

Impact Report 2024

Ledlenser Group

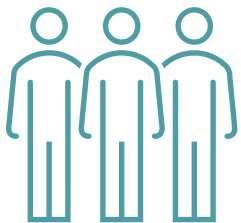
Foreword **2**

About Ledlenser **3**

Our Commitment..... **10**



Environment..... **15**



Social **23**

FOREWORD

At Ledlenser, we believe that long-term business success is inseparable from our responsibility to people and the planet. As a company rooted in innovation and craftsmanship, we see sustainability not as an obligation, but as an opportunity—to create lasting value, drive positive change, and build a future we are proud to be part of.

*Our first **Impact Report** for year 2024 outlines our progress, our priorities, and the impact we are making across environmental, social, and governance dimensions. It reflects the dedication of our teams—from Germany to China—who bring our sustainability strategy to life through collaboration, transparency, and a shared sense of purpose.*

We are particularly proud of the cross-functional structure we have established: integrating colleagues from across departments into our ESG work, combining technical expertise, operational insights, and strategic thinking. Together, we are moving beyond compliance—towards real, measurable progress.

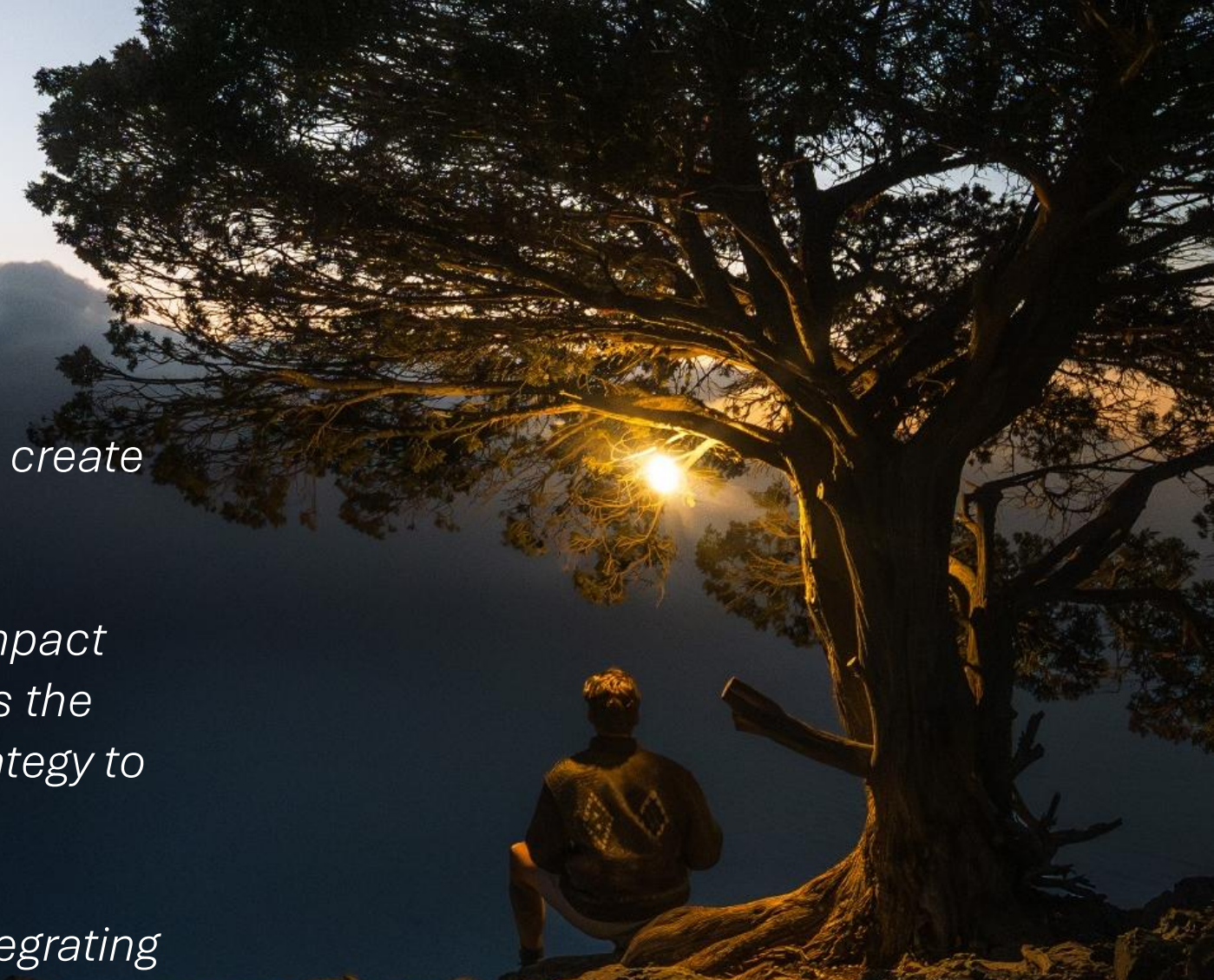
We know this journey is ongoing. But with each step, we come closer to aligning our products, operations, and culture with the values we stand for. Thank you for joining us on this path.



