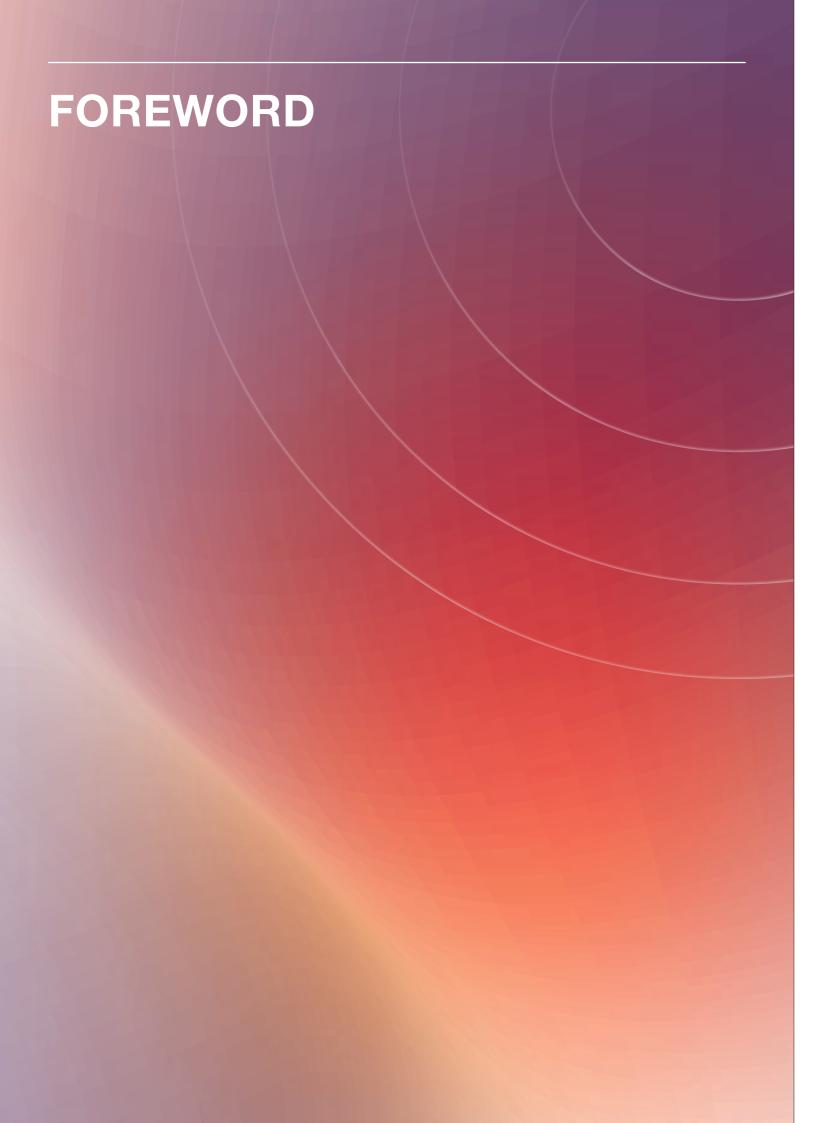
**LEDVANCE.COM** 



**SUSTAINABILITY REPORT 2022** FROM LINE TO LOOP

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# **DEAR READERS,**

In 2016, LEDVANCE began its journey as an independent company with its own brand and identity. However, originating from the general lighting division of OSRAM, our roots go back much further. Over 110 years of team spirit and know-how live on in LEDVANCE, and have developed their own momentum since our foundation. As one of the world's leading suppliers of general lighting, we are strongly linked to the transformation of the lighting industry.

For more than a century, this change has been largely shaped by the goal of improving efficiency. The introduction of the energy-saving lamp almost 40 years ago and the LED lamp around 15 years ago represented landmark advances along this path. By chairing working groups and joining global industry associations, where we work together with government, industry and other stakeholders, we have already been able to drive for sustainability since 2008.

End consumers benefited from savings of up to 90 percent compared to incandescent lamps. Initial skepticism about the new technology was overcome by the spread of even better LED products. Initially, it was mainly classic incandescent lamps that were replaced by corresponding LED alternatives. Over the years, luminaires with integrated LEDs that were precisely tailored to the new technology also increasingly appeared on the market.

At the Light + Building trade fair in 2016, LEDVANCE, until then exclusively a supplier of lamps, presented its first own range of luminaires. From the very beginning, we not only relied on LED technology, but also offered a variety of smart products that have the potential to make LED even more efficient in its use phase. In 2022, at the same trade fair, we continued this development by presenting the next evolutionary stage of LED technology – our EVERLOOP system. With EVERLOOP, we are the first major manufacturer in the world to offer luminaires with replaceable drivers and LED modules. The modular design also allows sensors and other components to be retrofitted.

The desire to make our products more sustainable has found its way into many areas, whether it is through the elimination of plastic in packaging, the reduction of rare raw materials in our products or the improvement of their quality. For example, the idea for EVERLOOP originated in an interdisciplinary team led by our research and development department. Since 2022, we have also had a dedicated sustainability team, which falls within my area of responsibility.

As Chief Operating Officer, it is my obligation to ensure that the department's ideas find their way into our operational business. We are aware of the impact our business activities have on the economy, nature and people, as well as the leverage we have through our sustainable transformation.

We therefore stand by the principles of the United Nations Global Compact, to which we have belonged since 2017. We are convinced that light can make a significant contribution to achieving the Sustainable Development Goals (SDGs) of the United Nations. With human-centered lighting concepts that mimic the natural daylight, we help to adapt people's routines and body functions to a natural rhythm, thus contributing to SDG 3 – Good Health and Well-being, while our efficient solutions enable access to Affordable and Clean Energy (SDG 7).

In the meantime, we went one decisive step further. We adopted a Sustainability Strategy that covers all areas of LEDVANCE and which we will present to you in this report. The strategy finds its way into our various subsidiaries via various short, medium and long-term goals, and thus has an impact on about 140 countries in which we do business. Beyond our efforts to provide energy and resource-saving lighting products, we are evaluating whether our customers would also be interested in renewable energy products from us.

In the chapters of this Sustainability Report, we present our impact, corresponding management approaches and milestones we achieved. Thereby, we focus on five areas: (1) our strategy, (2) governance and compliance, (3) sustainability in product and (4) business operations, and (5) our responsibility towards employees and society. These focus topics resulted from a materiality analysis conducted in 2022, which enabled us to identify the areas that are most important to us.

We are proud of what we have already achieved and at the same time still see so much we can improve on. In doing so, we also count on you. After all, protecting our planet also starts with our employees, partners and customers.

We hope you enjoy reading this report and that it provides you with valuable insights about sustainability at LEDVANCE.

# **GARETH JACKSON**

CHIEF OPERATIONS OFFICER

# **COMPANY PROFILE**

LEDVANCE is a world leader in innovative lighting products and intelligent, connected lighting solutions. Based on our in-depth understanding of the general illumination market, trending technologies and changing needs, we support the specific and individual demands of both direct and indirect customers.



# **LEDVANCE**ADVANCING LIGHT

Our product portfolio consists of a wide range of LED luminaires, advanced LED lamps, networked smart home and smart building solutions as well as traditional light sources. The graphic below explains our brand structure. Beyond our efforts to provide energy and resource-saving lighting products, we are evaluating whether our customers

would also be interested in renewable energy products from us. After selling our last production site in 2022, we now completely source our products and materials from reliable partners. Other than that, there have been no significant operational changes within the reporting period.

# **OUR CORPORATE BRAND**



# **OUR PRODUCT BRANDS**



**BELLALUX** 

OSRAM OSRAM

SYLVANIA SILVANIA

# OUR OWNED TECHNOLOGY & FEATURE BRANDS







SMART+

SUN@HOME

**BIOLUX** 

TruWave Technology

T·FIT



tapTronic

PHASEEV



# TRADITION MEETS INNOVATION

The name LEDVANCE refers to the LEDVANCE GmbH and its affiliated companies and subsidiaries, all of which are covered in this Sustainability Report. Having emerged from the general lighting business of OSRAM, LEDVANCE is now part of the Chinese group MLS Co Ltd, which is one of the world's largest producers of LED packages. Through this partnership, along with LEDVANCE's rich history, we combine our traditional general illumination expertise with modern, ground-breaking lighting technologies.

This can be shown through our industry-leading work on Human Centric Lighting (HCL), for which we were the first company to receive a certificate from the recognized testing and certification institute VDE. In 2020, we won the German Innovation Award for our BIOLUX Human Centric Lighting

System. In fact, we have won various awards in recent years, including the German Design Award in 2019 and the German Innovation Award in both 2020 and 2021.

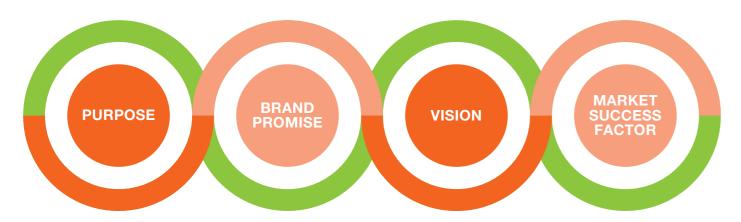
But we want to do more, which is why we are investing in the future in the following five ways:

- 1. Increasing energy efficiency and sustainability
- 2. Making light quality natural and comfortable to the eye
- 3. Improving human health and well-being
- 4. Creating aesthetic, minimalistic design concepts with high usability
- 5. Smart functionality and connectivity wired and wireless.

LEDVANCE is licensee of product trademark OSRAM for lamp products in general lighting.

<sup>\*\*</sup> LEDVANCE is licensee of product trademark SYLVANIA for products in general lighting.

# **OUR LEDVANCE DNA**



Redefining the role of light in a connected world

Advancing light

We are a leader in sustainable lighting solutions for everyone's productivity, health and well-being Distribution is our preferred route to market

# REDEFINING THE ROLE OF LIGHT IN A CONNECTED WORLD

Our innovation and design are driven from our Global Innovation & Strategy Center in Germany and complemented by our Smart Home Innovation Center in the US along with our Global Innovation & Execution Center in China. LEDVANCE is a global company with business operations in about 140 countries. As of 2022, we had a total of 3,202 employees¹ and generated a major part (55.6 percent) of our revenue in EMEA, 36.0 percent in AMERICAS and 8.4 percent in APAC².

However, we're also constantly adapting to regional market needs. From our Head Office in Garching, near Munich, Germany, to our various subsidiaries around the world, we remain committed to acting responsibly towards our customers, employees, business partners, society and the environment. We are guided by our purpose – redefining the role of light in a connected world – as well as our brand promise of 'advancing light'. Our vision is to be a leader in sustainable lighting solutions for everyone's productivity, health and well-being, with distribution being our market success factor.



<sup>&</sup>lt;sup>2</sup> Turnover by regions is still being reviewed by our external auditor at editorial closing date.



Our success is built on three core values that are part of our DNA and characterize our attitude and behavior in everything we do:

# Breaking new ground

We are fast innovators in a dramatically accelerated market environment and have the courage to take calculated risks.

# Striving for excellence

Our focus on quality in everything that we do distinguishes us from the competition – from our R&D to the way we engage with our customers.

# Winning together

We work as a team, across departments at LEDVANCE and together with our partners and customers. We believe that in today's lighting industry, only the companies with the best ecosystems and team spirit can thrive.

# OUR THREE PILLARS OF CORPORATE SOCIAL RESPONSIBILITY

LEDVANCE is proud to be a signatory of the United Nations (UN) Global Compact. As part of a network of nearly 10,000 companies, we support the UN Global Compact's 10 principles on human rights, labor, the environment and anti-corruption. We are committed to incorporating the UN Global Compact and its principles into the strategy, culture and day-to-day operations of our company.

Safety, sustainability and business ethics are the core of our commitment to security, environment, health and social responsibility at work. Our three pillars of Corporate Social Responsibility are:

# ENVIRONMENTAL SOCIAL ECONOMIC

#### Social

The focus of LEDVANCE's social commitment is the observance of fair working conditions and safety standards. The continuous development and support of our diverse, talented employees is also of great strategic importance and critical for the success of our company.

#### **Environmental**

Environmental management at LEDVANCE includes the sustainable use of energy, water, waste and chemicals, as well as the monitoring of greenhouse gas emissions (GHG emissions), with the environmentally conscious design and recycling of products therefore playing a key part.

#### **Economic**

We are committed to sustainability throughout the entire LEDVANCE value chain. Together with our suppliers, we maintain a common value base and comply with statutory regulations. Through our 'Quality First' approach, we offer our customers outstanding products, whose entire life cycle is based on sustainable processes.

The following chapter, Sustainability Strategy, describes this in more detail.



# ECOVADIS SILVER MEDAL

In 2022, we were awarded an EcoVadis silver medal for our achievements in Corporate Social Responsibility in the areas of environmental efforts, ethics, labor and human rights, and sustainable procurement.

# SUSTAINABILITY STRATEGY

Our new LEDVANCE Sustainability Strategy will help us build the strong foundations we need to achieve our vision and strategic goals. Through a thorough development process, we were able to identify and develop five strategic elements that form the strategy's backbone.

# **DEVELOPMENT PROCESS**

Credibility, transparency and robust reporting across the entire value chain are essential to the future of any genuinely sustainable business. This includes addressing climate change, pollution and biodiversity loss, as well as safeguarding and improving the lives of our employees, those involved in our supply chain, and all the people around the world who use our products and services.

This is LEDVANCE's first Sustainability Report. In this chapter, we will outline our strategy, which is designed to support our vision of being a leader in sustainable lighting solutions for everyone's productivity, health and well-being.

The foundation of our strategy process consists of a comprehensive context and benchmark analysis that we conducted to better understand business impacts, risks and opportunities with a focus on sustainability. The selection and prioritization of topics for LEDVANCE as part of our materiality analysis sets the focus for our Sustainability Strategy and management.

The assessment of external factors was completed by also looking at our internal responses, including an in-depth status quo analysis of relevant management approaches already in place at LEDVANCE. This allowed us to review our existing policies, consolidating them into our new global Sustainability Guideline. We have identified key measures for five strategic elements (explained in more detail in this Sustainability Strategy chapter) which form a path towards a more sustainable future.



A comprehensive context and benchmark analysis builds the foundation for our strategy process.

# BUSINESS RISKS AND OPPORTUNITIES

Like many industries, the lighting industry is shaped by global risks and trends, such as climate change, the loss of biodiversity, economic development, social changes, demographic development and digitization.

These global trends have wide-ranging impacts, from changes in society, such as in buying and consumption behavior, to changes in business legislation, from consumer rights and laws, and product legislation, to business ethics and liabilities, and the need for 'green' finance, taxation and public procurement. These changes to legislation can have knock-on effects for business in terms of competition, finance and taxation, and new compliance requirements. Combined with societal changes, the need for a change of customer requirements arises, including supplier behavior and ethics, brand image, product requirements, supply chain transparency and digitalization.

Ultimately, there are risks in terms of competitive advantage, brand image, loss of customers, revenue and profit, and personal penalties for management. For LEDVANCE specifically, challenges include determining our value proposition and strategy, costs of compliance (and non-compliance), product portfolio development, maintaining efficient IT systems and processes, managing the supply chain, strategic HR development and reporting obligations.

Additionally, the lighting industry is on a clear path towards LEDs. However, 'LEDification' is highly regional, with incentivization by regulation in the EU and demands from both customers and regulators differing globally. Digitalization and smart lighting solutions are gaining importance: Human Centric Lighting (HCL) contributes to health and well-being and sensor-controlled lighting solutions save energy. Other sustainability themes, such as circular economy and renewable materials, are currently less clearly specified by regulators, however this is expected to change and we are therefore preparing proactively, with product innovations and various initiatives across the business built into our Sustainability Strategy.

Innovation, coupled with our proactive approach, will help us capitalize on the opportunities that trends and risks in the lighting industry bring. For example, we can help combat climate change by reducing greenhouse gas emissions through LEDification, we can reduce light pollution using directional light, and we can reduce stress through LED-based HCL.

# STAKEHOLDER DIALOGUE AND RELATIONS

To understand and develop LEDVANCE's corporate responsibility and contribution to sustainable development, our sustainability department plays a central interface role in the exchange with our stakeholders. Through various channels, we identify the requirements that are addressed to LEDVANCE by different groups. These include the perspectives of employees and their representatives, managers, customers, applicants, the media as representatives of the public, and other interest groups. The issues surrounding sustainable, responsible business management are taking on increasing importance in the dialogue. This is particularly evident in enquiries we receive from customers. We aim to carefully answer these concerns through this Sustainability Report along with our participation in rating systems.

