economical use of natural resources, climate and environmental protection, fair trade and responsibility along the entire supply chain.

Supply chain management in the Zumtobel Group places high priority on full compliance with all applicable legal regulations and internal standards for safety, environmental protection and human rights. The focus of procurement has moved from pure economic interests to the increased implementation of ecological and social aspects in recent years.

The Zumtobel Group assesses its top suppliers annually with regard to potential risks such as the risk of child labour and forced or compulsory labour. In the reporting period, 139 top suppliers from 6 risk countries underwent processes such as supplier self-disclosure, supplier questionnaires, signing of the Code of Conduct, selective supplier audits and sustainability audits in order to rule out potential risks relating to human rights violations.

Suppliers to risk countries	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
TOP Suppliers Lighting Brands	Number	N/A	N/A	N/A	N/A	54
China	Number	N/A	N/A	N/A	N/A	21
Serbia	Number	N/A	N/A	N/A	N/A	31
Thailand	Number	N/A	N/A	N/A	N/A	1
Turkey	Number	N/A	N/A	N/A	N/A	1
TOP Suppliers Components	Number	N/A	N/A	N/A	N/A	85
China	Number	N/A	N/A	N/A	N/A	74
Serbia	Number	N/A	N/A	N/A	N/A	8
Thailand	Number	N/A	N/A	N/A	N/A	2
Malaysia	Number	N/A	N/A	N/A	N/A	1



## Supplier onboarding process

The basis for business relations is formed by a systematic supplier evaluation and release process (supplier onboarding). It begins with the signing of the supplier code of conduct and continues with a self-evaluation questionnaire that covers various economic, ecological and social factors. The next step is an agreement over the commercial and quality aspects of the contract, which ends with an audit of various focal points in areas like quality and sustainability.

Confirmation of compliance by business partners with all requirements of the code of conduct, which are focused on human rights as well as clearly defined social and environmental standards, is fundamental for

the start of supplier relations with the Zumtobel Group and creates the foundation for long-term, sustainable partnerships. New suppliers are also carefully evaluated for compliance with legal regulations like the REACH/ROHS guideline or conformity with conflict mineral prevention.

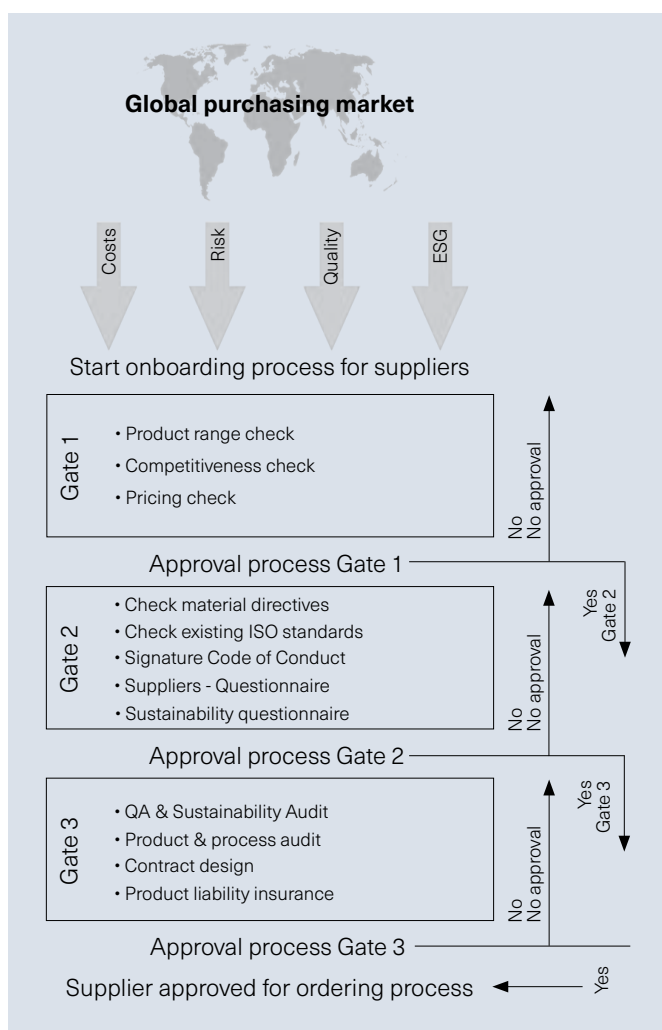
In addition to the previously applied criteria, the release criteria, in general, and the code of conduct and supplier sustainability questionnaire, in particular, were expanded in 2022/23 to include concrete emission screening (CO<sub>2</sub> status inquiry), an audit of compliance with the due diligence guideline and specific questions on conformity with various diversity and inclusion guidelines. The set of agreements for the onboarding process and the questionnaires used in the audits therefore create significant added value and cover all requirements for the newly integrated subject areas.

The Zumtobel Group works together with suppliers in the event of a violation of one or more guidelines and corrective measures are agreed to remedy the situation. If the agreed measures are not introduced, the Zumtobel Group reserves the right to terminate the contractual relationship with the supplier.

## Code of conduct for business partners

Every potential supplier must confirm compliance with the code of conduct for suppliers in writing before the possible start of business relations with the Zumtobel Group. The latest version of the code from the 2020/21 financial year with its general behavioural rules was substantially expanded to include, above all, rules covering corruption, violations of human rights, forced labour and child labour as well as the environment and sustainability.

As previously mentioned, this document was also supplemented during the reporting year by various due diligence contents and, following the inclusion of the latest EU due diligence requirements, now reflects the latest standards. Diversity and inclusion aspects were also fully integrated and, in a first step, rolled out to suppliers in risk countries. By signing the code, the partners agree to fight all indicated risks concerning violations in the supply chain under all circumstances and to eliminate these risks in their sphere of influence.





Based on volume, 97.4% of suppliers have signed the code of conduct (2021/22: 97.2%).

### Content of the code of conduct for business partners

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Whistle-blower system and recording of reports

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Due diligence requirements

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General principles of conduct and expectations of business partners

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Principles and guidelines for due diligence requirements

- Compliance with human rights
- Environment and sustainability
- Corruption and the fight against money laundering
- Criminal activities in dealing with public officials and in business transactions (in general)
- Conduct in dealings with competitors (anti-trust law)
- IT security
- Intellectual property and confidential information
- Social media
- Data protection
- Controls and partnership

The Zumtobel Group renewed its commitment to a responsible and sustainable procurement process in 2022/23 with an annual progress report (COP-Communication on Progress) based on the UN Global Compact.

This report includes information for stakeholders on the company's activities and progress in implementing the 10 principles.

### Resources inflows, including resource use (material topic)

The further strengthening of sustainability in purcha-

sing activities and supplier onboarding is an important objective for the procurement department. To address this issues, sustainability aspects were integrated in the procurement group strategy. The main goal is to regularly evaluate key suppliers for compliance with the most important requirements and to ensure documentation and continuous improvement.

For key suppliers of the Zumtobel Group, the continuous development of the supplier relationship includes various KPIs for quality, delivery reliability and customer service, also as regards diverse supplier ratings and the optimisation of elements in the sustainable supply chain.

In addition to the materials which flow directly into the products and merchandise that is manufactured by contract partners, indirect materials are receiving greater attention with regard to sustainability.

For example: The major plants were converted to 100% green electricity and, in doing so, made substantial progress in moving production towards greater environmental compatibility. Projects are also in progress to make the company fleet greener and to optimise the footprint of transport logistics.

In line with the sustainability strategy, the Zumtobel Group is implementing measures along the supply chain to ensure that information on the share of recycled source materials is available for each procurement group (including packaging). This information is included in this report for the first time. Joint measures are then put into effect based on the feedback from suppliers to increase this share wherever possible. The recyclability indicator as a per cent is also calculated on the basis of this data.

Materials procurement is increasingly concentrating on circularity and represents a fundamental element of the circular design rules in the development process. The procurement team in the Zumtobel Group is working continuously with suppliers to record and increase the recycling share of production materials.

The constituent substances of materials are another central point of sustainability efforts. The Zumtobel Group exceeds legal requirements by following the strict constraints of the cradle-to-cradle restricted substances list. Conspicuous substances are identified and removed.





Materials by procurement group	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Starting materials	Tonnes	N/A	N/A	N/A	17,200	17,936
Semi-finished goods	Tonnes	N/A	N/A	N/A	7,963	8,927
Operating equipment	Tonnes	N/A	N/A	N/A	1,265	1,481
LED/lamps	Tonnes	N/A	N/A	N/A	444	971
Supplies	Tonnes	N/A	N/A	N/A	717	971
Packaging	Tonnes	N/A	N/A	N/A	3,848	4,184
Merchandise	Tonnes	N/A	N/A	N/A	2,071	1,268
Rest	Tonnes	N/A	N/A	N/A	1,472	646
Proportion of non-renewable material	in %	N/A	N/A	N/A	N/A	N/A
Proportion of renewable material	in %	N/A	N/A	N/A	N/A	N/A

Share of recyclate by top procurement group	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Steel	in %	N/A	N/A	N/A	30	32
Cardboard packaging	in %	N/A	N/A	N/A	90	90
Cast components	in %	N/A	N/A	N/A	85	98
Plastic granulate	in %	N/A	N/A	N/A	5	5
Aluminium profiles	in %	N/A	N/A	N/A	70	75
Aluminium	in %	N/A	N/A	N/A	45	45

The recyclability of the materials used to produce lighting and components is also an important CDR criterion. Materials that are well-suited for recycling are given priority in product development processes.

### E-mobility in fleet management

Mobility is another important issue for the Zumtobel Group's sustainable procurement. The focus of fleet management is shifting to find the right balance between environmental protection and economy.

Vehicle fleet	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Diesel	Number	N/A	N/A	N/A	581	546
Petrol	Number	N/A	N/A	N/A	50	65
Gas	Number	N/A	N/A	N/A	0	0
Hybrid	Number	N/A	N/A	N/A	1	3
100 % Electric	Number	N/A	N/A	N/A	7	27
Vehicles Total	Number	N/A	N/A	N/A	639	641
Share of e-mobility	in %	N/A	N/A	N/A	1.3	4.7
CO <sub>2</sub> e	Tonnes	N/A	N/A	N/A	3,499	3,353



The demand and usage profile of the Zumtobel Group's motor vehicle pool was examined in detail during the 2021/22 financial year. This analysis resulted in an updated global policy for company vehicles based on sustainable criteria, which was rolled out in 2022/23.

This initiative also created an opportunity to gradually direct the company fleet towards environmental compatibility and includes four categories of hybrid and electric vehicles. Of the company vehicles purchased during the reporting year, over 20% are pure electric vehicles. Investments were also made in the charging infrastructure to expand the charging options for company and private vehicles – and a public charging station was also installed for visitors.

#### Environmental and social standards in the supply chain (material topic)

Every potential supplier must confirm compliance with the code of conduct for suppliers in writing before the possible start of business relations with the Zumtobel Group. This code was expanded in 2022/23 to add various due diligence contents and, following the inclusion of the latest EU due diligence requirements, now reflects the latest standards. Approval as a supplier

is followed by the completion of a multidimensional sustainability questionnaire that includes questions on environmental and social standards in the supply chain. This questionnaire was also supplemented in 2022/23 to cover content and issues involving due diligence requirements, emissions and CO<sub>2</sub> status as well as transparency and future plans for the respective area(s).

The resulting rating is decisive for further approval: The supplier approval process cannot be completed without a clearly defined minimum performance.

The content of this self-evaluation is subsequently verified in an on-site sustainability audit that is mandatory for the approval process. This audit also questions, verifies and documents the sustainability-related content.

#### Sustainability evaluation & supplier audits

The Covid-19 pandemic and the related travel restrictions also led to the use of remote audits. In 2022/23, 175 quality system, process and/or control plan audits (2021/22: 150) were carried out. These audits were adapted, where necessary, to reflect the requirements for the respective suppliers. A special focal point of the QS audit is the implementation of the selected quality

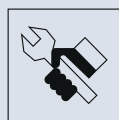
Supplier audits/sustainability audits	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Suppliers	Number	700	692	674	659	708
New suppliers	Number	N/A	N/A	N/A	8	11
Total audits	Number	103	136	154	150	175
	in %	14.7	19.7	22.8	22.7	24.9
Sustainability audits	Number	44	51	48	101	114
	in %	42.7	37.5	31.2	67.3	65.1
Audits of new potential suppliers (total)	Number	N/A	N/A	N/A	32	45
Sustainability audits of new potential suppliers	Number	N/A	N/A	N/A	9	27
	in %	N/A	N/A	N/A	28.1	60.0
Suppliers with negative impact	Number	N/A	N/A	N/A	14	15
Suppliers with negative impact and termination of supplier relationship	Number	N/A	N/A	N/A	0	0
New suppliers with negative impact	Number	N/A	N/A	N/A	6	4
New suppliers with negative impact and termination of supplier relationship	Number	N/A	N/A	N/A	0	0



## Contents of the sustainability audit



**ETHICS**  
7 Questions



**LABOR**  
7 Questions



**HEALTH & SAFETY**  
7 Questions



**ENVIRONMENT**  
8 Questions

management system (normally ISO 9001/TS 16949) in everyday work.

The supplier scoring process covers the following areas: quality management, procurement, material handling, development and production. Under all circumstances, at least 80% of the points from all areas are required to pass the audit.

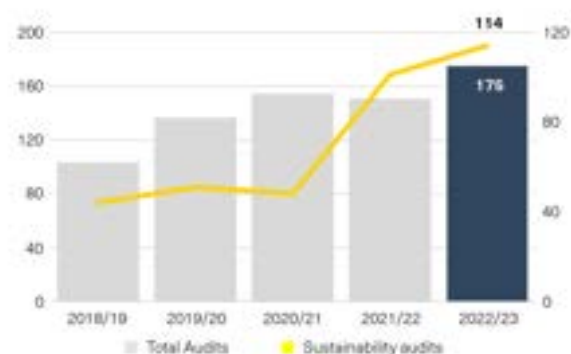
Audits with less than 80% of the possible points require immediate actions by the supplier as well as a new audit that evaluates and documents the implementation of the measures and improvements. Business relations are not started with suppliers who have not completed a positive QS audit.

Of the total audits carried out in 2022/23, 114 (2021/22: 101) also represented sustainability audits. The related activities covered QS/process issues and included a special focus on ethics, health and safety, work and worker protection, and environmental management.

A threshold was also defined for a positive sustainability audit in this area. Audits with less than the necessary points require immediate action by the supplier.

This procedure allows for the specific evaluation and auditing of the above-mentioned risks (corruption, violations of human rights, forced labour and child labour) as well as environmental and social risks in the supply chain – and their exclusion from the supply chain. Additional risks are listed below.

## Development of supplier audits



## Additional risks

- Lack of business integrity
- Lack of information security
- Compulsory work performance
- Lack of work safety standards
- Illegal working and rest times
- Any form of discrimination
- Lack of work safety in any of the involved areas
- Environmental pollution and lack of legal environmental standards
- Waste of resources
- Conformity with the EU Due Diligence Directive
- Conformity with the standards of the German Supply Chain Due Diligence Law



Based on an internally defined sustainability rating for risk countries, a tighter net of sustainability evaluations has been spread over “older” or long-established suppliers (self-evaluation and/or audit). Special attention is given to suppliers in countries that are associated with a high risk of violations against environmental, social or humanitarian standards.

Self-evaluations from 158 suppliers in the Zumtobel Group’s supplier base are now also available in addition to the audits. A minimum standard must be maintained to continue business relations in the future.

The ratings in the risk countries show the following results after the inclusion of emission data and the requirements of the due diligence guideline in the supplier self-evaluation and roll-out to the most important suppliers in risk countries during 2022/23:

An average of 83% of the suppliers have reached the A-standard (at least 80% of the possible points). This clearly shows that the recently defined emission monitoring requirements have created a new and definitely substantial challenge for suppliers in risk countries. The goal for the coming year is to increase the share of suppliers with positive emission results in the section on the environment. The assessment with these new criteria will also be expanded to cover additional suppliers in risk countries.

It is important to note that none of the audited suppliers has been identified as being responsible for gross violations that would have a significant negative impact on the environment or society. Moreover, it was determined that suppliers are consistently integrating environmental and social issues in their actions. Opportunities for improvement identified by the Zumtobel Group are primarily related to the certification of compliance with standards by external agencies, e.g. ISO 14001 and ISO 45001.

Together with its suppliers, the Zumtobel Group is continuing its development in the area of sustainability. This takes place through a request or invitation as well as a review of the implementation of environmental and social certifications or external certification (e.g. by EcoVadis) to ensure greater transparency over sustainability issues.

#### **Sustainability training for the procurement staff** *“ALL EMPLOYEES INVOLVED IN PROCUREMENT RECEIVE SUSTAINABILITY TRAINING.”*

The training initiative “sustainability for the procurement organisation” was planned and carried out during the reporting year. Four scheduled courses were held for 94 employees in the global procurement organisation on the issues of sustainability and due diligence along the value chain.

#### **Conflict minerals**

Companies headquartered in the EU have been legally required to carry out a due diligence audit in connection with the procurement of conflict materials since the beginning of 2021. The European Commission has called on all companies covered by this directive to meet the due diligence requirements for tin, tantalum, wolfram and gold in their supply chains. As part of the conflict minerals programme, the Zumtobel Group has implemented measures in its supply chain to ensure that these products do not directly or indirectly finance transactions with the Democratic Republic of the Congo (DRC).

The Zumtobel Group documents its due diligence based on the report template issued by the Responsible Minerals Initiative (RMI) and discloses its due diligence in the supply chain for smelting works and refineries as required by the Responsible Minerals Assurance Process (RMAP).

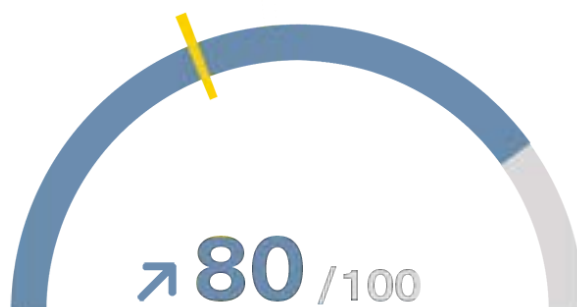
The OECD guideline “Due Diligence Guidance for Responsible Supply Chains from Conflicted-Affected and High-Risk Areas” is the most important reference benchmark for the current RMAP standards. It requires upstream companies to publish annual reports. Smelters and refineries are considered upstream companies in the sense of the OECD guidelines and must meet the OECD Level 5 reporting requirements for upstream companies in order to conform to RMAP standards.

The reports were prepared and updated externally by ValueStream Europe GmbH, which contributes its expertise in material compliance. The current version of the conflict minerals reporting template (CMRT) is available for download on the Zumtobel Group’s website



for the Lighting Segment and the Component Segment under the menu point “Sustainability”.

Score Sustainable procurement

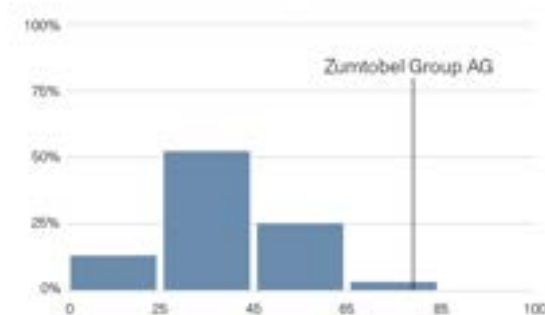


### EcoVadis - Sustainable Procurement

The Zumtobel Group has improved its sustainability performance in all EcoVadis topic areas. The evidence-based assessment by EcoVadis covers the topics of environment, labour and human rights, ethics and sustainable procurement. In the area of sustainable procurement, the Zumtobel Group currently has a score of 80 out of 100 points. This puts the ZUMTOBEL GROUP in the top 1% of companies assessed by EcoVadis in the production of electric lamps and luminaires sector.

Compared to the last assessment, this is an improvement of a remarkable 20 points. The significant increase was largely achieved from the generation of new company policies, followed by actions, results and proactive handling of the improvement areas by the department. The recognition for this - the gold medal with 77 points.

Score Sustainable Procurement in the industry









# EMPLOYER

## THOSE WHO TAKE PEOPLE WITH THEM INTO THE FUTURE ALSO BEAR RESPONSIBILITY FOR THEM.

Our 5,800 employees, who stay with us for an average of almost 11 years, experience „employer branding“ not just as clever advertising for employees, but rather as a professional perspective that we give them. This creates a long-term relationship that builds trust. In the team, towards managers and not least towards our idea of being an innovative and sustainably good employer.

## WHAT STILL LIES AHEAD

We want to create a Group-wide environment for personal and professional development for our employees. In addition to expanding ISO 45001 certification from the current 7 to all 9 European locations, we will roll out our overall health management concept from Austria to the EU and implement the trainee concept in 4 divisions.

## TARGETS 2023/24

- Group-wide roll-out of feedback tool
- Integrate trainee concept into four divisions
- Creation & roll-out of a Human Rights Policy



# EMPLOYER



*„WE WANT TO BE THE EMPLOYER OF CHOICE FOR ALL THOSE WHO WANT TO HELP SHAPE THE FUTURE OF LIGHT. IT IS IMPORTANT TO US TO HAVE A CULTURE THAT IS CHARACTERISED BY TRUST AND THAT CHALLENGES AND INSPIRES PERSONAL AND PROFESSIONAL DEVELOPMENT. IN AN OPEN AND FAIR WORK ENVIRONMENT THAT OFFERS EQUAL OPPORTUNITIES, WE WANT OUR EMPLOYEES TO DEVELOP THEIR POTENTIAL AND CREATE VALUE WITH PASSION“.*

Petra Steiner, SVP Global HR

## Management approach & due diligence processes

The Zumtobel Group has a workforce of roughly 5,800 employees at numerous locations throughout the world. These men and women form the basis for our success and are a key factor for the successful development of our company. Satisfied, competent and committed employees create the foundation for outstanding lighting solutions, components and services and, in turn, for satisfied customers. Their support makes it possible for us to build lasting customer relations and sustainably strengthen our productivity and profitability.

Global HR teams comprising HR business partners, people services and centres of expertise are available to assist all current and future employees in their work and further development, above all in the following areas:

- Personnel recruitment
- Performance & talent management
- Personnel and organisational development
- Total rewards
- Employer-labour relations
- Occupational safety, health and well-being

The Zumtobel Group's People Strategy – LIGHT UP – was derived from the FOCUSED corporate strategy, the three core values “passion, performance and partnership”, current strengths and weaknesses, external factors and market conditions as well as HR trends and best practices.

The Zumtobel Group wants to be the employer of first choice for people who want to advance the future of light. As the employer of first choice, we want our employees to shine (LIGHT UP) at work through:

- L Leaders** who trust, challenge and empower their teams and set an example
- I International** perspectives, local roots and equal opportunities for all
- G Growth** opportunities enfolding our employees' full potential
- H High** performance culture marked by self-responsibility and open, two-way feedback
- T Teams** that create real value with passion and purpose
- U Uncomplicated** fair payment and performance recognition
- P Practical** flexible working models which meet individual needs

As a company, we intend to place even greater value on a culture of trust in the future – a culture in which we interact with openness and respect and give and accept feedback. We intend to offer our employees even more development opportunities so they can reach their full potential and, at the same time, we are strengthening our managers in their role.