Michael Reuter, CEO



Kai Milewski, CFO

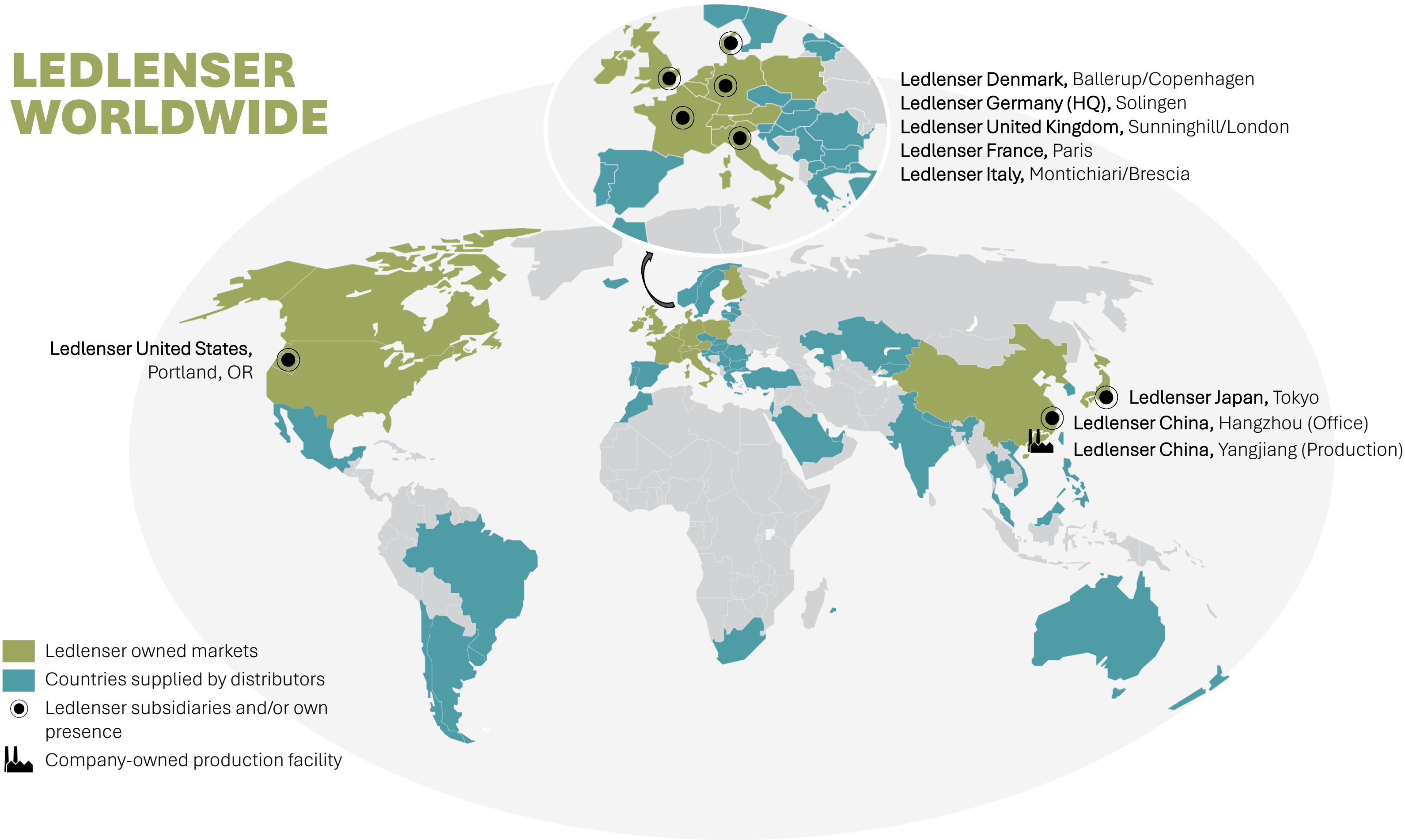


A woman in profile, wearing a headlamp and a jacket, looking towards a distant, illuminated structure (possibly a lighthouse or monument) at night. The scene is dark with a blue sky and some clouds. The headlamp is on, and the structure in the background has several lights on it.

ABOUT LEDLENSER

Ledlenser Worldwide | Our Customers | Our Portfolio | Product Life Cycle | Production China | Quality & Design

LEDLENSER WORLDWIDE



OUR CUSTOMERS

WORK

TRADES & CONSTRUCTION



INFRA-STRUCTURE



SAFETY & SECURITY



OUTDOOR & SPORT



HOME & LIFE



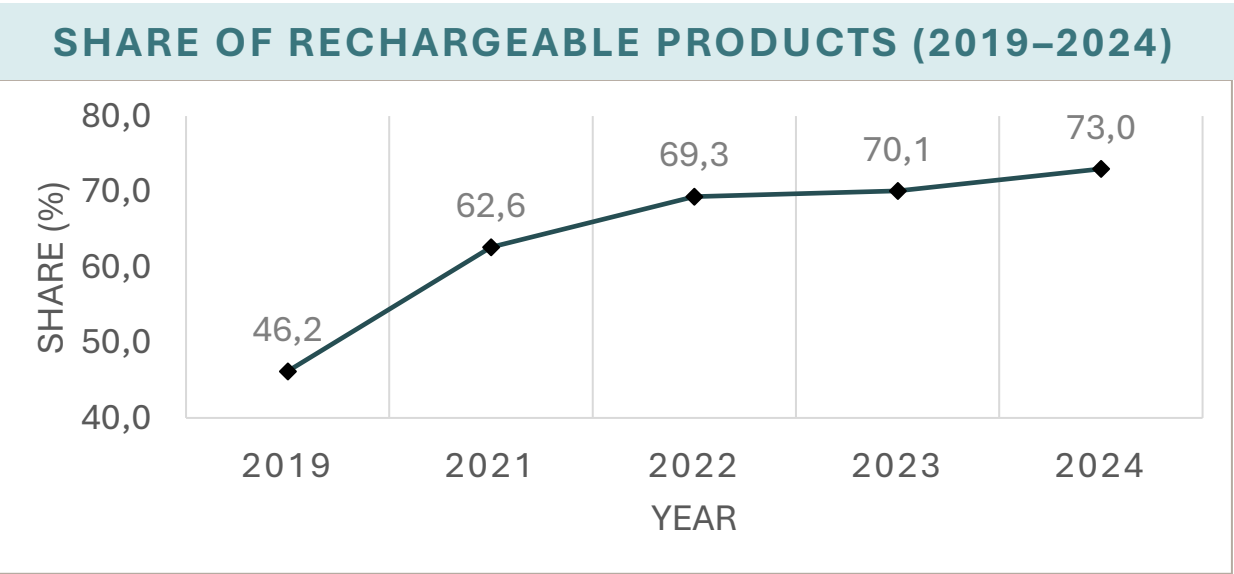
LIFESTYLE

OUR PORTFOLIO

Whether at work, at home, or out in nature – during the day or night, indoors or outdoors – whenever you rely on portable light, Ledlenser is your strong and dependable partner. Our lamps deliver powerful, precise, and customized illumination to cut through the darkness. Engineered with a perfect balance of cutting-edge technology, timeless design, and outstanding performance, Ledlenser provides the right lighting solution at any time.

The long lifespan of our products and the ability to easily replace defective parts also help conserve valuable resources, making our lights not only reliable but also more sustainable.

With our flashlights, headlamps, work lights, and lanterns, you're ready for any challenge and can always count on the best in portable lighting.



FLASHLIGHTS

P-SERIES

K-SERIES

KIDS LIGHTS

EX-SERIES

HEADLAMPS

HF-SERIES

NEO-SERIES

H-SERIES

KIDS LIGHTS

EX-SERIES

OTHER

FLEX-SERIES

W-SERIES

AREA LIGHTS

XP30R



1. DESIGN & DEVELOPMENT

We develop durable, high-quality products with modular components that are easy to repair, while also reflecting thoughtful product design.

2. MATERIAL SELECTION

We choose high-quality, sustainable materials to create long-lasting products that meet all requirements.

3. COMPONENT MANUFACTURING

We produce parts such as lenses, housings, and electronic components in-house at our own production site.

4. ASSEMBLY & QUALITY

Final assembly and rigorous quality control.

5. PACKAGING & PROCUREMENT

Sustainable packaging using FSC-certified, plastic-free materials.

6. TRANSPORT & LOGISTICS

Shipping components and finished products to our entities worldwide.

7. FULFILLMENT & WAREHOUSING

Storage and order processing at Ledlenser's warehouses.

8. SALES & DISTRIBUTION

Delivery to customers through our online shop, retail partners, or B2B channels.