We communicate with our customers and business partners using a combination of meetings, trade fairs, marketing materials and press releases. We connect regularly and proactively with our employees through internal updates in the form of CEO letters, the intranet, posters, townhall meetings and webcasts. We communicate with our suppliers through our Code of Conduct along with supplier audits and training. Membership of a range of industry associations around the world helps us manage our interaction with government and civil society.



# **SUSTAINABILITY CHALLENGES** (MATERIAL TOPICS)

To determine material topics for our Sustainability Strategy, a variety of sources were used. LEDVANCE staff were involved through workshops and interviews, and further input was provided by analyzing regulatory and societal trends, as well as industry peers. Key measures (including goals and implementation steps) were defined, serving as a strategic starting point for focusing and accelerating LEDVANCE's management of sustainability topics.

# **HOW OUR MATERIAL TOPICS CONTRIBUTE TO THE SDGs**

Topic cluster	Material topics	Related SDG	is
Governance & Compliance	<ul><li>Business Ethics &amp; Compliance</li><li>Cybersecurity &amp; Data Privacy</li></ul>		e and justice, g institutions
Supply Chain Responsibility	<ul><li>Human Rights in the Supply Chain</li><li>Environmental Impacts along the Supply Chain</li></ul>	3 menun -W- Good	health and well-being
		5 tours Gend	er equality
		Decer growt	nt work and economic th
		10 species Reduce	ced inequalities
			onsible consumption production
		13 EEE Clima	te action
Product Responsibility	<ul> <li>Sustainable and Circular Product Design including End-of-life</li> <li>Product Safety</li> </ul>	Afford	dable and clean energy
	- Responsible Packaging		try, innovation nfrastructure
		H 4	inable cities ommunities
			onsible consumption production
		13 EX Clima	te action
		Life o	n land
Environmental Responsibility at Sites (Offices, Distribution Centers, Warehouses)	- Climate Action	Clima	te action
Responsibility for Employees	<ul><li>Working Conditions</li><li>Training &amp; Education</li><li>Diversity &amp; Inclusion</li></ul>	3 tolerani -W Good	health and well-being
	<ul> <li>Employee Health, Safety &amp; Well-being</li> <li>Employee Satisfaction &amp; Engagemen</li> </ul>	5 tour Gende	er equality
		8 EXECUTION AND DECEMBER OF STREET	nt work and economic h
		10 Macores  Reduce	ced inequalities
Social Responsibility	- Community & Stakeholder Relations	17 SERVICE Partne	erships for the goals

# MATERIALITY ANALYSIS PROCESS

# 1. Identify and prioritize the key issues

A long list of topics was prepared. LEDVANCE staff discussed and prioritized the topics in a series of workshops and interviews.

# 2. Context and benchmark analysis

The context and benchmark analysis was used to supplement the list of topics by providing an additional external perspective. This extensive analysis applied another four-step methodology:

# 2.1. Create topic clusters

Topic clusters were created based on the sustainability reporting requirements of the Institute for Ecological Economy Research (IÖW) and the business initiative future e.V. – verantwortung unternehmen.

# 2.2. Align with standards and frameworks

The adapted topics were cross-checked and expanded with applicable standards and frameworks (GRI, UN Global Compact and EcoVadis).

# 2.3. Match with industry trends

The topics were complemented by current and upcoming trends in the lighting industry.

# 2.4. Peer group benchmark

The sustainability strategies of our peer group were analyzed based on the sustainability topic clusters from IÖW and future e.V.

# 3. Final selection

The final material topics were selected by our sustainability experts based on the previous analyses.



SUSTAINABILITY STRATEGY
SUSTAINABILITY REPORT 2022

# LEDVANCE SUSTAINABILITY STRATEGY

Our Sustainability Strategy evolves around five strategic elements which are aligned with our company vision. These have been developed based on the material topics and strategic processes described above. Together, they form the short-to-medium term Sustainability Strategy, and are:

- 1. Product Design
- 2. Supply Chain & Own Operations
- 3. Employees
- 4. Digital Responsibility
- 5. Sustainability Communication.

Our Sustainability Strategy is also incorporated into our sustainability management. The strategy does not yet include concrete climate or environmental impact targets. The current focus is on building a strong foundation and data basis as well as aligning LEDVANCE with external frameworks, such as SBTi (see Good Governance & Management), to take well-informed decisions in line with what is needed from a sustainability perspective and what is currently possible from a LEDVANCE perspective. Step by step, we are approaching the goal of how we envision sustainability at LEDVANCE in the future. Our ambition is high, and our Sustainability Strategy is another important step in the journey.

#### PRODUCT DESIGN

We are gearing product development towards sustainability by expanding the share of sustainable products in our portfolio that contribute to all three levels of the 'triple impact': energy and cost efficiency, health and well-being, and circularity. The transition to a net-zero economy is the critical challenge of our times and we are therefore also committed to taking action to tackle climate change. We aim to protect ecosystems trying to avoid or minimize biodiversity loss. Furthermore, we aim to achieve circular solutions for our products whenever possible and we always seek to use materials in the most efficient way. Additionally, we try to provide information on product sustainability that is as standardized, comparable and relevant as possible to the customer.

#### SUPPLY CHAIN AND OWN OPERATIONS

Our Sustainability Strategy aims to embed sustainability in the supply chain and our own operations from the very beginning right until the end of the product life cycle. This will enable us to reduce greenhouse gas emissions in the supply chain and our own operations, and increase our use of smart and environmentally friendly packaging, switch to decarbonized and most efficient modes of transport and logistics, and the number of products reused and recycled.

We are building up a comprehensive management approach to identify, monitor and reduce environmental and human rights impacts along the supply chain and in our own operations with the goal of minimizing risks and maximizing positive impact. We are building on and expanding measures such as the implementation of due diligence requirements, measuring and improving supplier performance, and adhering to norms and initiatives, such as the Responsible Minerals Initiative (RMI), with which we will be raising our commitment in 2023-24. Moreover, we are a full member of the amfori association that enables us to join forces and share resources within the network to improve the resilience and sustainability of our global sourcing strategy. Based on a systematic assessment of hotspots, strategic priorities will be defined.

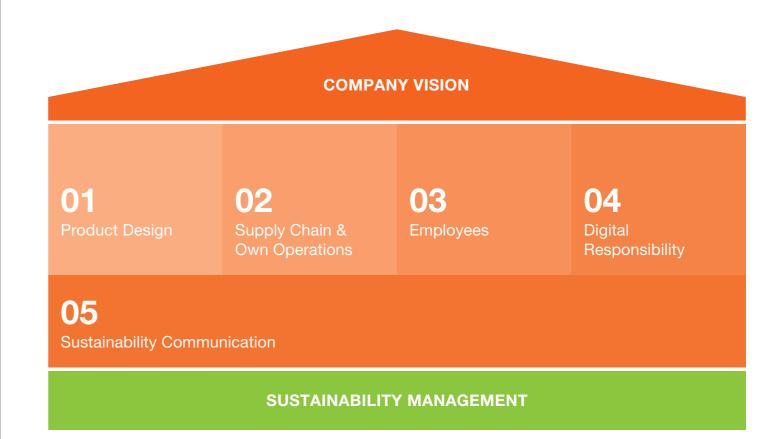
We aim to be compliant with the most advanced legislation when it comes to managing social and environmental risks in the supply chain. Due to recent changes in the business (production outsourcing), we recognize that close and transparent management of the supply chain is crucial. In 2022, LEDVANCE joined the SBTi (Science Based Targets initiative). We have committed to set near-term companywide emissions reduction targets in line with climate science and in cooperation with the initiative to contribute to the Business Ambition of the 1.5°C campaign (see Good Governance & Management).

### **EMPLOYEES**

We want to ensure that LEDVANCE is a great place to work for all. This starts by ensuring that employees with the same experience and qualifications have the same career opportunities, irrespective of their personal background, gender, or nationality. A diverse workforce promotes innovations in all areas of the company. Diversity enhances creativity, productivity and value everywhere – in new sales channels, optimized internal processes and technological developments. We endeavor to encourage entrepreneurship by creating a working environment that motivates high performance and helps to find a balance between work and family, so that all employees can positively contribute to the strategy, vision, goals and values of LEDVANCE.

We have implemented a new company-wide employee survey to globally measure overall contentment and give our employees an avenue for suggestions to ensure high levels of satisfaction and well-being. There are also various other initiatives being developed and implemented to create a culture of equal opportunities for all employees, for example, through targeted learning and development offers, ensuring a diverse and inclusive workforce and being a safe place to work for all.

# **ELEMENTS OF OUR SUSTAINABILITY STRATEGY**



### **DIGITAL RESPONSIBILITY**

Digital responsibility is growing in importance on many levels. Sensitive personal data of employees and customers is now managed digitally, for example through LEDVANCE's products of the future (smart and HCL lighting solutions) that are also processing personal data of users. LEDVANCE recognizes this growing importance and therefore defines digital responsibility as a strategic focus. Our vision is to manage data privacy and cybersecurity in a holistic manner, raising internal awareness and training staff so that they are empowered to connect the digital responsibility of LEDVANCE to their daily operations and decision-making regarding data protection and cybersecurity.

# SUSTAINABILITY COMMUNICATION

Our target is to be recognized as a sustainable company in a memorable way. To achieve this, we will work on topics like visual identity, labelling and the communication channel mix, and ultimately, providing a Sustainability Report on a regular basis.

# SUSTAINABILITY MANAGEMENT

Finally, sustainability management forms the basis of the LEDVANCE Sustainability Strategy. We want to make sustainability a key principle across all our corporate decisions.

To reach the vision and strategic goals we have set, we are building strong foundations that include company-wide policies and management systems, as well as comprehensive KPI monitoring and reporting as will be explained in the following chapter. Our commitment to our global Sustainability Guideline, along with sound Executing, Monitoring & Reporting, adherence to Business Ethics, and the Sustainability Strategy itself, will enable us to implement the strategy and move forward in our sustainability ambitions (see Good Governance & Management).

# 2 GOOD GOVERNANCE AND MANAGEMENT

To achieve our sustainability goals, we defined clear guidelines, robust management systems and a dedicated corporate governance structure. Moreover, observing the law and the legal system in every country where we do business is a fundamental principle for LEDVANCE.

# **BUSINESS ETHICS & CODE OF CONDUCT**

Our purpose is to redefine the role of light in a connected world. We want this to be a sustainable world, where we all win together, but we can only achieve this if we act responsibly towards our customers, employees, business partners, society and the environment. That's why we're committed to acting with integrity at every stage of our journey, working in a trustworthy, cooperative and responsible way, setting the standard in business conduct for our employees and the company.

We're proud to be a signatory of the United Nations Global Compact, pledging our commitment to its 10 principles on human rights, labor, the environment and anti-corruption as part of a network of more than 10,000 companies. At the core of this commitment are safety, sustainability and business ethics by observing fair working conditions and safety standards, using our natural resources responsibly and monitoring our emissions and waste, throughout the entire supply chain and product life cycle.

Forming the foundation for our behavior and responsibility towards nature and society are three important documents – our Code of Conduct, our Sustainability Guideline and our LEDVANCE Management System Policy.

# CODE OF CONDUCT

Compliance with legal regulations and internal guidelines is the foundation of our entrepreneurial activities and an integral part of the Code of Conduct for all employees and management. This starts at the beginning of every journey with LEDVANCE, when new employees confirm their compliance with the Code as part of their onboarding process.

The Code of Conduct covers the basic principles and rules for the conduct of all employees, both within the company as well as in relation to our external partners and the public. This includes basic behavioral requirements, the treatment of business partners and third parties, avoiding conflicts of interest, the handling of company property and information, and environment, health and safety aspects.

The document defines our commitment to fair competition, allowing markets to develop freely. All our employees are therefore bound by the rules of fair competition and anti-trust laws and practices. Following this, the Code of Conduct outlines our anti-corruption guidelines. It details how we compete fairly for orders through the quality and the price of our innovative products and services, not by offering improper benefits to others, or soliciting and accepting advantages.

Our Code of Conduct also provides detailed guidance on the handling of information, covering the obligations of all employees in maintaining accurate records and financial integrity, confidentiality, data protection and data security, following laws and regulations as well as LEDVANCE's processes and systems when collecting, processing and exchanging data to safeguard information.



# DONATION OF 100,000 LED LAMPS

As part of our company culture, LEDVANCE makes charitable donations. In 2022, for example, we donated 100,000 LED lamps to the Münchner Tafel. Münchner Tafel e.V. is a social institution that provides food to Munich residents in need. We do not donate to political parties.

#### SUSTAINABILITY GUIDELINE

The LEDVANCE Sustainability Guideline contains the basic principles regarding all our Environmental, Social and Governance (ESG) activities and outlines LEDVANCE's commitment to mitigating its impact on future generations. It applies within the company and in relation to our external partners and the public.

Our main operating guidance comes from the UN Global Compact's principles on environment, labor and human rights, anti-corruption as well as sustainable economic development. Working together with our stakeholders to sustainably improve people's quality of life is an essential part of our corporate responsibility and we are committed to achieving progress towards the UN Sustainable Development Goals (SDGs) through our activities.

We work every day to make a positive contribution to society, the environment and the climate, and we strive for a closed product life cycle. To this end, we will implement the principles of a circular economy, with sustainability at the core of each stage – from product quality, design and innovation, to End of Life (EOL) and recycling. We are committed to taking action to protect the environment, adhering to labor practices and respecting human rights, applying fair business practices and procuring in a sustainable manner.



# LEDVANCE MANAGEMENT SYSTEM POLICY

We always encourage a culture of innovation, cooperation and accountability, and promote continuous improvement of our operations through our integrated management system for quality, environment and working conditions. We meet or exceed applicable legal requirements and binding obligations, and we work against all forms of corruption, fraud, extortion, moneylaundering, anti-competitive practices, conflicts of interest and bribery, as well as adhering to and enforcing all internationally accepted human rights and labor standards.

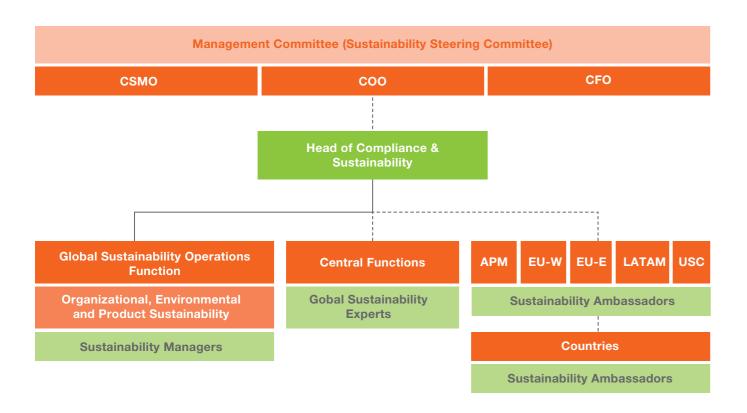
Our customers are at the heart of everything we do and to ensure their highest satisfaction, we are constantly striving to provide flawless products. We also communicate openly with them, along with authorities, organizations and the public, and we always ensure that our contracted partners and suppliers are included in our sustainability activities.

We continue to assess and minimize our environmental impact, protect our natural resources, and provide a healthy and safe workplace, with risk prevention ingrained in our company culture. We understand that our employees are our greatest asset, and their active contribution to our operations is therefore one of our key principles.



GOOD GOVERNANCE AND MANAGEMENT
SUSTAINABILITY REPORT 2022

# **GLOBAL SUSTAINABILITY GOVERNANCE STRUCTURE**



# GOVERNANCE & MANAGEMENT SYSTEMS

Advancing lighting to provide sustainable solutions for the productivity, health and well-being of people everywhere – while acting responsibly towards our customers, employees, business partners, society and the environment – is only possible with effective and efficient governance and management systems in place. This starts by addressing sustainability with a dedicated corporate governance structure, which is why we implemented a new global function, Head of Compliance & Sustainability, at the start of 2022 and started to build-up a global Sustainability team.

# SUSTAINABILITY GOVERNANCE STRUCTURE

To be able to consistently pursue our Sustainability Strategy and the demands derived from it, clear roles and responsibilities have been created within the company. The overriding responsibility for sustainable, ethical action is borne by our management, which makes key directional decisions and lays down core principles applicable throughout the company. The responsible managers prepare the content of these decisions and control their implementation.