The Zumtobel Group is committed to equal opportunity – not only in view of the global job market of the future but also with a look inside. The basis for all this is fair remuneration, realistic working time models and processes that are flexible enough to meet employees' individual needs.



## Corporate culture

Our core values “passion, performance and partnership” are not only empty words but real principles that are actively followed in our daily activities. These values are anchored in our “LIGHT UP” people strategy and in core HR processes like talent acquisition, performance & talent management, people and organisational development, total rewards and employee & labour relations to align our company’s DNA with future challenges and contribute to our corporate culture.

“We live light” is the claim that expresses our passion for light. It is a passion that unites us all and drives us to top performance every day, a passion that bonds us and makes us proud.

Other aspects that have defined our culture and played an important role since the founding of the company are the continued pursuit of top performance and sustainability. Our employees are proud of their important contribution to creating a better future for coming generations with our products and processes.

As an international company with locations in many different countries, the Zumtobel Group has continued to preserve its local roots. This is reflected in close ties and a sense of family. Teamwork with colleagues from a wide range of cultures and beyond national borders promotes mutual learning and, at the same time, drives the development of innovative and high-quality products and lighting solutions.

The Dr Walter Zumtobel Value Award, which carries the name of the Group’s founder, was also presented in 2022/23. It is given to persons who demonstrate the corporate values in their everyday actions and, in this way, keep the founder’s values alive.

## Employee satisfaction (material topic)

An employee survey was carried out from February to March 2023. Responses were received from 82% of the workforce on the following eight topics:

- Team
- Work organisation & processes
- Design freedom & assumption of responsibility
- Management
- Communication, strategy & innovation
- Personal & professional development
- Culture & values
- Digitalisation

Global events and the efforts by top management to increase employee satisfaction and the working environment were communicated to employees. Managers received the results from their respective departments and will pass on this information to employees in 2023/24. Team workshops will then be held to define and describe specific team measures for improvement.

As an attractive employer, the Zumtobel Group wants to provide an effective work-life balance for its employees in their various stages of life and gives high priority to offering models to meet these different stages. This includes making an allowance for the continuously changing needs of younger generations on the labour market as well as measures to help working parents reconcile career and family life.

These efforts were recognised in Switzerland (Zumtobel Licht AG) during 2021 and in Portugal (Tridonic) during 2023 with the “Great Place to Work” seal.



## Work-life balance

In order to further increase its attractiveness as an employer, the Zumtobel Group offers various working time models that help employees to coordinate their private and working lives.

Employees can choose from models like part-time employment, educational leave, sabbaticals, parental leave for fathers and home office options. Mothers and fathers who return to work after parental leave are actively assisted by the company in their reintegration. The Zumtobel Group also accommodates individual wishes to find the best solution for the employee, the team and management.

The options offered by the Zumtobel Group were recognised by the province of Vorarlberg with the quality seal "Outstanding family-friendly company 2022- 2023", and ZG Lighting Austria was also recertified as a family-friendly employer. At the end of 2022/23, 55 employees in Austria were on parental leave (2021/22: 60).



## Free-time option

A works agreement gives employees the option to reduce their working hours in exchange for waiving a salary or wage increase and to receive paid time-off. This option can be used, for example, in connection with age-based work, educational programmes or to accumulate longer free-time periods. Free time can also be accumulated over several years and used at once. This free-time option has been selected by 314 employees.

## Collective agreement

The Zumtobel Group encourages the open and regular exchange of information between the Supervisory Board, employees and employee representatives like the Works Council. Collective agreements cover roughly 50% of the worldwide workforce. The legal participation rights of employees and compliance with the principles and standards defined by the International Labour Organisation (ILO) are anchored in the code of conduct and are binding for all companies in the Zumtobel Group.

Share of employees with collective agreement



Parental leave in Austria	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Employees entitled to parental leave	FTE	N/A	N/A	N/A	N/A	N/A
Employees on parental leave	FTE	80	69	58	60	55
Male	FTE	N/A	5	1	0	3
Female	FTE	N/A	64	57	60	52
Return to work after the end of parental leave	FTE	N/A	N/A	N/A	N/A	N/A



### Training and continuing education (material topic)

The Zumtobel Group is continuously developing, and it is essential that its employees also continue their target-oriented development. Employee development, including systematic professional advancement, is, consequently, a key element of sustainable business success. A dual-focus training and continuing education concept was prepared for this purpose:

- General and free (digital) learning offers, available in the Zumtobel Group's own learning management system. Employees are free to use these options or are assigned to specific courses in line with their roles (e.g. new employees, employees in sales etc.).
- Individual development plans that target technical as well as personal development (soft skills etc.). The formats differ and include internal as well as external courses, coaching and mentoring. These plans are prepared for each employee as part of the annual reviews in agreement with the respective supervisor. They can also include, among others, further development in other areas and a longer-term career path.

The basis for systematic employee development is the LIGHT competency model, which was derived from the corporate strategy:

L	Level of Knowledge, Skills & Experience
I	Innovation & Transformation
G	Getting Things Done
H	Habit to Develop
T	Together we Shine

With these five generic ambition levels for expected performance and the level of technical expertise, LIGHT provides a framework for the human resources development, search and selection processes.

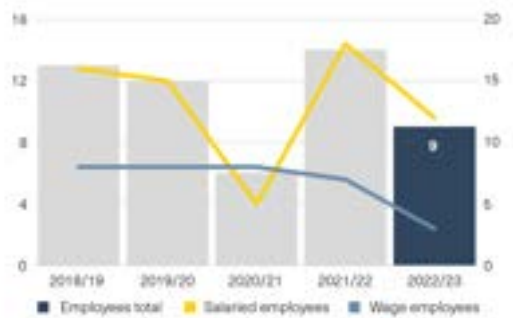
Further initiatives were launched in 2022/23 to implement the dual-focus strategy, among others a new management development programme (Leadership Excellence Program). Its goal is to establish a new management culture. The programme began with a leaders' summer camp: This group event was held for the first time and included a week-long intensive training for the 60 participating managers.

The offering of training programmes was not only expanded for managers, but also for employees in general. A new training catalogue with interdisciplinary offers was prepared and includes, for example, change management, new work and IT courses.

Average hours of training and continuing education	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Employees (total)	Hours	13	12	6	14	9
Male	Hours	N/A	N/A	N/A	16	10
Female	Hours	N/A	N/A	N/A	12	8
Salaried employees	Hours	16	15	5	18	12
Male	Hours	N/A	N/A	N/A	19	12
Female	Hours	N/A	N/A	N/A	17	12
Wage employees	Hours	8	8	8	7	3
Male	Hours	N/A	N/A	N/A	8	4
Female	Hours	N/A	N/A	N/A	7	3
Online share of internal training	in %	N/A	N/A	N/A	66.6	56.0



### Training & further education in hours



Parallel to the expansion of the interdisciplinary offering, specialist training was improved and implemented. The content now includes, for example, roughly 80 core knowledge modules with product and application know-how on the Zumtobel portfolio as well as the Tridonic training camp, an initiative to strengthen sales skills.

These training measures were supplemented by the implementation of a 360° feedback tool. It will initially be offered to a test group, but should be rolled out to the entire company in the coming financial year.

Country-specific offers for individual training are also available, depending on the employee's location. In Austria, for example, employees can take an educational sabbatical. All these initiatives will have a positive effect on the average number of employee training hours over the long-term.

To maintain employability, concrete training for necessary job-related skills and capabilities is arranged as part of the annual review. Country-specific options like partial retirement are available in preparation for possible retirement. Based on country specifics and in special circumstances involving termination, outplacement with an external consulting agency is agreed to facilitate the transition.

### Apprenticeship training

The Zumtobel Group views training for young people as part of its social responsibility. As of 30 April 2023, 78

young men and women were in apprenticeship programmes with the Zumtobel Group. This company-based professional education is an important instrument to actively address the growing shortage of skilled workers that has resulted from demographic shifts. Apprenticeship training is therefore an essential part of human resources policy.

In 2022, these efforts were recognised by the province of Vorarlberg for the ninth time in succession with the "Excellent Apprenticeship Company" seal.

### Apprentices are currently training in the following fields

- Electrical engineering with a focus on systems and industrial engineering as well as automation and process control engineering
- Plastics engineering
- Mechatronics with a special automation and production engineering module (dual academy) and a special robotics module
- Surface technology with a specialisation in powder coating and hand-applied painting
- IT technology with a focus on systems engineering
- Industrial clerk

### Trainee programmes

The trainee programme is an important component of internal human resources development and a central lever to counter the lack of specialists. It also helps to strengthen essential skills.

Similar programmes were implemented in various areas in previous years. The Zumtobel Group is proud that many former trainees now hold key positions in the company and can make an important contribution to





designing the sustainability strategy.

The success of these programmes has strengthened plans to increase the use of this channel – and the offering was expanded accordingly. The trainee programme is directed to talented university graduates in order to give them the capabilities and experience they need to take on responsible positions in the company. In addition to content focal points, the programme includes interdisciplinary exchanges and cooperation between the trainees and various departments.

The concept was created in 2022/23 to offer trainee positions in the following areas during 2023/24:

- Corporate IT
- Brand & portfolio management for the lighting brands
- Research & development for the lighting brands
- Corporate finance

### Employee reviews

The annual employee reviews are an important building block in the interaction between employees and their supervisors and form the basis for the identification of targeted, individualised training and continuing education measures as part of human resources development. In this structured discussion, managers and their staff define goals and reach a common understanding for the values, behaviour and importance of the corporate

strategy for their specific job responsibilities. Mutual expectations are coordinated, development opportunities are systematically identified, and training measures are outlined to support the employee's training and personal development.

The annual reviews provide an opportunity for employees and their supervisory to reflect on the employment relationship and performance on an equal basis. The discussions lead to decisive impulses which sustainably change cooperation.

Employee development review production



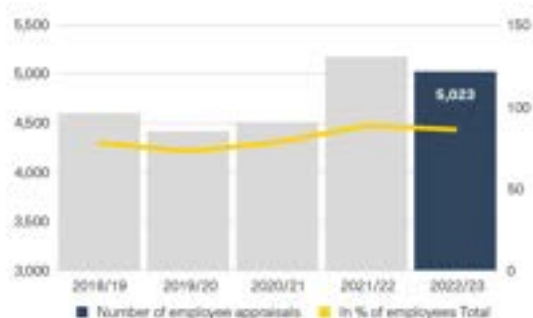
The importance of the employee reviews is underscored by the high number of discussions which were

Employee reviews	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Employee reviews	Number	4,597	4,416	4,507	5,171	5,023
Share of total employees	in %	78.2	73.1	78.4	88.6	86.2
<b>Salaried employees</b>	<b>Number</b>	<b>N/A</b>	<b>2,863</b>	<b>2,882</b>	<b>3,296</b>	<b>3,420</b>
Male	Number	N/A	2,073	2,072	2,362	2,432
Female	Number	N/A	790	810	934	988
<b>Wage employees</b>	<b>Number</b>	<b>N/A</b>	<b>1,553</b>	<b>1,625</b>	<b>1,875</b>	<b>1,603</b>
Male	Number	N/A	732	786	914	812
Female	Number	N/A	821	839	961	791



planned for 2022/23: This goal was not only met but exceeded. Documented annual reviews were held with 5,023 in 2022/23 (88.2%; 2021/22: 5,171 employees or 88.6%).

Development of employee appraisals



## Employee development

The annual employee reviews also form the basis for the further human resources development process and internal talent scouting. The global establishment of a human resources development process with annual talent review meetings and focal point conferences provides an opportunity to define potential and performance at all levels of the Group.

Employees are appraised according to both performance and potential in this process, which helps to identify top talents for further steps in the company. It also forms the basis for structured and standardised succession planning.

The transparency of the people development conference is ensured by the participation of respective manager, the human resources department and other evaluators. The performance and potential of each employee is evaluated in these meetings and recorded in a performance-potential grid.

The exit risk is evaluated and recommendations for development and retention measures are defined and documented. The result is a performance-potential landscape for each department with all employees, which establishes a basis for the implementation of the defined measures.

## Employment and employment trends

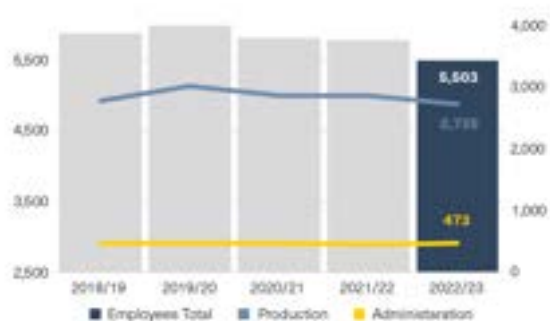
The Zumtobel Group had a workforce of 5,503 employees (full-time equivalent, including contract workers) as of 30 April 2023. This represents a year-on-year decline of 4.8% (30 April 2022: 5,782). Part-time employment for parents, educational leave, sabbaticals or other models are arranged where needed and permitted by the respective position. The number of part-time employees increased slightly from 7.8% in the previous year to 8.1% in 2022/23.

Employees by functional area	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Employees <sup>1</sup> (total)	FTE	5,878	6,039	5,813	5,782	5,503
Change	in %	-5.6	2.7	-3.7	-0.5	-4.8
Share of contract workers	FTE	276	170	184	222	101
	in %	4.7	2.8	3.2	3.8	1.8
Production	FTE	2,779	3,018	2,860	2,861	2,725
Research and development	FTE	515	551	563	538	533
Sales	FTE	1,837	1,829	1,733	1,714	1,671
Administration	FTE	471	472	473	447	473

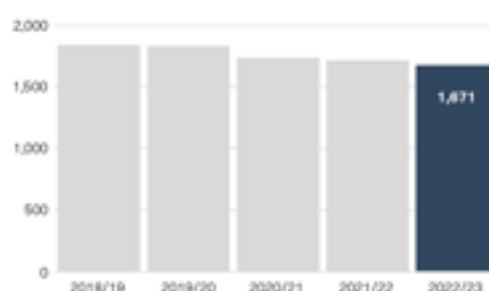
<sup>1</sup> Excluding apprentices



Development Employees (FTE)  
Production & Administration



Development Employees (FTE)  
Sales

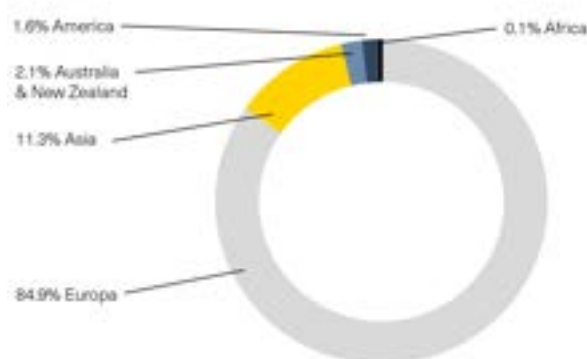


Approximately 50% of the employees work in operational areas like direct production, quality management, procurement or logistics. A further 30% are active in sales and roughly 10% in research and development. The remaining employees include nearly 9% in administrative functions and 2% of contract workers.

The flexible use of temporary workers enables the Zumtobel Group to avoid productivity losses and idle time. In this way, volatile phases of capacity utilisation are used more effectively and order peaks are easily absorbed. Temporary workers are deployed in the Zumtobel Group in production or production-related areas. The type of work performed by temporary workers relates primarily to manual support activities in the assembly of luminaires and components, as well as simple transport work in the area of in-plant logistics.

Roughly 85% of the employees work in Europe, followed by 11% in Asia, 2% in Australia and New Zealand, 1.6% in America and 0.1% in Africa.

Employees by region



The average length of employment with the Zumtobel Group equalled 10.9 years in 2022/23. This high average service time reflects the trust of employees and

Employees by region	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Europe	in %	82.5	82.7	83.2	82.8	84.9
Asia	in %	13.4	13.5	12.9	13.4	11.3
Australia & New Zealand	in %	2.3	2.2	2.2	2.1	2.1
America	in %	1.8	1.7	1.6	1.6	1.6
Africa	in %	N/A	N/A	0.1	0.1	0.1

<sup>1</sup> Excluding apprentices

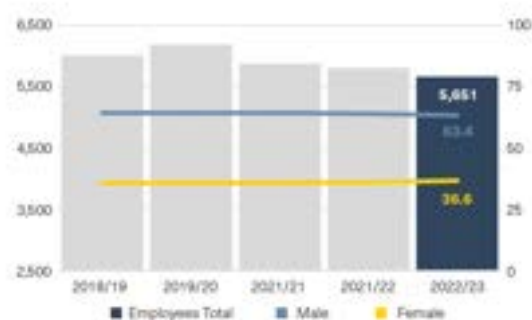


high employee satisfaction. The long length of service is also evident in the age structure. (See table Employment data Age structure).

Labour productivity – calculated as adjusted EBIT in relation to personnel expenses – improved from 16.6% in the previous year to 21.7% in 2022/23 due to the increase in operating results.

Average revenues per employee (including contract workers) rose year-on-year to EUR 219,731 in 2022/23 (2021/22: EUR 198,595).

Gender development in %



New employees <sup>1</sup>	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
New employees	FTE	N/A	1,080	679	1,048	823
<b>By gender</b>						
Male	FTE	N/A	674	433	699	512
Female	FTE	N/A	406	246	349	311
<b>By age category</b>						
< 30 years	FTE	N/A	445	290	394	280
30 - 50 years	FTE	N/A	592	339	585	470
> 50 years	FTE	N/A	43	50	68	72
<b>By region</b>						
Europe	FTE	N/A	621	381	735	558
Asia	FTE	N/A	438	273	288	237
Australia & New Zealand	FTE	N/A	9	11	13	10
America	FTE	N/A	11	14	11	18
Africa	FTE	N/A	1	0	1	0

<sup>1</sup> Excluding contract workers

Employment data by gender	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Employees <sup>1</sup> (total)	Number	N/A	6,177	5,862	5,797	5,651
Male	Number	N/A	3,966	3,767	3,709	3,582
	in %	64.3	64.2	64.3	64.0	63.4
Female	Number	N/A	2,211	2,095	2,088	2,069
	in %	35.7	35.8	35.7	36.0	36.6

<sup>1</sup> Excluding contract workers



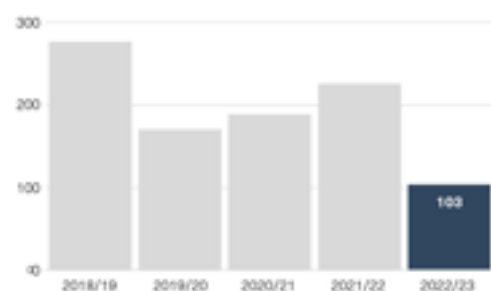
Employment data - salaried/wage	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Employees <sup>1</sup> (total)	Number	N/A	6,347	6,051	6,022	5,754
<b>Salaried employees (total)</b>	<b>Number</b>	<b>N/A</b>	<b>3,924</b>	<b>3,752</b>	<b>3,731</b>	<b>3,723</b>
	in %	62.5	61.8	62.0	62.0	64.7
Male	Number	N/A	2,809	2,707	2,683	2,644
	in %	N/A	71.6	72.1	71.9	71.0
Female	Number	N/A	1,115	1,045	1,048	1,079
	in %	N/A	28.4	27.9	28.1	29.0
<b>Wage employees (total)</b>	<b>Number</b>	<b>N/A</b>	<b>2,170</b>	<b>2,042</b>	<b>1,997</b>	<b>1,850</b>
	in %	33.1	34.2	33.7	33.2	32.2
Male	Number	N/A	1,073	1,007	977	881
	in %	N/A	49.4	49.3	48.9	47.6
Female	Number	N/A	1,097	1,035	1,020	969
	in %	N/A	50.6	50.7	51.1	52.4
<b>Apprentices (total)</b>	<b>Number</b>	<b>N/A</b>	<b>83</b>	<b>69</b>	<b>69</b>	<b>78</b>
	in %	N/A	1.3	1.1	1.1	1.4
Male	Number	N/A	64	54	49	57
	in %	N/A	77.1	78.3	71.0	73.1
Female	Number	N/A	19	15	20	21
	in %	N/A	22.9	21.7	29.0	26.9
<b>Contract employees (total)</b>	<b>Number</b>	<b>N/A</b>	<b>170</b>	<b>188</b>	<b>225</b>	<b>103</b>
	in %	4.4	2.7	3.1	3.7	1.8
Male	Number	N/A	N/A	125	151	59
	in %	N/A	N/A	66.5	67.1	57.3
Female	Number	N/A	N/A	63	74	44
	in %	N/A	N/A	33.5	32.9	42.7

<sup>1</sup> Including apprentices and temporary workers

Development of number of apprentices



Development of number of temporary workers







Employment data - full-time/part-time	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Employees <sup>1</sup> (total)	Number	N/A	6,177	5,862	5,797	5,651
<b>Full-time</b>	<b>Number</b>	<b>N/A</b>	<b>5,664</b>	<b>5,423</b>	<b>5,345</b>	<b>5,192</b>
	in %	91.5	91.7	92.5	92.2	91.9
Male	Number	N/A	3,786	3,651	3,586	3,447
	in %	N/A	66.8	67.3	67.1	66.4
Female	Number	N/A	1,878	1,772	1,759	1,745
	in %	N/A	33.2	32.7	32.9	33.6
<b>Part-time</b>	<b>Number</b>	<b>N/A</b>	<b>513</b>	<b>439</b>	<b>452</b>	<b>459</b>
	in %	8.5	8.3	7.6	7.8	8.1
Male	Number	N/A	146	116	123	135
	in %	N/A	28.5	26.4	27.2	29.4
Female	Number	N/A	367	323	329	324
	in %	N/A	71.5	73.6	72.8	70.6

<sup>1</sup> Including apprentices, excluding contract workers

Employment data - age structure	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Employees <sup>1</sup> (total)	Number	N/A	6,177	5,862	5,797	5,651
< 30 years	Number	N/A	N/A	843	786	676
	in %	N/A	N/A	14.4	13.6	12.0
30 - 50 years	Number	N/A	N/A	3,251	3,231	3,164
	in %	N/A	N/A	55.5	55.7	56.0
> 50 years	Number	N/A	N/A	1,768	1,780	1,811
	in %	N/A	N/A	30.2	30.7	32.0

<sup>1</sup> Including apprentices, excluding contract workers

Employee turnover (excluding contract workers) in the Zumtobel Group declined from 18.9% in the previous year to 17.4% in 2022/23, which means 954 employees left the company. Most of this fluctuation is attributable to the exit of wage employees in Shenzhen – the decline here equalled 4.1%.

A total of 825 positions (FTE, excluding contract workers), above all in the operating areas and sales, were filled with external candidates in 2022/23. Various human resources development measures made it possible to fill 63% of the management positions internally.