9. PRODUCT USAGE

Long-lasting use by customers – designed for many years of reliable performance.

10. REPAIR & SERVICE

Spare parts and services to extend product lifetime.

11. CLOSING THE CIRCUIT

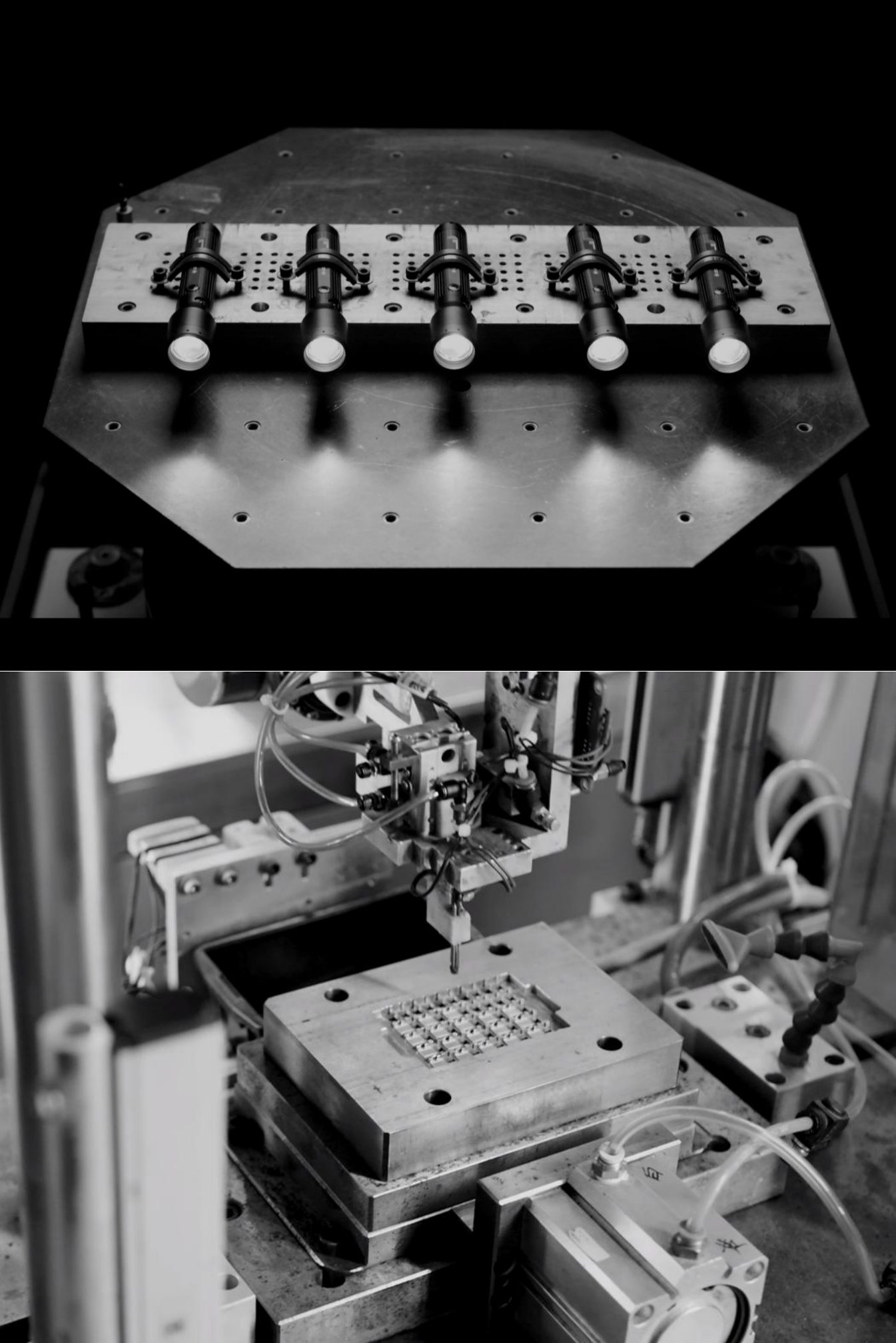
We are advancing reuse and recycling initiatives to strengthen the circular economy, supported by our growing range of rechargeable products.

PRODUCTION CHINA



Ledlenser Production, Yangjiang, Guangdong China

To ensure that bright ideas see the light of day, we've clearly divided our tasks: "Designed & engineered in Germany, produced in China." Our 100 % company-owned Yangjiang location reflects our concentrated production expertise. Here, we manufacture our products and test them from prototype to large-scale production. The quality assurance checklist contains 24 items including: endurance, extreme temperatures, water, salt, blows, and pressure. Every aspect is carefully inspected and tested until the products are perfect.



Respect for human rights is a top priority for us – not only at our own production site in China, but throughout our entire supply chain. Independent organizations monitor our compliance through memberships in **BSCI** and **SEDEX**, ensuring that high ethical standards are upheld on site.

We apply the same strict ESG principles to all our suppliers, making sure that environmental, social, and governance standards are consistently met at every step of the process. The supplier code of conduct to be signed by every supplier is an important tool for ensuring our values.

This is how we take responsibility – transparently, reliably, and globally.



QUALITY, DESIGN AND RESPONSIBILITY

GERMAN ENGINEERING & DESIGN: At Ledlenser, this means top quality, smart design, and sustainable innovation. With over 100 industrial property rights and a modular system for easy part replacement, our lights are built to last. Backed by cutting-edge technology and a warranty of up to 7 years, we stand by the durability and performance of every product we create.

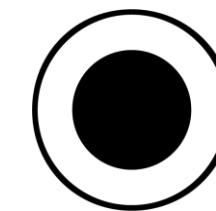
QUALITY AND SUSTAINABILITY as part of a systematic process

Quality Management: DIN EN ISO 9001:2015**

Environmental Management: DIN EN ISO 14001:2015**

Energy Management: DIN EN ISO 50001:2018**

GUIDED BY GLOBAL GOALS: At Ledlenser, every decision we make is aligned with the 17 UN Sustainable Development Goals. Our commitment to transparency and accountability is reflected in our comprehensive ESG reporting, which follows the principles of the voluntary VSME reporting standard. We don't just talk sustainability – we live it.



**GERMAN
ENGINEERING
& DESIGN**



Management
System
ISO 9001:2015
ISO 14001:2015
ISO 50001:2018

www.tuv.com
ID 9108640713



*Two-year warranty from the date of purchase, or seven years with online registration through our website. The warranty applies worldwide in addition to the legal warranty rights. It covers defects in material and manufacturing. Battery packs are guaranteed to work correctly for 24 months. More information at [ledlenser.com/warranty](https://www.ledlenser.com/warranty).

**Note: ISO 9001 certification applies to both our headquarters in Germany and our production site in China. ISO 14001 and ISO 50001 currently cover only our German headquarters.