Day-to-day leadership and oversight rest with the global Sustainability department. This team coordinates activities,

sets priorities and leads LEDVANCE's company-wide efforts to promote sustainability throughout the company. Responsibility for implementation then rests with the functional departments to ensure that sustainability measures are successfully executed.

We are committed to being transparent about our sustainability objectives, activities and performance, and reporting on our sustainability policies, targets and progress. On this basis, we engage with our stakeholders to better understand how we can continuously improve our sustainability performance and contribute to a more sustainable world.

As the graph above shows, on LEDVANCE management committee level, sustainability is within the responsibility of our Chief Operations Officer (COO). Our Head of Compliance & Sustainability is responsible for the governance of our global sustainability program, driving its implementation and improvements, giving advice and guidance to our Sustainability Experts and Ambassadors, and providing updates and recommendations to the Sustainability Steering Committee.

The Sustainability Steering Committee, which consists of the members of the LEDVANCE Management Committee, is responsible for the company's overall Sustainability Strategy as well as evaluating its implementation status. A team of Global Sustainability Experts from the central functions, as well as regional and national-level Sustainability Ambassadors, report on a functional level to the Head of Compliance & Sustainability. The Global Sustainability Experts perform sustainability tasks according to allocated responsibilities on a global level, delivering content and KPIs for global topics, while the Sustainability Ambassadors act as local points of contact for sustainability-related topics.

Also reporting to the Head of Compliance & Sustainability is the Global Sustainability department (Sustainability Operations function) covering all sustainability-related tasks, e.g. monitoring legislative developments such as the Corporate Social Responsibility Directive (CSRD), the EU Taxonomy and the German Supply Chain Due Diligence Act and implementing sustainability measures along with target-setting, reporting and calculation of the product and organizational environmental footprint, communication and training.

#### MANAGEMENT SYSTEMS

Management systems, defining sustainability processes and operational responsibilities, have been installed in central areas through the LEDVANCE Management System, in which sustainability management plays an integral part. These management systems complement the sustainability governance structure and form a foundation for how sustainability is approached at LEDVANCE.

#### **LEDVANCE Management System**

As a global company, we have a special responsibility for long-term global challenges such as demographic change, climate change and diminishing resources. Sustainability is critical to our planet's future; it is also critical to securing our company's future. Therefore, our commitment to being a socially responsible company requires that we meet the demands of commerce in an ecologically and socially sound manner. Hence, achieving excellence in environmental protection, health management and safety is a high priority for LEDVANCE. A demonstrated commitment will not only increase the competitive advantage of our businesses and lay the foundation for a successful future for our company, but it is also the right thing to do to protect the future of our planet.

Our LEDVANCE Management System Policy (page 22), was defined by the LEDVANCE Management Board, and is communicated to all our employees and to persons working for or on behalf of our organization. The policy is in line with the following internationally recognized management system standards: ISO 9001 – Quality Management Systems, ISO 14001 – Environmental Management Systems and ISO 45001 – Occupation Health and Safety Management.

#### **AUDITS**

We regularly monitor our environmental management and have external audits performed to review progress in environmental protection and ensure that Environmental Health and Safety (EHS) guidelines are being followed. This monitoring and these audits are analyzed by our EHS department. We use the results to ensure that all relevant legal and other requirements are met and to find innovative ways to improve environmental protection at LEDVANCE.

#### ISO 9001

All our main sites are certified according to ISO 9001, the international standard that specifies requirements for a Quality Management System (QMS). It is used to demonstrate the ability to consistently provide products and services that meet customer and regulatory requirements.

# ISO 14001

All our main sites are certified according to ISO 14001, the international standard that specifies requirements for an Environmental Management System (EMS) that enables an organization to improve its environmental performance, meet legal and other obligations, and achieve environmental goals.

# ISO 45001

All our sites internally comply with ISO 45001, the international standard that specifies requirements for the Occupational Health and Safety Management System (OH&S). This standard gives guidance on how to provide safe and healthy workplaces by preventing work-related injury and ill health, as well as by proactively improving the Occupational Health and Safety Management System.



#### SUSTAINABILITY MANAGEMENT

Sustainability management forms an integral part of our overall management system. Our vision when it comes to sustainability management is to make sustainability a key principle in all our corporate decisions.

# **Executing, Monitoring & Reporting**

We aim to develop targets and a roadmap to reach net-zero operations by establishing company-wide, science-based targets and by setting up company-wide GHG accounting and monitoring.

In 2022, we joined the SBTi along with more than 4,000 businesses around the world. The SBTi is a global body enabling businesses to set ambitious emissions reduction targets in line with the latest climate science. It is focused on accelerating companies across the world to halve emissions before 2030 and achieve net-zero emissions before 2050. The SBTi provides a clearly defined path to reducing emissions in line with the Paris Agreement goals, among others, for businesses in the consumer durables, household and personal products sectors.

LEDVANCE has committed to setting near-term companywide emissions reduction targets in line with climate science with the SBTi, however the SBTi is yet to approve our near-term target. We have also committed to the Business Ambition for 1.5°C campaign.

We aim to report comprehensively on sustainability issues based on systematic data collection processes by systemizing and digitizing data collection and (internal) reporting, as well as defining focus processes for the short and medium term. We will implement the Organization Environmental Footprint (OEF) globally to collect data and pilot and implement the PEF (Product Environmental Footprint), i.e. PEP Ecopassport.

The OEF measures the overall environmental performance of an organization across the entire life cycle, considering several criteria across the supply chain, from extraction of raw materials, through production and use, to final waste management.

The methodology to measure our OEF is is aligned with Global Reporting Initiative (GRI) standards. The GRI standards allow an organization to report information in a way that covers all its most significant impacts on the economy, environment and people. Transparent reporting has a beneficial impact on our internal processes, as well as a positive knock-on effect on our partners, clients, suppliers and other stakeholders.

Against this backdrop, we have disclosed information to CDP. CDP is a not-for-profit charity that runs the global disclosure system for investors, companies, cities, states and regions to manage their environmental impacts.

LEDVANCE has participated in the CDP and disclosed its data since 2018, which includes reporting our CO<sub>2</sub>e emissions and accounting for our direct operations in China, France, Germany, Mexico, Russia and the United States. In 2022, we achieved a score of C for our report on Scope 1 and Scope 2 emissions, including all our offices around the world.

We are committed to a reduction target of 20 percent from the base year by 2025. Several of the facilities in the prior year's CDP report were closed, therefore accounting for some of the achieved emissions reductions. Further reductions were achieved through ongoing energy efficiency measures and lighting improvements.

In addition, we create transparency by participating in EcoVadis assessments. EcoVadis is one of the world's largest and most trusted providers of business sustainability ratings. Its ratings are based on an advanced technology platform backed by a global team of experts and uses a system of scorecards to assess company sustainability performance in four key areas – environment, labor and human rights, ethics, and sustainable procurement. LEDVANCE was awarded an EcoVadis silver medal in 2022 for the achievements in Corporate Social Responsibility in these areas.

#### **Business ethics**

We aim to integrate ethics topics into key policies like our Management System Policy and Sustainability Guideline by screening existing policies and highlighting and adding ethics-related content, as well as extending the level of our documentation.

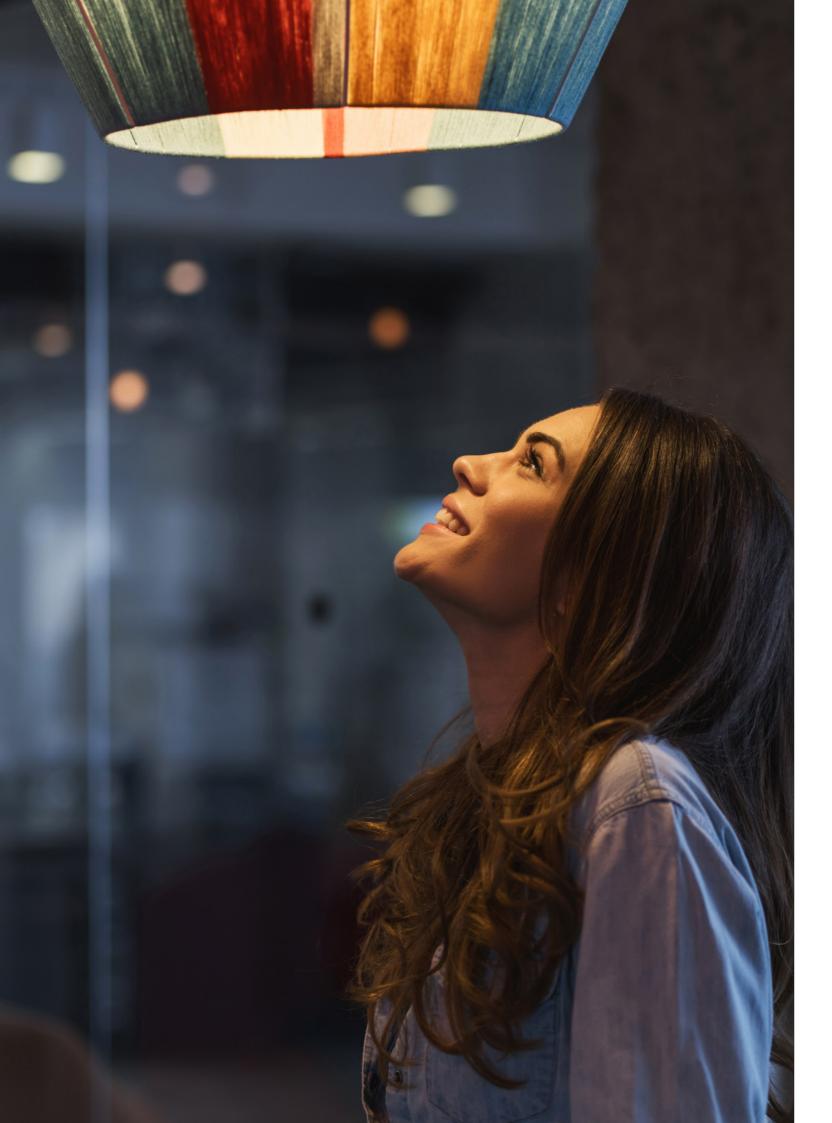
# **COMPLIANCE AT LEDVANCE**

Compliance is a central function at LEDVANCE and acts as an anchor for our Sustainability Strategy. This is also reflected by the fact that compliance and sustainability are often managed by the same person in our areas of business. Every single employee has a responsibility for promoting a culture of compliance and upholding the company's core values. Managers have additional responsibilities, such as regularly emphasizing the importance of compliance and

# **EMBEDDING OUR SUSTAINABILITY MANAGEMENT**

LDVANUE IV	lanagement Sy	Stelli				
Management System Policy						
ustainability	Management					
			Sustainabilit	y Guideline		
Sustainability Strategy						
Executing, Monitoring & Reporting Business Ethics						
	Memberships	(RMI, Amfori)	)	Code of Conduct		
SBTi	GRI	CDP	EcoVadis	UN Global Compact		
Certified Management Systems according to ISO						
			Auc	lits		

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integrity, making them regular topics of everyday business and promoting them through personal leadership and training.

We have implemented a binding Compliance Management System (CMS) for the entire LEDVANCE Group which is continuously adapted to suit the evolving needs of the business and its legal framework. The system is based on three pillars: 1) prevention; 2) detection; and 3) response to compliance violations – and there are dedicated employees (Compliance Officers) tasked with upholding it in each region and country. Through our CMS, we aim to ensure that all employees comply with statutory law and internal guidelines.

The system and its details are explained in the Compliance Guideline which is binding globally across the organization. The guideline lays down essential rules of conduct for LEDVANCE employees, and supplements and specifies the basic principles set out in the LEDVANCE Code of Conduct. The guideline is a cornerstone in our efforts to prevent compliance violations. It outlines how to fight corruption, fraud and theft and how to avoid antitrust law violations and money laundering. Moreover, it explains how to deal with business partners, how to avoid conflicts of interest and how to provide benefits in a lawful way. It also explains the 'detection' and 'response' elements, among others how the reporting and handling of compliance cases take place.



# **BUSINESS PARTNER RISK ASSESSMENTS**

LEDVANCE maintains hundreds of external partnerships at any given time. It is therefore important to identify and address compliance risks in this context. These risks are monitored through a software-based Business Partner Compliance Tool. In 2022, 499 active business partners were registered with the tool and 133 Compliance Due Diligences (CDDs) have been conducted for new business partners.

#### **COMPLIANCE TRAINING**

In 2022, 84 compliance training sessions were performed for and by LEDVANCE employees. At the heart of these training sessions is our web-based compliance basic training, which must be performed by each new employee within the first three months after joining the company. This training is intended to provide participants with an initial overview of global anti-corruption and antitrust law and to raise awareness of the specific responsibilities of each LEDVANCE employee. A dedicated web-based compliance training course is available especially for procurement employees. The training course, which is an integral part of the so-called Global Procurement (GP) Academy, aims to provide participants with an overview of the specific responsibilities of procurement employees in addition to the basic compliance training for every employee.

In-person compliance refresher training sessions are conducted for all employees three years after their basic training. The in-person training provides participants with a comprehensive knowledge and understanding of the LEDVANCE Compliance Management System, including compliance rules, processes and organization. It is intended to enable participants to apply what they have learned in their daily work.

#### A DIGITAL FOUNDATION

A new governance and reporting tool, Ethical<sup>3</sup>, which was implemented at the beginning of 2022, lays down a digital foundation for the global management of compliance and ethical risks. Ethical is an online tool that assigns and tracks the completion of tasks, and collects information through structured guestionnaires on a global level and down to each business unit. Each task and each question in a questionnaire can be tagged with a 'stream' and/or a 'topic', which allows us to track the completion of tasks or questions and information about the ethics and compliance function at a detailed level. Using Ethical, we can follow completion rates in real-time, help local colleagues fulfil tasks, spot anomalies early on, visualize our program KPIs, export reports and use our data to achieve ISO (International Organization for Standardization) certification and improve our resilience. For improved efficiency, sustainability reporting is also managed via questionnaires in Ethical.

Online Training via Microsoft Teams has been conducted for all relevant employees, thereby enabling them to gain the respective knowledge and to work with the tool in a proficient manner.

<sup>&</sup>lt;sup>3</sup> https://upright.co/

GOOD GOVERNANCE AND MANAGEMENT

SUSTAINABILITY REPORT 2022

# STAGES OF SUPPLY CHAIN MANAGEMENT

STRATEGIC RISK IMPLEMENTATION MONITORING REPORTING

Another compliance tool (C2P)<sup>4</sup> is used to help LEDVANCE stay up to date with the latest information on new legislation and regulatory changes in all the countries where we operate, allowing us to maintain a database with up-to-date legal requirements affecting the company.

All Compliance Officers have access to this tool and receive specific information for their countries. Stakeholders are regularly informed about compliance changes via our intranet, which includes a new page that has been created specifically for the new German Supply Chain Act (LkSG).

### PROTECTING WHISTLEBLOWERS

LEDVANCE is an international company and has a complex supply chain. It is thus important that we operate a grievance system for identifying, clarifying and resolving indications of compliance breaches. Employees are free to report such breaches to their supervisor, their responsible Compliance Officer, or any other employee of the compliance organization. In addition, our Whistleblowing Hotline (LEDVANCE Integrity Line – LILi)<sup>5</sup> enables employees and external parties to raise concerns about potential violations of laws and/or the LEDVANCE Code of Conduct or other internal guidelines. Whistleblowers are explicitly protected against retaliation through the regulations in our Compliance Guideline.

This allows us to establish strong channels of communication between various business partners and stakeholders that could be impacted by potential misconduct, such as employees, direct and indirect suppliers, and local communities. More recently, the LEDVANCE Whistleblower System has been extended to consider the requirements of the LkSG, especially violations of human rights, by adding new case categories and a revision of the general text.

- 4 https://www.complianceandrisks.com/c2p-platform/
- 5 https://www.bkms-system.net/bkwebanon/report/ clientInfo?cin=12led4&c=-1&language=eng

All compliance cases are recorded in the Case Management Tool (CCM) and presented to the Board quarterly. In 2022, 27 potential compliance violations were reported to us, of which 12 were confirmed. We were able to resolve and close all confirmed cases.