Employee turnover <sup>1</sup>	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Number of terminations <sup>2</sup>	FTE	N/A	1,014	977	1,059	954
<b>By gender</b>						
Male	FTE	N/A	646	618	730	629
Female	FTE	N/A	368	360	328	326
<b>By age category</b>						
< 30 years	FTE	N/A	324	291	293	260
30 - 50 years	FTE	N/A	533	509	593	535
> 50 years	FTE	N/A	157	177	173	159
<b>By region</b>						
Europe	FTE	N/A	551	574	712	617
Asia	FTE	N/A	430	367	313	301
Australia & New Zealand	FTE	N/A	14	16	17	18
America	FTE	N/A	19	18	17	19
Africa	FTE	N/A	1	2	0	0

<sup>1</sup> Excluding contract workers

<sup>2</sup> Definition according to GRI: Salaried employees who leave the organization voluntarily or due to dismissal, retirement, or death in service; Parental leave is not included as part of employee turnover; Termination based on reasons - termination by employee or employee, consensual termination, expiration of contract, natural causes (retirement, death); Calculation of turnover rate = Number of terminations / average number of employees for the period (beginning balance + ending balance / 2) X 100

## Diversity & and equal opportunity (material topic)

Diversity management in the Zumtobel Group is responsible for creating an inspiring working climate for employees and for its important contribution to protecting the Group's competitive position along the entire value chain.

The goal is to establish an organisational culture in which people and the company can develop and progress. The Zumtobel Group develops long-term relationships with many different groups of people, within the company and also along the entire value chain.

## Diversity & and equal opportunity in the company

The men and women employed by the Zumtobel Group come from 79 different nations, whereby the staff at the corporate headquarters in Dornbirn, Austria, represent roughly 49 nations.

## Development Nations in the workforce



As an equal opportunity employer, the Zumtobel Group rejects any form of discrimination based on social or ethnic origin, gender, sexual orientation, religious conviction or ideology, age, physical or mental capabilities, or other characteristics. Every person is unique, valuable and has individual capabilities. This belief is also reflected in the Zumtobel Group's code of conduct,



which prohibits all forms of discrimination. Experience, qualifications and performance form the basis for personnel decisions in all corporate areas and at all management levels.

### Diversity & and equal opportunity along the value chain

For the Zumtobel Group, diversity means variety in the broadest sense of the term. The Group sees its efforts in the interest of diversity and equal opportunity not only in relation to its own workforce, but also along the entire value chain. Suppliers and customers can be completely different but are always treated equally.

The implementation of due diligence requirements along the entire value chain marked the first step on the path to greater supplier diversity. The ILO's International and Labour Social Standards represent a legal instrument that was developed by the member groups (governments, employers and workers) to define universal labour principles and rights. It involves agreements or protocols that must be implemented in national law by the member states, generally within one year after ratifying the ILO norm.

The guidelines for the commitment to Convention 100 (equal remuneration for work of equal value) and Convention 111 (prevention of discrimination) are anchored in the Zumtobel Group's code of conduct and in the code of conduct for business partners.

Diversity and inclusion make a central contribution to

the success of the Zumtobel Group and to the creation of innovative solutions along the supply chain. Existing and future partnerships with different suppliers and customers give the Zumtobel Group a clear competitive advantage. The expansion of business relations with diverse business partners makes a contribution to a more inclusive and diverse world.

### Support for women in the company

The share of women in the Zumtobel Group's workforce rose slightly to 36.6% in 2022/23 (2021/22: 36%). The share of women in management positions equalled 22.2% and increased over the previous financial year (21.5%).

The Zumtobel Group promotes the staffing of management positions with women through internal and external recruiting and human resources development measures. Job vacancies, including positions with management responsibility, are also advertised as part-time positions where possible to create part-time entry opportunities and management functions. The Zumtobel Group recognises that the continuation of existing initiatives and an open approach to new initiatives requires a greater share of women in higher qualified positions.

In order to safeguard its competitive ability and benefit from a wide range of different viewpoints, the Zumtobel Group has set a goal to increase the share of women and, accordingly, their representation in the Group each year.

Women by functional area	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Women <sup>1</sup> (total)	Head-count	N/A	2,192	2,143	2,142	2,092
Female contract workers	in %	N/A	N/A	2.9	3.5	2.1
Production	in %	N/A	N/A	58.6	58.4	57.8
Research and development	in %	N/A	N/A	4.0	3.8	4.2
Sales	in %	N/A	N/A	22.1	22.6	23.1
Administration	in %	N/A	N/A	12.4	11.8	12.8

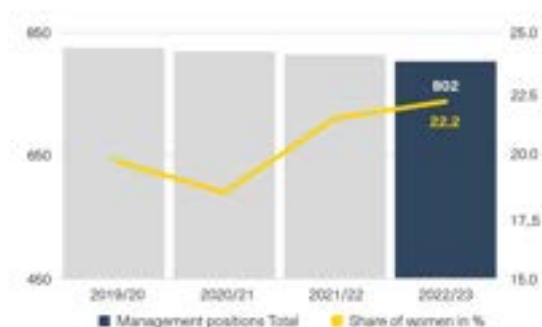
<sup>1</sup> Excluding apprentices



Women in management positions	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Management positions (total)	Head-count	N/A	824	818	813	802
Women in management positions	Head-count	N/A	163	151	175	178
	in %	N/A	19,8	18,5	21,5	22,2
Top management (managing director/board member)	Head-count	N/A	0	0	0	0
Senior management (division manager)	Head-count	N/A	5	5	5	7
	in %	N/A	8,9	8,5	9,4	13,0
Middle management (e.g. department head)	Head-count	N/A	25	29	39	37
	in %	N/A	10,9	12,6	16,4	15,5
Others (e.g. team leader, overseer)	Head-count	N/A	133	117	131	134
	in %	N/A	24,8	22,2	25,2	26,5
Supervisory Board <sup>1</sup>	Head-count	N/A	2	3	3	3

<sup>1</sup> The women on the Supervisory Board are not included in the total number of management positions or the number of women in management positions.

#### Development of women in leadership positions



#### Diversity & inclusion

The inclusion of employees with physical or mental impairment has high priority for the Zumtobel Group as an employer, and these employees are actively assisted in their everyday work routine.

For example: the plant in Dornbirn has operated a career support programme for over 30 years that helps young people with physical or mental impairment in taking their first steps on the employment market. This two-year training course is designed to make the participants fit for the labour market.

The Zumtobel Group also employs women and men with physical, mental or cognitive limitations in other areas, administration as well as production, who make an important contribution in their respective functions.

Appropriate adjustments are made wherever possible (e.g. additional breaks, seated activities etc.) to help employees with special needs. Managers receive special awareness training and preparation for these situations and are assisted by external persons – for example at the Spennymoor plant, where the Zumtobel Group also employs persons with autism.

The Zumtobel Group has implemented various measures in support of women, diversity and inclusion. Following are a few example:



### Measures for the advancement of women and diversity

- Personal skills, experience, know-how and capabilities form the basis for evaluating qualifications during the recruiting process and in personnel decisions. The equal treatment of genders is strictly observed.
- The Zumtobel Group uses a standardised remuneration structure that is based on job descriptions and appraisals to ensure transparent and performance-based remuneration in line with equal opportunity (equal opportunity employer).
- The Zumtobel Group puts measures in place to improve the work-life balance. Part-time employment, educational leave, sabbaticals, parental leave for fathers, home office options or other models are arranged where needed.
- The Zumtobel Group received the quality seal as a family friendly company ("Ausgezeichneter familienfreundlicher Betrieb 2022–2023") from the province of Vorarlberg and ZG Lighting Austria was re-certified as a family-friendly employer.
- The Zumtobel Group participates in various events that focus on women in a working environment and aim to interest girls in apprenticeship programmes (e.g. the Female Future Festival or "I kann's! I traumer's zu!").
- The headquarters has organised cooperation programmes with local day-care centres in Dornbirn which give preference to the children of Zumtobel Group employees.
- Thorn UK communicated and rolled out a policy and training for managers to best assist women during the menopause.
- The Zumtobel Group creates a greater awareness for gender equality with campaigns on International Women's Day.

### Partnerships with diverse/various suppliers

The Zumtobel Group maintains partnerships with suppliers that meet the defined diversity and equal opportunity criteria.

One example is the partnership with "Geschützte Werkstätte Integrative Betriebe Tirol GmbH" (gwtirol), which is a member of "die integrativen betriebe österreich" (dib).

Of the 300 employees in the gwtirol workforce, 84% are people with disabilities. The Zumtobel Group concludes an annual framework agreement with gwtirol for the production of pallets and wooden interlayers for our internal transport logistics. Roughly 11,000 pallets and 70,000 wooden interlayers were ordered for our production facilities in 2023.



### Critical concerns & the whistle-blower system

Employees and business partners can report violations of corporate principles and non-compliance with due diligence requirements by the Zumtobel Group and its direct and indirect business partners along the value chain via a separately installed whistle-blower hotline.

The system is hosted externally and can be reached over the Zumtobel Group's website. As an alternative, reports can also be submitted by email to the Zumtobel Group's compliance department.

Email: [compliance@zumtobelgroup.com](mailto:compliance@zumtobelgroup.com)





All incoming reports are processed according to established procedures and any necessary steps are taken.

#### Disclosure of incidents:

- No discrimination incidents were reported in 2022/23.

#### Employee rights and remuneration programme

The Zumtobel Group follows a uniform approach for the design of remuneration structures, processes and systems. This ensures transparent and performance-based compensation based on equal opportunity (equal opportunity employer).

- The wages and salaries paid by the Zumtobel Group generally exceed the legally required minimum in all countries.
- In Austria, the remuneration paid by the Zumtobel Group largely reflects the legal level, respectively the level set by the collective agreement for the electrical and electronics industry.
- A standard market salary and job evaluation system focused on objective criteria for the respective function ensures that all employees are treated equally and in line with the market.
- Internal salary comparisons and external evaluations with competitors based on market data are used to confirm the fair and competitive structure of wages and salaries.

Employees who are eligible to participate in variable remuneration programmes but not covered by another remuneration scheme are evaluated for the one-year or short-term component (short-term incentive, STI) based on the attainment of central financial goals for the Zum-

tobel Group together with an individual component.

The performance criteria for employees covered by the STI will be adjusted beginning in 2023/24 to concentrate the incentive even more on the current corporate strategy.

- These criteria explicitly include ESG goals that reflect the Zumtobel Group's targeted focus on long-term, sustainability-oriented actions.
- The ESG goals for the 2022/23 financial year include, among others, the reduction of CO<sub>2</sub> emissions, an increase in the internal recycling rate, and personnel development projects.
- The EBIT margin (formerly: adjusted EBIT) serves as a central financial performance criterion.
- The performance criterion "free cash flow" still has high priority for the Zumtobel Group and therefore remains in the STI.

For top management employees who are covered by the LTI (Long-Term Incentive, LTI), a performance cash plan with a standard market performance period of four years was introduced.

- Relative TSR remains as part of the performance criteria. However, the Supervisory Board has decided to use the STOXX® Europe 600 Industrial Goods & Services in place of the previous individual comparative group to place the evaluation of capital market performance on a broader and more stable base of relevant, similar companies which is easier to calculate and can be publicly verified.
- In addition to the relative TSR, revenue growth was implemented as a second performance criterion to strengthen the focus on capital market performance and on the attainment of the Zumtobel Group's long-term strategic goals.



The ratio between the annual total remuneration of the highest paid person in the organisation (CEO) and the average of the annual total remuneration of all employees in Austria is 23:1. In the calculation for the ratio of the annual total remuneration, the average rather than the median was used.

All Austrian employees had a median percentage increase in pay of 6.2% in 2022/23 compared to 2021/22, while the CEO's pay decreased by 2.6% over the comparable period.

### Human rights (material topic)

The respect for and compliance with human rights forms the basis for cooperation. The Zumtobel Group is committed to compliance with human rights and the fundamental principles of labour law, occupational safety and the protection of health all over the world. Respect for human rights is an integral part of the corporate culture and management. Compliance with human rights and the prevention of child labour and forced labour is audited annually at all producing locations, together with local management, to eliminate the possible risk of the employment of minors.

All ISO 14001-certified, i.e. 10, producing sites comply with legal requirements regarding labour law and occupational safety law. In the European countries, all human rights relevant to a company are anchored in EU regulations and national laws. These requirements are recorded in a legal database, measures to implement them are implemented, and compliance is randomly checked through annual audits.

The Zumtobel Group's code of conduct establishes the basis for employees' daily actions. The code is designed to ensure that the defined principles and due diligence guidelines help our employees to act honestly in every business situation and to minimise human rights risks for the company. For this purpose, the Zumtobel Group has adopted the entire ILO content related to due diligence and human rights issues.

The ILO's International and Labour Social Standards represent legal instruments that were developed by the member groups (governments, employers and workers) to define universal labour principles and rights. They

involve agreements or protocols that must be implemented in national law by the member states, generally within one year after ratifying the ILO norm. The following conventions were included in the documentation for the code of conduct and the whistle-blower system:

#### ILO Core Labour Standards

##### Freedom of association

- Convention 87
- Convention 98

##### Forced labour

- Convention 105
- Convention 29
- Protocol to the Convention 29

##### Child labour

- Convention 138
- Convention 182

##### Discrimination and fair working conditions

- Convention 100
- Convention 111

##### Occupational safety & health

- Convention 155
- Convention 187

During the past two financial years, 95% of salaried employees took part in training on the code of conduct and successfully completed the required examination.

As an international corporation, the Zumtobel Group is fully committed to the protection of human rights and compliance with high social standards along the entire supply chain and to the legal regulations applicable in Austria and other countries. Significant investment agreements are not explicitly defined in the Zumtobel Group. Cooperation with suppliers requires full agreement and commitment to the supplier code of conduct: 97.4% of suppliers have signed this code.



#### **Goal for 2023/24:**

- The Zumtobel Group plans to prepare and roll out a human rights policy in 2023/24.

#### **Disclosure of incidents:**

- No reports of possible misconduct involving human rights were received or processed over the Zumtobel Group's whistle-blower system in 2022/23.
- There were no findings or proceedings involving violations of human rights at any location during the reporting year.

The whistle-blower system provides a platform for anonymously reporting violations or reasonable suspicion of violations of human rights. The system is hosted externally and can be accessed via the Zumtobel Group's website. As an alternative, reports can also be submitted by email to the Zumtobel Group's compliance department or employees can contact other trusted persons, e.g. in the Works Council.

The Zumtobel Group documents its commitment to responsible management, compliance with human rights and the prevention of child labour and forced labour through active membership in the UN Global Compact Initiative. This commitment was renewed in 2022/23 and published in the annual progress report of the UN Global Compact (COP – Communication on Progress) which is available the Zumtobel Group's website.

#### **Social dialogue – employees & employer**

As an employer with a corporate culture that has grown over many decades, the Zumtobel Group accepts social responsibility for its employees throughout the world and works continuously to improve responsible working conditions.

The Zumtobel Group encourages the open and regular exchange of information between the Management Board, employees and employee representatives, for

example in the Works Council. In addition to the local employee representatives, the works councils in the European Union have established a European Works Council.

A European forum is held each year, and the European Works Council Committee meets every six months. These meetings set the stage for a dialogue between employers and employee representatives based on co-operation in good faith and the exchange of information on economic and social issues.

Compliance with the legal participation rights of employees and the principles and standards defined by the International Labour Organisation (ILO) is anchored in the Zumtobel Group's code of conduct.

#### **Occupational safety, health and well-being (material topic)**

##### **Management approach & due diligence processes**

The success of the Zumtobel Group is based, last but not least, on qualified, committed and motivated employees. The occupational safety, health and well-being of these women and men was identified as a material topic for the Zumtobel Group. It has high priority and is the focus of continued improvement as part of the global "LIGHT UP" HR strategy.

Work accidents, illness and voluntary turnover are addressed with targeted measures for prevention, health care and reintegration through projects, initiatives, tools and processes.

Specially designed measures are implemented to continuously improve occupational safety and employees' physical and mental health. Central and local structures are established for this purpose and integrated in existing organisations based on a "health in all policies" approach. The related activities are the responsibility of local safety officers and health management, which reports to the human resources department.

The Zumtobel Group's comprehensive operational health management programme is based on three pillars: worker protection legislation, workplace health promotion and integration management. Leadership



and management behaviour play an important role in the implementation of the related measures, where they can rely on the integrated "ZG Health" central health management system.

In this connection, the plants regularly exchange information to evaluate and analyse current issues, define goals and exchange their experience with previously implemented measures to protect, maintain, support and restore employees' health and working ability.

The production locations in the Zumtobel Group have defined processes to ensure compliance with legal regulations that include the Austrian Labour Protection Act, standards like ISO 45001, and internal directives like the guidelines on occupational safety and health policy, workplace instructions and workplace evaluations.

A global reporting system regularly evaluates and analyses occupational safety and health protection indicators, which are subsequently reflected in the definition, implementation and assessment of measures.

The Tridonic and lighting brand plants in Dornbirn and Spennymoor were successfully certified under the ISO 45001 matrix standard for management systems in 2022/23.

The Serbian plant was successfully certified in the areas of safety and health during 2021/22. In November of the 2023/24 financial year, the certification of this management system is also planned for the lighting plants in Lemgo and Les Andelys.



## Worker protection

Specific environmental, health and safety guidelines are regularly evaluated by local safety and fire prevention officers at all producing locations. This is done through regular inspections by the safety officer, but also on an ad hoc basis when machinery is relocated or new and adapted workplaces are created in order to evaluate potential occupational safety risks. The primary goal here is to prevent accidents and identify work-related risks or dangerous situations.

## Near miss messages

Employees can report potential dangers or near accidents through a formalised procedure for the documentation and prioritisation of risks and the implementation of preventive measures. Employees without PC access can register reports through their managers. Through this formalised procedure, employees can report their safety concerns and suggestions for improvement or near misses without fear of negative consequences. In addition, concerns can also be entered anonymously via the whistle-blower system, via the safety officer or the safety confidant.

Employees are required and have the right to immediately interrupt activities, tasks and work processes if they do not appear to be safe or do not meet safety requirements. Work can only continue after the safety officer has examined the situation and safety is ensured.

Measures are implemented on a continuous basis to increase workplace safety and include employee training, improvements to protective clothing, and the maintenance of machinery. Accident prevention and the protection of employees' health are the subject of discussions at regular, formal employer-employee meetings.

Employee representatives like the Works Council are included at many locations on issues involving occupational safety, e.g. occupational safety committees or workplace evaluations. Employees can submit suggestions for improvement at any time which are evaluated and, if feasible, implemented.

All employees/contract workers receive occupational safety instructions for machines, workplaces and



activities at the start of employment as well as specific directions for their respective positions and handling of machinery and equipment.

Additional occupational safety training is scheduled as required, e.g. for testing or load securing. The requirements and procedures as well as all important documents on occupational safety and health protection are available in an internal communications network.

At the lighting plant in Dornbirn, comics and comic films on safety are released every two months under the name "Lighti". Management introduces every new release at one of the daily stand-up meetings. "Lighti" creates an awareness for dangers and preventive measures with non-verbal means and can be understood by all employees regardless of their native language.

These safety rules also apply to non-company personnel such as external service providers, visitors, etc., who receive instructions on entering the site. In addition, protective clothing such as safety shoes and high-visibility waistcoats must be worn in all production and storage areas. External service providers are informed of the need to comply with legal requirements and confirmations are obtained on an ad hoc basis.

The offering of occupational medical services varies from country to country. Company physicians/occupational physicians are available to employees at all locations or these services are provided by external specialists. Consistent with the commitment to equal treatment, contract workers in the Zumtobel Group have the same access to occupational medical services and health protection programmes as regular employees.

Depending on their location, employees can take advantage of occupational medical services that include, for example, ergonomics advising, audiometric examinations, vaccinations, vision tests (also for computer glasses) or psychological assistance.

Regular coordination meetings are held by the prevention team at the lighting brands location in Dornbirn. This interface allows for better coordination between the occupational physician, safety officers, Works Council and health management. Representatives from quality management, plant management or other experts are included as needed.



### Operational reintegration management

A reintegration process helps employees return to work after a longer illness, subject to health-related constraints (e.g. limits on daily working time or adaptation of the job content, etc.). An internal integration team accompanies this process.

In addition to reintegration discussions after longer sick leave, the location in Dornbirn introduced "health talks" as a pilot project to assist employees after brief or recurring illnesses. Managers receive special training in preparation for these conversations.

The goal is to positively influence employees' health and working capabilities and to jointly evaluate measures to increase employees' health, work satisfaction and motivation and, in the end, to prevent long-term sick leave. Plans call for the roll out of this process as part of the global leadership programme after completion of





the pilot phase in Dornbirn.

The guideline for these health talks (H-I-L-F-E-concept) was prepared together with managers and representatives of the Works Council together with an external consultant.

#### **H-I-L-F-E-Konzept/The HELP concept:**

H	Hinsehen Be aware
I	Initiative ergreifen Take the initiative
L	Leitungsfunktion wahrnehmen Provide leadership
F	Führungsverantwortung übernehmen Accept management responsibility
E	Experten hinzuziehen Call in the experts

#### **Operational health promotion**

The Zumtobel Group is committed to an active occupational safety and health policy:

- Managers are responsible for the implementation of health management in the company.
- Through their (management) behaviour, managers influence the health and well-being of their employees.
- Managers are, themselves, exposed to substantial mental stress.
- Managers serve as a role model: They must demonstrate their commitment to health.

Healthy management is, consequently, a focal point of management development in the Zumtobel Group and will be reflected in the upcoming introduction of a “healthy management” policy.

#### **Pilot project in Dornbirn**

The Zumtobel Group and the Austrian state health insurance company have started a two-year pilot project for workplace health promotion at the location in Dornbirn. The goal is to create a greater awareness among management and employees for issues related to health in the company.

The project will include an employee survey on issues like work assignments, the organisational climate, work organisation, the working environment, management, cooperation, work satisfaction, rest and recuperation, nutrition, exercise and the evaluation of mental stress.

The state health insurance company is also carrying out a detailed analysis of sick leave that will describe and evaluate the number of sick leave days and cases, the length of sick leave and the most frequent illnesses. Based on the results and analysis of the survey, focal points and measures will be defined and implemented.

Various measures were implemented at the Zumtobel Group's locations in 2022/23 to improve occupational health. Following are several examples:

#### **Workplace health promotion measures**

- Courses for first aid helpers
- Vaccination campaigns (influenza & tick protection)
- Training on ergonomic posture for office and production workplaces, adaptation of workplaces
- Healthy nutrition: Water dispensers in production and tips on correct drinking through reminders in the Intranet, regular supplies of fruit and healthy menu alternatives in the cafeteria



- Exercise: Company sport club with various sections, backing for participation in runners and cycling competitions, reduced membership fees in local fitness studios and sport courses
- Local initiatives, e.g. information on stress reduction, high blood pressure, men's health and breast cancer, tips to improve mental health and relaxation as well as blood donation campaigns and throat examinations for smokers
- Information campaign on work-specific examinations by the occupational physician

2.5 (2021/22: 5.8) in the components plants and to 4.6 (2021/22: 9.3) in the lighting plants. The accident severity indicator (number of days lost x 1,000,000 / Total hours worked) dropped from 87 in the previous year to 42 in 2022/23.