OUR COMMITMENT

ESG at Ledlenser | ESG Lead Team | Stakeholders | Targets

ESG AT LEDLENSER

At Ledlenser, sustainability is not limited to vision — it’s embedded in our structure.

We have established a **central ESG lead team** that drives our global sustainability strategy by working on strategic initiatives, data analysis and global targets.

To ensure effective implementation, local ESG teams at our main sites in Germany and China, focus on developing and executing measures to achieve our targets.

The local ESG teams play a key role in aligning our sustainability efforts with the specific regulatory and social expectations of the region. They **actively** provide valuable insights into local processes – insights that are critical to advancing sustainability across both our manufacturing operations and our headquarters.

By building bridges between both locations, we foster a **global ESG culture** that is both visionary and pragmatic. We believe that sustainability is only truly effective when it is embraced at all operational levels.



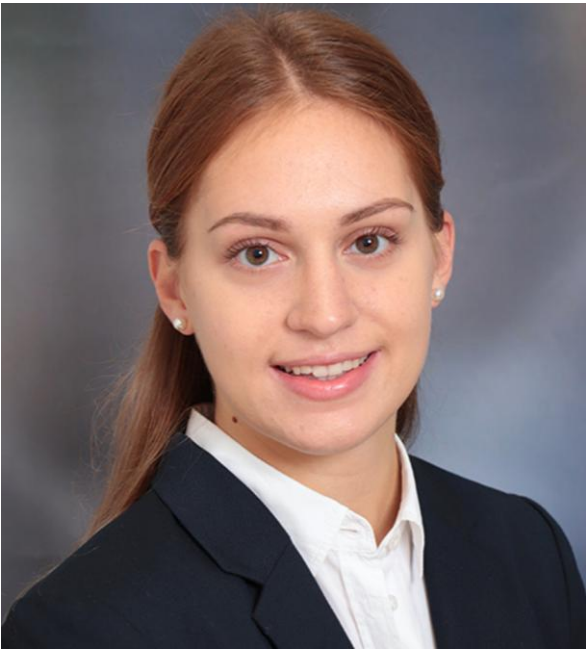
ESG LEAD TEAM



Katharina Bongards
ESG Manager



Candice Zou
ESG Lead Team - China



Marlene Mens
ESG Lead Team - Germany



Matthias Gerke
ESG Lead Team - Germany

Our **ESG Lead Team** unites members from Germany and China, bringing together diverse expertise and perspectives with one shared mission: **driving sustainability forward at Ledlenser.**

Together, they shape the strategic framework of our ESG journey, define ambitious goals, and transform them into actions that make a real difference. Their work covers all dimensions of sustainability and by collaborating not only within the team but also closely with colleagues from key departments - such as Product Development and Human Resources - they ensure that **sustainability is embedded into both our products and our corporate culture.**

This cross-functional and international collaboration strengthens our operations across all locations and inspires a global ESG culture that reaches far beyond our own business, contributing to a more sustainable future.



Candice Zou, Cece Liao, Andrew Song, Linda Yan, Tracy Huang, Peggy Zou, Kerry Wen, Westlin Lin
ESG Team - China

Our ESG-Team in China supports the local execution of our ESG strategy and targets.

STAKEHOLDERS

Sustainable development thrives on dialogue — which is why we place great value on **transparent and continuous communication** with all relevant stakeholders. Each group brings a unique perspective that helps shape our strategic thinking and guides us in aligning our actions with societal, environmental, and economic expectations.

In advance, we identified our **key stakeholders** based on their level of interest in and influence on, our sustainability activities. We consider the interests of our customers, suppliers, employees, shareholders, financial institutions, authorities, management and the broader market as essential in driving **responsible business decisions**. Open exchange and mutual trust form the basis of these relationships, and we are committed to strengthening this foundation over time.

By **engaging with stakeholders across all areas** of our value chain, we aim to foster long-term partnerships, identify opportunities for improvement, and remain responsive to changing demands and global challenges. This ongoing dialogue helps us refine our **sustainability strategy** and continuously evolving in line with our values and responsibilities.



TARGETS

1. Net Zero Emissions by 2045
– with at least 90% emission reduction

2045



3. 20% less Scope 3 emissions by 2030



20% less 2030



4. <7% plastic in product packaging by 2030

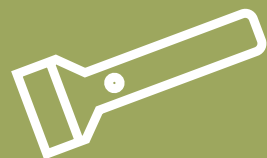
<7% plastic 2030

5. Equal Pay Audit completed – closing remaining gender pay gaps in Europe



7. Support social projects by donating >5000 products a year

>5000x



2. 80% less Scope 1 & 2 emissions by 2028



80% less 2028

6. ESG awareness workshops for employees



*All targets are based on 2023 as the reference year

A misty forest scene with a person in a red jacket using a flashlight. The forest is dense with tall, thin trees and a thick layer of fallen leaves on the ground. The person is standing on a path, and the flashlight beam illuminates the misty air. The overall atmosphere is serene and mysterious.

Environment

GHG Protocol | Emissions | Direct Materials | Aluminium | Energy | Sustainable Packaging