# DUE DILIGENCE ALONG THE SUPPLY CHAIN

As a global company with an international value chain, LEDVANCE is deeply committed to respecting internationally proclaimed human rights. In line with the United Nations Global Compact, we commit ourselves to upholding the principles of the following internationally recognized human rights frameworks and standards:

- The basic principles of human rights, as laid down in the International Bill of Human Rights
- The conventions and recommendations of the International Labour Organization (ILO) for labor and social standards
- The ILO Tripartite Declaration of Principles concerning Multinational Enterprises and Social Policy (MNE Declaration)
- The Guiding Principles on Business and Human Rights (UNGP)
- The Organization for Economic Co-operation and Development (OECD) Guidelines for Multinational Enterprises

Moreover, we have developed action plans based on the Responsible Minerals Initiative (RMI), which we also joined as a partner member in 2022, to tackle potential issues regarding the sourcing of finished products containing conflict minerals.

# A RISK-BASED APPROACH TO SUPPLY CHAIN MANAGEMENT

We set a strategy for our supply chain management, assess related risks, implement measures to tackle them, monitor their effectiveness and report on the progress we make. We employ a risk-based approach to systematically address human rights and environmental issues in the supply chain. It is based on five stages:

- Strategic planning: Define strategic objectives based on risk analysis and integrate supply chain topics into core policies.
- Risk assessment: Carry out risk assessment, e.g. based on sector and country risks.
- Implementation: Implement concrete measures, e.g. supplier self-assessment.
- Reporting: Continuously and transparently report on progress (and challenges).

# CODE OF CONDUCT FOR LEDVANCE SUPPLIERS

At LEDVANCE, we believe that shared rules and agreements in our business partnership can lead to ecological, social and economic improvements for society.

Therefore, our suppliers are bound by the Code of Conduct for LEDVANCE Suppliers, which defines the basic requirements placed on them regarding their responsibilities towards their stakeholders and the environment. Every supplier must agree to uphold basic requirements regarding legal compliance, the prohibition of corruption and bribery, respect for basic human rights of employees, the prohibition of child labor, health and safety of employees and environmental protection, also along their supply chain.

As part of our supplier assessment, LEDVANCE monitors the number of suppliers signing the Code of Conduct for LEDVANCE Suppliers and follows up with them systematically. This is intended to create a mutually beneficial situation for LEDVANCE and its suppliers by working together and improving any possible sustainability issues jointly.

If a supplier does not sign the Code of Conduct for LEDVANCE Suppliers, a defined process is followed which includes initial communication with the supplier. In cases where suppliers are not willing to sign, escalation may occur, including a legal assessment and possibly the termination of business relations.

# **SUPPLIER ASSESSMENTS**

Supplier assessments form an important part of LEDVANCE's risk-based supply chain management. Apart

from the standards that suppliers must sign, LEDVANCE also assesses the sustainability performance of its suppliers, both before and during the partnership. This is carried out via a Supplier Rating Method and a Corporate Responsibility Self-Assessment (CRSA) if required.

When there is a delay in getting external certified reports on the social and environmental performance of a supplier, self-assessment reports are considered. Our CRSA is an extensive questionnaire on social, environmental and governance aspects.

Based on the results of the risk assessment, LEDVANCE conducts on-site audits of suppliers with high-risk profiles to control compliance with our guidelines. This includes a review of working conditions, including labor contracts, working hours and safety considerations.

We are currently developing a digital tool to manage supplier relationships, including risk and performance assessment, as part of our company-wide digital transformation project.



# **EMPLOYEE TRAINING**

All responsible employees are trained to understand social and environmental risks in the supply chain. Through our Global Procurement Academy, we carry out training for new hires once or twice a year, with knowledge refreshment courses on issues such as conflict minerals given to existing employees.

If a supplier has questions regarding LEDVANCE's sustainability expectations, information and guidance will be provided. We are currently extending our supplier support in line with the requirements of the German supply chain legislation<sup>6</sup>.

<sup>6</sup> LEDVANCE does not fall directly within the scope of the law due to the number of employees in Germany.



# DATA PROTECTION AND CYBERSECURITY

### MEETING HIGH STANDARDS

At LEDVANCE, the responsible handling of sensitive and personal data is one of our top priorities. That is why we handle personal data confidentially, in strict compliance with the applicable data protection provisions, e.g. the collection of customer data through our e-commerce channels or the handling of personnel data by our HR organization. We have appointed an external Data Protection Officer (DPO) to support us in all data protectionrelated tasks and have additionally assigned Data Protection Coordinators (DPCs) in all LEDVANCE entities who assist the DPO in supervising compliance with local data protection law and implementing internal data protection guidelines. DPCs are not bound by instructions of local management in discharging their duties and are provided with sufficient time and resources to fulfil their responsibilities.

#### DATA PROTECTION

To facilitate the processing of personal data within the LEDVANCE Group and to provide appropriate safeguards for the protection of personal data, we have implemented an Intragroup Agreement on the Processing of Personal Data (IGA) which regulates the rights and obligations of the LEDVANCE companies involved. All LEDVANCE companies must sign a Declaration of Accession to the IGA. The IGA forms the framework for the provision of data processing

services within the LEDVANCE Group and forms the basis for LEDVANCE Business Services and for central HR and IT applications. It applies when a LEDVANCE company processes personal data on behalf of other LEDVANCE companies.

To this end, the IGA defines the general requirements for the processing of personal data between LEDVANCE companies. It is supplemented by descriptions of the specific processing activities in the processing directory.

All LEDVANCE companies worldwide must abide by the Binding Corporate Rules (BCRs) for the protection of personal data. The BCRs form the backbone for the IGA and contain the essential regulations for the handling of personal data relating to employees, customers, suppliers, present and future business partners, and other data subjects. The aim is to achieve a harmonized level of data security and protection of personal data processed and transferred within the LEDVANCE Group and adopting companies worldwide.

The IGA and the BCRs are supplemented by our Data Protection Guideline, which is binding globally across the organization and introduces consistent group-wide data protection and data security standards that apply to the collection, processing and use of personal data at the company. The stipulations in this guideline are binding for all employees who encounter and/or process personal data as part of their work at LEDVANCE.

All our employees are required to sign a Data Privacy Policy and abide by not only the data protection laws in their countries, but by the rules of the EU General Data Protection Regulation (GDPR) for the protection of personal data. If any cybersecurity or data protection issues are detected, detailed action plans are set up to remedy them.

In the reporting period, five data protection-related incidents were identified, one data subject complaint, seven requests for deletion of personal data, as well as one data subject access request<sup>7</sup>. All of them could be resolved. The global process to report this information is currently being developed.

#### **CYBERSECURITY**

Our cybersecurity processes and measures are based on leading international information security standards which help us protect our information in a systematic and cost-effective way, through the adoption of an Information Security Management System.

As part of our continuous improvement, LEDVANCE has committed to implementing a "Zero Trust" framework to ensure cybersecurity remains at the highest possible level. A Zero Trust framework asserts that no user or application should be trusted by default in the cloud and mobile world. The first step toward the implementation of that framework will be rolled out globally in 2023.

We only collect, process and use personal data where necessary for pre-determined, clear and legitimate purposes. All data is stored securely, with appropriate precautions taken when transmitting it, and we maintain high data quality standards and technical protection against unauthorized access. The use of data is transparent and the rights of those concerned are safeguarded regarding use and correction of information, as well as blocking and deletion of information.

Additionally, we have implemented specific measures to protect third-party data from unauthorized access or disclosure and made information on handling confidential documents available on our intranet. Incidents can be reported by everyone in the organization and by business partners. Business partners are informed about the handling of their data in their contract, and we inform our customers by email.

### **GDPR EMPLOYEE TRAINING**

Every LEDVANCE employee receives regular training in the responsible handling of personal data. Launched for the first time in 2018 and again in December 2022, all employees worldwide will again participate in a basic data protection training course on EU-GDPR, using a training platform provided by our external Data Protection Officer. The training includes an e-learning program that ends with a quiz and certificate for each employee upon completion.

<sup>&</sup>lt;sup>7</sup> The scope covers Germany.

The strategic focus of product development at LEDVANCE, which has sustainability at its core, ensures our products continue to deliver in terms of efficiency, health and well-being, circularity, and product quality and safety.

# STRATEGIC FOCUS OF R&D

Innovation is a major driver here at LEDVANCE, not just of economic growth, but also of ecological and social sustainability. In particular, climate and the environment are key sustainability objectives for us, as well as adding significant value for our customers.

That is why sustainability is central to our Innovation Strategy, which is made up of five investment pillars – the areas we plan to focus our future innovation efforts. These are:

- Increasing energy efficiency and sustainability
- Light quality being natural and comfortable to the eye
- Improving human health and well-being
- Design concepts being aesthetic, minimalistic and providing highest usability
- Smart functionality and connectivity wired and wireless
- Digital sales services.

THE THREE LEVELS OF LIGHTING EFFICIENCY
So far, the lighting industry has been focused on saving
energy by working on the first level of lighting efficiency –

Throughout our innovation strategy, the concept of smart and sensor-based lighting solutions is a constant theme

and spans across all three of these design dimensions.

We are aware of the importance of product responsibility

economy, improve people's health and well-being, and

Please note that here we focus on how our product life cycle relates to our customers, while the Operations &

Supply Chain chapter focuses on further sustainability impacts within our own operations and along the supply

improve lighting efficiency.

and have developed several initiatives in this area. Through our product life cycle, we aim to contribute to a circular

energy by working on the first level of lighting efficiency – energy efficiency, or 'LEDification'. This involves a transition from previous technologies to LED to increase efficiency. A lot of the efficiency gains that this technology provides have been generated.

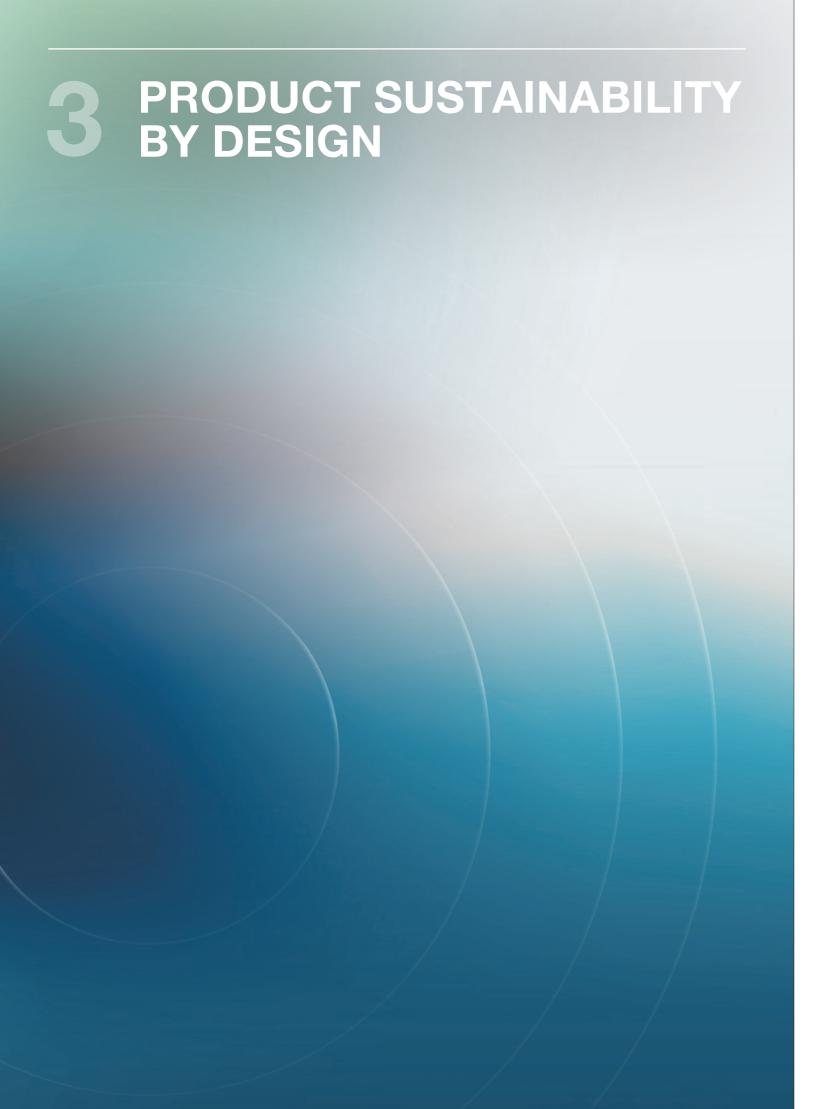
As LEDVANCE, we are proud of our huge contribution to LEDification and our continuing effort. Additionally, we will focus on the next level of energy saving and people comfort by introducing innovative light management systems and Human Centric Lighting (HCL) solutions. These involve optimizing levels of brightness, light color and spectral composition in lighting. Such improvements reduce the environmental impact of our products as well as contribute to the health and well-being of our customers, creating more value.

We are applying the findings of our recent environmental impact assessment in our 'Product Responsibility by Design' approach. In the following, we focus on the three areas underpinning LEDVANCE's current products and services, as well as future innovations.



In accordance with the investment pillars, our Innovation Strategy is built on three levels:

- 1. Lighting efficiency and product design for cost and energy efficiency
- 2. Circularity
- 3. Health and well-being.





# BENEFITS OF SMART LIGHTING

#### **Energy-saving**

Daylight harvesting for demand-responsive lighting control saves energy by only using the light required in addition to the existing daylight. The technology includes daylight sensors and light only being switched on when the room is in use.

#### Material-saving

Through wireless technology, such as the Zigbee standard, Bluetooth or Wi-Fi, we can save on materials, reducing our impact on the environment. We have a wide range of smart products and services, broadly split into two main areas: smart lighting products; and Light Efficiency Consulting.

# **Smart lighting products**

Our SMART+ product family can transform lighting in any space. General functionalities include motion and daylight sensors, dimmable to use only as much light as is needed; smart wall lights, controllable via an app; and sensors that only turn on light when required. LEDVANCE's current suite of smart lighting products includes SMART+ lamps, luminaires and components (plugs) (B2C); indoor and outdoor sensors (B2C); and our Vivares IOT Light Management System (B2B). Find out more on the LEDVANCE website.<sup>8</sup>

#### **Light Efficiency Consulting (LEC)**

Through Light Efficiency Consulting, LEDVANCE is helping residential and professional customers of various sizes (including large B2B projects) transition from traditional lighting to LED-based lighting. This includes the introduction of a new web service, which greatly reduces the environmental impact of lighting by reducing emissions in addition to a decrease in maintenance work and costs.

# DESIGN FOR ENERGY AND COST EFFICIENCY

# **LED PRODUCTS**

As previously mentioned, in the past, the lighting industry has focused on energy efficiency, i.e. transitioning from previous technologies to LED, which has brought about significant improvements in this area.

At LEDVANCE, we are committed to further 'LEDifying' our business by converting our entire portfolio to LED products. In 2017, we largely relied on traditional lamp technology which accounted for 50 percent of our turnover. Our commitment to sustainability, innovation and efficiency enabled us to generate up to 70 percent of our turnover with advanced LED and luminaires in 2022.

The energy efficiencies of LEDification are generated by the fact that today, LEDs are much more sustainable than traditional lightbulbs, as the infographic on the right shows. Connected systems, through smart, wireless technology are the next frontier for the lighting industry to improve energy and cost efficiency. This 'space efficiency', as it is also known, contributes to a more efficient use of lighting as the infobox on the benefits of smart lighting explains.

# DESIGN FOR HEALTH AND WELL-BEING

Design for health and well-being or 'people efficiency', through HCL solutions contributes to people's health and well-being. HCL solutions can lead to a more productive workforce as well as a reduction in errors, accidents and illness and, consequently, lower operational costs. This means that HCL not only helps our customers, but also positively impacts the most valuable asset at LEDVANCE – our people.