The reduction in the number of occupational accidents and thus the improvement in the accident rate is the consequence of a structured and sustainable approach to improving occupational safety. The health of our employees is anchored in the Zumtobel Group's FOCUSED strategy as a key factor. With the establishment of an occupational health and safety management system in accordance with the international ISO 45001 standard and successful external certification, the structure has been created to work continuously on improving occupational safety in the Zumtobel Group.

### Work accidents, injuries & lost time due to illness

The LTI rate (Lost Time Injury: number of work accidents with lost time >8 hours x 1,000,000 / Total hours worked) is calculated monthly at all plants. In the Zumtobel Group, the LTI rate declined significantly to 3.7 in 2022/23 (2021/22: 7.7). The LTI rate fell substantially to

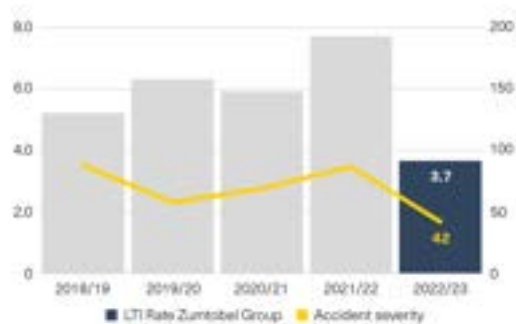
A key pillar of the occupational health and safety management system is a good „near-accident system“, which is implemented at all European production sites and systematically identifies and eliminates potential hazards for occupational accidents. It is important that all employees participate, as this is the only way to con-

Occupational safety/accident rate	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Number of hours worked by employees	Hours	6,292,218	5,990,381	5,405,699	5,963,163	6,021,128
Number of recorded accidents <sup>1</sup> Lighting Brands	Number	40	59	29	34	15
Number of recorded accidents <sup>1</sup> Components	Number	7	6	4	16	7
LTI rate Lighting Brands		7.3	10.1	9.2	9.3	4.6
LTI rate Components		2.7	2.3	1.7	5.8	2.5
<b>LTI rate Zumtobel Group</b>		<b>5.2</b>	<b>6.3</b>	<b>5.9</b>	<b>7.7</b>	<b>3.7</b>
TRI rate Lighting Brands		11.3	18.6	9.5	10.6	5.9
TRI rate Components		7.0	6.0	4.0	5.8	3.2
TRI rate Zumtobel Group		7.5	10.9	6.1	8.4	4.7
Number of fatal accidents	Number	0	0	0	0	0
Accident severity Lighting Brands		N/A	N/A	N/A	101	66
Accident severity Components		N/A	N/A	N/A	71	15
<b>Accident severity Zumtobel Group</b>		<b>88</b>	<b>58</b>	<b>69</b>	<b>87</b>	<b>42</b>

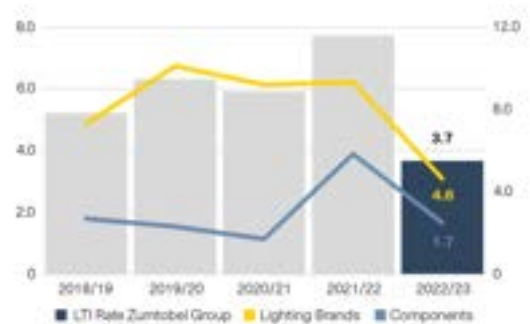
<sup>1</sup> Recorded accidents = Accidents which result in more than 8 hours of lost working time; Accident rate = Reportable work accidents / Number of hours worked x 1,000,000



Development of LTI rate and accident severity



LTI rate by segments



tinuously identify such hazardous situations in all areas. In the Lighting Brands plants in Europe alone, 500 „near accidents“ were identified, documented and systematically eliminated by the employees.

In the process, technical safety devices were improved on a wide range of machines and equipment, Lock Out / Tag Out was introduced for the maintenance of machines and equipment, personal protective equipment was optimised for areas of metalworking and coating, safety first campaigns were carried out and special training sessions on occupational safety were held.

In addition, a monthly safety review meeting was set up at both the Lighting Brands plants and the Tridonic plants. This safety review meeting is attended by a member of the Executive Board, all plant managers and all those responsible for occupational safety at the plants.

The key figures from the sites are presented, occupational accidents and „near misses“ are explained, improvement measures derived from them are shared and ideas for further improvements are exchanged. exchange ideas for further improvements.

### Top 3 types of injuries

Cuts

Bruises

Contusions

The company's goal is to continuously reduce the LTI rate over the coming years and to establish a pronounced safety culture, for example through an increase in training on the prevention of work accidents.

A pilot project on workplace health promotion is currently in progress together with the Austrian state health insurance company at all locations in Dornbirn. It involves in-depth analyses (employee survey and workshops) of stress and work-related illnesses and will form the basis for the definition and implementation of preventive measures.

### Disclosures on occupational accidents:

- As in previous years, there were no fatal accidents at work during the there were no fatal accidents at work.



#### Disclosures on work-related illnesses::

- There were no fatalities due to work-related illnesses in the deaths due to work-related illnesses.

#### Sick leave analyses

As part of the operational health management programmes, a sick leave analysis was carried out at all locations in Austria during the 2022 calendar year under the direction of the Austrian state health insurance company. The following illnesses were evaluated.

Number of days absent	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Respiratory system	Days	N/A	N/A	N/A	N/A	2,599
	in %	N/A	N/A	N/A	N/A	14.1
Musculoskeletal and connective tissue	Days	N/A	N/A	N/A	N/A	4,718
	in %	N/A	N/A	N/A	N/A	25.5
Injuries and poisoning	Days	N/A	N/A	N/A	N/A	1,991
	in %	N/A	N/A	N/A	N/A	10.8
Digestive system	Days	N/A	N/A	N/A	N/A	546
	in %	N/A	N/A	N/A	N/A	3.0
Mental and behavioural disorders	Days	N/A	N/A	N/A	N/A	2,548
	in %	N/A	N/A	N/A	N/A	13.8
Circulatory system	Days	N/A	N/A	N/A	N/A	338
	in %	N/A	N/A	N/A	N/A	1.8
Other diseases <sup>1</sup>	Days	N/A	N/A	N/A	N/A	5,738
	in %	N/A	N/A	N/A	N/A	31.1

<sup>1</sup> Diseases that have been grouped together for data protection reasons







# ENVIRONMENTAL PROTECTION

## WHERE WE ARE ALREADY GOING VERY FAR: OUR OPERATING SITES.

The reduction of more than 2,000 tonnes of CO<sub>2</sub>, the saving of 100 tonnes of residual waste and a recycling rate of 91 per cent within operational waste are milestones we have already passed. With the introduction of a quarterly reporting system, we provide ourselves with a regular overview of our sustainability performance in the operations and progress on further measures at short intervals.

## WHAT STILL LIES AHEAD

We also want to bring Tridonic at the Dornbirn site to over 90 percent renewable energy. We are also reviewing all other operating sites, especially our four sites with powder coating facilities, for their ability to switch to alternative energy sources.

## TARGETS 2023/24

- Reduce CO<sub>2</sub> emissions to at least 9,950 tonnes
- Develop a compensation strategy for residual emissions
- Increase the recycling rate to 92%



# ENVIRONMENTAL PROTECTION



*„FOR ME, ENVIRONMENTAL PROTECTION MEANS CAREFUL AND EFFICIENT USE OF RESOURCES AS WELL AS THE AVOIDANCE AND REDUCTION OF EMISSIONS AND WASTE ALONG THE LIFE CYCLE OF OUR PRODUCTS AND SERVICES. THE SUSTAINABLE SAFEGUARDING OF OUR LIVING SPACE AND OUR CORPORATE GOALS ARE EQUALLY IMPORTANT.“*

Philipp Magritsch, Head of Global Quality & HSE Management

## Management approach & due diligence processes

Environmental protection is an essential element of the integrated management system. The Zumtobel Group's environmental management concept is based on three elements:

- Environmental and energy management systems that are certified under the international ISO 14001 and ISO 50001 standards
- Strict compliance with internal and external environmental protection guidelines
- Efforts to continuously improve the company's environmental and energy-related performance

Quality Austria, as the accredited certification partner, confirms the Zumtobel Group's use and continuous improvement of effective environmental and energy management systems by issuing ISO 14001 and ISO 50001 certificates. The main goals of this integrated management system are to improve environmental performance, to meet the goals for the reduction and prevention of negative effects on the environment, and to ensure compliance with legal, government and voluntary obligations.



The principles and goals of environmental protection are anchored in the Zumtobel Group's environmental policy, which serves as a guideline for all employees to improve the sustainable use of resources in their everyday actions. At every location, top management – with the assistance of local environmental management officers – is responsible for providing sufficient resources for the attainment of environmental goals. Global process owners ensure compliance with all requirements of the ISO standards and binding obligations in their business processes.

A context analysis is carried out annually at all global and local production locations to identify the major internal and external issues, stakeholder requirements, and related opportunities and risks. The assessment of these opportunities and risks and the prioritisation of issues is followed by the definition, planning and implementation of measures. This ensures the attainment of environmental and all other corporate goals. The global quality organisation, which is responsible for the integrated management system and, in turn, for the environmental and energy management systems, defines the framework and assists with the strategy implementation.

Environmental goals are defined on a global basis and then broken down to the individual Zumtobel Group locations. Progress is monitored with transparent, periodic and global reporting based on the standards set by the Global Reporting Initiative. The most important indicators for this reporting are energy consumption, CO<sub>2</sub> emissions, water consumption, waste and the recycling rate. Absolute values as well as output-based statistics are provided because the volume of the produced products has a major influence on the Zumtobel Group's environmental and energy-related performance.

Environmental performance is monitored and evaluated locally at each location and also by the global quality organisation and the Management Board. This procedure



re allows for the early identification of variances and the definition and implementation of countermeasures.

The data for the environmental and energy indicators are based on supplier information and invoices, and final data are, in part, only available more than one month later. Therefore, there are minimal variances between the indicators in the last sustainability report and the indicators in the final environmental and energy report.

Clearly defined procedures and processes as well as established methods help to ensure that the best available materials and techniques are used where appropriate and economically feasible. Moreover, the development of products and services covers the entire lifecycle from the selection of materials to the required technologies, production, transportation, use and recycling.

In addition to quality and lean management, the environment, energy, and health and safety at work are key focal points for the global production network. The continuous improvement process in the production network (global operations) defines clear standards and helps the Zumtobel Group to effectively and efficiently use the available resources and meet the high expectations and demands of customers.

The environment and energy are also becoming increasingly important issues for customers and are frequently a central factor for the product selection process. Continuous improvement involves the optimisation of production and the underlying processes as well as the responsible use of resources and raw materials. Other important elements are energy efficiency, the protection of employees' health, and efforts to prevent the negative influence of processes on the environment.

The Zumtobel Group not only stands for the continuous improvement of supply chain processes, but also for the continuous improvement of its own business processes, products and services. Procedures have been implemented to identify and evaluate opportunities for improvement as regards the environment, energy, safety and health at work, and quality. The identified opportunities are recorded, documented in structured form and subsequently addressed.

The effectiveness and further development of the integrated management system is ensured by regular internal and external audits, management reviews, strategic

improvement projects, and continuous improvement activities.

### **Competence and awareness**

The employees responsible for the maintenance and continuous improvement of the environmental and energy management systems have corresponding training, which is verified annually as part of the employee reviews. The Zumtobel Group wants to create a greater awareness among all employees for the environment and the responsible use of resources. Employee awareness for the importance of environmental protection is emphasised in numerous communication channels.

Introductory folders and welcome training for new staff, info screens in the break-time areas and Intranet websites that are available to all employees provide wide-ranging information on a variety of environmental issues. Supervisors and environmental protection officers regularly train and instruct employees on the environmental effects and issues which are relevant for their specific responsibilities. In addition, employees are informed of environmental projects planned and implemented throughout the entire Zumtobel Group.

Activities in 2022/23 focused on the issue of waste. Employees received training on the major non-renewable materials used in production. The volume of waste resulting from production processes was visualised on the shop floor and appropriate measures were defined and implemented to achieve a reduction.



ISO Certificates	ISO 9000:2015	ISO 14001:2015	ISO 45001:2018	ISO 50001:2018
Head office Dornbirn, AT	X	X	X	X
Lighting Brands Dornbirn, AT	X	X	X	X
Lighting Brands Lemgo, DE	X	X		X
Lighting Brands Spennymoor, UK	X	X	X	X
Lighting Brands Niš, RS	X	X	X	
Lighting Brands Les Andelys, FR	X	X		
Components Dornbirn, AT	X	X	X	X
Components Niš, RS	X	X	X	
Components Spennymoor, UK	X	X	X	X
Component Shenzhen, CN	X	X		
<b>In % by sites</b>	<b>100</b>	<b>100</b>	<b>70</b>	<b>60</b>
<b>Total</b>	<b>10</b>	<b>10</b>	<b>7</b>	<b>6</b>

Newly added certifications

### Attainment of environmental goals

In line with the management process, the goals for the coming financial year were based on the context analysis and a review and adjustment of the strategic focus and strategy. A management review at the end of the financial year studies and analyses the goal attainment and, if necessary, identifies corrective measures.

Most of the goals defined by the environmental and energy reporting programmes were met in 2022/23.

The goal was met to retain certification under ISO 14001 and to implement ISO 50001 matrix certification for the lighting brands. The Zumtobel Group successfully passed all external audits without any variances. Environmental and energy reporting was again prepared according to GRI standards in 2022/23 and reporting was expanded to include a dashboard. Data is collected monthly, and the indicators are monitored by the local organisations together with the global quality department as part of the monthly management review.

In addition, the goal was met to hold a monthly environmental and energy review meeting of all European production facilities. All plants, together with global quality

and the Management Board, now present monthly data on their environmental and energy-related performance as well as current actions for improvement. These meetings are intended to strengthen the focus on environmental issues as well as the transfer and expansion of best practice approaches within the Zumtobel Group.

### Target achievement 2022/23

#### • Emissions

A further step was taken during the reporting year to attain climate neutrality. The goal to reduce CO<sub>2</sub> emissions by 10% compared with the previous year was reached as an absolute value and in relation to produced and sold volumes. CO<sub>2</sub> emissions were reduced by 23% as an absolute value and, based on produced and sold volumes, by 12%.

#### • Renewable energy

The share of renewable energy increased from 52% to 59% and also exceeded the 57% goal.



#### • Waste

The goal to reduce the total volume of waste by 5%, based on produced products, compared with the previous year was not fully met with a reduction of 2%. The lighting plants met this goal with a reduction of 11%. The components plants reduced the volume of waste by 5% but were unable to improve their performance based on produced volumes. The year-on-year results show a deterioration of 10%.

#### • Recycling rate

A further improvement in the recycling rate was also recorded in 2022/23. This indicator rose by 1.3% over the previous year to 91.3% and exceeded the 91% goal.

A detailed evaluation of the individual indicators is provided under the respective subjects.

All major lighting and components locations as well as the administrative facilities that still use fossil fuels for space heating and coating have identified opportunities for improvement and prepared concepts to avoid and reduce the use of fossil fuels. Complete conversion to district heat for space heating will be possible at two production and two administrative locations during the next three years and will be scheduled according to the availability.

As an alternative to gas burners in the coating process, procedures were developed to use heating elements with electricity and hybrid solutions with electricity and gas. Substantial investments will be required to implement these alternatives. The operation of this alternative equipment with electricity will lead to a further increase in the already high energy costs. Alternative, partial solutions and efficiency improvements to existing equipment are therefore planned for the coming financial year.

#### Environmental goals for 2023/24

The Zumtobel Group has set the following environmental goals for the 2023/24 financial year based on its strategic orientation to attain climate neutrality by 2025. The 2021/22 financial year is now used as the new reference year due to the expansion of data collection

for Scope 1 and Scope 2:

- Reduction of CO<sub>2</sub> emissions to 9,950 t
- Increase in the share of renewable energy to 62%
- Reduction in the total volume of waste by 4% based on produced products compared with the previous year
- Reduction in the volume of production waste from non-renewable materials by 10% based on material consumption
- Increase in the recycling rate to 92%
- Receipt of ISO 14001 certification and ISO 50001 matrix certification at all locations

#### Energy & renewable energy (material topic)

Energy consumption is an important environmental aspect for the Zumtobel Group, whereby the focus is placed on the energy consumption that can be directly influenced. Production is responsible for the highest energy consumption and, consequently, the improvement of energy consumption and the use of renewable energy are essential issues for all producing locations.

The largest locations in the Zumtobel Group also operate with certified energy management systems. The goal of an energy management system under ISO 50001 is to continuously improve a company's energetic performance and, in this way, reduce greenhouse gas emissions, energy costs and other relevant effects on the environment.

Energy-related performance is defined as the result of efficient energy use, appropriate energy use and energy consumption. The Zumtobel Group carries out regular special external energy audits at selected locations to identify opportunities for savings and develop measures for improvement. The continuous implementation of these energy efficiency measures is intended to ensure the efficient use of energy.





## Energy consumption in the organisation

Energy consumption data is collected monthly from all production locations in the Zumtobel Group. The use of heating and process energy is based on real-time consumption as calculated by the respective suppliers. The energy consumption of the Zumtobel Group's motor pool was recorded for 2022/23 based on the tanked litres of fuel.

The 2020/21 financial year serves as the new reference year. Data on the energy consumption of the motor pool and the administrative buildings owned by the Zumtobel Group was not available for recording in 2020/21 and was therefore included retroactively to permit comparison and to show energy consumption.

The major energy consumers in the lighting plants are the plastic injection moulding machines, coating equipment, cooling aggregates and the generation of space

heat. Since the proportion of plastic in the luminaires is growing and specific colours and durable coating are increasingly requested by customers, the related energy consumption is rising due to the greater use of these technologies. In the components plants, the soldering and hardening processes are the greatest energy consumers.

These significant energy users are recorded and analysed in the energy management system and set a focal point for the implementation of improvement measures. Most of the energy in production is used in Europe (92%).

Energy consumption totalled 87,178 MWh in 2022/23, which means an absolute **reduction of 12%** compared with the previous year (99,445 MWh).

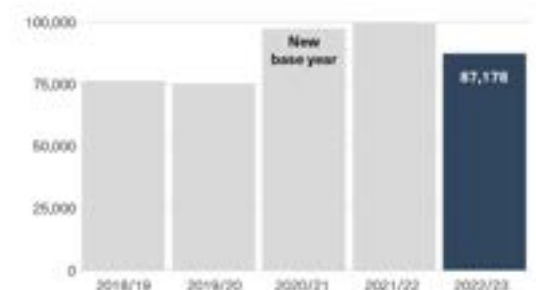
Energy consumption	Unit	2018/19	2019/20	2020/21 <sup>1</sup>	2021/22	2022/23
<b>Process energy</b>	in MWh	<b>64,261</b>	<b>59,591</b>	<b>65,723</b>	<b>68,850</b>	<b>64,453</b>
Electricity	in MWh	48,421	48,260	50,151	50,721	48,217
Electricity from photovoltaics (100% own use)	in MWh	N/A	N/A	319	1,231	1,266
Emergency power/sprinkler aggregate (diesel)	in MWh	N/A	N/A	70	366	58
Process heat (natural gas)	in MWh	15,147	10,316	14,013	15,455	13,915
Local/district heat (supplier mix)	in MWh	288	399	478	436	522
Local/district heat (biomass)	in MWh	405	616	692	641	475
<b>Heating energy</b>	in MWh	<b>11,912</b>	<b>15,268</b>	<b>31,443</b>	<b>30,595</b>	<b>22,725</b>
Thermal heat (natural gas)	in MWh	7,850	9,597	8,697	8,304	5,864
Local/district heat (supplier mix)	in MWh	2,043	2,061	2,423	2,255	1,768
Local/district heat (biomass)	in MWh	2,019	3,610	3,947	3,660	2,901
Motor vehicle pool	in MWh	N/A	N/A	13,849	13,849	10,361
Electricity administrative locations	in MWh	N/A	N/A	734	734	681
Heating energy administrative locations (natural gas)	in MWh	N/A	N/A	1,793	1,792	1,150
<b>Energy total</b>	in MWh	<b>76,173</b>	<b>74,859</b>	<b>97,166</b>	<b>99,445</b>	<b>87,178</b>

<sup>1</sup> New base year for assessing the future development of consumption; the data not yet recorded when the 2020/21 report was compiled was added later.

<sup>2</sup> The forecast data still partially used in the preparation of the 2021/22 report was replaced by actual data.



Development of energy consumption in MWh



### Energy consumption outside of the organisation

The major environmental aspects are identified along the value chain and across the entire product lifecycle. The following upstream and downstream processes have an influence on the environmental aspect of energy consumption and are therefore recorded.

Purchased materials and services, fixed assets, fuels and energy-related emissions, logistics, business travel, commuting by employees and contract workers in upstream processes, the use and disposal of sold products in downstream processes.

The related data are collected and, where applicable, translated into energy consumption. The necessary conversion factors are drawn from various sources like myClimate, World Resources Institute or the Sphera LCA environmental database. These calculated values show the influence of the processes on energy consumption. In addition to improving data collection, actions in this area concentrate on reducing the amount of energy used.

Increasing the energy efficiency of luminaires, LED modules and LED drivers has the greatest influence on total energy consumption. The improvement of total energy consumption is discussed in the paragraph "reduction of energy consumption for products and services".

### Energy intensity

Since the number of produced luminaires and components has a significant influence on total energy consumption, energy-related performance is based on the following indicator: total energy consumption within the organisation/1,000 sold and/or produced units. Total energy consumption within the organisation for the calculation of energy intensity includes process and heating energy as well as consumption by the motor pool.

Energy intensity in the Zumtobel Group during the 2022/23 financial year equalled 1.76 MWh per 1,000 units. Energy intensity deteriorated by 2% in the components plants and improved by 6% in the lighting plants.

### Reduction of energy consumption

The components plants recorded a year-on-year reduction of 12% in energy consumption, which resulted from a decline in the production volume. Energy consumption per 1,000 units increased slightly from 0.358 to 0.366 MWh.

In the lighting plants, energy consumption was reduced by 13%. Energy consumption per 1,000 units improved from 7.013 to 6.609 MWh. The improvement in energy performance versus the new reference year 2020/21, which is required by ISO 50001, was also met.

The war in Ukraine and the resulting sharp rise in energy prices had a significant influence on costs at all of the Zumtobel Group's locations. As a result, the material environmental aspect "energy consumption" received even greater attention. Measures were introduced at all locations to reduce the energy required for heating. In-office work was limited to four days per week at several locations, and the remaining day was spent in home office.

Office areas were reduced and vacant offices were no longer heated. Energy consumption in the office buildings and in production was cut to a minimum over weekends and on all other work-free days. The base energy load was reduced at all producing locations.



The energy consumption for heating fell by 27% in 2022/23 as a result of numerous economy measures as well as the milder winter weather.