GHG PROTOCOL: SCOPES & DEFINITION

SCOPE 1

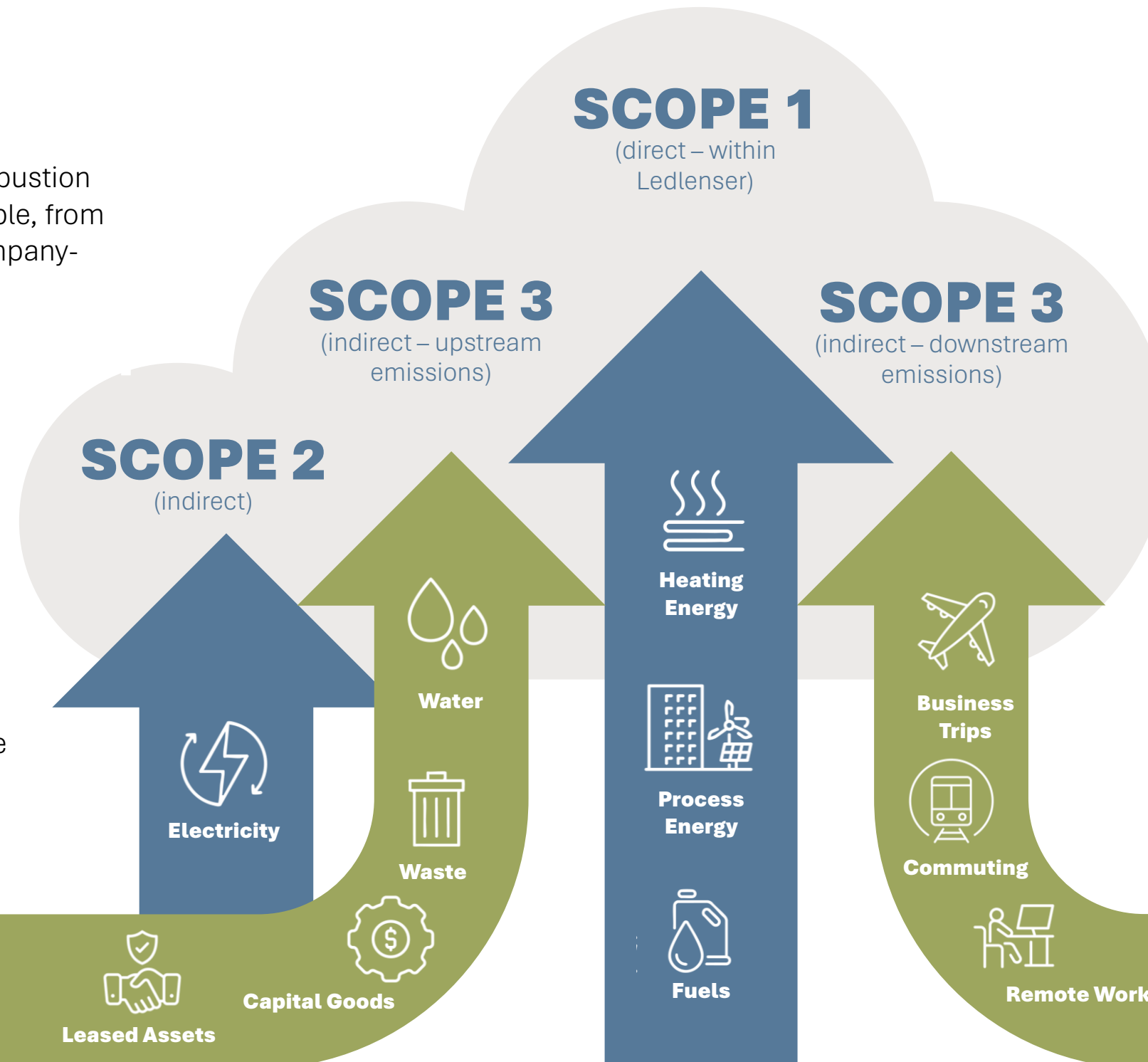
Includes emissions from on-site fuel combustion and energy use at our facilities—for example, from heating systems, process energy, and company-owned vehicles.

SCOPE 2

Covers emissions associated with the generation of purchased electricity and district heating.

SCOPE 3

Finally, Scope 3 covers all* other indirect emissions that arise during the production of raw materials, products or services along the upstream and downstream value chain, like aluminium, used capital goods or transportation of our products.



GHG PROTOCOL

We report our greenhouse gas emissions (climate balance) in accordance with the Greenhouse Gas (GHG) Protocol. This standard provides a comprehensive framework to ensure, all data is collected and assessed in a systematic, consistent and comparable way.

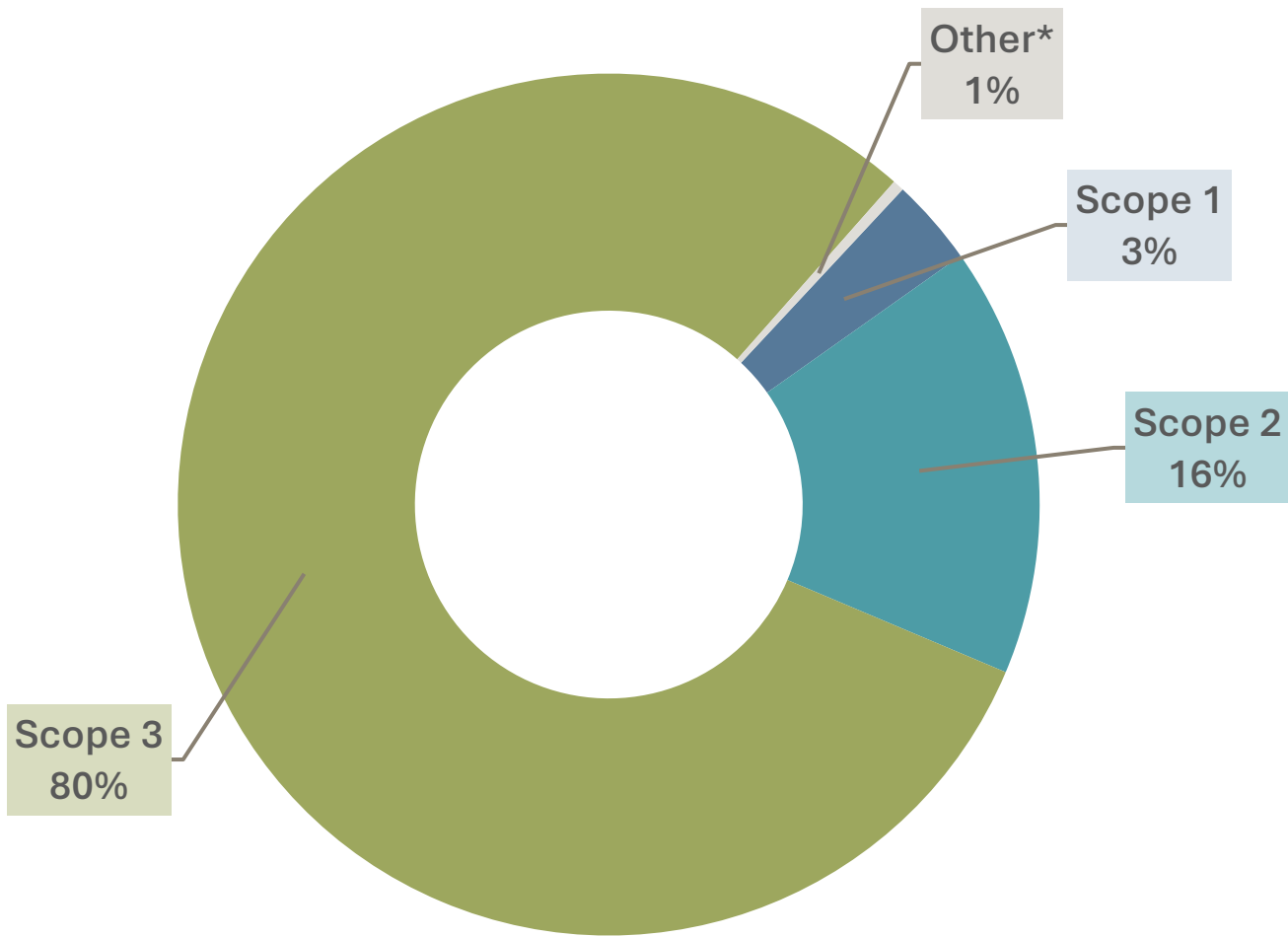
For the calculation of GHG emissions, we follow the IPCC AR6 methodology (GWP100) to convert all relevant GHGs into CO₂ equivalents. In addition, we rely on internationally recognized emission factor databases such as ecoinvent, and other publicly available, reputable sources to ensure transparency across all scopes.