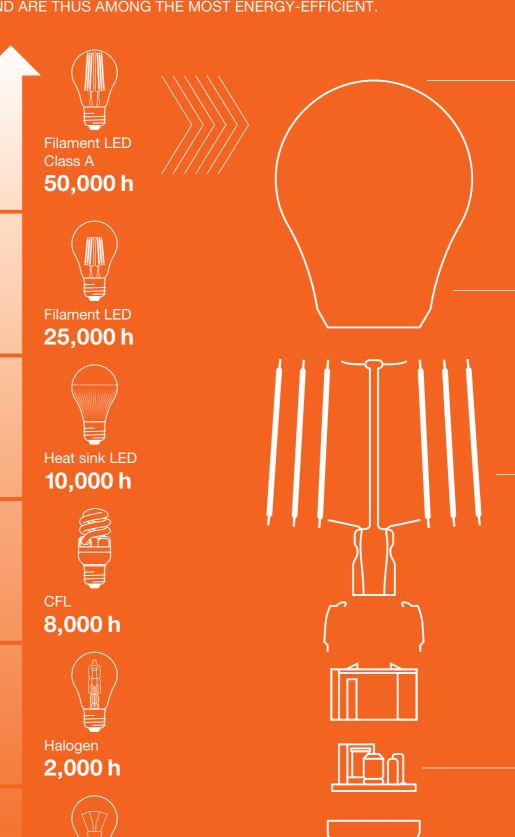
In our daily lives, light has an impact on important hormones that in turn affect blood pressure, heart rate, vitality, memory and mood. People spend most of their time indoors, especially during the working day and in the colder months, so by providing the right type of light at the right time, HCL can help people be active and alert during the day, and to relax and sleep well at night. By optimizing levels of brightness, light color and spectral composition to simulate the characteristics of natural daylight, HCL gives people the light they are lacking, improving health and well-being.

This new way of thinking about lighting is therefore a key area of innovation at LEDVANCE. We now have a range of HCL products catering for both residential and professional customers, and in 2020, we became the first company to receive VDE certification for an HCL product<sup>9</sup>.

- 8 www.ledvance.com/consumer/smart
- https://www.vde.com/de/presse/pressemitteilungen/ledvance-erhaelt-vdezeichen

# **ENERGY EFFICIENCY**

DUE TO VARIOUS OPTIMIZATION MEASURES, LEDVANCE LEDS MEET ENERGY CLASS A AND ARE THUS AMONG THE MOST ENERGY-EFFICIENT.



Incandescent 1.000 h

the efficiency of

Increasing the

Clear glass:

97-99%

95%

Frosted glass:

High thermal

to optimized

thermal design

efficiency thanks

Increasing the light

efficiency of the

LED filaments

240 lm/W

optical efficiency

89%

Increasing

the driver to

(Standard 80-85%)

# **UV-C AIR DISINFECTION**

We have also introduced products that clean the air and eliminate viruses and bacteria. These include our mobile UV-C HEPA Air Purifier and the UV-C DISINFECTION BOX, which uses the disinfecting effect of UV-C light in the wavelength range of between 270 and 280 nanometers to clean objects without the need for chemicals or toxic compounds.



#### **BIOLUX**

Our new intelligent BIOLUX Control Unit, for professional customers, allows users to adjust the light to different working conditions – RELAX, CREATE, NATURAL, FOCUS and BOOST. As well as becoming the first company to receive the VDE quality certificate for our BIOLUX Control Unit, we also won the German Innovation Award 2020 in the B2B 'Lighting Solutions' category for the system.

# SUN@HOME

For residential customers, our SUN@HOME products are designed to offer a wider range of colors than conventional LEDs (2,200 to 5,000 Kelvin). They can be easily integrated into existing home networks and help people balance their lighting with their individual daily rhythm, to suit their preference, routine or even the weather.

# MODULAR DESIGN FOR CIRCULARITY

At LEDVANCE, we aim to manage our products effectively across the entire product life cycle. Since the 'use' phase has the largest impact on the environment, our R&D teams are working on several projects focusing on reducing the impact of this phase. For every project, we apply a two-fold approach, through the R&D project and by working towards better standardization, in partnership with LightingEurope.

# LIFE CYCLE ASSESSMENT AND PRODUCT ENVIRONMENTAL FOOTPRINT

In 2022, we conducted a Life Cycle Assessment to help identify hotspots and focus our sustainability efforts accordingly, as we explain in more detail on the following page. The first hotspot found is the 'use' phase, which dominates in terms of impact. Therefore, product design

and optimization of our current product portfolio are key to extending the product life cycle through design.

The second hotspot is in manufacturing. All production at LEDVANCE in the last year was outsourced, which is why we are therefore currently focusing on developing our supply chain management (see Compliance at LEDVANCE).

Our third focus area is the 'end-of-life' phase. We strive to increasingly recycle the material in our products and use post-consumer recycled material in the creation of new products.

PEP Ecopassport is the standard for product Life Cycle Assessment (LCA), and we recently completed a pilot, conducting LCA PSR0014 (product-specific rules for luminaires set by the P.E.P. Association) for some of our products. The results are currently being assessed to evaluate how the products will transition from innovation to product management.

Our preliminary conclusions are that:

- Energy efficiency in the 'use' phase is the single most effective way to reduce the environmental impact of luminaires as we continue to strive for the highest luminous efficacy.
- Use of light management functions has the highest potential to improve energy efficiency (45 percent potential) in the 'use' phase. However, it is important to note that these are only considered in the PEP if the functionality is integrated in the luminaire.
- Extending the luminaire lifetime, and enabling the replacement of drivers and light engines, can greatly reduce the impact in terms of the depletion of natural resources.



# ANALYZING THE ENVIRONMENTAL IMPACT ALONG THE PRODUCT LIFE CYCLE

In 2022, we published a white paper analyzing the Life Cycle Assessment (LCA) data for luminaires. From this, we were able to identify the biggest environmental impacts throughout the entire product life cycle, including the Global Warming Potential (GWP) and ways to reduce it, as the table below shows.

We found that, despite the introduction of highly efficient LED technology, the Use Phase dominates the GWP impact of modern luminaires, generating, on average, 96 percent of the total GWP for this product group due to the electricity generation needed to operate them. Most other impact categories, such as ozone depletion, acidification, water eutrophication and photochemical ozone formation, are also dominated by the Use Phase. For all these categories, this is caused by the emissions from electricity generation needed to operate them.

The biggest improvement potential here is the intelligent control of the luminaires based on presence detection and

daylight sensing. Each one of these improvements has the potential to reduce Use Phase GWP by 25 percent, or 45 percent when combined, usually by using a modern Light Management System (LMS). Improvements can also be made by using luminaires with circular design, allowing the replacement of driver and light source, extending the lifetime of the luminaire.

Manufacturing is the second most contributing phase, but plays a minor role in GWP, with a 3 percent share. The long lifetime of LED luminaires is the most important explanation for this. The relative impact of the manufacturing phase for other impact categories is more substantial and especially when it comes to the depletion of abiotic resources and elements, the share of the manufacturing phase is highest, at 75 percent.

Amongst others, the insights from this meta-analysis are guiding us in our sustainability and product strategy.

# RELATIVE ENVIRONMENTAL IMPACT ACROSS DIFFERENT LIFECYCLE PHASES

Content	Manufacturing	Distribution	Installation	Use	End of life
Global Warming Potential	3.0%	0.6%	0.1%	96.0%	0.2%
Ozone Depletion	24.0%	0.5%	0.1%	75.0%	0.1%
Acidification	4.0%	0.7%	0.1%	96.0%	0.1%
Water Eutrophication	12.0%	0.6%	0.1%	87.0%	0.2%
Photochemical Ozone Formation	5.0%	1.2%	0.1%	93.0%	0.1%
Depletion of Abiotic Resources Elements	75.0%	1.7%	0.3%	23.0%	0.3%

Average values from published PEP Ecopassports for luminaires.

#### **STANDARDIZATION**

LEDVANCE and our experts are actively involved in various industry associations such as the German Electro and Digital Industry Association (ZVEI), LightingEurope, the Global Lighting Association, the industry-wide collaboration consortium Zhaga, the center for electrotechnical standardization (DKE), the European Committee for Electrotechnical Standardization (CENELEC) and the International Electrotechnical Commission (IEC). Through this network, we strive to develop standards and regulations that reflect all areas of sustainability and include learnings from the industry, for the whole life cycle of lighting products.

We are working with LightingEurope – the voice of the lighting industry in Europe – to develop standards that allow fair and transparent comparison of luminaires of any kind in terms of their environmental impact. This will help to implement more efficient procedures, processes, materials and designs for future products to minimize environmental impact and maximize energy efficiency.

# CIRCULAR PRODUCT DESIGN WITH EVERLOOP

Circular product design for luminaires is currently being implemented, based on EU circular product rules in the Ecodesign Directive. We are focusing on modular product design, with product prototypes currently available and being tested with key account customers. For example, our new EVERLOOP product is our first circular product design for luminaires.

Originally, incandescent lamps, with average lifespans of around 1,000 hours, were always replaceable. However, since LEDs last much longer today, they have mostly been designed without being serviceable or upgradeable, with the whole units having to be replaced. Now, developed based on the Single Lighting Regulation (SLR), a product-specific part of the EU Ecodesign Directive, EVERLOOP by LEDVANCE enables convenient interchangeability of light sources and control gear for LED luminaires – making them truly circular. This goes above and beyond legislative requirements, which do not yet require interchangeability. EVERLOOP prototypes were presented to the market in 2022 at the Light + Building trade fair.



# PRODUCT QUALITY AND SAFETY

We have implemented a new management system to fulfil our product responsibilities and ensure that we meet the highest quality standards.

#### **QUALITY FIRST**

LEDVANCE as a brand is synonymous with innovative, tailor-made, high-quality and reliable products and solutions. To continue meeting these requirements while product complexity is increasing and product development cycles are shrinking, we rely on our 'Quality First' culture.

By offering reliable products, prompt delivery and dependable support, we aim to satisfy our customers' high expectations. To do this, we are focusing on comprehensively enhancing preventive quality management throughout LEDVANCE. This can only be effective if quality management and consistent attention to quality permeate all processes throughout a product's life cycle, from the original idea until it is eventually phased out.

#### **CERTIFIED SITES**

All main sites meet the highest quality standards and are certified according to ISO 9001 and ISO 14001 by external auditors each year. In the latest assessments in December 2022, LEDVANCE achieved certification in all assessed areas. In the last fiscal year, we have strengthened quality management in the areas of development and supplier quality, focusing on technological change to innovate LED-based products.

We regularly check whether our management guidelines are put into practice so that product quality is ensured, and we discuss our results and quality management performance with senior management, both on a local and company level, as well as continuing to develop our systems continually and sustainably. The quality of our products is ensured and constantly improved by our high-quality management standards.

# PRODUCT HEALTH AND SAFETY AWARENESS

Health and safety manuals are delivered to customers with all our products, as required by laws and standards for electrical products. These manuals explain how to safely install LEDVANCE products, with images and text.

Internally, the product health and safety awareness program at LEDVANCE helps our employees understand that there is a rigorous process in place to ensure that the highest quality standards are met from the very start of developing a new product.



# 4 OUR OPERATIONS AND SUPPLY CHAIN

At LEDVANCE, we understand that it is our responsibility to manage environmental impacts along the supply chain. Having already implemented several measures, we are on a journey towards a more holistic management of our own operations and supply chain.

This section follows on from the theme of Product Sustainability by Design, building on our white paper on the environmental impacts of luminaires (including a meta-analysis of all PEP Ecopassports available in the market) as well as our Life Cycle Assessment (LCA) analysis (Product Environmental Footprint PEF) and product pilot.

The LCA (PEP Ecopassport and white paper) conducted in 2022 identified the two hotspots – the 'use' phase and manufacturing – on which we will focus our sustainability efforts. These findings have already been presented in the Sustainability Strategy and Product Sustainability by Design chapters, but they are equally relevant in shaping sustainable operations practices at LEDVANCE.

For LEDVANCE, assuming social and corporate responsibility means protecting the environment, ensuring occupational health and safety, and preserving natural resources. Thus, we set up a corporate Environment, Health and Safety (EHS) Policy and guidelines to integrate these issues into the overall management on a corporate-wide level, regularly conducting EHS walks in several locations. Environmental management at LEDVANCE includes the topics of energy, water, waste, pollutants and emissions. In addition, the environmentally conscious design and recycling of products play an important role.

LEDVANCE currently emits 29,460 t<sup>10</sup> CO<sub>2</sub>e of greenhouse gases each year (Scope 1 and 2), and 13,094 t CO<sub>2</sub>e in Scope 3. Scope 3 emissions currently include Downstream Transportation & Distribution. Our total energy consumption is 134,688 MWh, 75 MWh of which is through heating oil, 113,898 MWh<sup>11</sup> through natural gas, 20,261 MWh<sup>12</sup> through electricity and 454 MWh through district heating. Our water consumption is 71,993 m<sup>3</sup>.<sup>13</sup>

Therefore, we have established and are currently implementing several management systems and frameworks to oversee and reduce our impact on the environment.

As already described in the Good Governance & Manage-

ment chapter, these include a global integrated management system that also covers environmental and quality management systems. Externally, these include ISO 14001 in which all our main sights are certified.

Our procurement policies are in place to manage our supply chain and are described in full earlier (see Compliance at LEDVANCE). These policies ensure that important areas are carefully monitored and managed along the LEDVANCE supply chain. They include:

- Control and restriction of the use of hazardous substances in our products.
- Striving to minimize local and global pollution, to protect water, soil and air as well as manage conflict minerals responsibly.
- Striving to minimize the environmental impacts of our products from cradle to grave.
- Focusing on energy-efficient product development, repairability and recyclability to achieve zero-landfill in the future.

We use a blend of distribution between our own operations and our supply chain throughout the product life cycle. Raw materials and production, packaging, transport as well as end-of-life and recycling are performed by external partners, while distribution is performed through both our own operations and our supply chain in the form of our own distribution centers and centers by external providers.

<sup>&</sup>lt;sup>10</sup> Our last plant accounts for 89%.

<sup>&</sup>lt;sup>11</sup> Our last plant accounts for 95%.

<sup>&</sup>lt;sup>12</sup> Our last plant accounts for 61%.

<sup>&</sup>lt;sup>13</sup> Our last plant accounts for 76%.

# RAW MATERIALS AND PRODUCTION

At LEDVANCE, we are aware of the environmental impacts of raw materials and production through damage to ecosystems and the loss of biodiversity, and through carbon emissions which contribute to climate change.

In this section, we will explain how LEDVANCE is compliant with global and local regulations (see Compliance at LEDVANCE) and is committed to continuously improving its products and purchasing of raw materials. We are constantly seeking and extending renowned certifications from programs such as the RMI. In 2022, all our production was outsourced. All our suppliers must sign our Supplier Code of Conduct to ensure they are aware of the standards required.

#### PROTECTING OUR ENVIRONMENT

Conserving resources has always been an important goal at LEDVANCE for the simple reason that maximizing resource efficiency makes good business sense and allows us to be more competitive. Since all our production was outsourced in 2022 and is now built into our supply chain, this goal remains steadfast. We are currently putting new structures in place to manage these activities following the transition, and ensure we continue to reduce our environmental impact. To measure the degree of achievement of our environmental protection objectives, we continue to systematically record environmental data on a corporate level.



Modern lighting technology consists of highly complex products using different technologies to generate light. Back in 1967, we were one of the first manufacturers to produce lamps without the carcinogenic metal beryllium in phosphor lamps. Since then, we have constantly reduced or eliminated hazardous materials in our products, and we continue to strive for further reduction or elimination

throughout our supply chain. However, in some LEDVANCE products the use of harmful substances is still unavoidable at present. In the last few years, mercury has moved into public focus owing to the discussion on replacing inefficient incandescent lamps with compact fluorescent lamps, which contain minute amounts of mercury. For this group of lamps, using mercury continues to be unmatched for generating energy-efficient lighting. However, from 2023, mercury is banned in the EU.

In addition to mercury, there are other hazardous substances that are necessary for modern lighting products. To minimize their use, LEDVANCE has compiled an Index List Environment (ILE) which contains substances we prohibit in our products, and substances which we are reducing to the lowest possible levels. To manage the content in our products, we require our suppliers to peruse our ILE, disclose any relevant substance, and confirm their compliance with all these provisions.

As a matter of course, LEDVANCE complies with regulatory frameworks in all markets. This includes the European directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS), which aims to reduce the use of hazardous chemicals in the production process. In addition, LEDVANCE conforms to the framework of the European REACH regulation, since our partners import or produce chemicals. The regulation provides for the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

The use of raw materials does not only have environmental impacts, but also social impacts (see Compliance at LEDVANCE). Sustainability plays an important role throughout our supply chain. Together with our suppliers, we maintain a common value base and comply with statutory regulations. Through our 'Quality First' approach, we offer our customers products with entire life cycles based on sustainable processes (see Compliance at LEDVANCE). We are evaluating different approaches and multi-stakeholder initiatives in this regard, such as the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas and the EICC – GeSI Conflict-Free Smelter Program. We also joined the RMI in 2022 and we have a dedicated Conflict Minerals Policy to supplement our Code of Conduct for Suppliers.