## **Continuous improvement**

### **Lighting plant in Dornbirn, AT**

- Optimised switch-off times were specified for energy-relevant machinery and equipment
- Regular detection and repair of compressed air leakage
- Reduction and improved monitoring of the temperature in the curing oven and pre-treatment pool for the coating aggregate

### **Lighting plant in Lemgo, DE**

- Installation of high-efficiency pumps and controls for air cooling
- Optimisation of lighting controls
- Optimised switch-off times for the coating aggregate

### **Lighting plant in Spennymoor, UK**

- Reduction in the energy consumption of the power coating aggregate through optimised capacity utilisation and production on four days
- Optimisation of the energy base load on standstill days
- Installation of sensors to optimise lighting switch-on times

### **Lighting plant in Niš, RS**

- Optimisation of air conditioning and ventilation in the offices and in production
- Detection and repair of compressed air leakage
- Optimisation of the energy base load on standstill days
- Optimisation and separate controls for pre-processing temperatures

### **Lighting plant in Les Andelys, FR**

- Shutdown of the separate warehouse
- Four-day production in power coating
- Optimisation of the energy base load on standstill days

### **Components plant in Dornbirn, AT**

- Installation of LED lighting and controls on two floors
- Reduction of compressed air consumption through a decrease in pressure
- Reduction of energy consumption in the test chamber for HASS tests with new valves and new software
- Refurbishing of the compressor controls
- Optimisation of the energy base load on standstill days

### **Components plant in Niš, RS**

- Optimisation of the air conditioning and ventilation in the offices and in production
- Reduction of energy consumption in the test chamber for HASS tests with new valves and new software
- Optimisation of the energy base load on standstill days

### **Components plant in Spennymoor, UK**

- Installation of LED lighting and controls in the offices and production halls
- Reduction of energy consumption in the test chamber for HASS tests with new valves and new software

### **Components plant in Shenzhen, CN**

- Installation of intelligent controls for the air conditioning system
- Shutdown of cooling compressors and water pumps that are no longer needed
- Refurbishing of two older cooling water towers



## Renewable energy

In 2022/23, **59% of the total energy consumption was covered by renewable energy**. That represents an **increase of 8%** in the share of renewable energy and exceeds the target of 57%.

All European lighting and components plants purchase their total electricity requirements from renewable sources.

The share of renewable energy increased at all locations in 2022/23. This improvement was supported by a 27% reduction in energy consumption for heating as well as the full effect of energy savings implemented in the previous year.

Biogenic generated heat covers 40% of heating requirements and 21% of total gas requirements.

At the components plant in Dornbirn, approximately 35% of the energy required for heating was converted to district heat in autumn 2022.

The lighting plant in Dornbirn will be able to meet its entire heating requirements with biogenic generated heat beginning with the coming financial year. The building in the Schmelzhütterstrasse will be completely converted to district heat in spring 2024.

At the lighting plant in Lemgo, an older gas boiler was dismantled and an additional district heating connection to the local municipal plant was installed. This district heat is used for pre-processing and temperature conditioning in the wet painting process.

The plant location in Niš carried out a feasibility study to evaluate the installation of photovoltaic equipment on the office building, green areas and over the parking lot.

The components plant in Shenzhen increased the share of renewable energy from 17% to 26% based on the purchase of a better energy mix for the 2022/23 financial year.

The Zumtobel Group's largest plant, the lighting plant in Dornbirn, increased the share of renewable energies to 92% with a combination of electricity from hydropower and on-site photovoltaic equipment as well as the use of biogenic generated heat.

## Climate change mitigation (material topic)

Greenhouse gas emissions were identified as one of the material environmental factors for the Zumtobel Group, and their reduction has had high priority for many years. Greenhouse gas emissions result from both energy consumption and the specific energy sources.

Production processes and the downstream and upstream processes make CO<sub>2</sub> the significant greenhouse gas for the Zumtobel Group. Accordingly, the focus was placed on the reduction of CO<sub>2</sub> emissions to support the attainment of climate neutrality (Scope 1 and 2) in 2025. CO<sub>2</sub> equivalents for the various energy sources used by the Zumtobel Group are evaluated, verified and documented at regular intervals.

As the goal to attain climate neutrality is based on Scope 1 and Scope 2 greenhouse gas emissions, the focus is on the reduction of these emissions at the production and administrative locations and in the fleet.

Indirect greenhouse gas emissions in the value chain (Scope 3) lie outside the control of the Zumtobel Group, but comprise the largest component of emissions. Data is collected for each relevant category, and greenhouse gas emissions are determined by appropriate methods and scenarios.

The greatest lever to reduce Scope 3 greenhouse gas emissions is a continuous increase in the efficiency of the entire product portfolio. The goal, in general, is to steadily reduce emissions along the entire value chain in agreement with SBTi requirements.



<sup>1</sup> In 2021/22, the category „transport and distribution“ was included in the downstream emissions. These were allocated to the upstream emissions in 2022/23

## Direct GHG emissions (Scope 1)

Scope 1 CO<sub>2</sub> emissions totalled 7,892 t in 2022/23. In comparison with the previous year (9,064 t), which means an **absolute reduction of 13%**.

The Zumtobel Group uses natural gas for heating and for coating in the production process. The company vehicles and emergency power generators operate with liquid fossil fuels. Various refrigerants are also used in the cooling systems. The 2021/22 financial year was defined as the new reference year because the full scope of data on the production locations has been

recorded since that time. Data related to the motor pool and administrative locations was recorded retroactively for 2020/21.

The applied emission factors were provided by the suppliers. The direct greenhouse gas emissions in tonnes equal the energy consumption in MWh multiplied by the relevant emission factor in tonnes per MWh.

## Indirect GHG emissions (Scope 2)

Scope 2 CO<sub>2</sub> emissions totalled 2,644 t in 2022/23. The **absolute reduction** compared with the previous year (4,698 t) equalled **44%**.





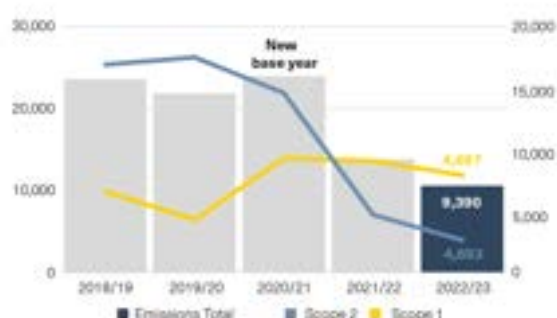
Scope 1&2 emissions	Unit	2018/19	2019/20	2020/21 <sup>1</sup>	2021/22	2022/23
<b>Scope 1</b>	tCO <sub>2</sub> -e	<b>6,581</b>	<b>4,295</b>	<b>9,285</b>	<b>9,064</b>	<b>7,892</b>
Oil	tCO <sub>2</sub> -e	32	0	0	0	0
Diesel	tCO <sub>2</sub> -e	N/A	N/A	93	93	19
Natural gas	tCO <sub>2</sub> -e	6,486	4,248	5,099	4,920	4,150
Fugitive emissions	tCO <sub>2</sub> -e	63	47	142	100	80
Motor vehicle pool	tCO <sub>2</sub> -e	N/A	N/A	3,499	3,499	3,353
Administrative locations natural gas	tCO <sub>2</sub> -e	N/A	N/A	452	452	290
Compensation <sup>3</sup> natural gas Les Andelys	tCO <sub>2</sub> -e	N/A	N/A	N/A	916	626
<b>Scope 2</b>	tCO <sub>2</sub> -e	<b>16,878</b>	<b>17,486</b>	<b>14,586</b>	<b>4,698</b>	<b>2,644</b>
Electricity	tCO <sub>2</sub> -e	16,272	17,066	14,098	4,485	2,583
Photovoltaics (100% own use)	tCO <sub>2</sub> -e	N/A	0	0	0	0
Local/district heat (biomass)	tCO <sub>2</sub> -e	48	85	93	86	61
Local/district heat (supplier mix)	tCO <sub>2</sub> -e	558	335	395	127	0
<b>Scope 1&amp;2 total</b>	tCO <sub>2</sub> -e	<b>23,459</b>	<b>21,781</b>	<b>23,871</b>	<b>13,762</b>	<b>10,536</b>

<sup>1</sup> New base year for assessing the future development of consumption; the data not yet recorded when the 2020/21 report was compiled was added later.

<sup>2</sup> The forecast data still partially used in the preparation of the 2021/22 report was replaced by actual data.

<sup>3</sup> Offsetting natural gas Les Andelys is not included in the sum of Scope 1.

Development of Scope 1 & 2 emissions



Electricity is the largest energy carrier in the Zumtobel Group and, consequently, has a substantial influence on Scope 2 greenhouse gas emissions. Biogenic generated district heat is used primarily for heating but also in pre-treatment for the coating process. The emission factors were provided by the energy suppliers. The electricity

used by the production locations in Europe is generated entirely by renewable energies and has been certified accordingly by the electricity suppliers.

### Other indirect GHG emissions (Scope 3)

The previous report included five categories of Scope 3 emissions. All 15 categories were analysed in 2022/23, whereby 9 categories are material for the Zumtobel Group and are included in this report.

All Scope 3 upstream categories were analysed and evaluated. Findings indicated the following categories are important for the Zumtobel Group: purchased goods & services, capital goods, transport and distribution (upstream), production waste, business travel, commuting by employees, and rented or leased equipment. The most important emissions arise in the upstream category "purchased goods & services".



The highest downstream emissions in the value chain are caused by the category “use of sold goods”. These emissions result from the operation of products with electrical energy over their expected useful life. An additional factor is the “handling of sold goods at the end of the lifecycle”.

### **Purchased goods & services**

Purchased goods & services are classified in merchandise groups. The average data method was used to calculate the emissions for product-related goods. Under this method, a conversion factor is assigned to each material and multiplied by the volume. The cost-based method was applied to all other goods and services.

#### **External data source:**

Sphera LCA data base, World Resources Institute

### **Capital goods**

Emissions from “capital goods” were determined according to the cost-based method. All investments made during the reporting period were included.

#### **External data source:**

World Resources Institute

### **Transport and distribution**

The category of upstream “transport and distribution” includes intracompany transports and paid transports from the company to the customer. The analysis is differentiated by the type of transport: sea, air, truck and rail.

These emissions were reported as “downstream transport and distribution” in the previous year. They are now reported correctly in accordance with the GHG Protocol as “upstream transport and distribution”.

#### **External data source:**

CO<sub>2</sub> calculation in logistics [Kranke 2011]

### **Production waste**

“Production waste” is classified in three categories – recycling material, residual waste and hazardous waste – to calculate the emissions resulting from disposal. A conversion factor is assigned to each category, multiplied by the respective volume and then added.

#### **External data source:**

myClimate, ademe

### **Business travel**

“Business travel” in the Zumtobel Group is booked and recorded centrally. The analysis is based on flight, rental car and rail kilometres as well as the number of overnight stays. Emissions are calculated on the basis of appropriate emission factors.

#### **Data source:**

Department for Environment, Food & Rural Affairs (DE-FRA) / Environmental Protection Agency (EPA), Environmental Agency Austria

### **Employees' commuting**

Emissions caused by employees' commuting in Austria is based on the distance between the place of residence and the place of work, the mode of transport used and the CO<sub>2</sub> equivalent of the respective means of transportation. This value is extrapolated by the number of Zumtobel Group employees worldwide.

#### **External data source:**

VCÖ 2020, Environmental Agency Austria

### **Rented or leased equipment**

In the category “rented or leased equipment”, a differentiation is made between office, warehouse and production equipment. Emissions are calculated by multiplying the respective space by the appropriate emission factor.



#### External data source:

World Resources Institute

#### External data source:

European Environmental Agency

### Use of sold goods

The calculation for the category “use of sold goods” is based on a model that includes the recorded performance and the expected useful life. The expected useful life was adjusted to 35,000h (previous year: 30,000h) in accordance with the current development of the guidelines for the life cycle assessment of lighting products. Correcting factors were applied to dimmable products. All luminaires, LED modules and control equipment are included. A factor for the energy mix in the EU was applied to determine the total emissions.

The emissions reported for the category “use of sold goods” increased over the previous year, mainly due to the higher conversion factor for the energy mix in the European Union and an adjustment to the useful life.

### Handling of sold goods at the end of the lifecycle

The Zumtobel Group's products are subject to the Waste of Electrical and Electronic Equipment Directive (WEEE). The “handling of sold goods at the end of the lifecycle” is based on a model that assumes all metals and 70% of glass are recycled and plastics are thermally utilised. Under this model, electronic waste is transferred to landfills.

#### External data source:

Sphera LCA data base

Other emissions Scope 3 <sup>1</sup>	Unit	2018/19	2019/20	2020/21 <sup>3</sup>	2021/22	2022/23
<b>Upstream Scope 3 emissions</b>	tCO <sub>2</sub> -e	<b>N/A</b>	<b>N/A</b>	<b>661,810</b>	<b>837,070</b>	<b>686,320</b>
Purchased Goods and Services	tCO <sub>2</sub> -e	N/A	N/A	663,000	808,000	658,000
Capital Goods	tCO <sub>2</sub> -e	N/A	N/A	1,900	2,200	2,100
Upstream Transportation and Distribution <sup>2</sup>	tCO <sub>2</sub> -e	N/A	N/A	8,400	8,400	8,100
Waste Generated in Operations	tCO <sub>2</sub> -e	N/A	N/A	710	670	620
Business Travel <sup>2</sup>	tCO <sub>2</sub> -e	N/A	N/A	4,400	4,400	4,200
Employee Commuting <sup>2</sup>	tCO <sub>2</sub> -e	N/A	N/A	4,600	4,600	4,500
Upstream Leased Assets <sup>2</sup>	tCO <sub>2</sub> -e	N/A	N/A	8,800	8,800	8,800
<b>Downstream Scope 3 emissions</b>	tCO <sub>2</sub> -e	<b>N/A</b>	<b>N/A</b>	<b>4,956,300</b>	<b>4,539,500</b>	<b>5,359,100</b>
Use of Sold Products	tCO <sub>2</sub> -e	N/A	N/A	4,924,000	4,499,000	5,324,000
End-of-Life Treatment of Sold Products	tCO <sub>2</sub> -e	N/A	N/A	32,300	40,500	35,100
<b>Scope 3 total</b>	<b>tCO<sub>2</sub>-e</b>	<b>N/A</b>	<b>N/A</b>	<b>5,618,110</b>	<b>5,376,570</b>	<b>6,045,420</b>

<sup>1</sup> Rounding rules: 2/3-digit numbers rounded up to the nearest 10, 4/5-digit numbers rounded up to the nearest 100, all larger numbers rounded up to the nearest 1000.

<sup>2</sup> Values for 2020/21 were taken from the following year.

<sup>3</sup> Base year for assessing emissions development.



### Intensity of GHG emissions

Actual greenhouse gas emissions are exclusively related to energy consumption and the type of energy used. Therefore, the intensity of the greenhouse gas emissions is calculated similar to the energy intensity indicator based on the total greenhouse gas emissions per 1,000 produced or sold units.

Total emissions correspond to the greenhouse gas emissions from process and heating energy at the production locations as well as the emissions from the motor vehicle pool and administrative locations.

The intensity of greenhouse gas emissions in the Zumbel Group improved from 0.243 to 0.213 t per 1,000 units in 2022/23. The intensity in the lighting plants declined from 0.566 to 0.439 t per 1,000 units, for a reduction 23%. The components plants improved by 28% with a reduction from 0.101 to 0.072 t per 1,000 units.

### Reduction of GHG emissions

The Zumbel Group took a further significant step towards climate neutrality in 2022/23. The continuation of various ongoing improvement projects and a focus on energy savings, above all heating energy, were responsible for an absolute year-on-year reduction of 23% in Scope 1 and 2 greenhouse gas emissions to 3,226 t in the reporting year.

In comparison with 2020/21, the new reference year, the absolute reduction equalled 13,335 t and the percentage reduction 56%.

The measures described in the section on "renewable energy" also contributed to the reduction of greenhouse gas emissions and to the attainment of climate neutrality by 2025. Further contributions to the reduction of greenhouse gas emissions are reported under "reduction of energy consumption" and related to natural gas as an energy carrier.

Additional activities and measures to reduce greenhouse gas emissions are listed below.

### Continuous improvement

#### Lighting plant in Dornbirn, AT

- Analysis to expand photovoltaic equipment
- Analysis of the electrification of the dry-off oven and the curing oven in the powder coating aggregate

#### Lighting plant in Lemgo, DE

- Analysis of electrification or hybrid solution (natural gas and electricity) for the dry-off oven, the wet paint dry-off ovens for hand painting and the wet painting aggregate
- Planning for the substitution of district heat for natural gas in the ventilation equipment for the painting aggregate

#### Lighting plant in Spennymoor, UK

- Analysis of a hybrid solution (natural gas and electricity) for the wet paint dry-off ovens and curing ovens in the powder coating aggregate

#### Lighting plant in Niš, RS

- Analysis of electrification of the dry-off oven and curing oven in the powder coating aggregate
- Planning for the recovery of compressor heat and use in warm water processing
- Optimisation of compressor loads

#### Components plant in Dornbirn, AT

- Analysis and planning for conversion of the remaining 60% of heating energy to district heating

#### Components plant in Niš, RS

- Planning for the recovery of compressor heat and use in warm water processing
- Optimisation of compressor loads



### **Emissions of ozone-depleting substances (ODS)**

None of the producing locations in the Zumtobel Group manufacture, import or export ozone-depleting substances.

### **Nitrogen oxides, sulphur oxides and other significant air emissions**

Nitrogen oxide emissions were calculated for the first time based on measurements at the lighting plants in Dornbirn, Lemgo and Niš. Results showed that these emissions are substantially lower than carbon dioxide emissions.

Nitrogen oxide emissions are heavily dependent on the firing process and on the quality of the natural gas. For this reason the median value of the three location measurements was used and emissions were theoretically calculated. The producing locations which use natural gas for process and heating energy were responsible for nitrogen oxide emissions totalling 1.30 t.

A comparison of this value with the previous year shows a reduction of 22.1% in natural gas consumption (previous year: 1.67 t).

The measurements also showed no significant quantities of sulphur oxide at these locations, and these emissions will not be recorded for the time being.

The formation of volatile organic materials (VOMs) is dependent on the volume flows from the aggregates (volumes and operating hours). Consequently, the calculation cannot be based on natural gas consumption. Calculation and recording are planned for the next financial year. The situation is similar for emissions like fine dust or persistent organic pollutants.

All production facilities comply with legal and municipal requirements. Emission measurements are carried out by external specialists, and no conspicuous measurements were recorded. The lighting plant in Lemgo prepares an emission report every four years as required by law, and the 2020 measurement indicated that CO<sub>2</sub> is the only significant air emission.

Good air quality is an important factor for productive work and well-being. The Zumtobel Group, together with the Tridonic brand, is investigating innovative technologies for air quality measurement and the integration of sensors in building management systems for automatic ventilation adjustment. This technology will become an integral part of future standards for building certification (e.g. WELL).

### **Water & wastewater**

Water is a vital resource that is becoming increasingly scarce in these times of climate change. Accordingly, it is also an important issue for the Zumtobel Group. Water is required in only limited volumes and hardly polluted in the production processes, but the responsible and economical use of water is a primary concern.

The Zumtobel Group has implemented procedures to make sure wastewater meets municipal requirements before it is discharged into local treatment plants and to see that the related indicators remain clearly below the permissible limits wherever possible. These indicators are monitored and confirmed internally and externally on a regular basis.

### **Water as a shared resource**

The water used by the Zumtobel Group's production locations comes primarily from local waterworks. Additional ground water is only drawn by the lighting plant in Andelys and comprises less than 1% of the total water consumption. At the present time, none of the producing locations uses surface water from rivers or similar bodies of water.

The production locations use water mostly for sanitary facilities, for drinking water and for air humidification. In production, water is used primarily in pre-cleaning for the coating process, air humidification and sprinklers as well as the pre-heating and cooling of machinery.

Coating is a key production process at all lighting plants, and the focus is therefore placed on the responsible, economical use of water and the best possible cleaning of wastewater prior to recycling. Various procedures –





including vacuum evaporation, continuous neutralisation, oil separators and sedimentation – are used to clean the wastewater from powder coating and wet painting.

### **Management of the effects of water recycling**

Water is generally recycled, apart from the water used for drinking or air humidification. The recycled water meets the highest local legal standards and is clearly below all permissible limits. Sewerage systems transport the wastewater to local treatment plants.

Data is currently not collected on the volume of drinking water which is not recycled. However, some locations have measured the volume of water which is used, for example, to humidify the air and not recycled as wastewater. Data from these aggregates helps to calculate the volume of sprayed water, and the resulting quantity is deducted from wastewater volumes. The difference corresponds to water consumption.

### **Water withdrawal**

The production locations and the corporate headquarters of the Zumtobel Group drew approximately 56.69 megalitres of water in 2022/23, compared with 65.23 megalitres in the previous year. That represents a 13% decline in the volume of water drawn.

Various improvement at the producing locations led to a decline in water consumption, which was also positively influenced by employees' use of home office.

The implemented measures also led to a slight 2% decline in water consumption per 1,000 produced units. The optimisation of flushing methods in the sanitary facilities and better water value controls in the pre-handling tanks for the coating aggregates (reduction in water exchange) contributed to these positive results.

### **Continuous improvement**

#### **Lighting plant in Dornbirn, AT**

- At the lighting plant in Dornbirn, the repeated flushing of cooling systems was necessary in the previous year due to a change in chemicals. This additional water was not needed in 2022/23, and system operations are stable
- A decline in the water required for the heat exchanger also had a positive effect on water consumption
- In total, the reduction equalled roughly 18%

#### **Lighting plant in Spennymoor, UK**

- The optimisation of the lighting plant in Spennymoor in the previous year – for example through the recycling of water in powder coating, a reduction in water drainage procedures and the installation of short flush equipment in the sanitary facilities – had a positive influence on water consumption in 2022/23
- Data collection was also optimised to provide a better basis for the analysis of consumption
- The water quality controls in coating were refined to prevent unnecessary water exchange.

### **Other locations**

- Further optimisation measures are planned for other locations
- Included here are filter tests for equipment to reduce the changing intervals for wastewater or to convert from groundwater to rainwater (Les Andelys)
- The exchange of experience between the plants is one of the most important measures to reduce water consumption and optimally use the resource water

### **Water recycling**

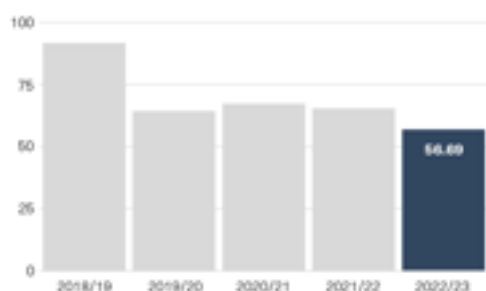
The volume of unrecycled water was recorded in 2022/23 and includes, for example, the water used to humidify the air in sensitive production areas as well as the water used for irrigation and cooling. This water is not discharged as wastewater and, therefore, can be deducted from water recycling.