*Emissions from the product use phase or end-of-life treatment are currently not included in our Scope 3 accounting but evaluated for future integration.

EMISSIONS - OVERVIEW CARBON FOOTPRINT

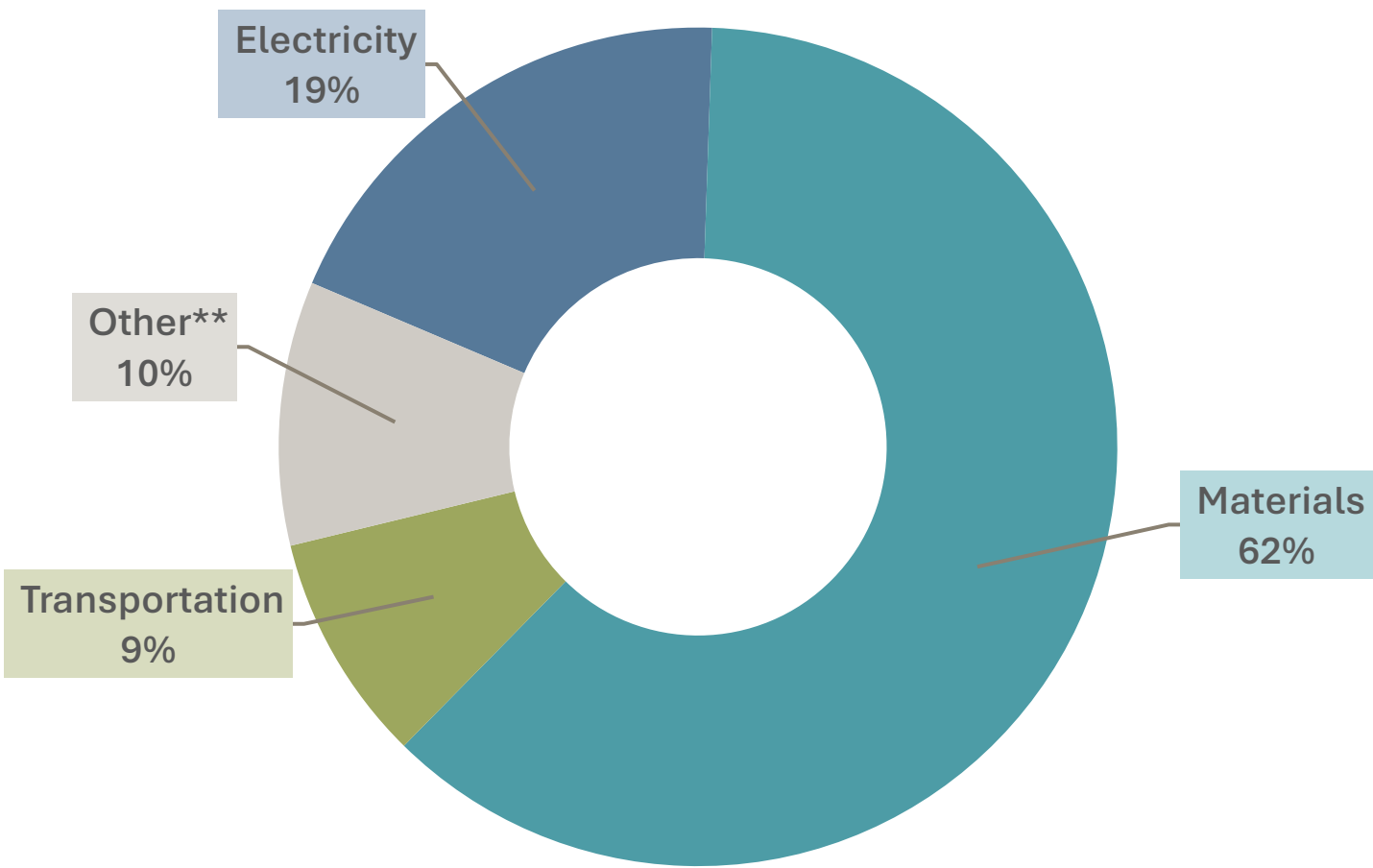
Our corporate carbon footprint covers all Ledlenser entities worldwide. All data has been consolidated at group level. In the reporting year **2024**, our total greenhouse gas emissions amounted to **12.985.312 kg CO₂ equivalents**. The majority (80%) fell under Scope 3 emissions, primarily driven by materials, transportation and upstream emissions for electricity. Scope 2 emissions (e.g., electricity consumption) accounted for 16%, while Scope 1 emissions (direct emissions) made up 3%. Additional sources such as biogas contributed less than 1%.

Split by Scope – Year 2024



*Other includes Biogas

Split by Emission Source – Year 2024



**Other includes Heating and Process Energy, Fuels, Refrigerant Losses, District Heating, Upstream Emissions (Energy- and Fuel-related), Water, Waste, Capital Goods, Leased Assets & Services, Business Trips, Commuting, Remote Work, Biogas

EMISSIONS - DEVELOPMENT

-30%

Reduction

In Scope 2 emissions
since 2023

Split by Scope

in t CO ₂ eq	2023	2024
Total	14.909	12.985
Scope 1	339	423
Scope 2	2.992	2.098
Scope 3	11.522	10.409
Other	55	55

Split by Ledlenser Entity

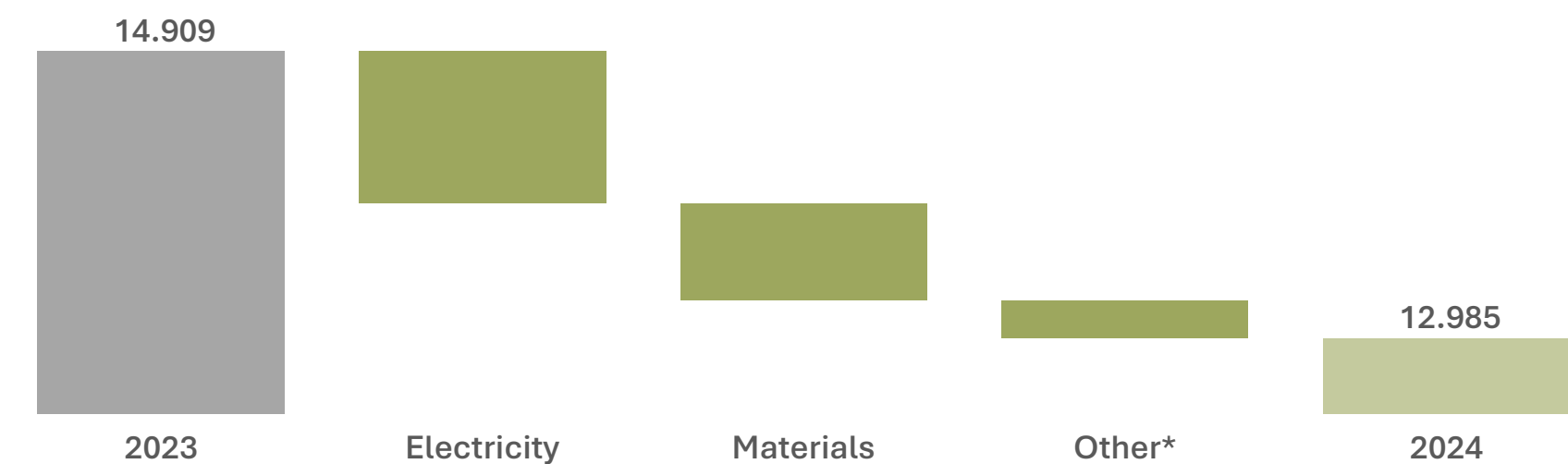
Ledlenser Germany	1.354	1.151
Ledlenser China Production	12.921	10.999
Ledlenser Japan	227	189
Ledlenser UK	164	400
Ledlenser USA	90	71
Other Entities**	155	175