# **PACKAGING**

The environmental impact of packaging includes resource consumption, emissions and waste. Once used, packaging, especially plastic, often takes centuries to degrade and contributes to overcrowded landfill sites as well as littering the ocean and land with microplastics and toxic chemicals.



This section is broken down into two parts: product packaging and transport packaging. First, we will explain how LEDVANCE is aiming to reduce product packaging, and secondly, we will look at transport packaging, especially the two main products used: plastic foam and wooden pallets.

# PRODUCT PACKAGING

At LEDVANCE, we are committed to reducing product packaging. Most of our product packaging is already made with renewable, recycled materials. Globally, 80 percent of our packaging is made from recycled paper. All our packaging for residential and professional products is recyclable. The plastic flaps and non-visible packaging that protect the products remain the last frontier.

We have already reduced the plastic proportion in our product packaging to a minimum across the whole LEDVANCE Group. The challenge in reducing this further is that plastic is necessary for certain heavy-hanging items which need plastic flaps to bear their weight. We keep working on actively reducing plastic in packaging in all our markets, not least because there is a clear demand from the regions for plastic-free or reduced-plastic packaging.

For example, we are currently investigating the possible use of paper glue instead of the usual parcel tape for closing parcels. We are also considering ways in which we can reduce non-visible and visible packaging. Non-visible packaging, like plastic cushions, can only be eliminated when reliable alternatives have been tested that equally guarantee product safety. Changes to visible packaging must be agreed with LEDVANCE customers as the products may then require alternative storage solutions, for example when changing from plastic (hanging) to cardboard (standing).

For instance, we use fairs to exchange with customers and receive their first opinion on new packaging developments.

# TRANSPORT PACKAGING

Packaging is also used in the transportation of our products. It is important for us to keep improving the way we do this so that we can maximize safety and minimize the environmental impact. Here, we are focusing on the 'reduce, reuse, repair' concept to reduce the environmental impact of transport packaging. Downstream waste can be difficult to influence because key accounts have special requirements that LEDVANCE must fulfil, and which are often at the convenience of the client, creating more waste than needed, for example due to smaller, more frequent shipments.

#### Paper and cardboard

Most of our packaging is from recycled materials. However, a challenge in reducing the amount of cardboard used is that thickness levels (i.e. carton thickness) are defined by quality requirements.

#### Plastic foam

Plastic foam is used to reduce possible damage to products, mainly for extremely heavy and sensitive ones. We are currently investigating how we can reduce the use of plastic foam by maximizing all available space within containers by increasing the number of items per container, thus reducing the space that needs filling.

# Wooden pallets

Wooden pallets are used to move products upstream and downstream throughout the supply chain. We are aiming to reduce their use by optimizing packaging based on different

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OUR OPERATIONS AND SUPPLY CHAIN

SUSTAINABILITY REPORT 2022

loads. In Western Europe, we have already seen some success in this area. Four-foot tubing is used for transporting one of LEDVANCE's largest product families and LEDVANCE was able to increase pallet loads by 82.1 percent, as well as increasing bulk loads by 97.6 percent.<sup>14</sup>

We are also repairing pallets so that they can be reused and pallets that come back from our customers are used again. In 2022, we saved a total of 12,915 pallets, as well as repairing 14,889 pallets between January 2021 and October 2022.<sup>14</sup>

In Europe, 70 percent of used pallets were returned to us by customers for reuse. In Latin America, the share was 63 percent. In South Africa our customers return 2.5 percent of the palletts for reuse to us. Malaysia does not collect any pallets, South Korea's return is at 30 percent. We do not yet have any data for other countries in APAC. In the USA and Canada no pallets are currently returned for reuse because of the long distances. However, customers frequently reuse them themselves.

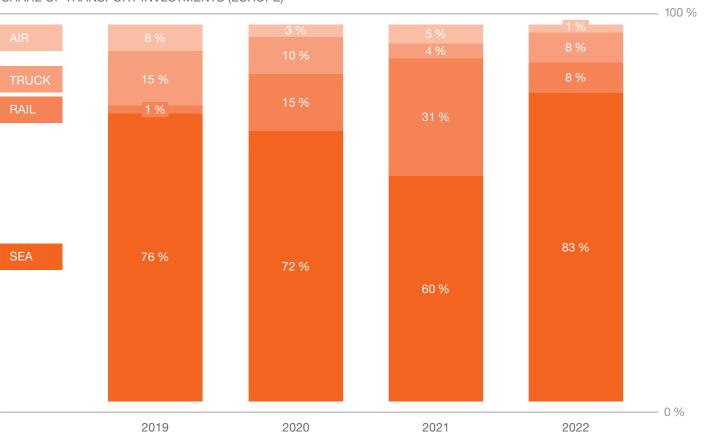
# TRANSPORT AND DISTRIBUTION

Due to the combustion of fossil fuels, transport creates a significant amount of air pollution through the emission of nitrous oxides, particulates and carbon dioxide, contributing to climate change and impacting human health. Transportation also causes noise pollution, water pollution and impacts ecosystems both directly and indirectly. A global as well as local approach needs to be taken when it comes to transport logistics. At LEDVANCE, our regional organizations go beyond sales markets to optimize trading routes. Logistics is currently optimized based on a cost-saving approach and most measures can also be translated into ecological effects.

For example, targets are traditionally driven by the ambition to save costs. This often goes together with saving carbon emissions as well, through saving energy, using greener energy and reducing distance traveled.

# INVESTING IN LESS EMISSION-INTENSIVE INBOUND TRANSPORTATION MODES

SHARE OF TRANSPORT INVESTMENTS (EUROPE)



#### **TRANSPORT**

LEDVANCE works with a range of transport providers globally, with progress being made to move away from carbon emission-intensive transport modes through several measures we are currently taking to advance sustainability in transport.

As the combustion of fuel produces carbon emissions, transport logistics is an important factor when it comes to improving our sustainability practices. We record our  $\mathrm{CO}_2$  emissions, which improves transparency and provides useful data and benchmarks, so that they can be minimized by making the most efficient use of transport. A  $\mathrm{CO}_2$  balance in transport logistics also serves as an instrument for internal management and as a basis for decisions on how to improve existing management systems.

Capacity optimization, use of intermodal transport and use of state-of-the-art vehicles (Euro 6) are just three ways in which we can reduce our carbon emissions. Some progress has already been made with inbound transport.



In the United States, LEDVANCE LLC was an early participant in the US EPA's SmartWay transport partnership. EPA's SmartWay program helps companies advance supply chain sustainability by measuring, benchmarking and improving freight transportation efficiency. LEDVANCE LLC's strong performance in SmartWay reflects the efficiency of the freight carriers hired to move our products and supplies, as well as the internal steps taken to improve the company's transportation and logistics system. These include various measures to evaluate the efficiency and environmental performance of LEDVANCE LLC's freight operations.

LEDVANCE currently uses trucks for all outbound transport, working with DB Schenker as well as local suppliers, selected based on the maturity of the network (i.e. quality and cost).

#### DISTRIBUTION

At LEDVANCE, we utilize a mix of our own distribution centers as well as work with a range of selected partner centers worldwide. Progress has been made in reducing the total distances traveled by locating our distribution centers more strategically.



In Europe, we recently moved from a single main distribution center model to one with two main distribution centers: one supplying the Western European region and the UK, and another one supplying the East of Europe. At the same time, we keep a regional distribution center in Madrid to serve the Iberian area. It has enabled us to move from one inbound stream from China to separate inbound streams. This new network is reducing the distances traveled by an estimated 1,000,000 km per year, resulting in cost efficiencies, increased growth potential in Europe and reduced emissions.

# **END-OF-LIFE AND RECYCLING**

At the end of a product's lifespan, the disposal of the products often results in environmental waste, with the used materials going to landfill, as well as the energy used in the disposal processes, which can result in the emission of harmful gases. In the case of LEDVANCE, this is complicated further due to the materials used in lamps and luminaires that need to be safely recycled or disposed of.

# RECYCLING ORGANIZATIONS

LEDVANCE currently meets legal requirements in all countries in terms of recycling. We aim to avoid waste wherever we can, and we are continuously working on improving our products to make them as recyclable as possible. Lamps are ideal for recycling as more than 90 percent of a lamp's components can be reused. Product recycling always starts with reclaiming as much material of a single type as possible to safeguard our limited resources and our environment by correctly disposing of harmful substances.

<sup>&</sup>lt;sup>14</sup> The scope covers the region Europe.



In European countries, the collection and reuse of lamps and luminaires are organized by companies and organizations founded specifically for this purpose, with whom LEDVANCE works closely. These organizations mainly operate as non-profit companies and are specialized in the disposal of lighting products. Close collaboration between organizations and links to manufacturers ensure that technical product development information and requirements of the recycling industry are incorporated as effectively as possible in the high-quality recycling of natural resources.

# DISPOSAL AND COLLECTION REQUIREMENTS OF MODERN LAMPS AND LUMINAIRES

LEDVANCE complies with the takeback and recycling obligations of each member state of the EU, with collection results on average above 65 percent and a recycling rate above 80 percent. Outside the EU, we also comply with all local, country-specific legal requirements for the proper disposal and recycling of WEEE.

Taking these specifics into consideration, large manufacturers within the lamp industry set up Collection and Recycling Service Organizations (CRSOs) in most European countries which organize the collection and environmentally friendly disposal of old equipment for the industry. These companies look after the following tasks for LEDVANCE:

- Creating a disposal system, considering and including communal collection arrangements.
- Actively educating consumers and raising their awareness for handling our products in an eco-friendly way at end-of-life.
- Carrying out actual collection, transport, recycling and disposal.
- Developing new technologies and processes to increase the percentage that can be reused.

Since CRSOs are systems for all lighting products, consumers do not have to sort lamps or luminaires by manufacturer or production date. In most countries, private consumers can hand in their end-of-life product at most collection points free of charge.

# **TECHNICAL PROCEDURES**

Various recycling procedures have been established for the reuse of LED and discharge lamps for both stationary and mobile operations. These procedures aim to neatly separate the components of the lamps and reuse the remaining material wherever possible. Clean glass is used to produce new lamps and mixed glass is recycled with other glass. Metal parts go into metal recycling and plastics are mainly recycled thermally. Phosphors are blown out or rinsed out

and can be used for industrial processes. The remaining mercury is disposed of appropriately. This is how more than 90 percent of raw lamp materials can be recycled.



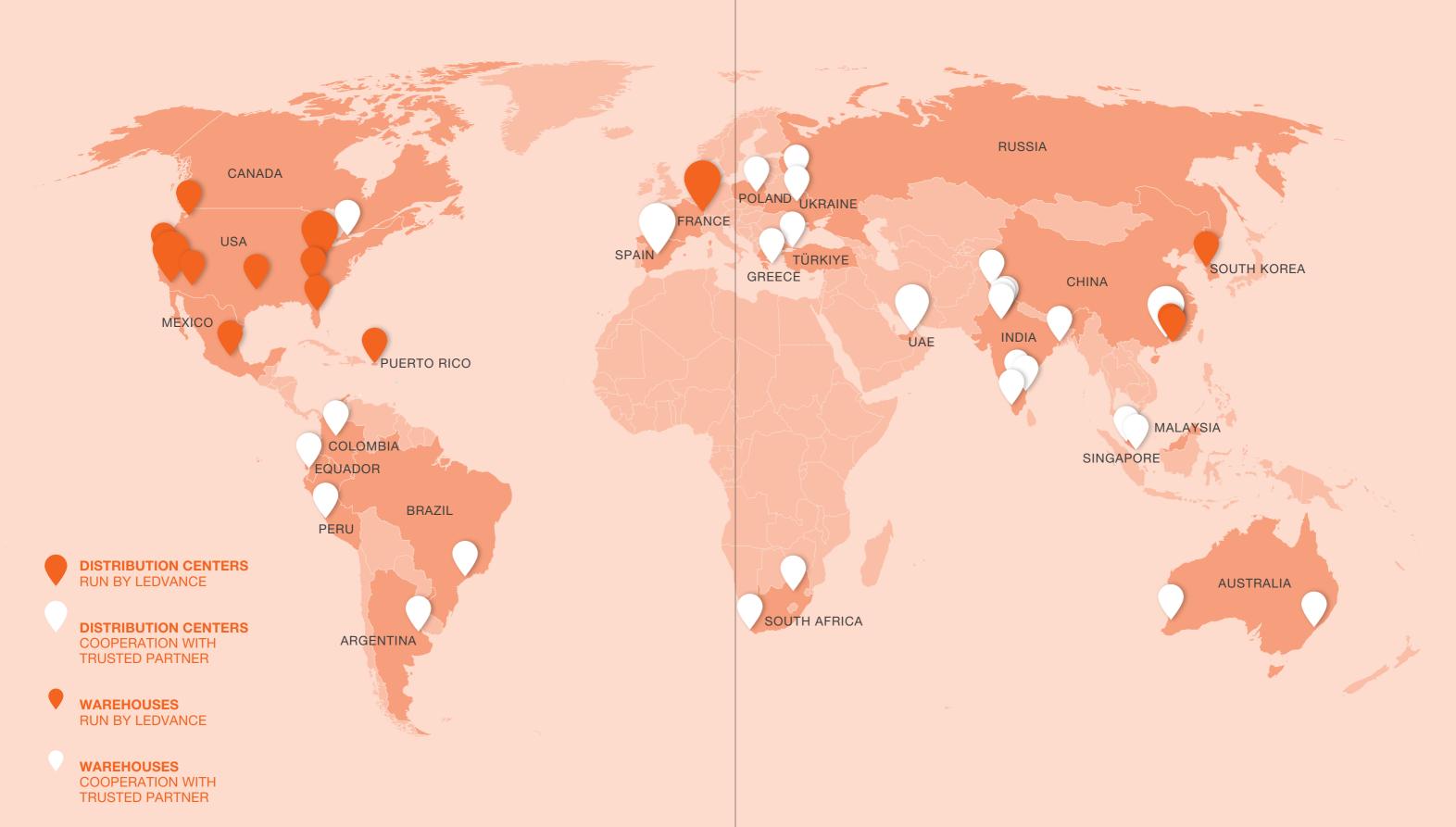
Proposals like the European Union's WEEE Directive are currently being developed or have already been implemented across the world. LEDVANCE meets legal requirements in all countries in this area, and is actively involved in many countries in applying the experiences gained in the European environment. As in Europe, its involvement is organized in cooperation with other manufacturers to meet the needs of consumers and the requirements of collection and recycling.



# JOINT TAKEBACK PROGRAM

EucoLight is the industry's joint takeback program in the EU, of which LEDVANCE is a co-owner and deeply involved. In 2022, EucoLight Ltd members financed the collection and recycling of two billion lamps.

# OUR DISTRIBUTION CENTERS AND WAREHOUSES AROUND THE WORLD



# 5 OUR PEOPLE

Our people are our most valuable asset and we make it a top priority to ensure employee satisfaction by providing good working conditions, development opportunities, a welcoming work environment for all, and one which supports everyone's health, safety and well-being.

# WORKING CONDITIONS AND EMPLOYEE SATISFACTION

Every single one of our 3,102 (97%) full-time and 100 (3%) part-time employees (as of December 2022) plays an important role on our road to making LEDVANCE a world leader in state-of-the-art lighting products and solutions. The average period of employment at LEDVANCE is 11 years and, in 2022, LEDVANCE hired 561 new employees.

Since 2022, the focus of our HR Management Strategy is to re-implement global HR instruments and processes after the previous regional approach, as well as to foster the digitalization of all HR instruments. In the first step, the focus lies on the digitalization of administration and the implementation of a learning platform to support our culture of lifelong learning.

As employee satisfaction is key to our success, our new HR Management Strategy is designed to improve it further. We will start running our first global Employee Satisfaction Survey in March 2023. Based on our employees' feedback, LEDVANCE will develop and improve measures to maximize our employee satisfaction. The Employee Satisfaction Survey will be repeated every 18 months with the goal of tracking regional progress based on the results.

# THE FOUNDATION FOR OUR VALUES AND BEHAVIOR

LEDVANCE pledges its continued support of the Ten Principles of the United Nations (UN) Global Compact on human rights, labor, the environment and anti-corruption. We are committed to making the UN Global Compact and its principles part of the strategy, culture and day-to-day operations of our company, and to engaging in collaborative projects that advance the Sustainable Development Goals of the UN.