Water	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
<b>Water withdrawal</b>	MI	<b>91.50</b>	<b>64.18</b>	<b>67.08</b>	<b>65.23</b>	<b>56.69</b>
Water from third party sources	MI	90.61	63.31	66.18	64.31	56.18
Groundwater	MI	0.89	0.87	0.90	0.63	0.52
Surface water	MI	N/A	N/A	N/A	0	0
<b>Water recycling</b>	MI	<b>91.51</b>	<b>64.18</b>	<b>65.33</b>	<b>63.63</b>	<b>54.66</b>
<b>Water consumption</b>	<b>MI</b>	<b>N/A</b>	<b>N/A</b>	<b>1.76</b>	<b>1.60</b>	<b>2.04</b>

The Zumtobel Group recycled approximately 54.66 megalitres of water in 2022/23 compared with 63.63 megalitres in the previous year. That represents a 14% decline in water recycling.

Development of water withdrawal in MI

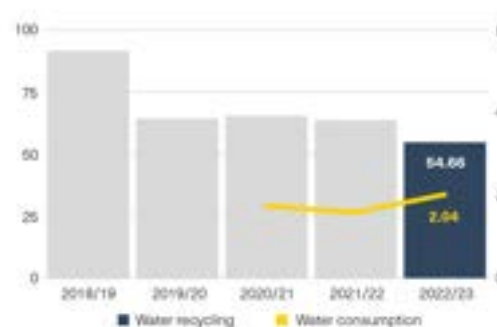


### Water consumption

Water consumption at the production locations and the corporate headquarters of the Zumtobel Group totalled approximately 2.04 megalitres in 2022/23 (previous year: 1.60 megalitres) or 3.6% of the total volume of water drawn. As reported, the Zumtobel Group reduced the volume of water drawn during the reporting year.

The year-on-year increase in water consumption is explained by the optimisation of data collection in 2021/22 and the availability of precise measurements in 2022/23. Process water is used primarily for air humidification at the locations.

Development of water recycling & consumption in MI



### Waste (material topic)

The Zumtobel Group places special emphasis on the economical use of resources and the recycling of materials. Key factors include the efficient and economical use of materials as well as the minimisation of production scrap and unnecessary waste. Valuable materials are recycled as best as possible or, if possible, reused to conserve resources.

Waste management is an important part of the environmental management system. Every production location has a designated waste officer, documented processes and detailed records for all generated waste. The indicators for waste are the volume of waste generated per tonne classified by recycling waste, residual waste and hazardous waste.

The recycling quota is another important indicator for material recycling. The indicators defined at the Group



level are broken down to the individual lighting and component plants. Goals are defined in the individual environmental programmes, and actual data is collected in the environmental and energy reporting system and communicated in the monthly management reviews.

The fundamental principles underlying the circular economy are anchored in the development process and applied in all new product innovations. Improvements in the effective use of resources and recycling, maintenance and repair are also central issues for existing products.

### **Waste generation and significant waste-related effects**

Metal processing, plastics processing, coating, automated production lines and the manual assembly of products are the major production processes which cause most of the waste in the Zumtobel Group. Metal processing, plastics processing and coating as well as the automated production lines result in stamping waste, adjusting nuts and scrap which can generally be recycled.

The water used in pre-treatment for the coating process is subsequently cleaned, which means a concentrated volume of hazardous waste must be disposed or processed. All production processes, especially automated assembly equipment, are responsible for packaging waste from purchased raw materials, input parts and components. This packaging is, for the most part, recycled by disposal firms.

Smaller quantities of hazardous waste like waste oil, refrigerants and lubricants result from metal processing, residual adhesives from mounting processes, and residual paint from coating processes. Waste also includes tools, machinery, production lines, raw materials, purchased products and finished products which are no longer needed.

### **Management of significant waste-related effects**

The Zumtobel Group intensified its focus on the circular economy in 2022/23. In addition to the implementation of circular design rules, the analysis of existing products and the materials used continued. The components plant in Niš and the lighting plant in Spennymoor were successfully audited for cradle to cradle certification. In all European countries, the sales organisations' disposal partners are responsible for the correct disposal and utilisation of luminaires.

In addition to the many activities in support of the circular economy that will have a significant influence on waste volumes in the coming years, the Zumtobel Group has introduced many other continuous improvement measures.

### **Continuous improvement**

A particular focus of the lighting plants in 2022/23 included the issues related to the efficient use of non-renewable materials. A new indicator – the use of non-renewable materials – was defined during the year. Included here are plastics, steel, copper and aluminium. The indicator represents the waste generated from these materials in relation to their consumption. The first step involved a comprehensive analysis by all locations which was followed by the implementation of various measures to improve the efficient use of these non-renewable materials.

#### **Lighting plant in Dornbirn, AT**

- Conversion from disposable to reusable pallets
- Optimised production planning and management strategies lead to less waste from obsolete finished luminaires
- Optimisation and reduction of packaging material from purchased components

#### **Lighting plant in Lemgo, DE**

- Sprue material from plastic injection is ground and recycled



- Clean separation of plastic waste to improve the recycling rate

#### **Lighting plant in Spennymoor, UK**

- Reduction of waste from plastic injection through optimal maintenance cycles and replacement of machine parts
- Sprue material from plastic injection is ground and recycled
- Optimal use of steel plates in stamping processes through combination of production orders with fast-moving Kanban article numbers
- Standardisation of material strengths and quality for steel plates

#### **Lighting plant in Niš, RS**

- Sprue material from plastic injection is ground and recycled
- Repair and recycling of wood pallets

#### **Lighting plant in Les Andelys, FR**

- Repair and recycling of wood pallets
- Clean separation of all plastic waste

#### **Components plant in Dornbirn, AT**

- Clean separation of all plastic waste (rolls, plastic housing)
- Clean separation of PCBs and PCB clippings to improve the recycling rate
- Release of a strict packaging directive and implementation with "pain point" suppliers

#### **Components plant in Niš, RS**

- Processing and recycling of tin waste from production
- Release of a strict packaging directive and implementation with "pain point" supplier

#### **Components plant in Spennymoor, UK**

- Clean separation of PCBs and PCB clippings
- Release of a strict packaging directive and implementation with "pain point" suppliers

#### **Components plant in Shenzhen, CN**

- Tar casting process no longer in use
- Conversion of packaging material for semi-finished products from EPE to PET ESD trays
- Recycling of packaging containers for silicon casting compound reduces hazardous waste
- release of a strict packaging directive and implementation with "pain point" suppliers.

Waste-related data is recorded by the Zumtobel Group's locations in the environmental and energy reporting system. It is based on information and invoices from the respective disposal companies. Sampling audits are therefore carried out at the end of the financial year to verify data collection for this system.

#### **Waste generated**

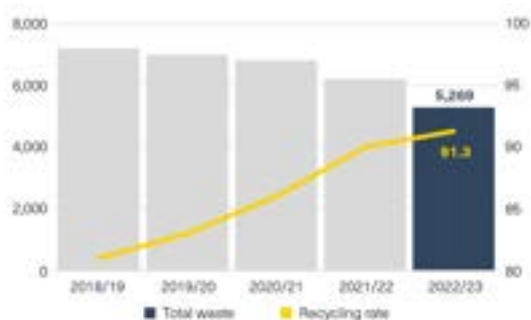
The Zumtobel Group recorded roughly 5,269 tonnes of waste from its production processes in 2022/23, which represents a decline of 15% compared with the previous year (6,183 t). A total of 456 t was classified as hazardous, for an increase of 14% in the volume of hazardous waste. The lighting plants and the components plants reduced the volume of waste both in absolute terms and based on the number of produced products in 2022/23.

Reduced demand in the components plants led to an absolute reduction of 60 t in waste, but also to a relative increase of 10% based on the number of produced products. The lighting plants recorded an absolute reduction of 854 t in waste as well as a reduction of 17% based on the number of produced products.

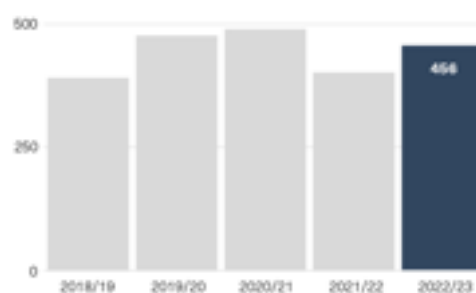


Waste	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
<b>Recyclable waste</b>	Tonnes	<b>5,799</b>	<b>5,826</b>	<b>5,840</b>	<b>5,213</b>	<b>4,410</b>
Preparation for recycling	Tonnes	N/A	N/A	N/A	412	327
Recycling	Tonnes	N/A	N/A	N/A	4,722	4,079
Other utilisation procedures	Tonnes	N/A	N/A	N/A	79	4
<b>Residual waste</b>	Tonnes	<b>994</b>	<b>679</b>	<b>463</b>	<b>569</b>	<b>403</b>
Other utilisation procedures	Tonnes	N/A	N/A	N/A	24	26
Incineration with energy recovery	Tonnes	N/A	N/A	N/A	531	374
Incineration without energy recovery	Tonnes	N/A	N/A	N/A	0	0
Landfill	Tonnes	N/A	N/A	N/A	14	2
<b>Hazardous waste</b>	<b>Tonnes</b>	<b>390</b>	<b>476</b>	<b>489</b>	<b>401</b>	<b>456</b>
Preparation for recycling	Tonnes	N/A	N/A	N/A	11	12
Recycling	Tonnes	N/A	N/A	N/A	22	40
Other utilisation procedures	Tonnes	N/A	N/A	N/A	274	321
Incineration with energy recovery	Tonnes	N/A	N/A	N/A	87	78
Incineration without energy recovery	Tonnes	N/A	N/A	N/A	7	4
Landfill	Tonnes	N/A	N/A	N/A	0	0
Total hazardous waste diverted from disposal	Tonnes	N/A	N/A	N/A	307	373
Total hazardous waste directed to disposal	Tonnes	N/A	N/A	N/A	94	82
Total non-hazardous waste diverted from disposal	Tonnes	N/A	N/A	N/A	5,237	4,436
Total non-hazardous waste directed to disposal	Tonnes	N/A	N/A	N/A	545	377
<b>Non-hazardous waste total</b>	<b>Tonnes</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>5,782</b>	<b>4,813</b>
<b>Waste total</b>	<b>Tonnes</b>	<b>7,184</b>	<b>6,981</b>	<b>6,792</b>	<b>6,183</b>	<b>5,269</b>
<b>Recycling rate</b>	<b>in %</b>	<b>81</b>	<b>93</b>	<b>86</b>	<b>90</b>	<b>91</b>

Development of total waste and recycling rate



Development of hazardous waste in tonnes







### **Waste diverted from disposal/directed to disposal**

Of the total non-hazardous waste, 92% is diverted from and 8% directed to disposal, whereby the non-hazardous waste directed to disposal is incinerated with energy recovery.

Of the total hazardous waste, 82% is diverted from and 18% is directed to disposal, whereby 95% of the hazardous waste directed to disposal is incinerated with energy recovery and the remaining 5% is incinerated without energy recovery.

### **Recycling rate**

The Zumtobel Group sees the recycling rate as an important indicator to evaluate the handling of waste in product development, production industrialisation, production processes and administrative processes. The challenging goal to reach a recycling rate of 91% was met with 91.3% in 2022/23.

That represents an improvement over the excellent 90% recorded in the previous year. All producing locations carried out a detailed analysis of the generated waste. Supported by the continuous improvement process, recycling improved substantially and made an important contribution to the protection of essential raw materials.

### **Environmental compliance (material topic)**

Environmental compliance is an integral part of ISO 14001, ISO 45001 and ISO 50001 requirements. The determination, observance and evaluation of all legally binding and voluntary obligations is based on pre-defined global processes in the integrated management system.

All production locations have established a legal database to document, evaluate and monitor the relevant local obligations. New requirements and any related changes are recorded and assessed, and the necessary measures to ensure compliance are defined and implemented.

External legal consultants and service providers help the production locations to identify and interpret the relevant legal obligations and are responsible for the annual evaluation of compliance. Compliance with these obligations is also monitored by internal and external audits and by specific compliance audits.

Four internal special environmental compliance audits were conducted during the reporting year. They also included a review of compliance with recurring obligations in the various areas. These processes are evaluated annually by Quality Austria, our certification agency, and conformity was again confirmed in 2022/23.

Local authorities also hold on-site inspections to verify compliance. For example: Government authorities carried out 11 on-site inspections at the components plant in Shenzhen to examine environmental and occupational safety issues, whereby no issues involving non-conformance were identified.

The lighting plant in Dornbirn evaluated 107 amendments and new legal requirements and implemented appropriate measures were necessary. The other locations are also regularly informed of legal changes, which are analysed and followed by the introduction of any necessary measures.

Environmental compliance is evaluated and confirmed by the local managing directors and by the Zumtobel Group's Management Board in the annual management review.

Based on these findings and to the best of their knowledge, all production locations and central functions have confirmed their environmental compliance in management reviews.

### **Non-compliance with environmental laws and regulations**

The Zumtobel Group implemented a whistle-blower system in 2017. This platform is available to interested parties, both internal and external, for all types of reports. The information is independently processed and reviewed. No reports or complaints involving environmental compliance were received during the reporting year.



External reports and inquiries from local residents or other interested parties are recorded and investigated by the local staff. If the reports are justified, measures are implemented immediately. In 2022/23, two complaints were received over noise and lighting during the night hours. The information was recorded and steps were quickly taken to prevent and eliminate the causes.

There were no fines, other sanctions or legal proceedings involving non-compliance with environmental protection rules and regulations in 2022/23.

Internal and external audits and, in part, on-site inspections by government authorities on environmental compliance were carried out at all relevant production locations, and no issues involving non-conformance were identified.

### **Biodiversity**

For the Zumtobel Group, biodiversity means preserving

the diversity of life and support for three major areas: diversity in ecosystems, diversity of species and genetic diversity – all of which are closely connected.

Progressive climate change, for example, means an increasing threat for biodiversity because entire ecosystems are changing at a speed which makes it very difficult for plants and animals to adapt to the new conditions.

The Zumtobel Group has set a goal to become climate neutral (Scope 1 and 2) by 2025, to steadily increase the share of renewable energy, to continuously improve its energy and resource efficiency, and to make a proactive contribution each year to reducing greenhouse gas emissions.

There was no construction activity in 2022/23, and no green areas were sealed. Every location does its best to minimise the impact on flora and fauna and to avoid air and soil emissions as well as noise. The plant in Niš has planted trees on the plant grounds and in the neighbour-





ring city. In Dornbirn, the components plant created a 250 m<sup>2</sup> flowering meadow and the lighting plant set up an insect house.

An insect hotel was opened at the Schweizerstraße site in Dornbirn. The roofed hotel, consisting of six chambers, offers beneficial insects the opportunity to nest and find shelter. With increasing building development, the natural habitat of insects is being significantly reduced - one consequence of this is the extinction of species. By building the insect hotel, the Zumtobel Group is making a small contribution to species protection.

This measure was proposed as part of the certification by Ökoprofit Vorarlberg, which annually audits the company's environmental and climate management, and the project was implemented together with the nursery of Sunnahof, Lebenshilfe Vorarlberg. Sunnahof stands out above all because of its variety of work opportunities for people with disabilities. Here, people with and without disabilities actively live together as a matter of course.



Competent and highly motivated teams are committed to the support and individual development of the people. At a later date, insect-friendly bushes are to be planted around the hotel to create an appealing environment for the industrious hotel guests.

### **Operational sites in, or adjacent to, protected areas and areas of high biodiversity value**

The production locations in the Zumtobel Group are not found in or adjacent to protected areas or areas of high biodiversity value. A bird sanctuary is located roughly five kilometres and the Lauteracher Ried nature reserve almost seven kilometres from the production site in Dornbirn. Five areas with high biodiversity value are located near the lighting plant in Les Andelys.

All Zumtobel Group production facilities are situated in priority regions with intact flora and fauna, where environmental protection has very high legal as well as social significance. Our environmental management systems ensure compliance with all legal requirements and EU directives, national legal and regional laws and the requirements of public authorities. These systems also identify, assess and prevent or minimise the impact of the business activities of the Zumtobel Group's production locations on the environment.

### **Projects/products to protect significant impacts on biodiversity**

People moving about in the dark want to feel safe and prefer bright, well-lit streets and areas. Lighting is therefore good for people but impairs biodiversity. Lighting triggers a feeling of well-being and safety in people, but has a negative effect on the diversity of species. The Zumtobel Group strives to minimise its effects on the animal world, above all on insects, and relies on optimised planning as well as NightTune technology.

This technology optimises night lighting and reduces its impact on the illuminated area and its ecosystem – which makes an active contribution to preserving biodiversity while limiting light pollution and making the night sky visible.





**ZUMTOBEL Group**



# PRODUCT RESPONSIBILITY

## EVERY NEW PRODUCT DEVELOPMENT IS AN OPPORTUNITY TO MAKE A SUSTAINABLE IMPACT.

Our products are becoming more energy efficient and more and more part of a healthy circular economy. To achieve this, we are implementing the principles of the circular economy in the product development process and in marketing.

## WHAT STILL LIES AHEAD

Creating the conditions for comprehensive circular economy models involving the entire value chain - from raw material sourcing and materials used, to design, systems and applications, to concepts for refurbishing and reusing our products.

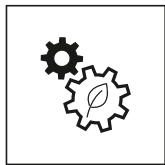
## TARGETS 2023/24

- EPDs for a representative selection of new products
- Development of refurbishment kits for linear luminaires
- Pilot projects on re-use and high-value recycling implemented





# PRODUCT RESPONSIBILITY



*THE DEVELOPMENT AND LAUNCH OF ARTELEA, THE FIRST CRADLE TO CRADLE CERTIFIED® FLOOR LAMP, TOOK THE TEAM ON A LEARNING JOURNEY: FROM CHALLENGES IN PRODUCT ARCHITECTURE TO COMPONENT MANUFACTURING AND MATERIAL SPECIFICATION. IN AN INTERACTIVE PROCESS, COMPONENTS WERE ADAPTED TO THE REQUIREMENTS OF MATERIAL HEALTH AND SUPPLIERS HAD TO GET INVOLVED.*

Anton Bowness, Technical Director R&D Indoor

## Management approach & due diligence processes

Product development covers a specific process landscape in the areas of portfolio management, product and service development, product lifecycles and customer-specific projects. The respective processes are documented by brand in a knowledge database and are generally accessible. Portfolio management involves several levels beginning with the collection of product ideas and future issues to the description, selection and decision over the appropriate portfolio items, and transparent presentation of a roadmap.

Product development follows a four-step stage gate process, in which the gates are secured and reviewed after every phase based on specific checklists, quality and release criteria. The necessary releases, depending on the project classification, are presented to a steering committee and approved by key stakeholders.

The product lifecycle staff then takes over the process with the product launch and organises any necessary changes over the product's lifetime and its phase-out at the end of the product family. These processes are closely intertwined and coordinated by project managers. They are structured in steps and continuously developed and adapted to meet the current situation.

Product responsibility was reorganised to safeguard the competitive product portfolio for luminaires over the long-term and to strengthen the Zumtobel and Thorn lighting brands. The dedicated brand and portfolio management for each of these two areas is focused on the brand-specific portfolios and, together with product management, is organised in a roadmap.

Stronger separation of the project management office (PMO) and R&D also helps to improve the efficiency of new and maintenance project development. The PMO is responsible for processes related to the execution of de-

velopment projects, including necessary monitoring and the assessment of economic feasibility. Well-equipped internal and external laboratories examine the results for compliance with standards and the application fit and accompany both the development phase and entire lifecycle.

Competitors' products are regularly analysed by all of the Zumtobel Group's brands. Product concepts are discussed at an early stage with selected customers, and customer-specific solutions are realised with leading architects, planners and business partners. Applications that receive comments or criticism via customer support are examined on site to identify the source of errors, which are then eliminated through a feedback loop.

## Innovation (material topic)

### Intellectual property rights and patents

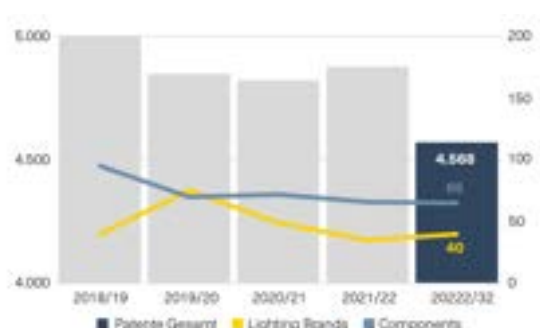
Research and development (R&D) play an important role in the company's innovative strength. For the Zumtobel Group, a wide-ranging patent portfolio – also in the area of new technologies – is essential for maintaining a competitive advantage and ensuring access to strategic cooperation with other companies and the opportunity to conclude cross-licensing agreements with key market players.

In 2022/23, the Lighting Segment registered 40 patents (2021/22: 35) and the Components Segment 65 patents (2021/22: 66) which underscore the growing importance of intelligent components. The number of active commercial property rights – currently 9,134, including 4,568 patents – speak for the Zumtobel Group's exceptional innovative strength.



Number of patents	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Number of patents Total	Number	5,001	4,846	4,820	4,875	4,568
Number of trademarks Total	Number	8,430	8,379	9,027	9,260	9,134
Patents Lighting Brands	Number	40	75	49	35	40
Patents Components	Number	95	70	72	66	65

Development patents



### Synergy effects through platforms

Additional synergy effects were also realised during the past financial year through the increased use of product configuration and variant management and the continued development of component and product platforms for multiple product families. R&D expenses totalled EUR 67.8 million in 2022/23.

The expansion of technology partnerships is an important tool for protecting the competitive product portfolio.

The Zumtobel Group's brand reputation and innovative strength is regularly demonstrated through participation in national and international research projects.

The focal points of R&D activities during the reporting year included, among others, new optical concepts for the direction of light, the roll out of the latest generations of LED control gears and LED modules, new operating concepts for LEDs, a systematic approach for the further integration of smart components in lighting, sensors to transmit relevant data, and new approaches for the management of lighting systems.

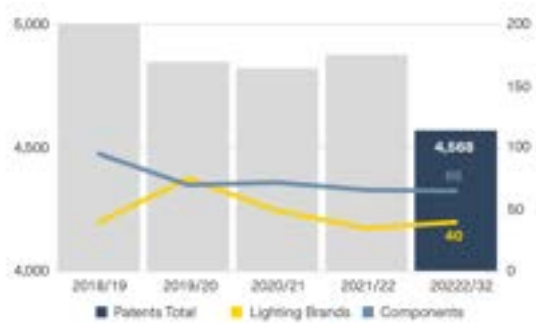
The efficiency increase in LEDs is slowing, but still requires platform concepts to manage material and process complexity as the basis for offering differentiated end products with a limited number of components that still provide high customer benefits.