Climate Impact – Emissions Development

Over the past year, we were able to significantly reduce our corporate carbon footprint, marking an important step in our climate strategy. Compared to the previous reporting period, **total emissions decreased by almost 13%**, despite continued business activity and stable production volumes.

This reduction was primarily driven by two key factors:

- Switch to 100% renewable electricity at our headquarters in Germany and, as of November 2024, also at our production site in China
- Installation of photovoltaic systems at both sites, contributing to a more self-sufficient and cleaner energy supply



*Other includes Heating & Process Energy, Fuels, Refrigerant Losses, District Heating, Energy- and Fuel-related Upstream Emissions, Water, Waste, Capital Goods, Leased Assets & Services, Business Trips, Commuting, Remote Work, Transportation (Procurement, Inter-company and to Customer), Biogas

**include China Trading, Denmark, France, Italy and Switzerland

DIRECT MATERIALS

Where Our Product Emissions Come From – Top 5 Materials in 2024

Share of Direct Material Emissions



*Other materials include PCB bare, paper, cables, passive electronics, cardboard, polyethylene, PA66, average polyethylene/rubber, magnets, LED, alkaline batteries, PMMA, silicone, full lamps (consumer product), other plastics, ABS, TPU, switch, steel, tin, copper, glue, polyester, glass

30 %
● **Aluminium**
...used for long-lasting tubes and housings

14 %
● **Power Supply**
...to enable easy recharging of our products for long-lasting use

10 %
● **Polycarbonate**
...to produce housing components, especially for headlamps

8 %
● **Active Electronics**
...to make our lamps as intelligent as possible

6 %
● **Lithium-Ion Batteries**
...to increase our share of rechargeable products

31 %
● **Other***

WHY WE USE ALUMINIUM

Aluminium is currently the **main contributor** to the material-related carbon footprint of our products. At the same time, it plays a crucial role in **ensuring performance and durability**.

The reason is simple: LEDs produce heat, and efficient thermal management is essential to protect sensitive components and maintain long lifespans. Thanks to its outstanding thermal conductivity, aluminium quickly dissipates heat and prevents overheating – something plastics or other materials can not offer to the same extent. It also combines low weight, strength, and long-term durability, making it the ideal housing material for high-performance portable lights.

However, we are aware of the **environmental impact** of aluminium and are committed to minimizing it. As part of our sustainability efforts, we are actively researching and testing alternative materials that could offer similar thermal management properties while reducing our carbon footprint.

In our near future **recycled aluminium** will play an essential role. We are proud to lead the portable lighting industry in this area. By continuously innovating, we aim to reduce the environmental impact of our products without compromising on quality or functionality.



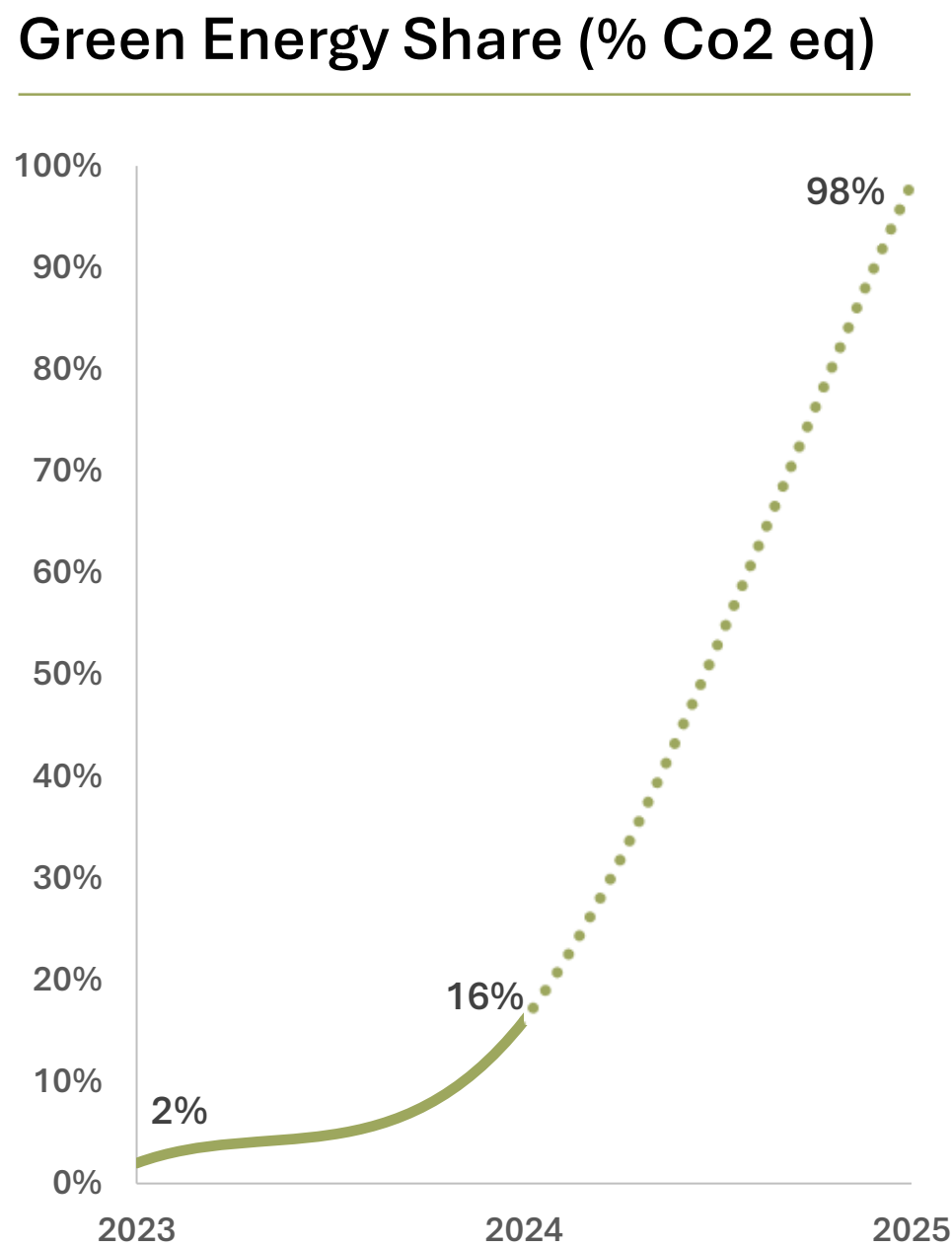
ENERGY

Renewable Energy

In 2024, we took a major leap forward in our sustainability strategy by switching to **100% renewable electricity** at our sites in both Germany and China.