Our commitment as a global company to the respect of internationally proclaimed human rights is demonstrated through the LEDVANCE Business Conduct Guidelines and our adherence to the ILO Fundamental Rights at Work and International Labour Standards.

We endeavor to create an entrepreneurial working environment that motivates high performance while helping to find a balance between work and personal life. A core element of this is our commitment to fair remuneration and decent working hours in accordance with national norms. LEDVANCE employees worldwide receive a range of benefits beyond salary, including access to LEDVANCE's Open Mentoring program. In Germany specifically, employees also benefit from flexible working, an additional pension scheme, health measures (e.g. flu protection), 30 days of annual leave and a pension plan.

Moreover, as a responsible employer, we are committed to protecting the health, safety, well-being and development of all our people. We ban child labor and forced labor along the whole supply chain and work against all kinds of discrimination and harassment. This means ensuring we have a diverse, inclusive workforce that is engaged and satisfied. Not only is this the right thing to do, but we believe it is also the most effective way for LEDVANCE to grow as a business.

LEDVANCE supports the right to freedom of organization and assembly throughout the world. Depending on local legislation, there are workers' councils and/or labor unions in several countries (e.g. Germany and France). In Germany, representatives for the workers' council for each location are elected every four years. Also in Germany, employees are represented through the local workers' council, the General Works Council and a representative body for employees with disabilities.

Senior Managers are represented by the Spokesman's Committee (Sprecherausschuss). In accordance with EU law, LEDVANCE-EU informs employees about any changes with company-wide impact through newsletters, employee meetings and town hall events.

Based on our core values, LEDVANCE fosters an open culture and appreciates suggestions from anyone, with employees invited to voice their thoughts, feelings and concerns. We promote openness and collaboration, with a flat hierarchy and a corporate culture where everyone is encouraged to contribute with their ideas and get involved. If necessary, employees can raise concerns through the anonymous complaint system. We take potential issues very seriously and work on finding solutions with all affected parties.

Observing the law and the legal system in every country where we do business is a fundamental principle for LEDVANCE. All employees must obey the laws and regulations of the legal systems within which they are operating, in addition to applicable LEDVANCE policies. We are open, honest and stand by our responsibilities. And we expect our employees to act with integrity (see Compliance at LEDVANCE).

# TRAINING AND EDUCATION

As our employees are our most valuable asset, we see developing individuals as part of a culture of lifelong learning as essential to developing the business as a whole. Each year, LEDVANCE takes on an average of 16 interns globally.

By investing an average of €440,978 per year in training through external partners on lifelong learning, we are preparing our people for future challenges, whether personal or professional, as well as a rapidly changing environment that requires constantly evolving skillsets. We believe that training and education do not slow down with age.

Our culture of lifelong learning is designed to support employees throughout their entire journey with LEDVANCE, providing opportunities for development at all levels and at

#### E-LEARNING PLATFORM

LEDVANCE's new e-learning platform for training and development was introduced in September 2022, offering a wide range of learning topics. After six months, we reached a registration rate of 51 percent (employees who have registered on the e-learning platform) and an activity rate of 35 percent (employees who have finished at least one training session).

Individual departments are responsible for setting up training courses to inform their teams on departmental processes and each manager must conduct an annual gap analysis to determine whether their employees have the knowledge and skills necessary to do their jobs well. Employees can also request further training on specific topics in agreement with their line manager. Each year, in annual performance assessments, each employee's development needs are identified, and measures defined to tackle the gaps.

Worldwide, employees in high positions, and talents with the potential to attain management status, receive additional training and development. We plan to expand this program even further in 2023.

### **OPEN MENTORING PROGRAM**

LEDVANCE has a culture of openness, and our Open Mentoring program embodies exactly this. It is a powerful tool, not only for people development but also for network-



# **FACTS AND FIGURES** ABOUT OUR WORKFORCE



**EMPLOYEES** 

3,200 +

**WORLDWIDE** 

**NATIONALITIES** 

**EMPLOYEES BY REGION** 

**65**%

**23**%

12%

WORLDWIDE

**EMEA** 

**AMERICAS** 

**APAC** 

# WOMEN AT LEDVANCE

WORKFORCE

67%

**SUPERVISORY BOARD** 

33%

**MANAGEMENT** COMMITTEE

19%

**EXECUTIVE** MANAGEMENT

AGE

1% 11% 31% 30% 22% 5%

21-30

31-40

41-50

51-60

> 60 YEARS



ing, best-practice sharing and knowledge management. The concept allows everyone to participate – as a mentor or mentee – and encourages people to empower themselves by driving their own personal and professional development.

Mentoring takes place outside of a line manager-employee relationship, encouraging cross-function communication. All employees, regardless of hierarchical or experience level, country or department, nationality or gender, can participate in Open Mentoring. In 2022, 57 employees registered as mentors and 47 employees as mentees.



# **DIVERSITY AND INCLUSION**

At LEDVANCE, we position ourselves strictly against any form of discrimination and in turn foster diversity and inclusion. Talented employees should be successful at LEDVANCE, no matter who they are or where they are from. We respect the personal dignity, privacy and personal rights of every individual, working together with people of various ethnic backgrounds, cultures, religions, ages, disabilities, sexual identities, world views and genders. Our Sustainability Guideline and our Code of Conduct, along with our Employee Handbook and our Equal Employment Opportunity Policy (in the US) outline the ways in which we do this. Diverse groups will result in the most creative, innovative solutions, thanks to a range of ideas and fresh approaches.

LEDVANCE aims for the inclusion of people with disabilities – embedded in its inclusion agreement with worldwide scope. The agreement covers areas such as education opportunities, accessible workplaces, flexible work arrangements, raising awareness and the assignment of Inclusion Officers.

Any incidents involving discrimination are identified and managed through an anonymous complaint system, which is open to both internal and external individuals.

# EMPLOYEE HEALTH, SAFETY AND WELL-BEING

The health, safety and overall well-being of LEDVANCE employees is our top priority. In the first instance, we aim to avoid health risks completely. In the second, any health risks that do arise are categorized and reduced.

LEDVANCE uses an Integrated Management System for Quality, Environment and Safety, which includes a Corporate Guideline for Occupational Health and Safety, covering areas including security, occupational health and safety, and fire safety. This covers LEDVANCE and all our affiliated companies, with annual targets for Security, Environment, Health and Safety (SEHS) defined and communicated by that same department. 146 SEHS walks were conducted at the seven largest locations in 2022. In Germany, the general works agreement on preventive benefits outlines preventive measures for main health risks, with 30 preventive benefits per 1,000 employees, at a cost of €500 per person, provided per calendar year. In Germany, LEDVANCE offers an additional program for reintegrating employees after a longer period of absence due to illness.

The following measures are in place to help ensure the health, safety and well-being of all employees:

- Contact people are appointed in all countries for each site to take care of occupational health & safety, environment, fire safety and security issues.
- 2. Plant managers have full accountability to ensure that the areas under their control comply with all applicable legal requirements.
- 3. Regular occupational safety training, with clearly defined reporting requirements, employee duties and workplace ergonomics, are defined and communicated.
- 4. External companies and partners receive occupational safety instruction.
- LEDVANCE will run a global Employee Satisfaction Survey in March 2023. Evaluation of the results is planned for May 2023.

In different form and scope, risk assessments for offices, business trips abroad, developer workplaces, first aiders, mobile work and Covid-19 are carried out in Germany and reviewed on a regular basis. Also in Germany, medical precautions (e.g. for diabetes, eye examinations, fit while working from home and flu vaccinations) are offered via a company doctor.



# **INDICATOR TABLES**

The presented indicators cover the LEDVANCE Group, including all subsidiaries if no other scope is defined. The reference date is December 31 of the reporting year.

# COMPANY DATA

Indicator	2022	Unit
Turnover by region	_	
EMEA	55.6	%
AMERICAS	36.0	%
APAC	8.4	%
Office sites (by region)	61	Quantity
EMEA	37	Quantity
AMERICAS	12	Quantity
APAC	12	Quantity
Distribution centers (by region)	7	Quantity
EMEA	3	Quantity
AMERICAS	3	Quantity
APAC	1	Quantity

# COMPLIANCE INDICATORS

Indicator	2022	Unit
Compliance		
Notifications of compliance breaches (by topic)	27	Quantity
Violations of labor law provisions	3	Quantity
Violations of environmental and work safety regulations	9	Quantity
Violations of customs and foreign trade legislation		Quantity
Violations of competition and antitrust law		Quantity
Violations of bookkeeping and accounting regulations		Quantity
Money laundering		Quantity
Corruption/Bribery	2	Quantity
Asset and property offences	8	Quantity
Confirmed cases of non-compliance (by topic)	12	Quantity
Violations of labor law provisions	3	Quantity
Violations of environmental and work safety regulations	2	Quantity
Violations of customs and foreign trade legislation	1	Quantity
Corruption/Bribery	2	Quantity
Asset and property offences	4	Quantity
Resolved/closed cases	100	%
Terminated contractual relationships due to violation of the law or company policies	1	Quantity
Data privacy and cybersecurity <sup>15</sup>		
Protection-related incidents	5	Quantity
Data subject complaints	1	Quantity
Data subject requests for deletion of personal data	7	Quantity
Data subject access requests	1	Quantity

<sup>&</sup>lt;sup>15</sup> Scope covers Germany.

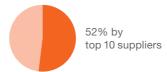
# **EMPLOYEE INDICATORS**

Indicator	2022	Unit
Workforce		
Employees (by region)	3,202	Headcounts
EMEA	2,083	Headcounts
AMERICAS	725	Headcounts
APAC	394	Headcounts
Full-time employees	3,102	Headcounts
Part-time employees	100	Headcounts
Average period of employment	11	Years
Gender composition	Female: 44% (1,395) Diverse: 0% (0) Male: 56% (1,807)	% (Headcounts)
New hires in 2022	561	Quantity
Employee turnover rate	20.2	%
Employee retention rate	85	%
Diversity and equal opportunity		
Age (average and age span)	43	Years
< 20	5	Headcounts
21-30	374	Headcounts
31-40	990	Headcounts
41-50	968	Headcounts
51-60	702	Headcounts
> 60	163	Headcounts
Nationalities		Quantity
Employment rate of individuals with disabilities <sup>16</sup>	4-7	%
Women in leadership positions		
Supervisory board	67% (3)	% (Headcounts)
Management board	0% (3)	% (Headcounts)
Management committee	33% (3)	% (Headcounts)
Executive management <sup>17</sup>	19% (21)	% (Headcounts)
Managers with leadership responsibility <sup>18</sup>	30% (370)	% (Headcounts)
Professional development		
Spending on training by external partners	440,978	In €
Average hours of training per year per employee <sup>19</sup>	13	Hours
Personnel health and safety		
Sickness days <sup>20</sup>	2.7	Rate
Occupational accidents (by location)	39	Quantity
Smolensk	1	Quantity
Molsheim	26	Quantity
Garching	12	Quantity
Shenzhen, Versailles, Ontario, Wilmington	0	Quantity
Reported occupational accidents (by type) <sup>21</sup>		Quantity
Mobile work	1	Quantity
Electrical accidents	1	Quantity
Commuting accidents on business trips	1	Quantity
Commuting accidents	4	Quantity
Cut/stab injuries	5	Quantity

# PRODUCT, SUPPLY CHAIN AND OPERATIONS INDICATORS

Indicator	2022	Unit
Products		
Change from traditional to LED lamps	In 2022, energy-efficient a luminaires accounted for In 2017, the share of tradi 50%	70% of our sales volume.
Supply chain		
Top 10 suppliers in relation to total purchasing volume	52	%
Share of main suppliers in relation to total purchasing volume	In 2022, 70% of the supplies we bought came f	
Vieweli-edies		

Visualization





70% by 21 main suppliers

Operational environmental impacts		
Direct GHG emissions (Scope 1) <sup>22</sup>	20.460	÷ 00
Indirect, energy-related GHG emissions (Scope 2)		t CO <sub>2e</sub>
Indirect emissions in value chain (Scope 3) <sup>23</sup>	13,094	t CO <sub>2e</sub>
Downstream transport & distribution <sup>24</sup>	13,094	t CO <sub>2e</sub>
Total energy consumption (by type)	134,688	MWh
Electricity <sup>25</sup>	20,261	MWh
Natural gas <sup>26</sup>	113,898	MWh
Oil <sup>27</sup>	75	MWh
District heating <sup>28</sup>	454	MWh
Water consumption <sup>29</sup>	71,993	m³
Total waste generated (by type)	-	_
EEE or equiv. placed on the market <sup>30</sup>	50,711	t
WEEE or equiv. collected <sup>30</sup>	minimum 65	%
WEEE or equiv. recycled <sup>30</sup>	minimum 80	%
Recycling: hazardous, non-hazardous waste <sup>31</sup>	3,392	t
Landfill/disposal: hazardous, non-hazardous waste <sup>31</sup>	467	t
Product packaging		
Proportion of recycled packaging materials	80	%

Scope covers selected countries: Denmark (4%), Ukraine (5%), France (6%), Germany (7%), global approach is under development.

<sup>&</sup>lt;sup>17</sup> All managers globally who report to management committee directly.

<sup>&</sup>lt;sup>18</sup> Includes all levels of management where the manager holds at least one disciplinary lead.

<sup>&</sup>lt;sup>19</sup> Scope covers subsidiaries representing 65% of our employees.

<sup>&</sup>lt;sup>20</sup> Scope covers subsidiaries representing 77% of our employees.

<sup>&</sup>lt;sup>21</sup> Scope covers headquarter in Garching, Germany.

<sup>&</sup>lt;sup>22</sup> Scope covers subsidiaries representing 96% of our employees.

Scope 3 emissions cover categories with current data availability. In accordance with the Greenhousegas Protocol a complete emissions overview for all relevant categories is in development.

<sup>&</sup>lt;sup>24</sup> Scope covers USA, Canada and Europe.

<sup>&</sup>lt;sup>25</sup> Scope covers subsidiaries representing 96% of our employees.

<sup>&</sup>lt;sup>26</sup> Scope covers subsidiaries representing 61% of our employees.

<sup>&</sup>lt;sup>27</sup> France, Spain, Switzerland and Greece use oil in either heating or other uses.

<sup>&</sup>lt;sup>28</sup> Scope covers subsidiaries representing 34% of our employees.

<sup>&</sup>lt;sup>29</sup> Scope covers subsidiaries representing 95% of our employees.

<sup>&</sup>lt;sup>30</sup> Scope covers Europe.

<sup>&</sup>lt;sup>31</sup> Scope covers subsidiaries representing 68% of our employees.

# **GRI CONTENT INDEX**

Statement of use: LEDVANCE has reported the information cited in this GRI content index for the period from 1 January 2022 to 31 December 2022 with reference to the GRI Standards (GRI 1: Foundation 2021).