An important aspect of innovation is the search for newer and more sustainable solutions. Examples of these activities in 2022/23 include, among others, the following:

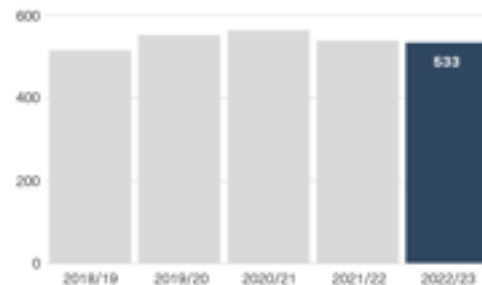
Research & Development	Unit	2018/19	2019/20	2020/21	2021/22	2022/23
Development costs	EUR million	61.6	59.2	61.8	63.4	63.4
Research expenditure	EUR million	4.7	3.5	3.0	4.1	4.4
R&D expenditure Total	EUR million	66.2	62.7	64.8	67.5	67.8
in % of turnover	in %	5.7	5.5	6.2	5.9	5.6
R&D employees	FTE	515	551	563	538	533



Development of R&D expenses in EUR million



Development of number of R&D employees



The investigation of UVB light sources to activate vitamin D – sunlight contains spectral components in the ultraviolet range (UVB) which support the production of vitamin D in humans. Since vitamin D can only be absorbed to a limited extent from food and many people spend most of their time indoors, these types of light sources could help to regulate the vitamin D household in the human body. This project is currently at the pre-study level to evaluate the potential for increasing human health.

Studies to extend product life and predictive maintenance are dealing with the aging and failure mechanisms of LED drivers and light modules. The findings can be used to optimise the design of new luminaires and to help producers and users in deciding when to reuse, refurbish or recycle their products. This information will make an important contribution to the more sustainable use of our products.

The aftereffects of Covid-19 and the geopolitical situation have shifted the search for and adaptation of components and materials as well as the identification of additional suppliers into the foreground of activities.

### Standardisation and committee work as a key building block of product development

R&D in the Zumtobel Group covers the entire value chain through active memberships in associations, committees, consortia and alliances. The Group allocates

resources to enable employees to participate in the design of standards and guidelines which, in the end, benefit the entire lighting industry, customers and users. In this way, the area of “light” represents the interests of the lighting industry and, through increasing interconnectedness, is also integrated in the construction sector.

Through its active participation in national, European and international standardisation committees, the Zumtobel Group ensures that issues like safety, sustainability and lighting quality are appropriately mapped and industry standards are set.

### Engagement und Mitgliedschaft in Verbänden

IEC (International Electrotechnical Commission)

CIE (International Commission on Illumination)

ZVEI (Zentralverband der Elektro- und Digitalindustrie in Germany)

LIA (Lighting Industry Association in England)

European industry association Lighting Europe



The Zumtobel Group is also a member of alliances and consortia like DiiA (Digital Illumination Interface Alliance) and Zhaga which are addressing the standardisation of interfaces for lighting components.

Aside from standardisation, the Zumtobel Group works closely with partners from the industrial sector and with research institutes and universities. Its academic partners at the regional level include the Vorarlberg University of Applied Sciences, various universities in the areas near Lake Constance and other industrial partners. Their projects with the Zumtobel Group include research on the digital ageing and modularisation of IoT components for smart buildings as well as the search for more sustainable solutions.

#### Participation in EU-wide research projects

This cooperation is deepened at the EU level through various research projects. Examples include the PHA-

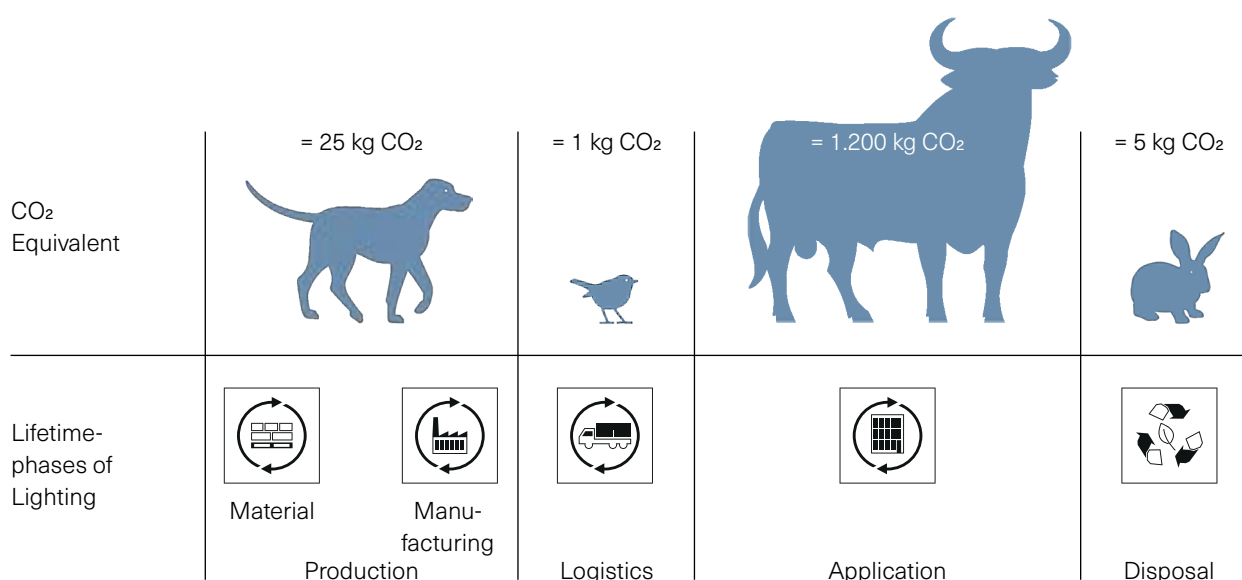
BULOUS project to develop production processes for microstructures on freeform surfaces and AI TwiLight to develop digital twins of LED light sources and electronic components as well as self-learning models based on artificial intelligence.

#### Sustainable products & applications (material topic)

The Zumtobel Group's commitment to sustainability is closely related to the core business due to the important role played by energy-efficient, intelligently managed lighting technology in reducing worldwide resource consumption. This trend is underscored by the continuous increase in the efficiency (lumens/watt) of LED luminaires and a parallel decline in the cost of LED chips. However, the steady increase in efficiency will slow as the physical limits are reached in the coming years.

Artificial lighting is currently responsible for roughly 13% of worldwide electricity consumption and will continue

Global warming potential of a luminaire over its life cycle



Graphic: Example luminaire for calculation: industrial segment, connected load 35.5 W, weight 1.5 kg



to decline by 2030 due to the use of state-of-the-art lighting solutions. Commercial buildings and outdoor lighting – which represent light in exactly those areas of application that form the core expertise of the Zumtobel Group – are responsible for a good two-thirds of this consumption.

Most of the environmental impact of lighting is still caused by the energy consumption during use, but other issues like resource consumption and the circular economy are becoming more important. The Zumtobel Group has been working for many years to steadily improve the energy efficiency of its products while, at the same time, integrating sustainability aspects throughout the product lifecycle.

The average year-on-year improvement in energy efficiency has been reported for the past two financial years. It compares the total lighting output marketed during the reporting period (i.e. the number of luminaires multiplied by the rated luminous flux) with the total connected load (i.e. the number of luminaires multiplied by the rated connected load) to produce a ratio.

In the 2022/23 financial year, the Zumtobel Group marketed luminaires with an **average energy efficiency of 131.5 lm/W** (previous year: 128.2 lm/W). That represents an **improvement of 2.7%** in energy efficiency compared with the previous period.

### Calculation of the improvement in energy efficiency

Artificial lighting converts energy into visible radiation and, in turn, into light. Energy efficiency, as a key indicator for the lighting industry, describes how much light (the light quantity in lumens) can be generated by one watt of electrical energy.

The total energy efficiency of all products sold during a reporting period shows the development of the sold product portfolio. This number is a purely physical measurement quantity and shows the potential for improvement independent of the service life of the sold products.

The increased sale of lower-priced, less efficient lighting during the COVID-19 pandemic limited the growth in revenues and earnings. The 2022/23 financial year not only brought an increase in revenues and earnings, but also a return to the previous upward trend in energy efficiency.

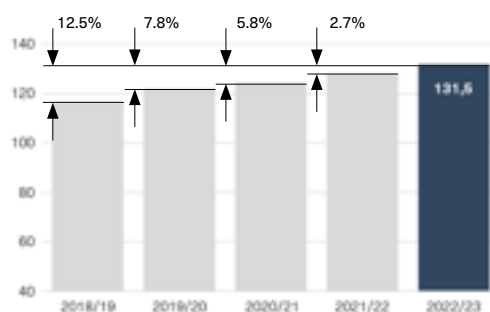
The improvement steps will be smaller in the future because the energy efficiency potential of LEDs is physically limited and has been generally exhausted at the LED level. The physically limited maximum is also dependent on the lighting quality: the higher the quality of the light, the lower the attainable maximum of energy efficiency.

**12.5 % Improvement** in energy efficiency in 4 years

$$\text{Energy efficiency} = \frac{\text{Number of luminaires} \times \text{Nominal luminous flux}}{\text{Number of luminaires} \times \text{Nominal connected load}}$$

lm/W

Average energy efficiency in lm/W







All the more important and gratifying is the success in further increasing the share of dimmable luminaires. In connection with intelligent lighting controls, the dimmable luminaire only delivers the amount of light that is required by the available daylight – and that further reduces the energy consumption of the lighting equipment.

## Environmental product declarations (EPD)

Environmental product declarations (EPDs) are classified as Type III and issued on the basis of ISO 14025 and lifecycle assessments (LCA) according to ISO 14040 and ISO 14044. They provide all relevant environmental effects to customers and partners in a transparent and neutral form.

These declarations cover the entire lifecycle: from raw material extraction to production, transportation, installation and operation in buildings up to the end of the service life with recycling and disposal possibilities. The reported environmental indicators include, among others, greenhouse gas effects, destruction of the ozone layer, the over-fertilisation of soil and acidification of water.

IBU (Institut für Bauen und Umwelt) serves as the programme operator for EPDs in the Zumtobel Group. Environmental product declarations must therefore be prepared in accordance with EN 15804 (Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products) and the IBU product category rules (PCR).

EPDs must be verified by an independent party before release. This verification is carried out or organised by the EPD programme operator.

The large variety of the Zumtobel Group's products and the continuous expansion of the product portfolio led to the introduction of a system in 2011 which automatically generates EPDs for the products in the Tridonic, Thorn and Zumtobel brands.

Renewed verification under the new EN15804 +A2 was one of the focal points for upgrading the Zumtobel Group's EPD system in 2022/23. Following the planned conclusion of an audit in summer 2023, the EPD system is again state-of-the-art.

5,000 environmental product declarations produced Based on these recurring verifications, over 5,000 EPDs have been prepared since the system was introduced. They create added value for the customers and partners of the Zumtobel Group.

EPDs can be used in many different ways. Internally, they flow into development to continuously improve products from the viewpoint of the lifecycle assessment. Customers can also use the EPDs in their own lifecycle assessments (e.g. at the building level). In addition, this data is a parameter for calculating the emissions from purchased goods according to Scope 3 of the Greenhouse Gas Protocol (GHG).

ENVIRONMENTAL PRODUCT DECLARATION	
According to EN ISO 14025 and EN 15804	
This Declaration is based on the Product Category Rules (PCR) for 'Luminaires, lamps and components for luminaire' - 07 2014	
Declaration Model:	Zumtobel Lighting-System
Program Model:	Schweissensiedle 30 4800 Dimmable - Österreich
Declaration Number:	Institut Bauen und Umwelt e.V. (IBU), Deutschland <a href="https://ibu-bau.at/">https://ibu-bau.at/</a>
Date of Issue:	ECO-258-4260025-Manufaktur-EU-2018-05-12
Validity Date:	2018-05-12

**5 Verification**

This EPD including the results of the Life-Cycle Analysis is based on an LCA modeling (EPD system), verified by an independent third party. It's the sole responsibility of the manufacturer to secure the correctness of any input data entered into the system. The owner of the declaration is liable for the underlying data and certificates. Liability of IBU is disclosed with respect to manufacturer's information, LCA data and certificates.

The CEI standard EN 15804 serves as core PCR. The verification of the generation process of this EPD was done externally by a third party independent according to EN ISO 14025.	
Third party verifier:	Director:
Matthias Schults, approved by the Advisory Board of the Institute Construction and Environment (IBU) e.V.	Dr. Alexander Röder, Director of the Institute Construction and Environment (IBU) e.V.

Picture: Excerpts from a 15-page product EPD





### Further development of the product and service offering

The transformation of the lighting industry has increased the importance of the LED business and led to a stronger focus on intelligent and Internet-linked lighting and services. The result has been a rapidly growing demand for innovative LED-based lighting solutions with comprehensive controls and IoT solutions together with integrated service offers.

The development, production and sale of innovative, sustainable products and services therefore represent fundamental building blocks for the sustainable success of the Zumtobel Group over the medium- and long-term.

To meet the rising demand and establish new business models, the company is planning to gradually increase its service offering. The first step involves the expansion of conventional light planning and turnkey solutions, where the Zumtobel Group offers a one-stop shop solution for customers.

The upper end of these services is the lighting-as-a-service model, which provides the customer with a complete lighting solution from project planning and installation to maintenance over a specific time. The customer receives a state-of-the-art lighting solution that is tailored to meet his or her individual needs.

### Product quality & safety (material topic)

The Zumtobel Group's quality and testing standards exceed legal and normative requirements and are backed and expanded through comparative measurements and procedural validations in cooperation with testing institutes.

The Zumtobel Group cooperates with national and international testing institutes that include OVE (Österreichischer Verband für Elektrotechnik), TÜV (Technischer Überwachungsverein), and UL (Underwriters Laboratories). Activities also focus on the increasing use of simulation software (thermal calculations, FEA, Moldflow) which can also be linked to risk analyses.

This helps to reduce the number of hardware tests, while ensuring compliance with the Zumtobel Group's high

safety standards. All production facilities in the Zumtobel Group's worldwide network are certified according to the ISO 9001 international standard for quality management systems and ISO 14001 for environmental management systems. The internal testing laboratories for photometry, product safety and electromagnetic compatibility are certified under ISO 17025 and audited by external certification partners. All other testing laboratories have received IECEE CTF Stage 3 approval from the Austrian Electrotechnical Association.

The Zumtobel Group will have implemented the ISO 45001 norms (management systems for health and safety at work) in all major European plants by the end of 2024.

The standardised, centrally defined selling processes are also certified and regulated in management systems. The primary goal is to continuously improve the quality of production and selling processes and product documentation and, in this way, increase customer satisfaction and confidence in the Group's products.

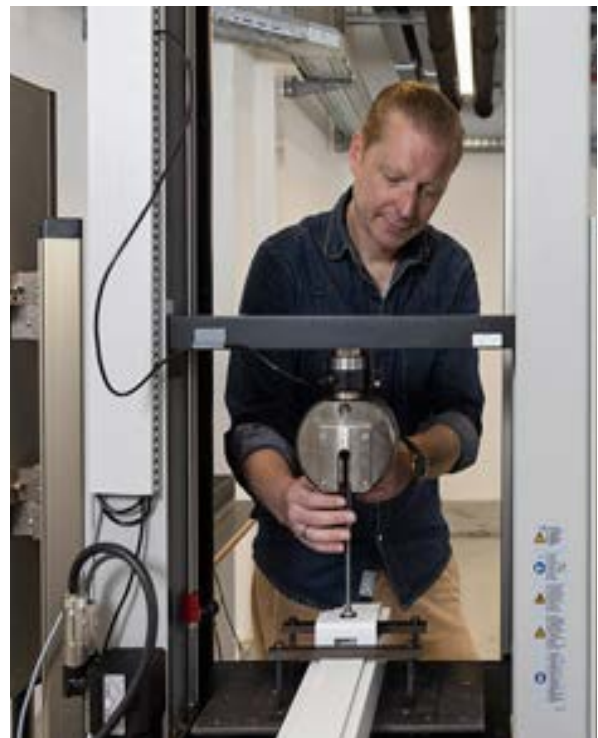


Image: Tensile test of product components



### **Resource use, Circularity support, product design, packaging (material topic)**

*"HOW WE ANCHOR CIRCULAR ECONOMY PRINCIPLES IN THE COMPANY".*

The issue cluster "product responsibility" and the circular economy as a material topic stand for the responsible handling of material resources and a sustainable change in the product development process for the Zumtobel Group. Circular economy aspects therefore form a focal point of activities in the earliest phase of this process.

Circular design rules (CDR) were introduced as a tool to ensure the full integration of the circular economy in production processes and position the Zumtobel Group to develop products for various cycles. This also includes the systematic minimisation of waste and optimisation for circular processes.

The guideline for the Lighting Segment was implemented in global research and development during 2021/22 to ensure that the ecological potential of all new products created by this segment is identified and integrated with a view towards the circular economy. The Lighting Segment uses a scoring concept in the product development process to evaluate and optimise the capability for the circular economy. The model consists of three building blocks:

- Circular sourcing
- Circular design
- Circular systems

The circular design rules are continuously updated and adapted. They serve as a tool for the development of operating solutions for future strategic issues. The inclusion of circular design rules also helps to prepare for the content of future legal regulations which are currently under discussion at the European level as part of the European Green Deal (Circular Economy Action Plan) and the strategy papers of European countries, e.g. Austria, on the road to a circular economy.

These circular design rules create a well-founded information basis to anchor circularity aspects at the product, brand and corporate levels.

Increasingly circular product characteristics provide the Zumtobel Group's customers with better information and support to reach their own sustainability goals.

### **Circular design rules – an innovation tool to implement the circular economy**

Circular design rules (CDR) give the Zumtobel Group an effective, operating tool to gradually improve circularity in all new lighting brand products.

The CDRs include four performance levels that can be reached with a product. Each performance level is tied to the attainment of various goals. The circular design rules cover the following three main topic fields which are described in detail below:

### **Circular sourcing – procurement and use of materials to support the circular economy**

Material procurement is increasingly focused on circularity and an integral part of the circular design rules. The procurement team works together with suppliers to identify and increase the recycling share of the materials used, whereby a special focus is placed on the material content. The Zumtobel Group follows the strict requirements of the Cradle to Cradle Certified® Restricted Substances List, which far exceed legal regulations. Suspicious content is immediately identified and eliminated.

The recycling capability of the materials used in the luminaires and components is an important criterion for the CDRs. Materials that are well-suited for recycling are given priority.

### **Circular design – design based on the principle of disassembly and durability**

The principle "design for disassembly" creates the



basis for the fast and easy disassembly of materials and components after the end of the product use phase. The section on circular design in the circular design rules explains the consistent application of this principle, the design of interfaces for future upgrades, and the easy access and disassembly options for spare parts. The development and construction process can then ensure that:

- The product can be upgraded quickly with technically simple means,
- components can be easily and quickly disassembled and replaced (maintenance & upgrade) to extend the service life of a product for the customer, and
- the product can be separated into its individual parts at low cost for recycling (remanufacturing) or the materials can be “cleanly” separated for high-quality recycling (CDR return systems, reusable products and the related packaging materials).

### **Circular systems – establishment of circular systems**

The frequently quoted “butterfly” diagram developed by the Ellen MacArthur Foundation defines several value cascades for products in technical cycles where products and materials can circulate. Metals and plastics are standard materials for technical cycles and are used in the production of luminaires and electronic components.

The goal of the Zumtobel Group is to generate high added value and provide an attractive service offering for customers with a minimum of materials from primary resources. New possibilities are under development to extend the product lifecycle and to use products and materials in a circular flow through a network of collaboration partners.

The focus is on the following cycles:

- Maintenance & upgrade
- Reuse & remanufacturing
- High-value recycling

### **Maintenance & upgrade**

The longest possible service life for luminaires at the customer’s location helps to conserve resources. The Zumtobel Group is continuously expanding its selection of modernisation kits to extend the customer’s use of the lighting while, at the same time, offering modernised, energy-efficient lighting technology for the upgrade. The availability of spare parts will also be increased.

Many lighting systems, e.g. TECTON, SLOTLIGHT and PANOS, already include uncomplicated modernisation possibilities due to the modular construction of the products.

The Zumtobel lighting brand has developed and implemented customer-specific refurbishment kits for numerous projects. One example is the University Clinic in Hamburg-Eppendorf, where modernisation units are available for the SLOTLIGHT products and the CLEAN lighting integrated in the ceiling architecture.

Further standard modernisation kits are under development for all luminaire families, especially the product families affected by the prohibition on fluorescent lamps that takes effect in 2023.

### **Reuse & remanufacturing**

The Zumtobel Group is working to expand processes and offers for the recycling of luminaires after the end of the first usage phase. Pilot projects were carried out to develop the process know-how for return logistics and recycling, and first models were tested in appropriate partnerships. These projects analysed the recycling opportunities for various projects in the Zumtobel



lighting brand. The remanufacturing process includes the following:

- Disassembly of the luminaire
- Cleaning of the components
- Replacement of used components
- A function and safety test

The ARTELEA floor lamp is the first product offered by the Zumtobel brand with a light-as-a-service (LaaS) contract for its return and recycling at the end of the contract period to permit an additional usage phase.

Plans call for the availability of an active remanufacturing option for 10% of the Zumtobel Group's product families by 2030.

#### **Infobox:**

The circular systems concept used for ARTELEA addresses the following usage cycles in agreement with the Zumtobel Group's circular economy strategy:

- **Maintenance & upgrade/refurbishment kits**  
Longest possible product service life for the customer through the availability of replacement and upgrade components
- **Remanufacturing**  
Return and remanufacturing service a part of an LaaS contract
- **Controlled return to the WEEE recycling system**  
Return and controlled WEEE recycling within the framework of the LaaS contract when the product is no longer suited for reprocessing

## **High-Value recycling**

A number of luminaires and luminaire components cannot be recycled through remanufacturing after a long service life. However, these products contain valuable materials that can be recovered for use in the next product generation.

The Zumtobel Group is working on a system together with selected partners to recycle materials from specific products in very high quality and grade purity. This type of material separation will permit the reuse of various post-consumer recycling materials in the next product generation.

The material circle can be closed in accordance with the WEEE Directive, in contrast to legally required recycling procedures. E-waste like steel can be collected and recycled, but the procedures do not permit recovery in an undamaged condition – in other words, downcycling is involved.

With the development of a high-value recycling system, the Zumtobel Group and its project partners are taking new directions to reuse high-quality materials in the next product generation. First flagship projects are currently in realisation to test this cooperation and solve any process issues.

Plans call for the establishment of an infrastructure with suitable partners by 2028 to significantly increase the share of materials that can flow from old into new products.

## **Circular design rules – first product examples**

Circular design rules are an effective innovation tool. The first products developed according to these rules were launched in 2022/23. The Zumtobel brand's new ARTELEA free-standing luminaire was developed according to circular design rules and has completed the extensive, strict Cradle to Cradle Certified® certification.





## Cradle to cradle Certified® certification

Teams in the Tridonic and Zumtobel brands worked on cradle to cradle Certified® certification in 2022.

In August 2022, the LED modules in the LLE, QLE und CLE product groups, which are produced by the Tridonic technology brand in Niš, received the first Cradle to Cradle Certified® Bronze award. Certification was based on the Cradle to Cradle Certified® Product Standard Version 3.1.