This transition increased our **share of green electricity** from just 2% in 2023 to 16% in 2024 – with a projected increase to 98% by 2025.

These milestones reflect our clear commitment to a **low-carbon future**. At our headquarters in Solingen, we also transitioned to **100% renewable gas**, raising our overall share of green gas to 67%. This marks a decisive step in our mission to decarbonize our energy supply and **reduce emissions** across all operations.



Expanding Solar Power

As part of our ongoing commitment to sustainability, we have significantly expanded our use of **renewable energy**. At our production site in China, a powerful 1,172 kWp **solar system** now covers the entire available rooftop space – marking a key milestone on our path towards greater energy independence. In Germany, we installed a 47.97 kWp solar system to further strengthen our local **green energy strategy**.

Together, these projects underscore our ambition to **reduce CO₂ emissions** and invest in clean energy – at every location, and across borders.

Note: The switch to 100% renewable electricity at our production site in China was implemented in November 2024. As a result, the full-year emission reduction effect will be reflected in the reporting year 2025. The figures shown for 2025 are projections based on 2024 energy consumption patterns and the expected impact of full-year renewable supply.

SUSTAINABLE PACKAGING

Plastic share in our sales packaging – Development over the past 10 years



29 %

Plastic share
in year 2014



18 %

Plastic share
in year 2019



7 %

Plastic share
in year 2024

Progress you can hold in your hands

We have reduced the plastic content in our packaging placed on the German market, from **29% in 2014** to just **7% in 2024** – and we’re committed to decrease this even more in the near future.

For all remaining paper-based materials, we increasingly rely on **FSC® Mix certified cardboard and paper** to support responsible forestry and resource conservation.

For a significant part of our business, we also ship using **grass-based cartons**, a renewable alternative that significantly reduces the environmental footprint of each shipped package. In addition, we continuously **optimize our packaging dimensions** to make the best possible use of space – allowing more products to fit into each shipment and helping to reduce transport-related emissions.



SOCIAL

Ledlenser as Employer | Our Team in Numbers | Engagement

LEDLENSER AS EMPLOYER

Empowering people at work

At Ledlenser, we believe that a **strong team culture** and a **supportive work environment** are essential for long-term success. That's why we create the conditions for our employees to thrive – professionally, personally, and as part of a community. We offer **individual development** plans and encourage employees to take on responsibility and grow. Whether through tailored training, regular feedback, or internal advancement opportunities – personal growth is a key part of our culture. Our **modern headquarters** in Solingen provides an inspiring atmosphere and is setting new standards across the group: with bright workspaces, height-adjustable desks and a hybrid work model that respects individual flexibility. Offering flextime, and open dialogue ensure a healthy work-life balance.

We also support our team **beyond the office**: from mobility subsidies and corporate benefits to company bike leasing, fresh meals from our mobile canteen, and free drinks and fruit on site. Our employee assistance program (MeinEAP) offers access to external counseling for personal or professional concerns – confidential and always available.

Health, collaboration and inclusivity are part of how we lead.

We organize regular team events, Barbeque nights, take part in company runs, and listen to what matters most to our people – because appreciation doesn't end with a contract.



**Top 2025
Company**



kununu

**Recognized by those
who know us best**

Ledlenser is proud to be a **Kununu Top Company** – a recognition based entirely on the feedback of our employees. In categories such as work-life balance, team spirit, leadership and development opportunities, we consistently score above average. This shows: Our values are not just promises – they are lived every day.

OUR TEAM IN NUMBERS

As of December 31st , 2024, Ledlenser employs **633 people** worldwide.

Behind every innovation, every product and every light we create stands a **diverse and dedicated team** that drives our success forward. Our workforce is characterized by diversity across age groups, gender, and experience, with **long-term commitment** reflected in an average tenure of nearly eight years.

We believe that a **strong company culture, fair working conditions** and **continuous development opportunities** are essential pillars of a sustainable business.

That’s why we actively **invest in our people** – through training, dialogue, well-being initiatives, and a work environment designed for long-term engagement.

	2024
Total Employees	633
Diversity	-
Thereof Female	311
Thereof Male	322
Thereof Other	-
Thereof Disabled	5
Thereof Parental Leaves	66
Female-To-Male Leadership Ratio	0,64
Thereof Under 25 Years	18
Thereof 25-34 Years	174
Thereof 35-44 Years	270
Thereof 45-54 Years	134
Thereof 55 Years And Older	37
Job Satisfaction	-
Average Period Of Employment (in years)	7,9
Further Training	-
Thereof Dual Students	7
Thereof Working Students	2
Thereof Interns	4
Thereof Apprentices	4



Training the next generation

At Ledlenser, we invest in the future – by training and supporting young talent in a wide range of professions. We currently offer **apprenticeships** in:

- Office Management
- Wholesale and Foreign Trade
- E-Commerce
- Warehouse Logistics
- IT – System Integration & Software Development

And **dual study programs** in:

- General Management (B.A.)
- Online Marketing (B.A.)
- Marketing Management (B.A.)

Note: All figures presented on this page are values as of December 31, 2023 and December 31, 2024.

ENGAGEMENT

Social engagement is an integral part of our corporate culture. We take responsibility through long-term partnerships, in-kind and monetary donations, and our employees' commitment.



Partnership with **DOCTORS WITHOUT BORDERS**

Since 2019, we have been working closely with Doctors Without Borders, an organization that provides emergency medical aid in crisis areas around the world. As an official partner company, we regularly provide headlamps, flashlights, and floodlights for use in the field. We also support Doctors Without Borders financially.

Support for Humanitarian Aid

In addition to that, we regularly support selected aid organizations and charitable projects with our products. This way, our technology can provide greater safety, self-determination, and hope.

Our Employees' Commitment

As part of our Social Days, our employees can volunteer for up to 8 hours per year – for instance at the Arche Düsseldorf (aid organization fighting child poverty) or the Solinger Tafel (charitable organization which saves food from waste to support people affected by poverty). As a long-standing partner of the Zugspitz Ultratrail, our employees can get involved in the largest trail running event in Germany at various levels.





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