# GENERAL DISCLOSURES

Content	More Information	In refer	ence to the GRI standards	Page Numbe
Organizational details	<ul> <li>Legal name and form</li> <li>Nature of ownership</li> <li>Location of corporate headquarter and sites</li> <li>Proportion of turnover by region</li> </ul>	GRI 2: 2-1	General Disclosures 2021 Organizational details	6-11
Reporting profile	<ul> <li>Entities included in the organization's sustainability reporting</li> <li>Reporting period, frequency and contact point</li> </ul>	GRI 2: 2-2 2-3 2-4 2-5	General Disclosures 2021 Entities included in the organization's sustainability reporting Contact point Restatements of information External assurance	9; 67; 68-73
Activities, value chain and other business relationships	<ul> <li>Organization's activities, products, services, and markets served</li> <li>Significant operational changes during the reporting period</li> <li>Supply chain information</li> </ul>	GRI 2: 2-6	General Disclosures 2021 Activities, value chain and other business relationships	6-11; 30-31; 44-53
Workforce	<ul> <li>Number of employees with breakdown by region, gender and age</li> </ul>	GRI 2: 2-7	General Disclosures 2021 Employees	54-59; 63
Governance	<ul> <li>Delegation of responsibility for managing impacts</li> <li>Role of the highest governance body in overseeing the management of impacts</li> </ul>	GRI 2: 2-12 2-13	General Disclosures 2021 Role of the highest governance body in overseeing the management of impacts Delegation of responsibility for managing impacts	20-27
Statement on sustainable development strategy		GRI 2: 2-22	General Disclosures 2021 Statement on sustainable development strategy	4-5
Policy commitments and their embedding	<ul><li>Code of Conduct</li><li>Sustainability Guideline</li><li>LEDVANCE Management System Policy</li></ul>	GRI 2: 2-23 2-24	General Disclosures 2021 Policy commitments Embedding policy commitments	20-27
Compliance with laws and regulations	<ul> <li>Compliance management</li> <li>Mechanisms for seeking advice and raising concerns</li> <li>Performance indicators</li> <li>Number of notifications and confirmations of cases of non-compliance</li> </ul>	GRI 2: 2-26 2-27	General Disclosures 2021 Mechanisms for seeking advice and raising concerns Compliance with laws and regulations	20-33; 54-59; 61-63
Membership associations	<ul> <li>List of industry associations</li> <li>UN Global Compact</li> <li>Science Based Target initiative (SBTi)</li> <li>Responsible Minerals Initiative (RMI)</li> <li>amfori business association</li> </ul>	GRI 2: 2-28	General Disclosures 2021 Membership associations	18; 21; 41
Stakeholder engagement	<ul> <li>Approach to stakeholder engagement</li> <li>Collective bargaining agreements</li> <li>Stakeholder groups</li> <li>Stakeholder dialogue formats and channels</li> </ul>	GRI 2: 2-29 2-30	General Disclosures 2021 Approach to stakeholder engagement Collective bargaining agreements	14; 55-56
Materiality analysis and results	<ul> <li>Process to determine material topics</li> <li>Reflection on impacts</li> <li>Reflection on business risks and opportunities</li> <li>List of material topics</li> </ul>	GRI 3: 3-1 3-2	Material Topics 2021 Process to determine material topics List of material topics	12-19
Management of material topics	<ul> <li>Operational Strategy Clusters</li> <li>Customers &amp; Product Design</li> <li>Supply Chain &amp; Own Operations</li> <li>Employees</li> <li>Digital Responsibility</li> <li>Topic specific disclosures on management approaches (see below)</li> </ul>	GRI 3: 3-3	Material Topics 2021 Management of material topics	12-19

Content	More Information	In reference to the GRI standards		Page Numbe
Topic specific disclo	sures			
Business ethics	<ul> <li>Management approach</li> <li>Standards and compliance with human rights, workers and environmental standards, anti-corruption and anti-competitive behavior</li> <li>Performance indicators*</li> </ul>	GRI 205: 205-3 GRI 206: 206-1	Anti-corruption 2016 Confirmed incidents of corruption and actions taken  Anti-competitive Behavior 2016 Legal actions for anti-competitive behavior, anti-trust, and monopoly	21-22
Supplier social assessment	<ul> <li>Management approach</li> <li>Normative framework of standards</li> <li>Code of Conduct for LEDVANCE Suppliers</li> <li>Approach to supplier assessments</li> <li>Employee training</li> <li>Performance indicators*</li> </ul>	GRI 414: 414-1 414-2	practices  Supplier Social Assessment 2016 New suppliers that were screened using social criteria Negative social impacts in the supply chain and actions taken	30-31
Supplier environmental assessment	<ul> <li>Management approach</li> <li>Normative framework of standards</li> <li>Code of Conduct for LEDVANCE Suppliers</li> <li>Environmental manufacturing requirements</li> <li>Control and management of hazardous substances</li> <li>Approach to supplier assessments</li> <li>Employee training</li> <li>Performance indicators*</li> </ul>	GRI 308: 308-1 308-2	Supplier Environmental Assessment 2016 Newsuppliers that were screened using environmental criteria Negative environmental impacts in the supply chain and actions taken	30–31; 45–46
Data Privacy	<ul> <li>Management approach</li> <li>Guideline Data Protection and Data Privacy Policy</li> <li>Information Security Management System</li> <li>Employee training</li> <li>Performance indicators*</li> <li>Data privacy complaints and confirmed incidents</li> </ul>	GRI 418: 418-1	Customer Privacy 2016 Substantiated complaints concerning breaches of customer privacy and losses of customer data	32-33; 61-63
Customer Health and Safety	<ul> <li>Management approach</li> <li>Health impact assessment</li> <li>Product design to improve customer health and wellbeing (human-centered lightening)</li> <li>Certified management system by ISO 9001 for major locations to ensure product quality and safety</li> <li>Health and safety manuals for customers</li> <li>Performance indicators*</li> <li>Positive health impacts of lightening solutions</li> </ul>	GRI 416: 416-1	Customer Health and Safety 2016 Assessment of the health and safety impacts of product and service categories	34-43
Environmental product design aspects	<ul> <li>Management approach</li> <li>Certified management system by ISO 14001 for major locations</li> <li>Environmental impact assessment</li> <li>Product design criteria for efficiency and circularity</li> <li>Performance indicators*</li> <li>Reductions in energy requirements of products and services exemplified</li> </ul>	GRI 302: 302-5	Energy 2016 Reductions in energy requirements of products and services	34-43; 61-63

<sup>\*</sup> Performance indicators still in (further) development.

Content	More Information	In referen	ce to the GRI standards	Page Number
Operational environmental aspects	<ul> <li>Management approach</li> <li>Certified management system by ISO14001 for major locations</li> <li>Environmental impact assessment</li> <li>Performance indicators*</li> <li>Direct and indirect operational GHG emissions</li> <li>Energy consumption</li> <li>Water consumption</li> <li>Waste of own operations</li> </ul>	GRI 302: 302-1 GRI 305: 305-1 305-2 305-3 GRI 303: 303-5 GRI 306: 306-2	Energy 2016 Energy consumption within the organization  Emissions 2016 Direct (Scope 1) GHG emissions Energy indirect (Scope 2) GHG emissions Other indirect (Scope 3) GHG emissions  Water and Effluents 2018 Water consumption  Waste 2020 Management of significant waste-related impacts	45-46; 49-51; 61-63
Environmental aspects of packaging	<ul> <li>Management approach</li> <li>Performance indicators*</li> <li>Recycled packaging materials</li> </ul>	GRI 301: 301-2 301-3	Materials 2016 Recycled input materials used Reclaimed products and their packaging materials	46-48; 61-63
Environmental aspects of transport and distribution	<ul> <li>Management approach</li> <li>Performance indicators*</li> <li>GHG emissions downstream transport</li> </ul>	GRI 305: 305-3	Emissions 2016 Other indirect (Scope 3) GHG emissions	48-49; 61-63
Environmental aspects of end of product life	<ul> <li>Management approach</li> <li>Collection and monitoring systems to reclaim products</li> <li>Performance indicators*</li> </ul>	GRI 301: 301-3	Materials 2016 Reclaimed products and their packaging materials	49-51; 61-63
Employees and working conditions	<ul> <li>Management approach</li> <li>Code of conduct and complaint system</li> <li>Information about changes with company-wide impact</li> <li>Benefits, incl. pension scheme</li> <li>Performance indicators</li> <li>Employee breakdown by full-/part-time</li> <li>New hires</li> <li>Turnover and retention rate</li> <li>Average period of employment</li> </ul>	GRI 401: 401-1 GRI 402: 402-1	Employment 2016 New employee hires and employee turnover  Labor/Management Relations 2016 Minimum notice periods regarding operational changes	55-56; 61-63
Employee training and education	<ul> <li>Management approach</li> <li>Leadership training</li> <li>Performance reviews</li> <li>Performance indicators*</li> <li>Average training hours</li> <li>Spending on trainings</li> </ul>	GRI 404: 404-2 404-3	Training and Education 2016 Programs for upgrading employee skills and transition assistance programs Percentage of employees receiving regular performance and career development reviews	56–59; 61–63
Diversity, inclusion and equal opportunities	<ul> <li>Management approach</li> <li>Performance indicators*</li> <li>Women in leadership positions</li> <li>Employment rate of individuals with disabilities</li> <li>Employees by age group</li> </ul>	GRI 405: 405-1 GRI 406: 406-1	Diversity and Equal Opportunity 2016 Diversity of governance bodies and employees  Non-discrimination 2016 Incidents of discrimination and	59; 61–63
Occupational health and safety	<ul> <li>Number of nationalities</li> <li>Management approach         <ul> <li>QEHS management system</li> <li>Risk assessment</li> <li>Measures to improve health and safety</li> </ul> </li> <li>Performance indicators*         <ul> <li>Occupational accidents by location</li> <li>Occupational accidents by type</li> <li>Sickness rate</li> </ul> </li> </ul>	GRI 403: 403-1 403-2 403-3 403-6 403-9	Corrective actions taken  Occupational Health and Safety 2018  Occupational health and safety management system Hazard identification, risk assessment, and incident investigation Occupational health services Promotion of worker health Work-related injuries	59; 61–63

#### \* Performance indicators still in (further) development

# ABOUT THE REPORT

In this report, we provide information on our strategic priorities and alignment with the frameworks and norms of responsible business conduct and corporate sustainability.

The content of the report is divided into five main chapters:

- 1. Sustainability Strategy
- 2. Good Governance and Management
- 3. Product Sustainability by Design
- 4. Our Operations and Supply Chain
- 5. Our People.

These chapters outline the key sustainability challenges in relation to our business, and the respective management approaches adopted by LEDVANCE.

# AIM OF THE SUSTAINABILITY REPORT

We strive to report solidly and transparently and, at the same time, inspire our stakeholders to take an interest in our evolving approach and journey. In order to progress towards sustainability, a quantifiable, transparent, and therefore accountable, management and performance is essential. The report outlines our goals and commitments, along with our achievements, and outlines the measures already in place and those planned to progress towards sustainability. This way, the report provides new impetus for discussions with our employees, customers and business partners, further stakeholders and interested members of the public.

# ALIGNMENT WITH REPORTING FRAMEWORKS AND STANDARDS

We aim to focus on what is important and comprehensively address topics of relevance. Based on a materiality assessment conducted in 2022, the content for our report was defined based on our impacts and arising responsibilities, their business relevance and central expectations of our stakeholders.

LEDVANCE is not legally required to disclose but issues the report voluntarily. Our reporting approach is based on the internationally recognized guidelines (GRI Standards) of the Global Reporting Initiative (GRI). We report with reference to those standards. Furthermore, our reporting content reflects on the rating criteria of CDP and EcoVadis where LEDVANCE participates. We thus aim to measure the report against the specified requirements, to further develop it and enable comparisons. With our voluntary report, we aim to prepare for the reporting obligations defined by the EU Corporate Sustainability Reporting Directive (CSRD).

# REPORTING PERIOD AND FREQUENCY

Our first report refers to the business year January 1, 2022 to December 31, 2022. The editorial deadline was March 31, 2023. LEDVANCE aims to publish a Sustainability Report every year in preparation for the reporting requirements defined by the CSRD.

# REPORTING BOUNDARIES

The statements and information given in this report always refer to the entire company, including all subsidiaries under operative control. Restrictions in the scope of this report are noted in the appropriate places and result from the current state of data availability. All of our business unit locations are to be successively included in the report and are developing the data basis accordingly.

#### CONTACT

We welcome questions and feedback regarding our report. Please contact our Global Sustainability department, which is responsible for the management of the reporting project:

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Global Sustainability department sustainability@ledvance.com



# Report

of the independent auditor
on the audit of the non-financial group report for the
fiscal year 2022
to obtain limited assurance

of

LEDVANCE GmbH
Garching near Munich



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# **Attachments**

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General Terms and Conditions of Engagement for German Auditors and German Auditing firms as amended on January 1, 2017





# INDEPENDENT AUDITOR'S OPINION ON A LIMITED ASSURANCE ENGAGEMENT

To LEDVANCE GmbH:

We have performed an independent limited assurance engagement on the separate non-financial group report (the "Report") of LEDVANCE GmbH, Garching near Munich, (further "Company"), for the period from January 1 to December 31, 2022.

Other references to disclosures outside the Report or in languages other than English and disclosures for prior years were not subject of our audit.

# Management's Responsibility

The legal representatives of the Company are responsible for the preparation of the Report in accordance with Sections 315c in conjunction with 289c to 289e HGB.

This responsibility includes the selection and application of appropriate non-financial group reporting methods, as well as making assumptions and estimates about individual non-financial disclosures that are reasonable under the given circumstances. Furthermore, this responsibility includes designing, implementing and maintaining systems and processes relevant for the preparation of the Report in a way that is free of – intended or unintended – material misstatements.

# Independence and quality assurance of the audit firm

We have complied with the German professional regulations on independence and other professional conduct requirements.

Our audit firm applies the national statutory provisions and professional pronouncements - in particular the professional statutes for auditors and certified public accountants (BS WP/ vBP) as well as the IDW Quality Assurance Standard issued by the Institute of Public Auditors in Germany (IDW): Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis (IDW QS 1) and accordingly maintains a comprehensive quality assurance system that includes

documented regulations and measures relating to compliance with professional conduct requirements, professional standards as well as relevant statutory and other legal requirements.

# Responsibility of the auditor

Our responsibility is to express a conclusion within limited assurance on the Report based on our audit.

We conducted our audit in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised): "Assurance Engagements other than Audits or Reviews of Historical Financial Information", published by the IAASB. This standard requires that we plan and perform the audit to obtain limited assurance of whether any matters have come to our attention that cause us to believe that the Report of the Company has not been prepared, in all material respects, in accordance with Section 315c in conjunction with 289c to 289e. Our audit did not cover other references to disclosures outside the Report or in languages other than English and disclosures for previous years.

In a limited assurance engagement, the procedures performed are more limited than in a reasonable assurance engagement, and accordingly, a significantly lower level of assurance is obtained. The procedures selected depend on the auditor's own judgment.

In the course of our audit, we performed the following audit procedures and other activities, among others:

- Gaining an understanding of the structure of the Group's sustainability organization and of stakeholder engagement.
- Inquiries of management and relevant employees involved in the preparation of the Report regarding the preparation process, the internal control system relating to this process, and the disclosures in the Report.
- Inquiries of employees regarding the selection of topics for the Report, the risk assessment and the concepts of the Company and the Group for the topics identified as material.
- Inquiries of company and Group personnel responsible for data collection and consolidation, and for the preparation of the Report, to evaluate the reporting system, data



RSM

- collection and processing methods, and internal controls relevant to the audit of the disclosures in the Report.
- Identification of probable risks of material misstatement in the Report.
- Analytical review of selected disclosures in the Report at company and Group level.
- Assessment of the overall presentation of the Report.
- Inquiry and document review of samples regarding the collection and reporting of selected data and their integrity in terms of completeness, accuracy, understandability, comparability, and reliability.
- Evaluation of selected internal and external documentation.
- Reconciliation of disclosures with the corresponding data in the Group management report.
- Evaluation of not collected key figures of the company and its subsidiaries.

# **Audit opinion**

Based on the audit procedures performed and the audit evidence obtained, nothing has come to our attention that causes us to believe that the Report of the Company for the period from January 1 to December 31, 2022 has not been prepared, in all material respects, in accordance with Section 315c in conjunction with 289c to 289e HGB.

We do not express an opinion on the other references to disclosures outside the Report or in languages other than English and disclosures for prior years.

#### Limitation of use for the endorsement

We draw attention to the fact that the audit was conducted for the Company's purposes and that the report is only intended to inform the Company about the result of the audit. Consequently, it may not be suitable for any other purpose than the aforementioned. Thus, the report is not intended for third parties to make (financial) decisions based on it. Our responsibility is to the Company alone. We do not accept any responsibility to third parties. Our audit opinion is not modified in this respect.

# Order conditions and liability

Our General Engagement Conditions for German Public Auditors and Public Audit Firms, as amended on January 1, 2017, shall apply to this engagement, also in relation to third parties. In addition, we refer to the liability provisions contained therein in Section 9 and to the exclusion of liability vis-à-vis third parties. We do not assume any responsibility, liability or other obligations towards third parties unless we have concluded a written agreement to the contrary with the third party or such an exclusion of liability would be ineffective.

We expressly point out that we do not update the endorsement with regard to events or circumstances occurring after it was issued, unless there is a legal obligation to do so.

Whoever takes note of the result of our activities summarized in the above note must decide on his own responsibility whether and in what form he considers this result useful and suitable for his own purposes, and whether and in what way he wishes to use it for his own purposes.

Stuttgart, April 05, 2023

RSM GmbH Wirtschaftsprüfungsgesellschaft Steuerberatungsgesellschaft (Auditing firm Tax consulting company)

Keil Erlenkamp Wirtschaftsprüfer Wirtschaftsprüfer (German Public Auditor) (German Public Auditor)



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### **TEXT AND DESIGN**

Nur Baute Berlin GmbH

# FIND US ON SOCIAL MEDIA