Zumtobel worked intensively during the reporting year on certification under the recently introduced, challenging Cradle to Cradle Certified® Product Standard Version 4.0 for the new, modular ARTELEA floor lamp. This modular luminaire was launched in May 2023 and received a Cradle to Cradle Certified® Bronze certificate.



Applications for cradle to cradle Certified® certification require the submission of extensive data and documentation in the following five certification-specific categories:

- Material health
- Product circularity
- Clean air and climate protection
- Protection of ground and water
- Social fairness

The submitted documents are reviewed at two levels. Final certification for the respective products is issued by the auditor and owner of the certification programme, the Cradle to Cradle Product Innovation Institute.

The requirements for the allowed substances in the product to be certified go far beyond legal regulations. As a result, the project teams involved in the certification process learned a great deal about the materials used in the product and their environmental impact. Opportunities for improvement were identified and implemented. For example: Together the supplier, a suitable PTFE-free coating was developed for the ARTELEA floor lamp.

This signified an important step for the Zumtobel Group to strengthen the focus of the materials used in production on the demands of a circular economy.

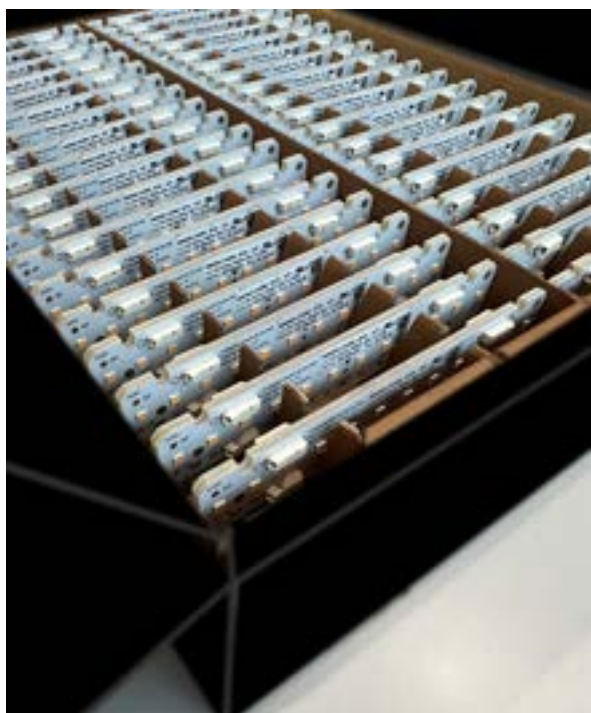
## Sustainable packaging

Materials that are particularly well-suited for recycling will be used for product packaging in the future. The recycling capability of the materials as well as the available infrastructure will be decisive for maximising the volume of packaging materials recycled in the region. Long distances for material recycling will be avoided.

The regional recyclability of paper and cardboard in Europe equalled 82.9% in 2018 (Statista 2021). The Zumtobel Group's paper and cardboard packaging suppliers already demonstrate a high recycling component of up to 90%. Recyclable alternatives are expected to replace the use of one-way plastic packaging by 2025.

The Component Segment launched a pilot project for sustainable packaging during the previous year based on the goal to increase the share of recyclable packaging material and, at the same time, reduce packaging waste.

In 2022/23, packaging for the LLE 24-mm modules was converted to 100% recyclable cardboard. The development of suitable packaging created a substantial challenge: Protection from electrostatic discharge and mechanical protection for the LED modules was required together with the minimisation of volume and weight.



The new packaging has a recycling component of 80% to 90%. The changeover from PS to cardboard not only had a positive effect on the recycling capability, but also on the CO<sub>2</sub> intensity of the packaging.

The reduction from 6 kg CO<sub>2e</sub> to only 0.3 kg CO<sub>2e</sub> per kilogramme made a significant contribution to reducing GHG emissions. The Components Segment has set a goal to convert all packaging material to 100% recyclable alternatives by the end of 2024.

### WEEE recycling

The Zumtobel Group, as a producer of electronic equipment, is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) and carries the related financial product responsibility for disposal of the electronic equipment placed on the market.

With its annual financial contribution, the Zumtobel Group supports an infrastructure for the collection, treatment, recycling and utilisation of electronic equipment. This applies to used luminaires as well as their electronic components. The Zumtobel Group is registered with the responsible national authorities in all countries where it sells luminaires and electronic components.

Regular reports are filed on the volume of luminaires and electronic components sold in accordance with legal requirements. This information forms the basis for determining the financial contribution.

The provision of an appropriate infrastructure for the correct collection of used electronic equipment requires environmentally compatible, controlled disposal as well as the recovery of valuable resources by specialised recycling technicians.







# PRODUCT USE

## SUSTAINABILITY NEEDS THE PATH OF COOPERATION.

We promote and develop sustainable decisions that are not only up to us, but also up to customers and end users as well as the affected community. To this end, we advocate for new sustainable use and marketing models and research and develop together with as many market participants and stakeholders as possible. Our responsibility to be a sustainable company goes far beyond the manufacturing process and affects the entire value chain.

## WHAT STILL LIES AHEAD

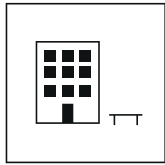
We aim to provide our customers and users with solutions that promote health and safety and contribute to their multiple sustainability goals. In addition, we position ourselves as a contact and dialogue partner on sustainability topics such as energy efficiency, documented effects of light on people and the environment, and circular lighting solutions.

## TARGETS 2023/24

- Contribution to sustainability goals of customers and users
- Trusted contact for sustainability topics
- Workshops to further develop customer satisfaction



# PRODUCT USE



*„WE CREATE SOLUTIONS FOR CUSTOMERS AND USERS THAT INSPIRE AND CONTRIBUTE TO SUSTAINABILITY. THE GUARANTEE OF HEALTH AND SAFETY FORMS THE BASIS. IN ADDITION, WE ARE A CONTACT PARTNER FOR OUR CUSTOMERS' SUSTAINABLE CONCERNS. CONTINUOUS IMPROVEMENT IN TERMS OF ENERGY EFFICIENCY, RECYCLABLE LIGHTING SOLUTIONS AND AWARENESS OF THE IMPACT OF LIGHT ON PEOPLE AND THE ENVIRONMENT IS OUR ASPIRATION - DIALOGUE IS THE STARTING POINT.“*

Sebastian Gann, Group Sustainability Director

## Management approach & due diligence processes

The European Green Deal together with the new disclosure requirements created by the EU Taxonomy Directive and further announcements are creating a stronger link between capital and sustainability criteria.

For institutional investors like banks, insurance companies and pension funds as well as planners and construction firms, sustainability is becoming a progressively more important issue. Projects viewed as less sustainable will find it more and more challenging to find investors.

These trends pose substantial challenges for the construction branch: In addition to the necessity to implement proven sustainable solutions, data administration and use must also be guaranteed. The goal to increase resource conserving construction has raised questions over new construction, and the usage of existing buildings is becoming increasingly more important.

In this environment, companies along the value chain have implemented sustainability programmes and defined ambitious goals which often support differentiation and go far beyond the legal framework expected today – and to reach these goals, they need the right partners.

## Customer health and safety (material topic)

The health and safety of its customers has top priority for the Zumtobel Group. The effects of all major categories of products and services on customers' health and safety are the subject of a continuous process that includes the evaluation of opportunities for product improvements and documentation as well as processes.

## Light Talks Podcast

Light is life, light inspires, light creates emotions, light changes the world. "Light Talks", the Zumtobel Group's podcast, illuminates what light can do and how light brings people, nature and innovation together. Our guests are international personalities from a wide range of disciplines and experts from the Zumtobel Group. Episode five of "Light Talks" is entitled "Light and health – with people at centre stage".

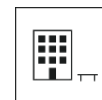
The guests in this podcast were Piera Scuri and Douglas Skene, co-founders and managing directors of Spazio: This Swiss company has provided highly specialised architectural and consulting services for the energy sector, in particular for the planning of digital steering and control centres, for roughly 30 years. The online discussion group also included Oliver Stefani, a designer and researcher at the Centre for Chronobiology at the Psychiatric Clinic of Basel University in Switzerland and founder of Chronolight, an independent consulting firm for optimal lighting conditions.

In connection with light and health, the following issues must still be clarified:

- What are the effects of light on people's lives, on their biological rhythm?
- How can artificial light change or influence the circadian rhythm?
- Does too much artificial light irritate people and animals?
- What answers can architects and designers – and also researchers – offer?

Link for listening: <https://lighttalks.simplecast.com/>





REACH conformity and products are evaluated twice each year based on the “substances of very high concern” (SVHC) lists published by the European Chemicals Agency.

This is accompanied by a continuous evaluation of newly purchased components (100% raw materials) according to the Restriction of Hazardous Substances Directive (RoHS). CE conformity is also evaluated for every luminaire family and includes a risk analysis for health and safety.

Testing and classification is based on protection classes for luminaires (EN 61140), on the lamp control gear series for components (EN 61347 Serie) and on general lighting for LED modules (EN 62031).

The Zumtobel Group is evaluating and preparing for the upcoming changes in the IEC 62471-7 standard (Photobiological safety of lamps and lamp systems – Part 7: Light sources and luminaires primarily emitting visible radiation). These changes involve the emission of UV and blue light as well as the thermal danger for skin.

LED modules are generally assigned to risk group 0 or 1 (a limited number for special applications: risk group 2) and, therefore, do not create a health risk for the human eye.

Information has been added to various technical documents (data sheets, manuals, assembly instructions, etc.) to call attention to the risks connected with the installation or use of products.

#### Disclosure of incidents:

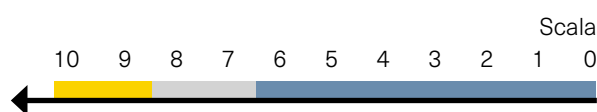
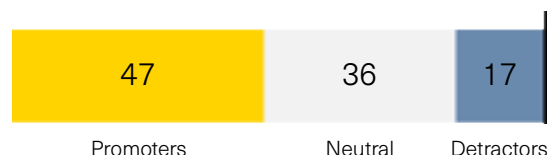
- There were no violations in connection with the effects of products or services on the health and safety of customers during the reporting year.
- Moreover, there were no violations of requirements which resulted in fines, sanctions or warnings.

#### Customer satisfaction (material topic)

Customer satisfaction has high priority for the Zumtobel Group. A customer survey carried out in 2022/23 brought more than 2,500 responses on issues like loyalty, brand perception and performance from customers in all sales regions – above all on sustainability – which were collected worldwide and subsequently analysed.

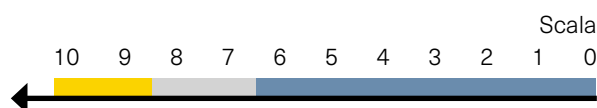
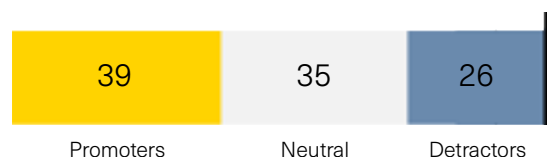
##### Net Promotor Score on Brand Loyalty

**Zumtobel:** NPS 30 (2022: NPS 35)

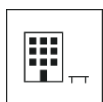


61% of the 17% not recommending were on the scale of 5-6.

**Thorn:** NPS 13 (2022: NPS 17)



61% of the 17% not recommending were on the scale of 5-6.



The results of the customer survey were positive throughout, with brand loyalty reflecting the previous year. More than 800 customer responses on positive experience and suggestions for improvement also created the opportunity to anchor the customer's voice in the company from the viewpoint of a stakeholder dialogue. With regard to brand performance, the Zumtobel brand shows particular strength in the areas of high-quality products, product reliability and reliable customer relations.

The Thorn brand ranks particularly well for easy installation and use as well as a good price-performance ratio. The brand perception analysis showed a clear differentiation between the two lighting brands.

Based on these results, workshops were held in the corporate areas and sales regions to ensure the continuous improvement of customer satisfaction.

### Contribution to the attainment of sustainability goals

The Zumtobel Group wants to help its customers and business partner reach their own sustainability goals. The goals and added value resulting from sustainability involve a wide range of issues where the Zumtobel Group can contribute.

A growing number of customers are linking supplier status to sustainability criteria, often with a reference to upcoming legislation. Companies that fail to meet these criteria are excluded from bidding. Good sustainability performance supports recurring business relationships, inclusion in inquiries and tenders and, in the ideal case, leads to the joint development of business. An independent rating, for example by EcoVadis, ensures credibility.

When sustainability programmes are formulated in line with the United Nations SDGs, common features become visible in corporate cultures. The Zumtobel Group can also contribute to the UN SDGs addressed by individual customers.

Country-specific opportunities have been identified in connection with the Green Deal, and the related applications are supported by documentation and data.

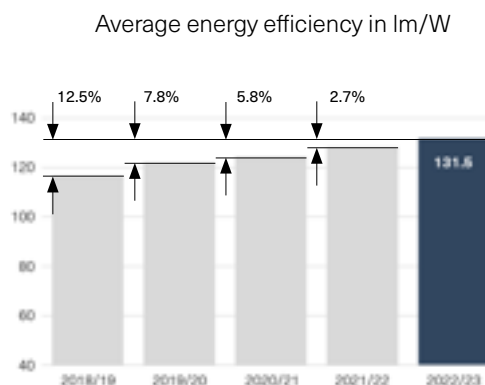
The certification of buildings according to green building standards is one way for customers to transform the challenges arising from sustainability into growth opportunities. With state-of-the-art lighting solutions, the right tools, extensive consulting know-how and proven processes, the Zumtobel Group gives its customers the best possible support for certification.

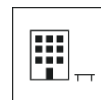
Energy-efficient products are indispensable for sustainable solutions because they lead to a reduction of the ecological footprint. A complete portfolio of products and services combined with many years of experience make it possible for the Zumtobel Group to help with the selection of components, luminaires and complete lighting systems, including controls and monitoring, that meet both the customer's needs and current market demands.

In the 2022/23 financial year, the Zumtobel Group marketed luminaires with an **average energy efficiency of 131.5 lm/W** (previous year: 128.2 lm/W).

That represents an **improvement of 2.7%** in energy efficiency compared with the previous period.

A contribution to our customers to reduce emissions. **„THERE IS ONLY ONE WAY: THE WAY THAT LEADS TO ZERO CO<sub>2</sub>.“**





The proportion of new construction to renovation is currently changing – and renovation is gaining in importance. A large part of the lighting in existing buildings currently operates with fluorescent lamps whose production is prohibited beginning in 2023.

The question for customers is whether to recondition the current installations or to make future-safe adaptations. In this area, the Zumtobel Group has assembled a wide range of renovation solutions: from the design of new systems to the complete replacement of existing lighting with new or specific refurbishment kits for installation in existing luminaires. The results can save energy and costs while achieving high-quality light and lighting.

Light can make a positive contribution to health and well-being. With many years of research experience on the visual, emotional and biological effects of light, the Zumtobel Group supports its customers in creating an attractive working environment, contributing to employees' well-being and meeting the complex demands of light in the healthcare sector.

Designers and planners must use light responsibly during the night hours. It is important to give people a sense of security, but the night sky must also be protected and the influence on the ecosystem must be minimised. The Zumtobel Group has the right technologies and solutions to deal with these issues.

The need for solutions to reduce a company's own ecological footprint, to advance sustainability programmes and to meet disclosure requirements has led to an increased demand for reliable data. The Zumtobel Group's environmental product declarations provide customers and partners with reliable information to meet these demands. Roughly 5,000 declarations were prepared for this purpose over the past decade.

The direct realisation of energy and cost savings without major investments is possible with light-as-a-service solutions. The offering can range from the complete realisation of projects up to documentation for ISO 50001 certification. Digital services based on luminaires, infrastructure and sensors create transparency in building processes.

Interest in the circular capability of lighting solutions is growing rapidly, and the opportunities in existing buildings need to be identified and analysed. The Zumtobel Group relies on a dialogue with its customers to develop the optimal solutions for individual projects and product contexts. In this way, the customer and the partner networks become part of the ecosystem that makes the circular economy possible.

The growing circularity demanded by customers is slowly finding its way into standardisation. With circular design rules as the central innovation tool, the Zumtobel Group is even now capable of including the relevant aspects in the development of new products and new information needs. This is underscored by the first successful Cradle to Cradle Certified® Bronze award for the Zumtobel ARTELEA floor lamp and for the Tridonic LED modules in the LLE, QLE and CLE product groups.

# GRI CONTENT INDEX

## DECLARATION OF USE

This report by the Zumtobel Group covers the period from 1 May 2022 to 30 April 2023 and is in agreement with the GRI standards.

## Notes:

AR: Annual Financial Report, Corporate Governance Report, Consolidated Financial Statements, Notes to the Financial Statements  
RR: Remuneration Report

GRI	Standard	Page(s)	Omissions, explanations
<b>Allgemeine Standards</b>			
<b>GRI 1</b>	<b>Foundation (2021)</b>		
<b>GRI 2</b>	<b>General Disclosures (2021)</b>		
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GRI 405-02	Ratio of basic salary and remuneration of women to men	<b>Information not available</b> - The Zumtobel Group is currently developing a uniform analysis and reporting standard on gender pay as part of a new diversity concept that will be rolled out in the 2023/24 financial year. The resulting findings will form the basis for GRI reporting in the coming reporting year.	
<b>GRI 406</b>	<b>Non-discrimination</b>		
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GRI	Standard	Page(s)	Omissions, explanations
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# STATEMENT MANAGEMENT

We confirm to the best of our knowledge that this report has been prepared in accordance with the requirements of the Sustainability and Diversity Improvement Act (NaDiVeG) and in compliance with GRI Standard 2021. The report contains all disclosures on material non-financial matters.

Dornbirn, 26 June 2022

The Management Board

Alfred Felder  
Chief Executive Officer (CEO)

Thomas Erath  
Chief Financial Officer (CFO)

Bernard Motzko  
Chief Operating Officer (COO)

Marcus Frantz  
Chief Digital Transformation Officer (CDTO)

## **Note on the following PwC report**

The following report on the independent audit of the consolidated non-financial statement pursuant to § 267a of the Austrian Commercial Code (UGB), which was integrated into the Annual Financial Report 2022/23 of Zumtobel Group AG and prepared by PwC Wirtschaftsprüfungs GmbH, is also included in this Sustainability Report 2022/23 of the Zumtobel Group. This is subject

to the condition that the contents of the consolidated non-financial statement pursuant to 267a of the Austrian Commercial Code (UGB) have been included in the Sustainability Report on a 1:1 basis in their entirety.

Where appropriate, graphics, images or explanatory descriptions have been added to support the informative value of the content.



# INDEPENDENT AUDIT REPORT

## **Report on the independent limited assurance review of the consolidated non-financial statement 2022/2023**

Our responsibility is to express a limited assurance conclusion based on our procedures performed and evidence obtained.

### **Responsibility of the legal representatives**

The legal representatives of the company are responsible for the proper preparation of the consolidated non-financial statement in accordance with the requirements of § 267a UGB and the „EU Taxonomy Regulation“ (EU Regulation 2020/852) and the GRI Standards 2021. This includes designing, implementing and maintaining internal controls relevant to the preparation of the consolidated non-financial statement 2022/2023 that is free from material misstatement, whether due to fraud or error.

### **Auditor's Responsibility**

Our responsibility is to express a limited assurance conclusion based on our procedures performed and evidence obtained.

We performed our engagement in accordance with the professional standards applicable in Austria with regard to KFS/PG 13 "Other assurance engagements", KFS/PE 28 "Selected issues in connection with the assurance of non-financial statements and non-financial reports pursuant to sections 243b UGB and 267a UGB as well as sustainability reports" and the International Standards on Assurance Engagements (ISAE) 3000 (Revised) "Assurance engagements other than audits or reviews of historical financial information".

These standards require that we comply with our ethical requirements, including rules on independence, and that we plan and perform our procedures by considering the principle of materiality to be able to express a

limited assurance conclusion based on the assurance obtained. As provided under section 275 para. 2 UGB (liability provision regarding the audit of financial statements of small and medium-sized companies), our responsibility and liability towards the Company and any third parties arising from the assurance engagement are limited to a total of EUR 2 million.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement; consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

The selection of the procedures lies in the sole discretion of the auditor and comprised the following:

- Critical assessment of the Group's analysis of materiality considering the concerns of external stakeholders
- Analysis of risks regarding the essential non-financial matters / disclosures
- Updating the overview of the policies pursued by the Group, including due diligence processes implemented as well as the processes used to ensure an accurate presentation in the consolidated non-financial statement
- Updating the understanding of reporting processes by interviewing the relevant employees and inspecting selected documentations
- Evaluating the reported disclosures by performing analytical procedures regarding non-financial performance indicators, interviewing relevant employees and inspecting selected documentations.
- Examining the consolidated non-financial statement regarding its completeness in accordance with the requirements of section 267a UGB and the "EU

Taxonomy Regulation" (EU Regulation 2020/852) as well as the GRI Standards 2021

- Evaluating the overall presentation of the disclosures and non-financial information

The following is not part of our engagement:

- Examining the processes and internal controls particularly regarding their design, implementation and effectiveness
- Performing procedures at individual locations as well as measurements or individual evaluations to check the reliability and accuracy of data received
- Examining the prior-year figures, forward-looking information or data from external surveys
- Checking the correct transfer of data and references from the (consolidated) financial statements to the non-financial report; and
- Examining the information and disclosures on the website or further references on the internet.

Neither an audit nor a review of financial statements is objective of our engagement. Furthermore, the disclosure and solution of criminal acts, as e.g. embezzlement or other kinds of fraud, and wrongful doings, nor the assessment of the effectiveness and profitability of the management are objectives of our engagement.

## **Conclusion**

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the Group's consolidated non-financial statement is not prepared, in all material aspects, in accordance with the requirements of section 267a UGB and the "EU Taxonomy Regulation" (Regulation (EU) No. 2020/852) as well as the GRI Standards 2021.

Vienna  
26 Juni 2023

PwC Wirtschaftsprüfungs GmbH  
Mag. Peter Pessenlehner  
Austrian Certified Public Accountant



## Inclusive language

In line with our understanding of diversity and inclusion, we largely use gender-neutral language in this report. In some places, we have decided to use the generic masculine for reasons of readability and comprehensibility. This applies, for example, to certain terms established within the Zumtobel Group or defined by legal requirements. Groups that are not named individually, such as „customers“, „suppliers“ or „shareholders“, are also referred to using their generic masculine. The chosen formulations in these cases apply without restriction to all genders.

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**Sustainability concerns us all.**



**ZUMTOBEL**

**THORN**

**TRIDONIC**

**ZUMTOBEL Group**



A photograph of a forest path in autumn. The path is covered in fallen brown leaves and leads uphill. Tall trees with yellow and orange foliage line the path. A bright sunburst effect is visible through the trees on the right side. A metal railing is on the left side of the path.

**Shine. In our partner's eyes.**

**ZUMTOBEL** Group